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2015 Health Care Survey of DoD Beneficiaries:

Adult Technical Manual

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Final

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Chapter 1

Introduction

The 2015 Adult Health Care Survey of Department of Defense Beneficiaries (HCSDB) is the primary tool with which the Defense Health Agency (DHA) of the Assistant Secretary of Defense (Health Affairs) monitors the opinions and experiences of military health system (MHS) beneficiaries. Specifically, the HCSDB is designed to answer the following questions:

- How *satisfied* are DoD beneficiaries with their health care and their health plan?
- How does overall satisfaction with military treatment facilities (MTFs) compare with satisfaction with civilian treatment facilities (CTFs)?
- Does *access* to military and civilian facilities meet TRICARE standards?
- Is beneficiaries' use of preventive health care services in line with national goals, such as those outlined in *Healthy People 2020*?
- Has beneficiaries' use of MHS services changed over time?
- What aspects of MHS care contribute most to beneficiary satisfaction with their health care experiences? With which aspects are beneficiaries least satisfied?
- What are the demographic characteristics of MHS beneficiaries?

The HCSDB was conducted annually from 1995 to 2000, after which time the survey was administered quarterly. The current HCSDB is a quarterly internet and mail survey of a representative sample of MHS beneficiaries. It is sponsored by the DHA in the Office of the Assistant Secretary of Defense (Health Affairs) [OASD(HA)] under authority of the National Defense Authorization Act for Fiscal Year 1993 (P.L. 102-484). Altarum Institute prepares the sampling frame, which consists of variables specified by Mathematica for each MHS beneficiary in the Defense Enrollment Eligibility Reporting System (DEERS) database on a specified reference date. DEERS includes everyone who is eligible for a MHS benefit (i.e., everyone in the Uniformed Services — Army, Air Force, Navy, Marine Corps, Coast Guard, the Commissioned Corps of the Public Health Service, National Oceanic and Atmospheric Administration, Guard/Reserve personnel who are activated for more than 30 days – and other special categories of people who qualify for benefits). DEERS includes those on active duty, those retired from military careers, immediate family members of people in the previous two categories, and surviving family members of people in these categories.

In the first three quarters of FY 2015, Mathematica Policy Research (Mathematica, Washington, D.C.) identified a representative sample of approximately 100,000 adult beneficiaries. Altarum administers the web survey each quarter. Ipsos, the survey contractor, administers the paper survey, when directed by the DHA. Mathematica analyzes the survey data, reports on the results and prepares a quarterly public use file, as well as a Codebook and Users' Guide to describe the quarterly dataset. Mathematica also prepares an annual public use dataset and relevant documentation each year.

This manual is designed to serve as a reference for analysts in OASD (HA) as they interpret the survey findings and prepare briefings. This manual provides detailed documentation on the following: naming conventions for variables, editing procedures, selection of records, computation of response rates, recoding of variables, computation of weights, variance estimation, and construction of tables

and charts for the reports. This manual also enables an analyst to follow, and if desired, to replicate the step-by-step processing of the raw survey data to produce the final database.

A. OVERVIEW OF THE HCSDB

1. Sample Design

The 2015 adult sample is comprised of 100,000 adult beneficiaries selected each quarter via stratified random sample. Stratification is based on three variables: analytical group, geographic area, and enrollment/beneficiary type. The *analytical group* stratification is determined in cooperation with DHA staff, and is important to data users and policymakers. The criteria for the analytical group stratification is the following: (1) beneficiaries younger than 65, enrolled with a military primary care manager (PCM), or active duty beneficiaries; (2) beneficiaries younger than 65, who use Managed Care Support Contractors; (3) beneficiaries younger than 65, who use TRICARE Standard/Extra; (4) beneficiaries enrolled in TRICARE Reserve Select; (5) beneficiaries age 65 or older.

The *geographic area* stratification includes military treatment facilities (MTFs) in which DHA is interested, TNEX regions for those enrolled in other MTFs, and TNEX regions for all other beneficiaries.

The *enrollment/beneficiary* type includes (1) active duty; (2) active duty family members enrolled in Prime with a civilian PCM; (3) active duty family members enrolled in Prime with a military PCM; (4) active duty family members not enrolled in Prime; (5) retirees and their family members younger than 65 enrolled in Prime with a civilian PCM; (6) retirees and their family members younger than 65 enrolled in Prime with a military PCM; (7) retirees and their family members younger than 65 not enrolled in Prime; (8) retirees and their family members age 65 and older; and (9) beneficiaries enrolled in TRICARE Reserve Select.

The sample selection process involves five steps: (1) construction of the sampling frame and definition of sampling strata; (2) allocation of the sample to strata to satisfy the study's precision goals; (3) selection of the survey sample using a permanent random number sample selection algorithm; (4) creation of the sampling weights, which reflect the probability of selection; and (5) verification of results to ensure that sampling was implemented as specified. Please see Mathematica Policy Research, Inc (2014) for details on sample design.

2. 2015 Adult HCSDB

The HCSDB questionnaire was converted from an annual to a quarterly survey in 2000, and is fielded each quarter to a representative sample of MHS beneficiaries. Beginning with 2006, reporting and documentation of the HCSDB has been performed on a fiscal year basis, whereas in previous years, it was based on calendar years. In FY 2015, surveys were fielded in three quarters instead of four, describing a period from November 2014 to June 2015. Thus, this document, the "2015 Health Survey of DoD Beneficiaries: Adult Technical Manual", describes Quarters I-III of fiscal year 2015. Throughout this document, Quarter I, 2015 refers to Quarter I of fiscal year 2015. The adult questionnaires for Quarters I-III are reproduced in Appendix A. The 2015 survey consists of an unchanging core questionnaire with different quarterly supplements.

The core adult questionnaire includes the following topics:

- Use of health care
- Use of preventive health care
- Type of health plan covering the beneficiary
- Satisfaction with health plan
- Satisfaction with health care

- Access to health care
- Demographic characteristics

Beginning in 2002, the survey naming convention was changed. Prior to 2000, the year in the survey's name reflected the year that respondents were asked to think about when answering the questions. For example, although the 2000 HCSDB was fielded in 2001, it asked beneficiaries to think about the prior 12 months (mostly 2000) as the reference period for their answer. Under the new naming convention, the survey title refers to the year the questionnaires are fielded, so last year's survey was the 2014 HCSDB and this year's survey is the 2015 HSCDB. Because of the name change, there is no "2001" survey, even though the questionnaire was administered continuously in each quarter of 2001.

3. Survey Response – Quarters I-III

In each of the three quarters in 2015 in which the survey was fielded, Ipsos sent survey invitation letters to a random sample of approximately 100,000 adult MHS beneficiaries. The letters instructed sampled beneficiaries to complete the survey on a website hosted by Altarum. By the end of the fielding period in Quarter I, 9.0 percent of the sample members completed the survey. In Quarter II, 9.0 percent of the sample members completed surveys. In Quarter III, during the survey field period, Mathematica selected a sample of norespondents, and Ipsos mailed surveys to this group. All other beneficiaries were asked to complete the survey on a website. In Quarter III, 10.6 percent of the sample members returned completed surveys. Information pertaining to how Mathematica calculated these response rates is presented in Chapter 3.

It should be noted that the above cited response rates do not reflect late arriving responses from the surveys fielded in the first two quarters. The response rates are based on the number of completed surveys returned to the survey vendor at the end of the fielding period. The annual combined dataset, however, includes the surveys returned after the end of the fielding period. Therefore, the revised annual response rates were 9.1 percent for Quarter I, 9.2 percent for Quarter II, and 9.6 percent for the combined annual dataset.

4. Database Development

Mathematica cleans the data, selects records for inclusion in the final database, and constructs variables to be used in reports. To ensure that the survey data is representative of the DEERS population, Mathematica develops weights to take account of the initial sampling, the sampled individuals who chose not to respond to the survey, and post-stratification if the beneficiary's key information is updated.

5. Reports

Mathematica analyzes the data and produces several reports explaining findings on topics including satisfaction, access to care, health care use, and use of preventive services. These reports will be available on the TRICARE website at http://www.TRICARE.USD.mil:

- 2015 TRICARE Beneficiary Reports and TRICARE Purchased Care Beneficiary Reports
- 2015 TRICARE Consumer Watch and TRICARE Purchased Care Consumer Watch
- Health Care Survey of DoD Beneficiaries: Annual Report

B. ORGANIZATION OF THIS MANUAL

Chapter 2 explains how the database was developed. It covers naming conventions, cleaning procedures, record selection criteria, descriptions of all variable types, definitions of each constructed variable, and weighting procedures. Chapter 3 describes how the database was analyzed. This

includes rules for calculating response rates, the development of table and chart specifications for the Health Care Survey of DoD Beneficiaries (The HCSDB Annual Report, TRICARE Beneficiary Reports and TRICARE Consumer Watch), an explanation of the dependent variables and independent variables used in regression analyses, and the methodology for estimating the variance of estimates. The manual concludes with a series of technical appendices:

- Appendix A: Annotated questionnaires – Quarters I-III survey questionnaires annotated with database variable names
- Appendix B: Plan for Data Quality – Coding Scheme – Quarters I-III
- Appendix C: A table mapping MTFs to the catchment area and DMIS ID
- Appendix D: Response rate tables for selected domains – Quarters I-III and Combined Annual
- Appendix E: Technical Description of the 2015 TRICARE Beneficiary Reports
- Appendix F: SAS Code for File Development – Quarters I-III
- Appendix G: SAS Code for Statistical and Web Specifications for the 2015 TRICARE Beneficiary Reports and Purchased Care Beneficiary Reports- Quarters I-III
- Appendix H: SAS Code for 2015 TRICARE Consumer Watch - Quarters I-III and Combined Annual
- Appendix I: SAS Code for 2015 TRICARE Purchased Care Consumer Watch - Quarters I-III and Combined Annual

Chapter 2

Database

This chapter explains the process of developing a final database free of inconsistencies and ready for analysis from the raw survey data. We discuss the design of the database; cleaning, editing, and implementation of the Coding Scheme; record selection; and variable construction.

A. DATABASE DESIGN

The 2015 Adult HCSDB consists of variables from various sources. When Ipsos delivers the file to Mathematica after fielding the sample, the following types of variables are present:

- DEERS information on beneficiary group, social security number (SSN), sex, age, etc.
- Sampling variables used to place beneficiaries in appropriate strata
- Core and supplemental questionnaire responses
- Ipsos' information from fielding the sample, such as scan date and flags developed during the fielding to assist us in determining eligibility

Mathematica removes all identifying information such as SSN to protect the confidentiality of the respondents. Mathematica then adds the following types of variables to the database:

- Updated DEERS variables from the time of data collection to be used for post-stratification weights
- Coding Scheme flags - The coding scheme program checks for consistencies in responses and skip patterns. If there are inconsistencies found or skip patterns that do not match the directions specified in the questionnaire then responses will be recoded to match the coding scheme specifications. Coding scheme flags are created to crosswalk original responses to possible recodes in order to understand how skip logic is being filled out.
- Constructed variables for analysis
- Weights

In addition, Mathematica updates and cleans the questionnaire responses using the Coding Scheme tables found in Appendix B. The final public-use database each quarter will contain only the recoded responses, to prevent usage of an uncleaned response for analysis. We structured the final database so that all variables from a particular source are grouped by position. Table 2.1 lists all variables with the exception of the replicate weights in the Quarters I-III, 2015 database by source. For specific information on variable location within the database, refer to the "2015 Adult Health Care Survey of DoD Beneficiaries: Adult Codebook and User's Guide."

1. Data Sources

a. DEERS

Altarum provided the sampling frame to Mathematica prior to the selection of the sample. DEERS information such as sex, date of birth, and service are retained in the database; this data is current as of the time of sample selection.

b. Sampling Variables

Mathematica developed variables during the sample selection procedure that were instrumental in placing beneficiaries in appropriate strata. Many of the variables are retained in the database.

c. Questionnaire Responses

These variables represent the cleaned values for all responses to the questionnaire. The original values scanned in by Ipsos are cleaned and recoded, as necessary, to ensure that responses are consistent throughout the questionnaire. The Coding Scheme tables found in Appendix B are the basis for insuring data quality.

d. Survey Fielding Variables

In the process of fielding the survey, Ipsos created a number of variables that we retain in the database. Some of these variables, for example, information that came in by phone, assist us in determining eligibility.

e. Coding Scheme Flags

Each table of the Coding Scheme (see Appendix B) has a flag associated with it that indicates the pattern of original responses and any recoding that was done. For example, the table for Note 5 has a flag N5.

f. Constructed Variables

Mathematica constructed additional variables that were used in the TRICARE Beneficiary Reports, TRICARE Consumer Watch, and the "Health Care Survey of DoD Beneficiaries: Annual Report." Often these variables were regroupings of questionnaire responses or the creation of a binary variable to indicate whether or not a TRICARE standard was met. Complete information on each constructed variable is found in section 2.D.

g. Weights

Mathematica developed weights for each record in the final database. Weights are required for the following reasons:

- To compensate for variable probabilities of selection
- To adjust for differential response rates
- To improve the precision of survey-based estimates through post-stratification, a method for adjusting the sampling weights such that the joint distribution of a set of post-stratifying variables matches the known population joint distribution.

Weighting procedures are discussed in section 2.E.

TABLE 2.1

VARIABLES IN THE 2015 ADULT HCSDB DATA FILE – QUARTERS I-III

SAMPLE VARIABLES	
MPRID	- Unique MPR identifier
SVCSMPL	- Branch of service sampling variable
SEXSMPL	- Sex sampling variable
STRATUM	- Sampling stratum
ENBGSMPL	- Enrollment by beneficiary category
MPCSMPL	- Military personnel category
NHFF	- Stratum sample size
QUARTER	- Survey quarter
D_HEALTH	- Health service region
TNEXREG	- TRICARE next generation of contracts region grouping
SERVAFF	- Service affiliation
DEERS VARIABLES	
RACEETHN	- Race/Ethnic code
PNSEXCD	- Person gender
RDAGEQY	- Age at time of sample preparation-Capped (18 and below, 86 and above)
RFLDAGE	- Age at start of fielding period-Capped (18 and below, 86 and above)
PCM	- Primary manager code (civilian or military)
ACV	- Alternate care value
DBENCAT	- Beneficiary category
DSPONSVC	- Derived sponsor branch of service
PATCAT	- Aggregated beneficiary category
PNTYPCD	- Person type code
QUESTIONNAIRE RESPONSES	
H15001	- Are you the person listed on the cover letter
H15002A	- Health plan(s) covered: TRICARE Prime
H15002C	- Health plan(s) covered: TRICARE Ext/Stnd
H15002F	- Health plan(s) covered: Medicare
H15002G	- Health plan(s) covered: Federal Employees Health Benefit Program (FEHBP)
H15002H	- Health plan(s) covered: Medicaid
H15002I	- Health plan(s) covered: civilian HMO
H15002J	- Health plan(s) covered: other civilian
H15002K	- Health plan(s) covered: Uniformed Services Family Health Plan (USFHP)
H15002L	- Health plan(s) covered: not sure
H15002M	- Health plan(s) covered: Veterans
H15002N	- Health plan(s) covered: TRICARE Plus
H15002O	- Health plan(s) covered: TRICARE For Life
H15002P	- Health plan(s) covered: TRICARE Supplemental Insurance
H15002Q	- Health plan(s) covered: TRICARE Reserve Select
H15002R	- Health plan(s) covered: other Non-US government health insurance
H15002S	- Health plan(s) covered: TRICARE Retired Reserve
H15002T	- Health plan(s) covered: TRICARE Young Adult
H15002U	- Health plan(s) covered: Continued Health Care Benefit Program (CHCBP)
H15002V	- Health plan(s) covered: TRICARE Young Adult Ex or Standard
H15003	- Which health plan did you use most in the past 12 months?
H15004	- Months or years in a row with health plan
H15005	- In last year: facility used most for health care
H15006	- In last year: have illness/injury/condition that needed care right away
H15007	- In last year: how often got care as soon as you believed you need it
H15008	- In last year: wait between trying to get care and actually seeing a provider for an illness or injury

H15009	- In last year: made appointments for non-urgent health care
H15010	- In last year: how often got appointments for non-urgent health care as soon as you wanted
H15011	- In last year: days between making an appointment for regular or routine care and actually seeing a provider
H15012	- In last year: times went to an emergency room for own care
H15013	- In last year: times went to a doctors office or clinic for yourself (not counting times went to an emergency room)
H15014	- In last year: how often talk to doctor or other health care provider about illness prevention
H15015	- In last year: doctor or other health care provider talked about more than 1 choice for treatment
H15016	- In last year: doctor talked about pros/cons of each treatment/health care choice
H15017	- In last year: doctor/health care provider asked which treatment option you thought was best for you when there was more than one choice of treatment
H15018	- Rating of all health care in last year
H15019	- Have one person you think of as your personal doctor
H15020	- In last year: number of times visited personal doctor for care for self
H15021	- In last year: how often personal doctor listened carefully to you
H15022	- In last year: how often personal doctor explained things in a way that was easy to understand
H15023	- In last year: how often your personal doctor showed respect for what you have to say
H15024	- In last year: how often your personal doctor spent enough time with you
H15025	- In last year: got care from doctor or other health provider other than personal doctor
H15026	- In last year: how often personal doctor seemed informed and up-to-date about care received from other doctors
H15027	- Rating of your personal doctor
H15028	- In last year: tried to make appointment to see a specialist
H15029	- In last year: how often it was easy to get appointments with specialists
H15030	- In last year: how many specialists seen
H15031	- Rating of specialist seen most often in last year
H15032	- In last year: tried to get care, tests, or treatment through health plan
H15033	- In last year: how often easy to get care, tests, or treatment you thought you needed through health plan
H15034	- In last year: looked for information in written material or on the Internet about how health plan works
H15035	- In last year: how often written material/Internet provide information you needed about how your plan works
H15036	- In last year: looked for information from health plan on cost of health care service or equipment
H15037	- In last year: how often able to find out from health plan cost of health care service or equipment
H15038	- In last year: looked for information from health plan on cost of prescription medications
H15039	- In last year: how often able to find out cost of prescription medications
H15040	- In last year: tried to get information or help from health plan's customer service
H15041	- In last year: how often did customer service give needed information or help
H15042	- In last year: how often did customer service treat with courtesy and respect
H15043	- In last year: health plan gave forms to fill out
H15044	- In last year: how often forms from health plan were easy to fill out
H15045	- In last year: sent in any claims to your health plan
H15046	- In last year: how often health plan handled claims quickly
H15047	- In last year: how often health plan handled claims correctly
H15048	- Rating of all experience with health plan
H15049	- Blood pressure: when last reading

H15050	- Blood pressure: know if blood pressure is too high or not
H15051	- When did you last have a flu shot
H15052	- Smoked at least 100 cigarettes in life
H15053	- Smoke or use tobacco everyday, some days, or not at all
H15054	- Last year: how often advised by doctor to quit smoking or use tobacco
H15055	- Last year: how often medication was recommended or discussed by doctor to assist with quitting smoking or using tobacco
H15056	- Last year: how often doctor recommended or discussed methods and strategies to assist quitting smoking or using tobacco
H15057A	- Do you smoke or use: cigarettes
H15057B	- Do you smoke or use: dip, chewing tobacco, snuff, or snus
H15057C	- Do you smoke or use: cigars
H15057D	- Do you smoke or use: pipes, bidis, or kreteks
H15058	- Are you male or female
H15059B	- Female: last have a Pap smear test
H15060	- Female: are you under age 40
H15061	- Female: last time breasts checked by mammography
H15062	- Female: been pregnant in last year or pregnant now
H15063	- Female: in what trimester is your pregnancy
H15064	- Female: trimester first received prenatal care
H15065	- In general how would you rate your overall health
H15066	- Limited in any way in any activities because of any impairment or health problem
H15067	- In last year: seen doctor or other health provider 3 or more times for same condition or problem
H15068	- Condition lasted for at least 3 months
H15069	- Need to take medicine prescribed by a doctor
H15070	- Medicine to treat condition that has lasted for at least 3 months
H15071F	- Feet portion of height without shoes
H15071I	- Inches portion of height without shoes
H15072	- Weight without shoes in pounds
H15073	- Are you Spanish, Hispanic, or Latino
H15073A	- No, not Spanish, Hispanic, or Latino
H15073B	- Yes, Mexican, Mexican American, Chicano
H15073C	- Yes, Puerto Rican
H15073D	- Yes, Cuban
H15073E	- Yes, other Spanish, Hispanic, or Latino
H15074	- Currently covered by Medicare
H15075	- Currently covered by Medicare part A
H15076	- Currently covered by Medicare part B
H15077	- Enrolled in a Medicare Advantage plan
H15078	- Currently covered Medicare supplemental
H15079	- Enrolled in Medicare Part D
SREDA	- Highest grade completed
SRRACEA	- Race: White
SRRACEB	- Race: Black or African American
SRRACEC	- Race: American Indian or Alaska native
SRRACED	- Race: Asian
SRRACEE	- Race: Native Hawaiian/other Pacific Islander
SRAGE	- What is your age now?
S15009	- Had the same personal doctor or nurse before joining this health plan
S15010	- Since joined health plan, how much of a problem, if any, was it to get a personal doctor or nurse you are happy with?
S15011	- Agree/disagree: able to see provider when needed
S15014	- How satisfied with health care during last visit

S15015	- When did you last have cholesterol screening
S15B01	- Self rating of overall mental/emotional health
S15B02	- Last year: needed treatment/counseling for personal/family problem
S15B03	- Last year: problem getting needed treatment/counseling
S15B04	- Last year: rating of treatment/counseling received
S15BC01A	- Past 12 mth: did you try making appt at MTF? Yes, by calling
S15BC01B	- Past 12 mth: did you try making appt at MTF? Yes, online
S15BC01C	- Past 12 mth: did you try making appt at MTF? Yes, in person
S15BC01D	- Past 12 mth: did you try making appt at MTF? No
S15BC02A	- Why make appt at MTF? New illness, condition, or injury
S15BC02B	- Why make appt at MTF? I was referred for specialist care
S15BC02C	- Why make appt at MTF? Routine wellness
S15BC02D	- Why make appt at MTF? Follow-up on illness, condition, or injury
S15BC03A	- True when you tried to make appt at MTF: no appts available
S15BC03B	- True when you tried to make appt at MTF: appt too far in future
S15BC03C	- True when you tried to make appt at MTF: no convenient times
S15BC03D	- True when you tried to make appt at MTF: appt time not convenient
S15BC03E	- True when you tried to make appt at MTF: always able to make appt
S15BC04A	- Why not try to make appt at MTF? Didn't need health care
S15BC04B	- Why not try to make appt at MTF? Wouldn't have been able to get appt when needed
S15BC04C	- Why not try to make appt at MTF? Wouldn't have gotten appt at good time
S15BC04D	- Why not try to make appt at MTF? Did not have needed referral for specialist
S15BC04E	- Why not try to make appt at MTF? Inconvenient MTF location
S15BC04F	- Why not try to make appt at MTF? Only use civilian providers
S15BC04G	- Why not try to make appt at MTF? Prefer civilian providers
S15BC05A	- Past 12 mth: did you try making appt at civ provider? Yes, by calling
S15BC05B	- Past 12 mth: did you try making appt at civ provider? Yes, online
S15BC05C	- Past 12 mth: did you try making appt at civ provider? Yes, in person
S15BC05D	- Past 12 mth: did you try making appt at civ provider? No
S15BC06A	- Why make appt at MTF? New illness, condition, or injury
S15BC06B	- Why make appt at MTF? I was referred for specialist care
S15BC06C	- Why make appt at MTF? Routine wellness
S15BC06D	- Why make appt at MTF? Follow-up on illness, condition, or injury
S15BC07A	- True when you tried to make appt at civ provider: no appts available
S15BC07B	- True when you tried to make appt at civ provider: appt too far in future
S15BC07C	- True when you tried to make appt at civ provider: no convenient times
S15BC07D	- True when you tried to make appt at civ provider: appt time not convenient
S15BC07E	- True when you tried to make appt at civ provider: always able to make appt
S15BC08A	- Why not try to make appt at civ provider? Didn't need health care
S15BC08B	- Why not try to make appt at civ provider? Get all health care from MTF
S15BC08C	- Why not try to make appt at civ provider? Wouldn't have been able to get appt when needed
S15BC08D	- Why not try to make appt at civ provider? Wouldn't have gotten appt at good time
S15BC08E	- Why not try to make appt at civ provider? Did not have needed referral for specialist
S15BC08F	- Why not try to make appt at civ provider? Inconvenient location
S15BC09	- Were you asked to call back at a future date when appts might be available at an MTF
S15BC10	- Were you asked to call back at a future date when appts might be available at a civilian facility
S15BE01A	- Has a doctor told you that you have conditions: heart attack
S15BE01B	- Has a doctor told you that you have conditions: angina or coronary heart disease
S15BE01C	- Has a doctor told you that you have conditions: stroke
S15BE01D	- Has a doctor told you that you have conditions: diabetes or high blood sugar

S15C09	- Last year: did you have a health problem for which you needed special medical equipment, such as a cane, a wheelchair, or oxygen equipment
S15C10	- Last year: how much of a problem was it to get special medical equipment you needed through your health plan
S15C11	- Last year: did you need special therapy, such as physical, occupational, or speech therapy
S15C12	- Last year: how much of a problem was it to get special therapy you needed through your health plan
S15C13	- Last year: did you need home health care or assistance
S15C14	- Last year: how much of a problem was it to get home health care you needed through your health plan
S15J01	- Can obtain civilian health insurance for self
S15J02A	- Obtain civilian coverage: my current employer
S15J02B	- Obtain civilian coverage: previous-employer COBRA
S15J02C	- Obtain civilian coverage: previous-employer retirement
S15J02D	- Obtain civilian coverage: family member's employer
S15J02E	- Obtain civilian coverage: family member's previous-employer COBRA
S15J02F	- Obtain civilian coverage: family member's retirement
S15J02G	- Obtain civilian coverage: another organization
S15J02H	- Obtain civilian coverage: government program
S15J02I	- Obtain civilian coverage: don't know
S15J03	- Are you/family covered by a civilian policy
S15J04	- Pay all or part of civilian insurance premimum
S15J05	- How much per month you/family pay for coverage
S15J06	- Used civilian coverage in past year
S15J07A	- Not used civilian coverage: not available
S15J07B	- Not used civilian coverage: better choice of doctors with TRICARE
S15J07C	- Not used civilian coverage: do not want to pay the premium for civilian coverage
S15J07D	- Not used civilian coverage: TRICARE has better customer service
S15J07E	- Not used civilian coverage: benefits are poor
S15J07F	- Not used civilian coverage: personal doctor not available
S15J07G	- Not used civilian coverage: always want military health care
S15J07H	- Not used civilian coverage: TRICARE costs less
S15J07I	- Not used civilian coverage: prefer military doctors
S15J07J	- Not used civilian coverage: prefer military hospitals
S15J07K	- Not used civilian coverage: have not needed health care
S15J07L	- Not used civilian coverage: another reason
S15J07M	- Not used civilian coverage: employer bonus
S15J07N	- Not used civilian coverage: family member's employer bonus
S15J07O	- Not used civilian coverage: better quality care through TRICARE
S15J08	- Used TRICARE for non-prescription drug health care
S15J09A	- Not used TRICARE: better choice of civilian doctors
S15J09B	- Not used TRICARE: I do not want to pay the premium for TRICARE
S15J09C	- Not used TRICARE: better civilian customer service
S15J09D	- Not used TRICARE: personal doctor not available
S15J09E	- Not used TRICARE: benefits are poor
S15J09F	- Not used TRICARE: easier to get civilian care
S15J09G	- Not used TRICARE: civilian plan costs less
S15J09H	- Not used TRICARE: no military facility near me
S15J09I	- Not used TRICARE: prefer civilian doctors
S15J09J	- Not used TRICARE: prefer civilian hospitals
S15J09K	- Not used TRICARE: have not needed health care
S15J09L	- Not used TRICARE: another reason
S15J10	- Dropped civilian coverage in past year

S15J11A	- Dropped civilian coverage: lost job
S15J11B	- Dropped civilian coverage: spouse or parent lost job
S15J11C	- Dropped civilian coverage: changed jobs
S15J11D	- Dropped civilian coverage: spouse or parent changed jobs
S15J11E	- Dropped civilian coverage: retired from job
S15J11F	- Dropped civilian coverage: spouse or parent retired
S15J11G	- Dropped civilian coverage: moved to new location
S15J11H	- Dropped civilian coverage: you/spouse/parent became active reservist
S15J11I	- Dropped civilian coverage: you/spouse/parent returned to Select Reserves
S15J11J	- Dropped civilian coverage: employer changed plans
S15J11K	- Dropped civilian coverage: found less expensive plan
S15J11L	- Dropped civilian coverage: married, divorced, or widowed
S15J11M	- Dropped civilian coverage: went on Medicare
S15J11N	- Dropped civilian coverage: problems with health plan
S15J12	- Main reason dropped civilian coverage
S15R01	- Does health plan require referral from dr to see specialist
S15R02	- Last year: did dr refer you to specialist
S15R03A	- How specialist selected in last year: did not see specialist
S15R03B	- How specialist selected in last year: dr told me what specialist to see
S15R03C	- How specialist selected in last year: suggestion from friend/relative
S15R03D	- How specialist selected in last year: picked from list supplied by TRICARE or health plan
S15R03E	- How specialist selected in last year: picked on my own
S15R04A	- How specialist appointment made in last year: contacted appointment line or referral desk
S15R04B	- How specialist appointment made in last year: called an MTF
S15R04C	- How specialist appointment made in last year: called personal dr
S15R04D	- How specialist appointment made in last year: called specialist
S15R04E	- How specialist appointment made in last year: asked personal dr to make appointment
S15R04F	- How specialist appointment made in last year: personal dr made appointment
S15R04G	- How specialist appointment made in last year: other
S15R05	- Last year: how much problem understanding process needed to see specialist
S15R06	- Last year: referred to any civilian specialists
S15R07	- How much problem was wait time to see civilian specialist
S15R08	- Last year: longest time spent traveling (round-trip) to see civilian specialist
S15R09	- Last year: travel more than 100 miles (one-way) to see civilian specialist
S15R10	- Last year: how often did dr seem informed about care from civilian specialists
S15R11	- Last year: referred to specialist at MTF
S15R12	- How much problem was wait time to see specialist at MTF
S15R13	- Last year: longest time spent traveling to see specialist at MTF
S15R14	- Last year: travel more than 100 miles to see specialist at MTF
S15R15	- Last year: how often did dr seem informed about care from specialists at MTF
SURVEY FIELDING VARIABLES	
ONTIME	- Responded within 8 weeks of mail-out
FLAG_FIN	- Final disposition
DUPFLAG	- Multiple response indicator
FNSTATUS	- Final status
KEYCOUNT	- Number of key questions answered
WEB	- Web survey indicator
EMAILRES	- Email response
CODING SCHEME FLAGS AND COUNTS	
N1	- Coding Scheme Note 1
N1_J1	- Coding Scheme Note 1_J1

N1_J2	- Coding Scheme Note 1_J2
N1_J3	- Coding Scheme Note 1_J3
N1_J4	- Coding Scheme Note 1_J4
N1_J5	- Coding Scheme Note 1_J5
N1_J6	- Coding Scheme Note 1_J6
N2	- Coding Scheme Note 2
N3	- Coding Scheme Note 3
N3_BC1	- Coding Scheme Note 3_BC1
N3_BC2	- Coding Scheme Note 3_BC2
N3_BC3	- Coding Scheme Note 3_BC3
N3_BC4	- Coding Scheme Note 3_BC4
N3_BC5	- Coding Scheme Note 3_BC5
N3_BC6	- Coding Scheme Note 3_BC6
N3_BC7	- Coding Scheme Note 3_BC7
N3_BC8	- Coding Scheme Note 3_BC8
N4	- Coding Scheme Note 4
N5	- Coding Scheme Note 5
N5_C1	- Coding Scheme Note 5_C1
N5_C2	- Coding Scheme Note 5_C2
N5_C3	- Coding Scheme Note 5_C3
N6	- Coding Scheme Note 6
N7	- Coding Scheme Note 7
N8	- Coding Scheme Note 8
N8_01	- Coding Scheme Note 8_01
N9	- Coding Scheme Note 9
N10	- Coding Scheme Note 10
N10_B1	- Coding Scheme Note 10_B1
N11	- Coding Scheme Note 11
N12	- Coding Scheme Note 12
N13	- Coding Scheme Note 13
N14	- Coding Scheme Note 14
N15	- Coding Scheme Note 15
N16	- Coding Scheme Note 16
N17	- Coding Scheme Note 17
N17_R1	- Coding Scheme Note 17_R1
N17_R2	- Coding Scheme Note 17_R2
N17_R3	- Coding Scheme Note 17_R3
N17_R4	- Coding Scheme Note 17_R4
N18	- Coding Scheme Note 18
N19A	- Coding Scheme Note 19A
N19B	- Coding Scheme Note 19B
N20	- Coding Scheme Note 20
N21	- Coding Scheme Note 21
N22	- Coding Scheme Note 22
N23	- Coding Scheme Note 23
N23_HT	- Coding Scheme Note 23_HT
N23_WT	- Coding Scheme Note 23_WT
N24	- Coding Scheme Note 24
N25	- Coding Scheme Note 25
MISS_1	- Count of: violates skip pattern
MISS_4	- Count of: incomplete grid error
MISS_5	- Count of: scalable response of don’t know
MISS_6	- Count of: not applicable - valid skip
MISS_7	- Count of: out-of-range error

MISS_9	- Count of: no response - invalid skip
MISS_TOT	- Total number of missing responses
CONSTRUCTED VARIABLES	
JSFLAG	- Joint Service Flag
XENRLLMT	- Enrollment in TRICARE prime
XENR_PCM	- Enrollment by PCM type
XINS_COV	- Insurance coverage
XBENCAT	- Beneficiary category
XENR_RSV	- Enrollment by PCM type - reservist
XINS_RSV	- Insurance coverage - reservist
XREGION	- Region
XTNEXREG	- TRICARE next generation of contracts region grouping
XCATCH	- XCATCH - Catchment area (reporting)
USA	- CONUS/OCONUS indicator
XOCONUS	- Overseas Europe/Pacific/Latin indicator
OUTCATCH	- Out of catchment area indicator
XSEXA	- Male or female (recode)
XBMI	- Body mass index
XBMICAT	- Body mass index category
XBNFGRP	- Constructed beneficiary group
XSERVAFF	- Service affiliation
KMILOPQY	- Outpatient visits to military facility
KCIVOPQY	- Outpatient visits to civilian facility
KCIVINS	- Beneficiary covered by civilian insurance
HP_PRNTL	- Pregnant in last year received care in 1st trimester
HP_MAMOG	- Women age 40 and over: mammography in past 2 years
HP_MAM50	- Women age 50 and over: mammography in past 2 years
HP_PAP	- All women: pap smear in last 3 years
HP_BP	- Blood pressure check in last 2 years and know results
HP_FLU	- Age 65 and older: flu shot in last 12 months
HP_OBESE	- Obese or morbidly obese
HP_SMOKE	- Advised to quit smoking in last 12 months
HP_SMKH3	- Smoker under HEDIS definition (modified)
HP_CESH3	- Had smoking cessation counseling - HEDIS (modified)
POSTSTRATIFICATION VARIABLES	
POSTCELL	- Poststratification cell for new weights
WEIGHTS	
BWT	- Basic sampling weight
FWRWT	- Final quarterly weight
CFWT	- Combined Annual Final Weight

2. Variable Naming Conventions

To preserve continuity with survey data from previous years, Mathematica followed the same variable naming conventions for the core questions used for the 1996, 1997, 1998, 1999, 2000, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, and 2015 survey data. Variable naming conventions for the 2015 Adult HCSDB core and supplemental questions, shown in Table 2.2 correspond to those of previous years. The suffix "_0" will be used to distinguish the original version of the variable from the recoded version. The public use files for the adult survey will contain only recoded variables.

Variables created from most core survey questions begin with the character “H.” The next two characters are the third and fourth digits of the survey year. A small number of self-reported demographic variables begin with the characters “SR.”

TABLE 2.2

NAMING CONVENTIONS FOR 2015 HCSDB VARIABLES – QUARTERS I-III
(VARIABLES REPRESENTING SURVEY QUESTIONS)

1st Character: Survey Type	2nd – 3rd Characters: Survey Year	4th – 6th Characters: Question #	Additional Characters: Additional Information
H= Health Beneficiaries (18 and older, Adult Questionnaire) ---------- S = Supplemental Question	15	001 to 079 ---------- Quarter I 009-011, 014 – Supplemental questions about respondent's personal doctor and about the visits to the respondent's healthcare provider. B01-B04 – Supplemental questions about overall mental or emotional health. Quarter II 011, 014 – Supplemental questions about the respondent's personal doctor and about the visits to the respondent's healthcare provider. J01-J12 – Supplemental questions about civilian health care coverage. B01-B04 – Supplemental questions about overall mental or emotional health. Quarter III 009-011, 014 – Supplemental questions about respondent's personal doctor and about the visits to the respondent's healthcare provider. B01-B04 – Supplemental questions about overall mental or emotional health. C09-C14 – Supplemental questions about beneficiaries' chronic conditions. R01-R15 – Supplemental questions about referrals to specialists.	A to V are used to label responses associated with a multiple response question

1st Character: Survey Type	2nd – 3rd Characters: Survey Year	4th – 7th Characters: Question #	Additional Characters: Additional Information
S = Supplemental Question	15	Quarter I BC01-BC10 – Supplemental questions about health care appointments. Quarter II BE01 – Supplemental questions about medical conditions.	A to G are used to label responses associated with a multiple response question

1st Characters: Variable Group	Additional Characters: Additional Information
SR=Self-reported demographic data	Descriptive text, e.g., SREDA (Highest grade completed)
N=Coding scheme notes	Number referring to Note, e.g., N2
X=Constructed independent variable	Descriptive text, e.g., XREGION
R=Constructed restricted use variables	Descriptive text, e.g., RDAGEQY (Age at time of data collection-capped-grouped those 18 and below, 86 and above)
HP=Constructed *Healthy People 2020* variable	Descriptive text, e.g., HP_BP (had blood pressure screening in past two years and know the results)
K=Constructed dependent variables	Descriptive text, e.g., KMILOPQY (total number of outpatient visits to military facility)
FW= Weighting variables	Descriptive text, e.g., FWRWT for the overall final quarterly weight, Number referring to replicate weights, e.g., FWRWT10
CFW=Combined annual weighting variables	Descriptive text, e.g., CFWT for the final annual weight; Number referring to replicate weights, e.g., CFWT10

Each quarter, the questionnaire includes a battery of questions on specific health care topics concerning services offered to MHS beneficiaries. Supplemental questions contain the same number of alphanumeric characters as the core questions; each variable begins with an “S” to distinguish it as a supplemental question.

3. Missing Value Conventions

The 2015 conventions for missing variables are the same as the 2014 conventions. All missing value conventions used in the 2015 HCSDB are shown in Table 2.3

TABLE 2.3

CODING OF MISSING DATA AND "NOT APPLICABLE" RESPONSES

ASCII or Raw Source Data	Edited and Cleaned SAS Data	Description
Numeric	Numeric	
-9	.	No response
-7	.O	Out of range error
-6	.N	Not applicable or valid skip
-5	.D	Scalable response of "Don't know" or "Not sure"
-4	.I	Incomplete grid error
-1	.C	Question should have been skipped, not answered
	.B	No survey received

B. CLEANING AND EDITING

Data cleaning and editing procedures ensure that the data are free of inconsistencies and errors. Standard edit checks include the following:

- Checks for multiple surveys returned for any one person
- Range checks for appropriate values within a single question
- Logic checks for consistent responses throughout the questionnaire

We computed frequencies and cross tabulations of values at various stages in the process to verify the accuracy of the data. Data editing and cleaning proceeded in the following way:

1. Additional Ipsos Editing and Coding

In preparing the database for Mathematica, Ipsos used variable names and response values provided by Mathematica in the annotated questionnaires (see Appendix A). Ipsos delivered to Mathematica a database in SAS format. In this database, any questions with no response were encoded with a SAS missing value code of '.'.

2. Removal of Sensitive or Confidential Information

The file that Mathematica received from Ipsos contained sensitive information such as Social Security Number (SSN). Any confidential information was immediately removed from the file. Each beneficiary had already been given a generic ID (MPRID) substitute during sample selection, and the MPRID was retained as a means to uniquely identify each individual.

3. Initial Frequencies

Mathematica computed frequencies for all fields in the original data file. These tabulations served as a reference for the file in its original form and allowed comparison to final frequencies from previous years, helping to pinpoint problem areas that needed cleaning and editing. Mathematica examined these frequencies and cross-tabulations, using the results to adapt and modify the cleaning and editing specifications as necessary.

4. Data Cleaning and Recoding of Variables

Mathematica's plan for data quality is found in the 2015 Adult Coding Scheme for Quarters I-III. It contains detailed instructions for all editing procedures used to correct data inconsistencies and errors. The Coding Scheme tables for Quarters I-III are found in Appendix B. These tables outline in detail the approach for recoding self-reported fields, range checks, logic checks, and skip pattern checks to insure that responses are consistent throughout the questionnaire. The Coding Scheme tables specify all possible original responses and any recoding, also indicating if backward coding or forward coding was used. Every skip pattern is assigned a note number shown in the annotated questionnaire (Appendix A). This note number defines the flag (for example, the Note 5 flag is N5) that is set to indicate the pattern of the original responses and any recoding. Thus, if the value of N5 is 2, the reader can look at line 2 in the Note 5 table for the original and recoded response values.

The SAS programs implementing the Coding Scheme for each quarter are found in Appendix F.

a. Check Self-Reported Fields

Several survey questions seek information that can be verified with DEERS data and/or sampling variables. Nevertheless, in recoding these self-reported fields (such as sex and TRICARE enrollment) we used the questionnaire responses; however, if responses were missing, we used the DEERS data. For example, if the question on the sex of the beneficiary was not answered, the recoded variable for self-reported sex was not considered missing but was given the DEERS value for sex. If there was any disagreement between questionnaire responses and DEERS data, the questionnaire response generally took precedence.

In many tables and charts in the reports, the DEERS information was used for active duty status and TRICARE enrollment.

b. Skip Pattern Checks

At several points in the survey, the respondent should skip certain questions that are not applicable. If the response pattern is inconsistent with the skip pattern, each response in the series was checked to determine which was most accurate, given the answers to other questions. Questions that were appropriately skipped were set to the SAS missing value of '.N'. Inconsistent responses, such as answering questions that should be skipped or not answering questions that should be answered, were examined for patterns that could be resolved. Frequently, responses to subsequent questions provide the information needed to infer the response to a question that was left blank. The 2015 Adult Coding Scheme for Quarters I-III (see Appendix B) specifically addresses every skip pattern and shows the recoded values for variables within each pattern; we back coded and/or forward coded to ensure that all responses are consistent within a sequence.

c. Missing Values

Ipsos initially encoded any question with a missing response to a SAS missing value code of '.'. After verifying skip patterns, Mathematica recoded some of these responses to reflect valid skips (SAS missing value code of '.N'). The complete list of codes for types of missing values, such as incomplete grids or questions that should not have been answered, is shown in Table 2.3.

Occasionally, missing questionnaire responses can be inferred by examining other responses. For example, if a respondent fails to answer H15025 about getting care from a doctor or other health provider besides his/her personal doctor, but goes on to answer how often he/her personal doctor seemed informed and up-to-date about the care received from these doctors or providers, then we assume that the answer to H15025 should have been "yes." Using this technique, we recoded some missing questionnaire responses to legitimate responses.

d. Logic Checks

Most logic problems are due to inconsistent skip patterns, for example, when a male answers a question intended for females only. These types of internal inconsistencies were resolved in the same manner as skip pattern inconsistencies — by looking at the answers to all related questions. For instance, several questions related to smoking were examined as a group to determine the most appropriate response pattern so that any inconsistent response could be reconciled to the other responses in the group.

5. Quality Assurance

Mathematica created an edit flag for each Coding Scheme table that indicates what edits, if any, were made during the cleaning and editing process. This process was also used in previous years; variables such as N5 (see Appendix B) indicate exactly what pattern of the Coding Scheme was followed for a particular set of responses. These edit flags have a unique value for each set of original and recoded values, allowing us to match original values and recoded values for any particular sequence.

In order to validate the editing and cleaning process, Mathematica prepared cross-tabulations between the original variables and the recoded variables with the corresponding edit flag. This revealed any discrepancies that needed to be addressed. In addition, we compared unweighted frequencies of each variable with the frequencies from the original file to verify that each variable was accurately recoded. Mathematica reviewed these tabulations for each variable in the survey. If necessary, the earlier edit procedures were modified and the Coding Scheme program rerun. Additionally, all programs and program output files were code reviewed by Mathematica. The resulting file was clean and ready for analysis.

C. RECORD SELECTION

To select final records, we first defined a code that classifies each sampled beneficiary as to his/her final response status. To determine this response status, we used postal delivery information provided by Ipsos for each sampled beneficiary. This information is contained in the FLAG_FIN variable which is described in Table 2.4

TABLE 2.4

FLAG_FIN VARIABLE FOR 2015 HCSDB

Value	Questionnaire Return Disposition	Reason/Explanation Given	Eligibility
1	Returned survey	Completed and returned	Eligible
2	Returned ineligible	Returned with at least one question marked and information that the beneficiary was ineligible	Ineligible
3	Returned blank	Information sent that beneficiary is temporarily ill or incapacitated	Eligible
4	Returned blank	Information sent that beneficiary is deceased	Ineligible
5	Returned blank	Information sent that beneficiary is incarcerated or permanently incapacitated	Ineligible
6	Returned blank	Information sent that beneficiary left military, or divorced after date of initial sample pull, or retired	Eligible
7	Returned blank	Information sent that beneficiary was not eligible on date of initial sample pull	Ineligible
8	Returned blank	Blank form accompanied by reason for not participating	Eligible
9	Returned blank	No reason given	Unknown
10	No return	Temporarily ill or incapacitated.	Eligible
11	No return	Active refuser.	Eligible
12	No return	Deceased.	Ineligible
13	No return	Incarcerated or permanently incapacitated.	Ineligible
14	No return	Left military or divorced after date of initial sample pull, or retired.	Eligible
15	No return	Not eligible on date of initial sample pull.	Ineligible
16	No return	Other eligible.	Eligible
17	No return	No reason	Unknown
18	Postal Non-Deliverables (PND)	No address remaining	Unknown
19	PND	Address remaining at the close of field	Unknown
20	Original Non-Locatable	No address at start of mailing	Unknown
21	No return or returned blank	Written documentation declining participation, no reason given	Eligible
22	No return or returned blank	Hospitalized but no indication if temporary or permanent	Unknown
23	Returned blank	Deployed	Eligible
24	No return	Deployed	Eligible
25	Deceased	Updating process identified beneficiary as deceased	Ineligible
26	Ineligible	Updating process identified beneficiary as not eligible for Military Health System plan	Ineligible

Using the above variables in Table 2.4, we classified all sampled beneficiaries into four groups:

- **Group 1**: Eligible, Questionnaire Returned. Beneficiaries who were eligible for the survey and returned a questionnaire with at least one question answered (FLAG_FIN = 1)
- **Group 2**: Eligible, Questionnaire Not Returned (or returned blank). Beneficiaries who did not complete a questionnaire but who were determined to be eligible for military health care by the reference date, that is, not deceased, not incarcerated, not permanently hospitalized (FLAG_FIN = 3, 6, 8, 10, 11, 14, 16, 21, 23, 24)

- **Group 3:** Ineligible Beneficiaries who were ineligible because of death, institutionalization, or no longer being in the MHS as of the reference date (FLAG_FIN = 2, 4, 5, 7, 12, 13, 15, 25, 26)
- **Group 4:** Eligibility Unknown. Beneficiaries who did not complete a questionnaire and for whom survey eligibility could not be determined (FLAG_FIN = 9, 17, 18, 19, 20, 22)

Group 1 was then divided into two subgroups according to the number of survey items completed (or legitimately skipped), out of 20 key questions:

- G1-1. Complete questionnaire returned – at least 50% (more than 9) of the key questions completed
- G1-2. Incomplete questionnaire returned – completed fewer than 50% of the key questions

The 20 key questions were adapted from the complete questionnaire rule developed by Agency for Healthcare Research and Quality (AHRQ) for Consumer Assessment of Healthcare Providers and Systems (CAHPS) V5 surveys. The key survey variables are: H15003, H15005, H15006, H15009, H15013, H15018, H15019, H15027, H15028, H15031, H15033, H15040, H15043, H15048, H15051, H15052, H15065, H15073, SREDA, and the race indicator variables (SRRACEA-SRRACEE).

Group 3 was then divided into two subgroups according to how ineligible beneficiaries were identified:

- G3-1. Returned ineligible (FLAG_FIN = 2, 4, 5, 7, 12, 13, 15)
- G3-2. Ineligible at time of Altarum address update (FLAG_FIN = 25, 26)

G3-1 consists of ineligible beneficiaries who responded to the survey request, but told us they were ineligible. G3-2 consists of beneficiaries identified as ineligible during the updating process.

Furthermore, we also subdivided Group 4 into the following:

- G4-1 for locatable-blank return/no reason or no return/no reason (FLAG_FIN = 9, 17, 22)
- G4-2 for nonlocatable-postal nondeliverable/no address, postal nondeliverable/had address, or original nonlocatable (FLAG_FIN = 18, 19, 20).

With these groups defined, we can calculate the location rate (see Section 3.A).

We classified all sampled beneficiaries using the following values for the final response/eligible status (FNSTATUS):

- 11 for G1-1
- 12 for G1-2
- 20 for Group 2
- 31 for G3-1
- 32 for G3-2
- 41 for G4-1
- 42 for G4-2

Only beneficiaries with FNSTATUS = 11 were retained in the final database. All other records were dropped. In Quarters I-III, we retained 28,611 respondents.

D. CONSTRUCTED VARIABLES

One of the most important aspects of database development is the formation of constructed variables and scale variables to support analysis. Constructed variables are formed when no single question in the survey defines the construct of interest. Table 2.1 lists all constructed variables for 2015. Each constructed variable is discussed in this section and the relevant piece of SAS code is shown. All SAS programs can be found in Appendix F.

1. Demographic Variables

a. Region (XREGION)

Catchment area codes are used to classify beneficiaries into lead agent's regions (CACSMPL is not retained in public use file to maintain confidentiality). These regions correspond to the administrative organization of TRICARE before reorganization in 2004. The XREGION variable partitions all catchment areas into non-overlapping regions and allows for reporting of catchment-level estimates in the catchment reports. The regions are defined as follows:

1 = Northeast

2 = Mid-Atlantic

3 = Southeast

4 = Gulfsouth

5 = Heartland

6 = Southwest

7, 8 = Central

9 = Southern California

10 = Golden Gate

11 = Northwest

12 = Hawaii

13 = Europe

14 = Western Pacific Command (Asia)

15 = TRICARE Latin America

16 = Alaska

.= Unassigned (CACSMPL = 9999)

For the purposes of our analysis, Region 7 and Region 8 were combined.

```
/* XREGION –HEALTH CARE REGIONS */
IF      CACSMPL IN (0035, 0036, 0037, 0066, 0067,
                    0068, 0069, 0081, 0086, 0100,
                    0123, 0306, 0310, 0321, 0326,
                    0330, 0385, 0413, 6201, 6223) THEN XREGION= 1;
ELSE IF CACSMPL IN (0089, 0090, 0091, 0092, 0120,
                    0121, 0122, 0124, 0335, 0378, 0387, 0432,
                    0433, 0508, 7143, 7286, 7294) THEN XREGION= 2;
ELSE IF CACSMPL IN (0039, 0041, 0045, 0046, 0047,
                    0048, 0049, 0050, 0051, 0101,
                    0103, 0104, 0105, 0337, 0356,
                    0405, 0422, 0511, 5191  ) THEN XREGION= 3;
```

```
ELSE IF CACSMPL IN (0001, 0002, 0003, 0004, 0038,
                0042, 0043, 0073, 0074, 0107,
                0297, 7139          ) THEN XREGION= 4;
ELSE IF CACSMPL IN (0055, 0056, 0060, 0061, 0095,
                5195, 9905          ) THEN XREGION= 5;
ELSE IF CACSMPL IN (0013, 0062, 0064, 0096, 0097,
                0098, 0109, 0110, 0112, 0113,
                0114, 0117, 0118, 0338, 0363,
                0364, 0365, 0366, 1350, 1587, 1592, 7236, 9906      ) THEN XREGION= 6;
ELSE IF CACSMPL IN (0008, 0009, 0010, 0079, 0083,
                0084, 0085, 0108, 9907      ) THEN XREGION= 7;
ELSE IF CACSMPL IN (0031, 0032, 0033, 0053, 0057,
                0058, 0059, 0075, 0076, 0077,
                0078, 0093, 0094, 0106, 0119,
                0129, 0252, 7200, 7293, 9908           ) THEN XREGION= 8;
ELSE IF CACSMPL IN (0018, 0019, 0024, 0026, 0029, 0030,
                0131, 0213, 0231, 0248, 0407, 5205,
                6215, 9909  ) THEN XREGION= 9;
ELSE IF CACSMPL IN (0014, 0015, 0028, 0235, 0250,
                9910                    ) THEN XREGION=10;
ELSE IF CACSMPL IN (0125, 0126, 0127, 0128, 0395, 1646,
                9911                    ) THEN XREGION=11;
ELSE IF CACSMPL IN (0052, 0280, 0287, 0534, 7043, 9912 ) THEN XREGION=12;
ELSE IF CACSMPL IN (0606, 0607, 0609, 0617, 0618,
                0623, 0624, 0629, 0633, 0635,
                0653, 0805, 0806, 0808, 0814,
                8931, 8982, 9913           ) THEN XREGION=13;
ELSE IF CACSMPL IN (0610, 0612, 0620, 0621, 0622,
                0637, 0638, 0639, 0640, 0802,
                0804, 0853, 0862, 9914      ) THEN XREGION=14;
ELSE IF CACSMPL IN (0449, 0613, 0615, 0616, 9915 ) THEN XREGION=15;
ELSE IF CACSMPL IN (0005, 0006, 0203, 9916      ) THEN XREGION=16;
ELSE IF CACSMPL = 9999                          THEN XREGION= .;

IF CACSMPL IN (9901,9902,9903,9904) THEN DO;
  IF D_HEALTH NOT IN ('00','17','18','19') THEN DO;
    XREGION=INPUT(D_HEALTH,8.)+0;
  END;
  ELSE DO;
    IF  DCATCH IN ('0037', '0067', '0123', '0781', '0907',
                '0908', '0920', '0921', '0922', '0930',
                '0931', '0933', '0939', '0940', '0946',
                '0995')
    THEN XREGION=1;
    ELSE IF DCATCH IN ('0124', '0934', '0996')
        THEN XREGION=2;
    ELSE IF DCATCH IN ('0039', '0048', '0105', '0911', '0941',
                    '0987')
        THEN XREGION=3;
    ELSE IF DCATCH IN ('0003', '0787', '0901', '0925', '0943',
                    '0988', '0989')
        THEN XREGION=4;
    ELSE IF DCATCH IN ('0055', '0056', '0061', '0782', '0783',
                    '0789', '0914', '0915', '0918', '0923',
                    '0936', '0950')
```

```
        THEN XREGION=5;
    ELSE IF DCATCH IN ('0113', '0904', '0937', '0990', '0993')
        THEN XREGION=6;
    ELSE IF DCATCH IN ('0785', '0929', '0932')
        THEN XREGION=7;
    ELSE IF DCATCH IN ('0078', '0784', '0788', '0906', '0917',
                '0924', '0927', '0928', '0935', '0942',
                '0945', '0951', '0974')
        THEN XREGION=8;
    ELSE IF DCATCH IN ('0029', '0786', '0986')
        THEN XREGION=9;
    ELSE IF DCATCH IN ('0014', '0985')
        THEN XREGION=10;
    ELSE IF DCATCH IN ('0125', '0938', '0948', '0973')
        THEN XREGION=11;
    ELSE IF DCATCH IN ('0912')
        THEN XREGION=12;
    ELSE IF DCATCH IN ('0957', '0958', '0960', '0964', '0966',
                '0967', '0976', '0977', '0979',
                '0982')
        THEN XREGION=13;
    ELSE IF DCATCH IN ('0006', '0052', '0640', '0961', '0963',
                '0965', '0978', '0983')
        THEN XREGION=14;
    ELSE IF DCATCH IN ('0075', '0120', '0615', '0622','0953',
                '0970', '0971', '0972', '0975')
        THEN XREGION=15;
    ELSE IF DCATCH IN ('0902')
        THEN XREGION=16;
  END;
END;


IF D_PAR = '0902' THEN XREGION=16;
IF XREGION = 0 THEN XREGION = .;
```

b. United States (USA)

XREGION is used to classify beneficiaries as residing either in the United States or overseas.

1 = USA (including Alaska and Hawaii)
0 = Overseas

```
IF      XREGION IN (1,2,3,4,5,6,7,8,9,10,11,12,16) THEN USA=1;
ELSE IF XREGION IN (13,14,15)                      THEN USA=0;
ELSE IF XREGION = .                                THEN USA=.;
```

c. Overseas (XOCONUS)

XREGION is used to classify overseas beneficiaries by region, as follows:

1=Europe
2=Western Pacific
3=Latin America
.=In USA/Missing Region

```
IF      XREGION=13 THEN XOCONUS=1;
ELSE IF XREGION=14 THEN XOCONUS=2;
ELSE IF XREGION=15 THEN XOCONUS=3;
```

d. TRICARE Next Generation of Contracts Region (XTNEXREG)

XREGION is used to create XTNEXREG, the TRICARE Next Generation of Contracts Region grouping, as follows:

1=North
2=South
3=West
4=Overseas

```
IF XREGION IN (1,2,5) THEN XTNEXREG=1;
ELSE IF XREGION IN (3,4,6) THEN XTNEXREG=2;
ELSE IF XREGION IN (7,8,9,10,11,12,16) THEN XTNEXREG=3;
ELSE IF XREGION IN (13,14,15) THEN XTNEXREG=4;
ELSE IF XREGION = . THEN DO;
  IF TNEXREG = 'N' THEN XTNEXREG=1;
  ELSE IF TNEXREG = 'S' THEN XTNEXREG=2;
  ELSE IF TNEXREG = 'W' THEN XTNEXREG=3;
  ELSE IF TNEXREG = 'O' THEN XTNEXREG=4;
  ELSE XTNEXREG=.;
END;
```

e. Out of Catchment Area (OUTCATCH)

CACSMPL is used to classify beneficiaries as residing either in or outside a catchment area.

1=Out of catchment area
0=In catchment area

```
/* OUTCATCH – OUT OF CATCHMENT AREA */
IF 9900 < CACSMPL < 9999 THEN OUTCATCH=1;     /* Out of catchment area */
  ELSE IF CACSMPL = 9999 THEN OUTCATCH=.;
  ELSE OUTCATCH=0;                            /* Catchment area        */
```

f. Joint Service Flag (JSFLAG)

JSFLAG is used to classify facilities as being Joint Service or not Joint Service.

1=Joint Service
0=Not Joint Service

```
/* Create Joint Service flag */
  IF PUT(CACSMPL, JOINTSRV.)='1' THEN JSFLAG=1;
  ELSE JSFLAG=0;
```

g. Catchment (XCATCH)

XCATCH is a numeric indicator of MTF catchment area for annual beneficiary reports. The catchment is defined as follows:

```
    LENGTH XCATCH 8;
  com_geo = geocell;
  if pcm = 'MTF' then do;
```

```
    %INCLUDE
"N:\Project\40309_HCS\DC1\HCSDB\Q3FY2015\Programs\Sampling\AssignCOM_GEO.inc";
    else if ('1976' <= enrid <= '1980' ) or ( '6301' <= enrid <= '6323' ) or
      ('6991' <= enrid <= '6994')   or ('6501' <=enrid <='6512') or
      ('7166' <= enrid <= '7195') or ( '6700' <= enrid <= '6881' ) or enrid = '0000' or
      ('8001' <= enrid <= '8036') or ('6901' <= enrid <= '6919') or
      ('3031' <= enrid <= '3057') or
      enrid in ('0002', '0041', '0044', '0082', '0111', '0213', '0235', '0585', '5208', '0250',
                '0449', '0626', '0012', '0366') or
      ('0190' <= enrid <='0199') then com_geo = geocell;
    else com_geo = d_par;
  end;
  else if patcat='ACTDTY' then com_geo=d_par;

  if d_fac='NONCAT' or d_fac='TGRO' or d_fac="TPR" then do;
    if d_health in ('01','02','05','17') then com_geo = '9901';
    else if d_health in ('03','04','06','18') then com_geo = '9902';
    else if d_health in ('07','08','09','10','11','12','19') then com_geo = '9903';
    else if d_health in ('00','13','14','15') then com_geo = '9904';
  end;
  ******************************************************************************;
  ***d_fac="TPR" and d_health = '17', '18', '19' were added above for Q4, 2004,  ***;
  ***since we got the new regions 17(North T_NEX),18(South T_NEX),19(West T_NEX).***;
  ******************************************************************************;

  *** If the facility is unknown then set com_geo indicates unknown facility ***;
  *** '0999' added 03/15 to account for id 6992;
  if com_geo in ('9900', '0999', '0998',' ') then com_geo = '9904';

  ********************************************************************;
  ***Made the following 9 Navy sites stand alone in q1,2005 and 1 Air Force site in Q2, 2015:      ***;
  ***'0026','0068','0231','0378','0387','0405','0407','0508','6215','0366'***;
  ********************************************************************;
  if geocell in ('0026','0068','0231','0378','0387','0405','0407','0508','6215','0366') then
com_geo=geocell;

  xcatch = INPUT(com_geo,8.);
  label xcatch = "XCATCH - Catchment Area (Reporting)";
```

h. Sex of Beneficiary (XSEXA)

XSEXA is constructed using self-reported sex, sex identified on the DEERS database (SEX), and answers to sex-specific questions.

1=Male
2=Female

```
/** Note 19a - gender H&YR.058, SEX, H&YR.059B--H&YR.064,
        XSEXA */

/* 1/21/98 use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed FMALE and MALE based on gender specific questions */
```

```
ARRAY fmaleval H&YR.059B H&YR.060 H&YR.061 H&YR.062 H&YR.063
H&YR.064
            ;

cntfmale=0;
DO OVER fmaleval;          /* mammogram/pap smear/PREGNANT*/
  IF fmaleval>0 THEN cntfmale=cntfmale+1;
END;

IF cntfmale>0 THEN FMALE=1;
ELSE FMALE = 0;


IF H&YR.058=. THEN DO;
  IF (SEX='F' AND FMALE) THEN DO;
    N19a=1;
    XSEXA=2;
  END;
  ELSE IF (SEX='F' AND FMALE=0) THEN DO;
    N19a=2;
    XSEXA=2;
  END;
  ELSE IF (SEX='M' AND FMALE) THEN DO;
    N19a=3;
    XSEXA=1;
  END;
  ELSE IF (SEX='M' AND FMALE=0) THEN DO;
    N19a=4;
    XSEXA=1;
  END;
  ELSE IF ((SEX IN ('Z',' ') AND FMALE)) THEN DO;
    N19a=5;
    XSEXA=2;
  END;
  ELSE IF (SEX='Z' AND FMALE=0) THEN DO;
    N19a=6;
    XSEXA=.;
  END;
  ELSE IF (SEX=' ' AND FMALE=0) THEN DO;
    N19a=7;
    XSEXA=.;
  END;
END;
ELSE IF (H&YR.058=1) THEN DO;
  IF FMALE=0 THEN DO;
    N19a=8;
    XSEXA=1;
  END;
  ELSE IF FMALE THEN DO;
    IF SEX='F' THEN DO;
      N19a=9;
      XSEXA=2;
    END;
    ELSE DO;
      N19a=10;
      XSEXA=1;
    END;
```

```
    END;
  END;
  ELSE IF (H&YR.058=2) THEN DO;
    IF FMALE THEN DO;
      N19a=11;
      XSEXA=2;
    END;
    ELSE IF FMALE=0 THEN DO;
      IF SEX='M' THEN DO;
        N19a=12;
        XSEXA=1;
      END;
      ELSE DO;
        N19a=13;
        XSEXA=2;
      END;
    END;
  END;
```

i. Beneficiary Group (XBNFGRP)

We redefined beneficiary groups to exclude any active duty personnel and any active duty family members who were age 65 or older at the time of survey administration. The variable XBNFGRP reconstructs beneficiary groups into the following values:

1 = Active Duty, under 65
2 = Family members of active duty, under 65
3 = Retirees, survivors, and family members, under 65
4 = Retirees, survivors, and family members, 65 or over
.= Unknown/other

```
/* XBNFGRP-Beneficiary Group that excludes those 65 and over-Active Duty
        and Family Members of Active Duty */
IF ENBGSMPL ^="b" THEN DO;
IF INPUT(FIELDAGE,8.)  >= 65 AND INPUT(ENBGSMPL,8.) IN (1, 2, 3, 4) THEN XBNFGRP = .;
  ELSE IF INPUT(ENBGSMPL,8.) = 1 THEN XBNFGRP = 1;                /* Active Duty <65 */
  ELSE IF INPUT(ENBGSMPL,8.) IN (2, 3, 4) THEN XBNFGRP = 2;       /* Family of Active <65 */
  ELSE IF INPUT(ENBGSMPL,8.) IN (5, 6, 7) THEN XBNFGRP = 3;       /* Ret/Surv/Fam <65 */
  ELSE IF INPUT(ENBGSMPL,8.) IN (8, 9, 10) THEN XBNFGRP = 4;      /* Ret/Surv/Fam 65+ */
  ELSE IF INPUT(ENBGSMPL,8.) IN (11)      THEN XBNFGRP = .;
END;
```

j. Service Affiliation (XSERVAFF)

We redefined service affiliation to collapse coast guard, administrative, support contractor, USTF, noncatchment, other, not available, missing/unknown service affiliations into a single other category. The variable XSERVAFF reconstructs service affiliation into the following values:
1 = Army
2 = Air Force
3 = Navy
4 = Other
5 = Joint Service

```
IF SERVAFF='A' THEN XSERVAFF=1; *Army;
IF SERVAFF='F' THEN XSERVAFF=2; *Air Force;
IF SERVAFF='N' THEN XSERVAFF=3; *Navy;

/***Coast Guard, Administrative, Support Contractor, USTF, Noncatchment,
 Other, Not available, Missing/unknown will collapsed to other per Eric Shone ***/

IF SERVAFF IN ('C' 'J' 'M' 'T' 'S' 'O' 'X' ' ') THEN XSERVAFF=4; *Other;
IF SERVAFF ='P' THEN XSERVAFF=5; *AMK 2/27/14 ADDED JOINT SERVICE;
```

2. TRICARE Prime Enrollment and Insurance Coverage

a. TRICARE Prime Enrollment Status (XENRLLMT)

For reporting purposes, a person is considered enrolled in TRICARE Prime if they are under 65 and the poststratification enrollment type (ENBGSMPL), based on DEERS information, indicates that they were enrolled at the time of data collection. Because it is important to view the experiences of active duty personnel separately from other enrollees, there is a separate category for active duty (under 65), who are automatically enrolled in Prime. The five categories for TRICARE Prime enrollment are as follows:

1 = Active duty, under 65
2 = Other enrollees, under 65
3 = Not enrolled in TRICARE Prime, under 65
4 = Not enrolled in TRICARE Prime, 65 or over
5 = Enrolled in TRICARE Prime, 65 or over
. = Unknown

```
/* XENRLLMT—ENROLLMENT STATUS */
IF ENBGSMPL ^= "b" THEN DO;
IF 17 <= INPUT(FIELDAGE,8.) < 65 THEN DO;
  IF INPUT(ENBGSMPL,8.) = 1 THEN XENRLLMT = 1;                /*  Active duty (<65) */
  ELSE IF INPUT(ENBGSMPL,8.) IN (2, 3, 5, 6) THEN XENRLLMT = 2;   /*   Non-active duty
enrolled (<65)*/
  ELSE IF INPUT(ENBGSMPL,8.) IN (4, 7,11) THEN XENRLLMT = 3;     /*  Not Enrolled (<65)*/
END;
ELSE IF INPUT(FIELDAGE,8.)  > = 65 THEN DO;
  IF INPUT(ENBGSMPL,8.) = 10 THEN XENRLLMT = 4;               /*  Not Enrolled (65+)*/
  ELSE IF INPUT(ENBGSMPL,8.) IN (8,9) THEN XENRLLMT = 5;        /*  Enrolled (65+)   */
END;
```

b. TRICARE Prime Enrollment Status by Primary Care Manager (XENR_PCM)

Similar to the previous variable XENRLLMT, this variable separates the enrollees other than the active duty category into those with a military primary care manager (PCM) and those with a civilian PCM. Active duty personnel are automatically enrolled and always have a military PCM. XENR_PCM has seven possible values:

1 = Active duty, under 65, military PCM
2 = Other enrollees, under 65, military PCM
3 = Other enrollees, under 65, civilian PCM
4 = Not enrolled in TRICARE Prime, under 65
5 = Not enrolled in TRICARE Prime, 65 or over
6 = Enrolled in TRICARE Prime, 65 or over, military PCM
7 = Enrolled in TRICARE Prime, 65 or over, civilian PCM
. = Unknown

```
/* XENR_PCM—ENROLLMENT BY PCM TYPE */
IF 17 <= INPUT(FIELDAGE,8.) < 65 THEN DO;
   IF INPUT(ENBGSMPL,8.) = 1 THEN XENR_PCM = 1;              /*   Active duty (<65)       */
   ELSE IF INPUT(ENBGSMPL,8.) IN (3, 6) THEN XENR_PCM = 2; /*   Enrolled (<65) - mil PCM */
   ELSE IF INPUT(ENBGSMPL,8.) IN (2, 5) THEN XENR_PCM = 3; /*   Enrolled (<65) - civ PCM */
   ELSE IF INPUT(ENBGSMPL,8.) IN (4, 7,11) THEN XENR_PCM = 4;/*   Not Enrolled (<65)       */
END;
 ELSE IF INPUT(FIELDAGE,8.) > = 65 THEN DO;
    IF INPUT(ENBGSMPL,8.) = 10 THEN XENR_PCM = 5;          /*  Not Enrolled (65+)       */
    IF INPUT(ENBGSMPL,8.) = 9 THEN XENR_PCM = 6;           /*  Enrolled (65+)-mil PCM   */
    IF INPUT(ENBGSMPL,8.) = 8 THEN XENR_PCM = 7;           /*  Enrolled (65+)-civ PCM   */
 END;
END;
```

c. Most–Used Health Plan (XINS_COV)

The respondent's most–used health plan is derived from variable H15003 (unless the respondent is active duty, in which case they are automatically enrolled in Prime) and the respondent's age, with categories as follows:

1 = Active duty, under 65
2 = Other TRICARE Prime enrollees, under 65
3 = TRICARE Standard/Extra (Civilian Health and Medical Program of the Uniformed Services: CHAMPUS)
4 = Medicare Part A and/or Part B
5 = Other civilian health insurance or civilian HMO
6 = Prime, 65 or over
7 = TRICARE Plus and Medicare
8 = Veterans Administration (VA)
9 = TRICARE Reserve Select
10 = TRICARE Retired Reserve
11 = TRICARE Young Adult
12 = Continued Health Care Benefit Program (CHCBP)
13 = TRICARE Young Adult Prime
14 = TRICARE Young Adult Standard/Extra
. = Unknown

```
/* XINS_COV--INSURANCE COVERAGE */
IF XENRLLMT = 1 THEN XINS_COV =1;                          /* Prime <65-Active Duty */
  ELSE IF 17 <= INPUT(FIELDAGE,8.)  < 65 AND H&YR.003 IN (1) THEN XINS_COV = 2; /* Prime
<65-Non-active Duty */
  ELSE IF H&YR.003 = 3 THEN XINS_COV = 3;                  /* Standard/Extra */
  ELSE IF H&YR.003 = 11 THEN XINS_COV = 7;                   /* Plus and Medicare */
  ELSE IF H&YR.003 = 4 THEN XINS_COV = 4;                   /* Medicare*/
  ELSE IF H&YR.003 IN (5,6, 7, 8, 9, 13) THEN XINS_COV = 5;            /* Other civilian health
insurance*/
  ELSE IF H&YR.003 = 10 THEN XINS_COV = 8;                 /* Veterans Administration (VA) */
  ELSE IF H&YR.003 = 12 THEN XINS_COV = 9;                   /* TRICARE Reserve Select */
  ELSE IF H&YR.003 = 14 THEN XINS_COV = 10;/* TRICARE Retired Reserve - MER 06/21/11 */
  ELSE IF 21 <= INPUT(FIELDAGE,8.) <= 26
    AND H&YR.003 = 15 THEN XINS_COV = 13;                   /* TRICARE Young Adult Prime
- AMK 2/10/14 new categor since now specific for prime */
  ELSE IF H&YR.003 = 16 THEN XINS_COV = 12;                  /* CHCBP - MER 06/21/11 */
  ELSE IF 21 <= INPUT(FIELDAGE,8.) <= 26
    AND H&YR.003 = 17 THEN XINS_COV = 14;                          /* TRICARE Young Adult
Standard/Extra - AMK 02/06/14 */
```

```
  ELSE IF (INPUT(FIELDAGE,8.)>= 65 AND XENRLLMT = 5 and H&YR.003 = 1) THEN XINS_COV
= 6;   /* Prime, >= 65 */
  ELSE IF H&YR.075=1 AND H&YR.076=1 AND H&YR.003 NE .N THEN XINS_COV = 4;            /*
NEW Q2 Medicare/Medicaid */
```

d. Insurance Coverage Distinguishing Reservists From Active Duty (XINS_RSV)

This variable is similar to XINS_COV but separates reservists from other active duty. XINS_RSV has these possible values:

1 = Prime <65-Active Duty (Non reservists)
2 = Prime <65-Non-active Duty
3 = Standard/Extra
4 = Medicare/Medicaid
5 = Other civilian health insurance
6 = Prime, >= 65
7 = Plus and Medicare
8 = Veterans Administration (VA)
9 = TRICARE Reserve Select
10 = Prime <65-Active Duty (Reservists)
11 = TRICARE Retired Reserve
12 = TRICARE Young Adult
13 = CHCBP
14 = TRICARE Young Adult Prime
15 = TRICARE Young Adult Standard/Extra

. = Unknown

```
/* XINS_RSV--INSURANCE COVERAGE DISTINGUISHING RESERVISTS FROM ACTIVE
DUTY*/
   IF XENRLLMT = 1 THEN DO;
    IF XBENCAT IN (1) THEN XINS_RSV =1;                          /* Prime <65-Active Duty (Non
reservists) */
    ELSE IF XBENCAT IN (3,5) THEN XINS_RSV=10;                    /* Prime <65-Active Duty
(Reservists) */
  END;
  ELSE IF 17 <= INPUT(FIELDAGE,8.)  < 65 AND H&YR.003 IN (1) THEN XINS_RSV = 2; /* Prime
<65-Non-active Duty */
  ELSE IF H&YR.003 =3 THEN XINS_RSV = 3;                        /* Standard/Extra */
  ELSE IF H&YR.003 = 11 THEN XINS_RSV = 7;                       /* Plus and Medicare */
  ELSE IF H&YR.003 = 4 THEN XINS_RSV = 4;                       /* Medicare*/
  ELSE IF H&YR.003 IN (5,6, 7, 8, 9, 13) THEN XINS_RSV = 5;            /* Other civilian health
insurance*/
  ELSE IF H&YR.003 = 10 THEN XINS_RSV = 8;                       /* Veterans Administration (VA)
*/
  ELSE IF H&YR.003 = 12 THEN XINS_RSV = 9;                      /* TRICARE Reserve Select */
  ELSE IF H&YR.003 = 14 THEN XINS_RSV = 11;                      /* TRICARE Retired Reserve -
MER 06/21/11 */
  ELSE IF 21 <= INPUT(FIELDAGE,8.) <= 26
    AND H&YR.003 = 15 THEN XINS_RSV = 14;                       /* TRICARE Young Adult Prime
- MER 06/21/11 */
  ELSE IF H&YR.003 = 16 THEN XINS_RSV = 13;                      /* CHCBP - MER 06/21/11 */
  ELSE IF 21 <= INPUT(FIELDAGE,8.) <= 26
    AND H&YR.003 = 17 THEN XINS_RSV = 15;                          /* TRICARE Young Adult
Standard/Extra- AMK 02/06/14 */
```

```
  ELSE IF (INPUT(FIELDAGE,8.)>= 65 AND XENRLLMT = 5 and H&YR.003 = 1) THEN XINS_RSV
= 6;   /* Prime, >= 65 */
  ELSE IF H&YR.075=1 AND H&YR.076=1 AND H&YR.003 NE .N THEN XINS_RSV = 4;
/* Medicare/Medicaid */
```

e. Enrollment Distinguishing Reservists From Active Duty (XENR_RSV)

This variable is similar to XENR_PCM but separates reservists from other active duty.
XINS_RSV has 8 possible values:

1 = Active duty (<65) Non reservists
2 = Enrolled (<65) - mil PCM
3 = Enrolled (<65) - civ PCM
4 = Not Enrolled (<65)
5 = Not Enrolled (65+)
6 = Enrolled (65+)-mil PCM
7 = Enrolled (65+)-civ PCM
8 = Active duty (<65) Reservists
. = Unknown

```
/* XENR_RSV--ENROLLMENT DISTINGUISHING RESERVISTS FROM ACTIVE DUTY */
IF 17 <= INPUT(FIELDAGE,8.) < 65 THEN DO;
  IF INPUT(ENBGSMPL,8.) = 1 THEN DO;
    IF XBENCAT IN (1) THEN XENR_RSV = 1;                /*  Active duty (<65) Non reservists */
    ELSE IF XBENCAT IN (3,5) THEN XENR_RSV = 8;         /*  Active duty (<65) Reservists */
  END;
  ELSE IF INPUT(ENBGSMPL,8.) IN (3, 6) THEN XENR_RSV = 2;     /*  Enrolled (<65) - mil PCM
*/
  ELSE IF INPUT(ENBGSMPL,8.) IN (2, 5) THEN XENR_RSV = 3;     /*  Enrolled (<65) - civ PCM
*/
  ELSE IF INPUT(ENBGSMPL,8.) IN (4, 7,11) THEN XENR_RSV = 4;  /*  Not Enrolled (<65)      */
END;
ELSE IF INPUT(FIELDAGE,8.) > = 65 THEN DO;
   IF INPUT(ENBGSMPL,8.) = 10 THEN XENR_RSV = 5;          /*  Not Enrolled (65+)      */
   IF INPUT(ENBGSMPL,8.) = 9 THEN XENR_RSV = 6;           /*  Enrolled (65+)-mil PCM   */
   IF INPUT(ENBGSMPL,8.) = 8 THEN XENR_RSV = 7;           /*  Enrolled (65+)-civ PCM   */
END;
```

f. Beneficiary Category (XBENCAT)

This variable was created because of the increasing presence of inactive reservists and their dependents in the data. XBENCAT has eight possible values:

1 = Active Duty
2 = Dependent of Active Duty
3 = Active Reservist
4 = Dependent of Active Reservist
5 = Inactive Reservist
6 = Dependent of Inactive Reservist
7 = Retired or dependent<65
8 = Retired or dependent>65
. = Missing/Other

```
/* TRICARE Reserve Select and the increasing presence of inactive reservists and their dependents
in our data.
In order to accommodate them, we will need to create additional variables.  */
```

```
IF DBENCAT='ACT' THEN XBENCAT=1;      *Active duty;
ELSE IF DBENCAT='DA'  THEN XBENCAT=2; *Active Duty family member;
ELSE IF DBENCAT='GRD' THEN XBENCAT=3; *Active reservist;
ELSE IF DBENCAT='DGR' THEN XBENCAT=4; *Dependent of Reservist;
ELSE IF DBENCAT='IGR' THEN XBENCAT=5; *Inactive Reservist";
ELSE IF DBENCAT='IDG' THEN XBENCAT=6; *Dependent of Inactive Guard";
ELSE IF DBENCAT IN ('RET','DR','DS') THEN DO;
   IF 17 <= INPUT(FIELDAGE,8.) < 65 THEN XBENCAT=7;   *Retired or Dependent of Retiree <65;
   ELSE IF INPUT(FIELDAGE,8.)  > = 65 THEN XBENCAT=8; *Retired or Dependent of Retiree
>=65;
END;
```

f. Types of Coverage (KCIVINS)

A binary variable was created to indicate the type of insurance that respondents use:

- Is the respondent covered by private civilian insurance (KCIVINS)

This variables has the following values:
1 = Yes
2 = No
.= Unknown

```
IF H&YR.002G=1 OR H&YR.002I=1 OR H&YR.002J=1 THEN KCIVINS=1;          /* YES  */
  ELSE KCIVINS=2;                                  /* NO   */
```

3. Preventive Care (HP_PRNTL, HP_MAMOG, HP_MAM50, HP_PAP, HP_BP, HP_FLU, HP_SMOKE, HP_SMKH3, HP_CESH3, HP_OBESE, XBMI, XBMICAT)

Preventive care analyses compare the percentage of respondents who received services within the recommended time period to the TRICARE standard federal Healthy People 2020 goal. We constructed new binary variables from the responses to indicate whether the respondent received the preventive care service within the recommended time period. See Table 2.5 for the list of the variables developed for analysis of preventive care. With the exception of XBMI and XBMICAT, the new preventive care variables have the following values:

1 = Received service within the recommended time period
2 = Did not receive service within the recommended time period
.= Missing information

TABLE 2.5
PREVENTIVE CARE STANDARDS

Preventive Care Delivered	Relevant Question	Variable Name	Outcome Measure with Recommended Time Period (Numerator)	Population Involved (Denominator)	Standard
Blood Pressure Check	H15049 & H15050	HP_BP	Number with care in the past 24 months and know the results	Adults	95% within past 2 years
Flu Shot	H15051	HP_FLU	Number with care in the past 12 months	Adults age 65 and older	90% in past year, age 65 and over
Pap Smear	H15059B	HP_PAP	Number with care in the past 36 months	Adult females	93% in the past 36 months
Mammography	H15061	HP_MAMOG	Number with care in the past 24 months	Females age 40 and over	81% in the past 24 months
Mammography	H15061	HP_MAM50	Number with care in the past 24 months	Females age 50 and over	81% in the past 24 months
Smoker	H15054	HP_SMOKE	Number that smoked in the past 12 months	Adults	12% in the last 12 months
Smoker	H15052 & H15053	HP_SMKH3	Number that smoked in the past 12 months	Adults	12% in the last 12 months
Smoking Cessation	H15053 & H15054	HP_CESH3	Number that smoked in the past 12 months and received smoking cessation counseling	All current adult smokers and those who quit smoking within the past year	None
Prenatal Care	H15062, H15063, H15064	HP_PRNTL	Number with care in the first trimester	Currently pregnant adult females and all adult females who were pregnant in the past 12 months, excluding those less than 3 months pregnant who haven't received care	78% had care in first trimester
Non-Obese Weight	H15071F, H15071I & H15072	HP_OBESE	Number of people who are not obese	Adults	69% are not obese

```
/* HP_PRNTL--IF PREGNANT LAST YEAR, RECEIVED PRENATAL CARE IN 1ST TRIMESTER
*/
IF H&YR.062 IN (1,2) THEN DO;                          /*  Pregnant in last 12 months   */
  IF H&YR.064 = 4 THEN HP_PRNTL = 1;                     /*  Yes   */
    ELSE IF (H&YR.063 = 1 AND H&YR.064 = 1) THEN HP_PRNTL = .;    /* <3 months pregnant
now */
    ELSE IF H&YR.064 IN (1,2,3) THEN HP_PRNTL = 2;            /*  No */
END;
ELSE IF H&YR.062 IN (.C,.N) THEN HP_PRNTL = .N; /* Male */

/* HP_MAMOG--FOR WOMEN AGE 40 AND OVER, HAD MAMMOGRAM W/IN PAST 2 YEARS
*/
IF XSEXA = 2 AND INPUT(FIELDAGE,8.)  >= 40 THEN DO;
  IF H&YR.061 IN (5, 4) THEN HP_MAMOG = 1;           /* Yes */
  ELSE IF H&YR.061 IN (1, 2, 3) THEN HP_MAMOG = 2;    /* No */
END;

/* HP_MAM50--FOR WOMEN AGE 50 AND OVER, HAD MAMMOGRAM W/IN PAST 2 YEARS
*/
IF XSEXA = 2 AND INPUT(FIELDAGE,8.)  >= 50 THEN DO;
  IF H&YR.061 IN (5, 4) THEN HP_MAM50 = 1;           /* Yes */
  ELSE IF H&YR.061 IN (1, 2, 3) THEN HP_MAM50 = 2;    /* No */
```

```
END;

/* HP_PAP--FOR ALL WOMEN, HAD PAP SMEAR IN LAST 3 YEARS */
IF XSEXA = 2 THEN DO;
  IF H&YR.059B IN (4, 5, 6) THEN HP_PAP = 1;          /* Yes */
  ELSE IF H&YR.059B IN (1, 2, 3) THEN HP_PAP = 2;      /* No  */
END;

/* HP_BP--HAD BLOOD PRESSURE SCREENING IN LAST 2 YEARS AND KNOW RESULT */
IF H&YR.049 IN (2,3) AND H&YR.050 IN (1,2) THEN HP_BP = 1;   /* Yes     */
  ELSE IF H&YR.049 = 1 THEN HP_BP = 2;                  /* No      */
  ELSE IF H&YR.049 < 0 OR H&YR.050 < 0 THEN HP_BP = .;     /* Unknown */
  ELSE HP_BP = 2;                                 /* No      */

/* HP_FLU--FOR PERSON AGE 65 OR OVER, HAD FLU SHOT IN LAST 12 MONTHS */
IF INPUT(FIELDAGE,8.) >= 65 THEN DO;
  IF H&YR.051 = 4 THEN HP_FLU = 1;                  /*   Yes */
  ELSE IF H&YR.051 IN (1, 2, 3) THEN HP_FLU = 2;      /*   No  */
END;

/* HP_SMOKE--ADVISED TO QUIT SMOKING IN PAST 12 MONTHS */
IF H&YR.054 IN (2, 3, 4) THEN HP_SMOKE = 1;        /*   Yes   */
  ELSE IF H&YR.054 = 1 THEN HP_SMOKE = 2;           /*   No    */

/* Add code for smoking and smoking cessation counseling according to the HEDIS */
IF H&YR.052 IN (1,2) THEN DO;
  IF H&YR.052=1 AND (H&YR.053=3 OR H&YR.053=4) AND H&YR.057A=1 THEN
HP_SMKH3=1; /* Yes */
  ELSE IF H&YR.052=2 OR H&YR.053=2 OR H&YR.057A NE 1 THEN HP_SMKH3=2;        /* No
*/
END;

IF (H&YR.053=3 OR H&YR.053=4) AND H&YR.054>0 THEN DO;
  IF H&YR.054>1 THEN HP_CESH3=1;  /* Yes */
  ELSE HP_CESH3=2;            /* No */
END;

*******************************************************************************
* Calculate XBMI- Body Mass Index and XBMICAT- Body Mass Index Category
* BMI=Weight(in pounds)*703 divide by Height(in inch)*Height(in inch)
*******************************************************************************;


 IF H&YR.071F IN (.A,.O,.I,.B) THEN TSRHGTF=.; ELSE TSRHGTF=H&YR.071F;
 IF H&YR.071I IN (.A,.O,.I,.B) THEN TSRHGTI=.; ELSE TSRHGTI=H&YR.071I;
 IF H&YR.072  IN (.A,.O,.I,.B) THEN TSRWGT =.; ELSE TSRWGT =H&YR.072;

 IF TSRHGTF IN (.) OR
   TSRWGT  IN (.) THEN XBMI=.;
 ELSE DO;
   XBMI = ROUND((TSRWGT*703)/
            (SUM(TSRHGTF*12,TSRHGTI)*SUM(TSRHGTF*12,TSRHGTI)), .1);
 END;

IF XBMI < 12 OR XBMI > 70 THEN XBMI=.;

 DROP TSRHGTF TSRHGTI TSRWGT;
```

```
/* Same category as Healthy People 2010 where there is no sex distinction */
   IF XBMI = .        THEN XBMICAT=.;
   ELSE IF XBMI < 18.5 THEN XBMICAT=1;  *Underweight;
   ELSE IF XBMI < 25   THEN XBMICAT=2;  *Normal Weight;
   ELSE IF XBMI < 30   THEN XBMICAT=3;  *Overweight;
   ELSE IF XBMI < 40   THEN XBMICAT=4;  *Obese;
   ELSE                XBMICAT=5;  *Morbidly Obese;

IF XBMICAT=. THEN HP_OBESE=.;
ELSE IF XBMICAT IN (4,5) THEN HP_OBESE=1;    *OBESE ;
ELSE HP_OBESE=2;                             *NOT OBESE;
```

5. Utilization

a. Outpatient Utilization (KMILOPQY, KCIVOPQY)

KMILOPQY reflects the total number of outpatient visits, derived from. For those receiving care at military facilities, we adjust KMILOPQY to reflect zero visits for those with no care or those who get their care from civilian facilities. KCIVOPQY is the comparable variable for those who receive care at civilian facilities.

```
/* KMILOPQY--OUTPATIENT VISITS TO MILITARY FACILITY
  KCIVOPQY--OUTPATIENT VISITS TO CIVILIAN FACILITY */
IF H&YR.005 = 1 THEN DO;
  KMILOPQY=H&YR.013;
  KCIVOPQY=1;
END;
ELSE IF H&YR.005 IN  (2, 3, 4) THEN DO;
  KCIVOPQY=H&YR.013;
  KMILOPQY=1;
END;
ELSE IF H&YR.005 = 5 THEN DO;
  KMILOPQY=1;
  KCIVOPQY=1;
END;
```

E. WEIGHTING PROCEDURES

Quarterly and annual tabulations and analyses of the 2015 HCSDB must account for the survey's complex sample design and adjust for possible bias due to nonresponse. As part of sample selection, Mathematica constructed sampling weights (BWT) that reflect the differential selection probabilities used when sampling beneficiaries across strata. With the level of nonresponse present in the HCSDB and the likelihood that respondents and nonrespondents will differ in terms of their responses to survey questions, the issue of nonresponse bias is potentially a serious one. Prior to 2005, we compensated for potential nonresponse bias by adjusting for nonresponse independently within weighting classes, defined by the stratification variables — enrollment status, beneficiary group, and geographic area. In other words, it was assumed that both response likelihood and characteristics related to survey outcome variables were homogeneous within these weighting classes.

However, because the HCSDB sample is selected from the DEERS, a great deal is known about both respondents and nonrespondents. Consequently, a large number of variables are available for the nonresponse weighting adjustments. As described above, in surveys prior to 2005, the only auxiliary variables used in developing the nonresponse weighting adjustments were the stratification

variables, which represented a small subset of the available variables. Beginning with the 2005 HCSDB, we developed a new weighting adjustment procedure to incorporate more information about respondents and nonrespondents. The first stage in this process identified variables from the frame that were most related to whether or not a beneficiary responded to the survey. After initial screening of variables, the Chi-squared Automatic Interaction Detection (CHAID) (Biggs et al. 1991) technique was used for this purpose. Secondly, we incorporated the chosen auxiliary variables into a weighting class adjustment procedure using a response propensity model.

1. Constructing the Sampling Weight

In the 2015 HCSDB, stratified sampling was used to select the sample of beneficiaries that would receive the questionnaire. Sampling was independently executed within strata defined by combinations of three domains: enrollment status groups; beneficiary groups; and geographic areas. The sample was selected with differential probability of selection across strata. Sample sizes were driven by predetermined precision requirements. For further details of the 2015 adult sample design, see Mathematica's "Health Care Survey of DoD Beneficiaries: 2015 Adult Sampling Report (2015)."

Our first step in constructing sampling weights was to ensure that they reflected the unequal sampling rates across strata. These sampling weights can be viewed as the number of population elements each sampled beneficiary represents. The sampling weight was defined as the inverse of the beneficiary's selection probability:

$$W_s(h,i) = \frac{N_h}{n_h}$$

where:

$W_s(h,i)$ is the sampling weight for the ith sampled beneficiary in stratum h,

N_h is the total number of beneficiaries in stratum h, and

n_h is the number of sampled beneficiaries in stratum h.

The sum of the sampling weights over selected beneficiaries i, from stratum h equals the total population size of stratum h or N_h.

2. Adjustment for Total Nonresponse

Survey estimates obtained from respondents only can be biased with respect to describing characteristics of the total population (Lessler and Kalsbeek 1992). The choice of an appropriate method for adjusting for potential nonresponse bias depends on the response mechanism that underlies the study population. We adjusted for nonresponse independently within weighting classes, with the assumption that both response and characteristics directly or indirectly related to survey variables are homogeneous within these classes. Two types of nonresponse were associated with the 2015 HCSDB:

- Unit or total nonresponse occurred when a sampled beneficiary did not respond to the survey questionnaire (e.g., refusals, no questionnaire returned, blank questionnaire returned, bad address).
- Item nonresponse occurred when a question that should have been answered was not answered (e.g., refusal to answer, no response).

Because item response rates in previous surveys were high, statistical imputation, a technique used to compensate for item nonresponse, was not used in the 2015 HCSDB. To account for unit or total

nonresponse, we implemented a weighting class adjustment procedure where the weighting classes are formed from a response propensity model (see Section 4 below).

3. Weighting Class Adjustments for Non-Response

The 2015 HCSDB weighting was implemented by using a method instituted in 2005. This method partitions the sample into groups, called weighting classes, using the propensity scores from the propensity model. Weights of respondents are then adjusted within each class so that they sum to the weight total for nonrespondents and respondents from that class. Implicit in the weighting class adjustment is the assumption that, had the nonrespondents responded, their responses would have been distributed in the same way as the responses of the other respondents in their weighting class.

Nonresponse adjustment factors for the 2015 HCSDB were calculated in two steps. First, we adjusted the sampling weights to account for sampled beneficiaries for whom eligibility status could not be determined. Sampled beneficiaries were then grouped as follows according to their response status *d*:

d = 1 Eligible — complete questionnaire returned (FNSTATUS = 11)

d = 2 Eligible — incomplete or no questionnaire returned (FNSTATUS = 12 or 20)

d = 3 Ineligible — deceased, incarcerated or permanently incapacitated beneficiary (FNSTATUS = 31)

d = 4 Eligibility unknown — no questionnaire or eligibility data (FNSTATUS = 41 or 42)

d = 5 Ineligible — ineligible at time of Altarum address update (FNSTATUS = 32)

Within weighting class *c*, the weights of the *d* = 4 nonrespondents with unknown eligibility were redistributed to the cases for which eligibility was known (*d* = 1, 2, 3), using an adjustment factor $A_{wc1}(c,d)$ that was defined to be zero for *d* = 4, one for *d* = 5, and defined as:

$$A_{wc1}(c,d) = \frac{\sum_{i \in S(c)} W_s(c,i)}{\sum_{i \in S(c)} I_1(i) W_s(c,i) + \sum_{i \in S(c)} I_2(i) W_s(c,i) + \sum_{i \in S(c)} I_3(i) W_s(c,i)} \quad \text{for d = 1, 2, 3}$$

where:

$A_{wc1}(c,d)$ is the eligibility-status adjustment factor for weighting class *c* and response status code *d*,

$I_d(i)$ is the indicator function that has a value of 1 if sampled unit *i* has a response status code of *d* and value of 0 otherwise,

$S(c)$ is the set of sample members belonging to weighting class *c*, and

$W_s(c,i)$ is the sampling weight (BWT) for the ith sample beneficiary from weighting class *c* before adjustment.

The adjustment $A_{wc1}(c,d)$ was then applied to the sampling weights to obtain the eligibility-status adjusted weight. Beneficiaries in weighting class *c* with response status code of *d* were assigned the eligibility-status adjusted weight:

$$W_{wc1}(c,d,i) = A_{wc1}(c,d)\, W_s(c,i) \text{ for } d = 1, 2, 3, 4, 5$$

The next step in weighting was to adjust for incomplete or missing questionnaires from beneficiaries known to be eligible. For this adjustment, the weighting class method is again used. Within weighting class *c* the sample was again partitioned into groups according to the beneficiary's response status code *d*. Within weighting class *c*, the weights of the *d* = 2 nonresponding eligibles were redistributed to the responding eligibles *d* = 1, using an adjustment factor $A_{wc2}(c,d)$ that was defined to be zero for *d* = 2, 4. For Group 1 (*d* = 1), the questionnaire-completion adjustment or $A_{wc2}(c, 1)$ factor for class *c* was computed as:

$$A_{wc2}(c,1) = \frac{\sum_{i \in S(c)} I_1(i) W_{wc1}(c,i) + \sum_{i \in S(c)} I_2(i) W_{wc1}(c,i)}{\sum_{i \in S(c)} I_1(i) W_{wc1}(c,i)}$$

By definition, all *d* = 3 and *d* = 5 ineligible beneficiaries "respond," so the *d* = 3 and *d* = 5 adjustment factor (based on response propensity) is 1, or $A_{wc2}(c,3) = A_{wc2}(c,5) = 1$. The questionnaire-completion adjusted weight was calculated as the product of the questionnaire-completion adjustment $A_{wc2}(c,d)$ and the previous eligibility-status adjusted weight $W_{wc1}(c,d,i)$, or:

$$W_{wc2}(c,d,i) = A_2(c,d) W_{wc1}(c,d,i)$$

As a result of this step, all nonrespondents (*d* = 2, 4) had questionnaire-completion adjusted weights of zero, while the weight for ineligible cases (*d* = 3, 5) remained unchanged, or $W_{wc2}(c,3,i) = W_{wc1}(c,3,i)$ and $W_{wc2}(c,5,i) = W_{wc1}(c,5,i)$.

4. Response Propensity Model for Non-Response

It is common practice to use weighting adjustments to compensate for unit nonresponse in sample surveys. There are numerous methods developed to make these adjustments (Kalton and Maligalig 1991; Holt and Smith 1979; Oh and Scheuren 1983; Little and Vartivarian 2003; Vartivarian and Little 2003). Moreover, a number of studies have evaluated multiple weighting methods to adjust for nonresponse. Carlson and Williams (2001) found nearly identical results with respect to the design effects and the weighted estimates for two weighting approaches: 1) weighting classes using the design features (strata and sampling units), and 2) propensity models containing numerous variables identified as predictors of response. They conjectured that the propensity model approach might perform better for estimates in key geographic subdomains because there would be many fewer weighting cells than for the national estimates. Rizzo et al. (1994) investigated several alternative methods for panel nonresponse in the Survey of Income and Program Participation (SIPP), including nonresponse adjustment cells, logistic regression, CHAID methods, and generalized raking methods. They found a number of variables related to panel nonresponse that are not employed in the standard SIPP nonresponse adjustment cells methodology. These variables were used in the alternative weighting methods and were found to result in similar weights regardless of method. Therefore, Rizzo et al. conclude that the choice of model variables is more important than the weighting methodology.

a. Predictors of Response Propensity

The first step in developing nonresponse adjustments is deciding which of the large number of variables available from the HCSDB sample frame would be best to use in the adjustment procedures. We do this by evaluating each variable and its relationship to response. Segmentation analysis using the CHAID software was used to allow for a model-building process that focuses on segments showing different response propensities.[1] This analysis avoids the problem of examining "all possible interactions" that is typical of regression modeling. The unweighted segmentation algorithm split the sample into subgroups based on response rates. The splitting process continued until either no other predictors were found or the segment size fell below a minimum size of 50. For ease of interpretation, we also limited the splitting process to three levels. We ran the CHAID analysis twice, once to predict eligibility determination and again to predict survey completion among eligible beneficiaries

b. Response Propensity Weighting Classes

The nonresponse adjustments involved developing weighting classes using sample design characteristics and the response propensity model developed in the modeling stage. The usual HCSDB approach computes the response weight adjustment cells based on fully observed variables from the sample frame. However, in order to avoid empty or sparsely populated cells, we limited our classification to the stratification variables, catchment area, enrollment, and beneficiary group, and collapsed these cells as necessary.

The alternative approach we used to reduce the number of cells was to stratify based on response propensity. The method used a model of the relationship between a set of beneficiary characteristics and a response outcome. We used logistic regression to model this relationship because the response outcome is dichotomous: beneficiaries either respond or they do not. If the characteristics in the model predict response well and if the characteristics are correlated with the substantive variables of the survey, then the model-based adjustment factors applied to the sampling weights greatly reduce the potential for nonresponse bias. Like the previous weighting class adjustment method, we make two separate weighting adjustments to attempt to compensate for nonresponse: an eligibility determination adjustment and a completion adjustment.

The overall probability of having a known eligibility status is estimated with a logistic regression model. The probability that sample beneficiary *i* has a known eligibility status is:

$$\begin{aligned}\hat{\lambda}_i &= P\left[E_i = 1 \mid X_i\hat{\beta}\right] \\ &= \left[1+\exp\left(-X_i\hat{\beta}\right)\right]^{-1}\end{aligned}$$

where

$$E_i = \begin{cases} 1 \text{ if sample beneficiary } i \text{ has eligibility status determined} \\ 0 \text{ otherwise} \end{cases}$$

[1] Using as a criterion the significance of a chi-squared test, CHAID evaluates all of the values of a potential predictor variable. It merges values that are judged to be statistically homogeneous (similar) with respect to response and maintains all other values that are heterogeneous (dissimilar). It then selects the best predictor variable to form the first branch in the decision tree, such that each node is made of a group of homogeneous values of response. This process continues recursively until the tree is fully grown.

and X_i is a vector of HCSDB response predictors (main effects and interaction terms) and $\hat{\beta}$ are the estimated regression coefficients.

To determine the best set of response predictors, we fit models using unweighted stepwise, backward, and forward logistic regression procedures in SAS. We developed automated models separately for Continental U.S. (CONUS) and Outside of Continental U.S. (OCONUS) and included as response predictors an indicator variable for each TNEX region. Besides TNEX region, an indicator of whether a beneficiary is in a catchment area or not was added to the model. In the full model, we included as response predictors all nine variables (TNEX region, age, beneficiary group, PCM, personnel category (enlisted, warranted officer, or officer), military rank, sex, branch of service, and an indicator for being in a catchment area) and interactions identified by the CHAID analysis. We re-ran the three sets of resulting unweighted models using weights and the sample design characteristics in SUDAAN. We estimated the coefficients using a weighted logistic regression procedure in SUDAAN, which incorporates the stratified design in estimating standard errors for the coefficients. We selected the model with the best Hosmer and Lemeshow (H-L) goodness-of-fit test from both SAS and SUDAAN since all models have similar concordance-discordance rates.

For each eligibility determination model, we ordered the list of response propensity scores and then divided them into groups of equal size. Ten weighting classes were formed from the deciles of the propensity score for CONUS. For OCONUS, we formed five classes using the quintiles of the propensity scores.

For the completion adjustment stage, we formed the weighting classes using the results from the CHAID trees; the number of weighting classes was determined by the number of the terminal nodes in the CHAID trees. Because we observed little variation in the questionnaire-completion adjustment stage, statistical modeling was unnecessary, and instead the weighting classes were formed directly from the CHAID trees.

In addition, we poststratified the nonresponse-adjusted weights to the frame totals to obtain specific domain weighted totals equal to population totals. The poststrata were defined by stratification variables — TNEX region, catchment area, and enrollment status, and were collapsed to form poststrata of sufficient size. Due to the possibly insufficient sample size constraint within each TNEX region, we stratified by catchment area only for those enrolled with military primary care manager. The poststratification adjustment factor for the hth poststratum is defined as:

$$A_h^{PS} = \frac{N_h}{\sum_{i \in h} W_i^C}$$

where W_i^C is the nonresponse-adjusted weights, and N_h is the total number of beneficiaries in the DEERS frame associated with the hth poststratum for the ith beneficiary. We calculated the poststratified adjusted weight for the ith beneficiary sampled from the hth poststratum by the following:

$$W_{hi}^{PS} = A_h^{PS} \times W_i^C$$

Therefore, when summed over all respondents in poststratum h, the poststratified weights total N_h.

Lastly, we evaluated the weights and trimmed extreme weights to reduce excessive effect of extreme weights to variance inflation. Whenever some weights were trimmed, we redid the post-stratification of the weights to produce the final survey weights.

5. Calculation of Combined Annual Weights

As a final step, we combined the three consecutive quarterly data files. Because there were a total of 398 late respondents who were not included in the Quarters I–II 2015 files, the first two quarters were re-weighted before they were merged into the combined annual dataset. The new Quarters I–II datasets contain the responses of respondents who "trickled" in past the deadline for the survey. After reweighting the Quarters I–II datasets, the Quarters I–II datasets and the Quarter III dataset were merged to form a combined annual dataset with data for all three quarters.

Since the combined annual dataset sample sizes are sufficiently large to provide statistically reliable estimates, users will be able to calculate survey estimates for subdomains, such as catchment areas (XCATCH). Construction of an appropriate annual weight will allow users to treat the combined data as coming from a single survey. Quarterly weights are still included so that users may continue to calculate quarterly estimates and retain the ability to combine any sequential three quarters into a combined data set.

Combined estimates can be calculated from the three independent samples by averaging the estimates for the three quarters. This method for combining the three quarters of data and calculating combined estimates assumes that the variance in estimates from one quarter to the next is merely due to sampling variation. These combined estimates will, in fact, be more precise than the quarterly estimates because they average out the variation across quarters (for a further discussion, see Friedman, et al. 2002).

We calculated the final survey weight for each quarter (Q1, Q2, and Q3) within the combined dataset. To retain the sum of the weights from the combined data as the population count, we average the population over the three quarters, by rescaling each quarterly survey weight (denomted as WQ1, WQ2, and WQ3) as follows in order to develop a combined annual weight:

(1) $$WCOM = q_i \times WQi$$

where q_i is between 0 and 1 with the constraint $q_1 + q_2 + q_3 = 1$. The choice of the appropriate value for each of the q_i's can be based on various assumptions. We decided that each quarterly contribution to the annual weight should be equal, and therefore assigned the value of each q_i as follows:

$$q_1 = 0.33;\ q_2 = 0.33;\ q_3 = 0.33$$

Then, the weight for the combined annual data in (1) will be *WCOM*.

The final data file retains the quarterly sampling stratum variables and quarterly weight as calculated using the response propensity (FWRWT) and the combined weights (CFWT). The file also contains an indicator variable for the quarters. From this combined dataset, one can calculate both combined data and revised quarterly estimates.

6. Calculation of Quarterly Jackknife Replicate Weights

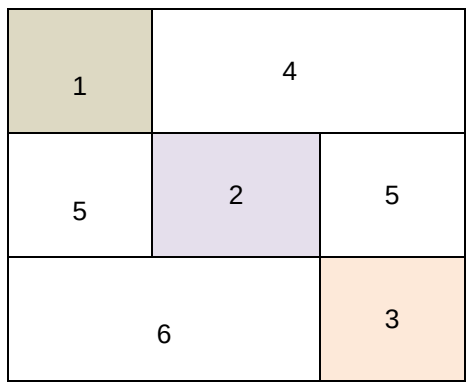
Calculation of variance estimates in the HCSDB requires a design-based variance estimation technique that is available in most statistical software packages for analysis from a complex survey data, such as WesVarPC® (Brick et al. 1996), SUDAAN®, SAS/STAT® version 8 or higher, and STATA®. The Taylor series linearization technique requires sample design information, including the sampling weight and stratification information. As an alternative, a replication technique such as the Jackknife method can be used to calculate variance estimates. In the HCSDB, a series of jackknife replicate weights are calculated and attached to each beneficiary record in the database. In jackknife replication, deleting selected cases from the full sample generates the prescribed number of replicates.

To construct the HCSDB replicate weights, the entire file of sampled beneficiaries is first sorted by sampling strata. Next, 60 mutually exclusive and exhaustive systematic subsamples of the full sample are identified in the sorted file. A jackknife replicate is then obtained by dropping one subsample from the full sample. As each subsample is dropped in turn, 60 sets of jackknife replicates are produced. The weighting process after the modeling is applied to the full sample is then applied separately to each of the jackknife replicates to produce a set of replicate weights for each record. We did not model the propensity scores for each replicate. Instead the weighting cells from the propensity scores from the full sample weight were adopted in the replicate weights construction. Then, a series of jackknife replicate weights (FWRWT1-FWRWT60) was attached to the final data in order to construct jackknife replication variance estimates. These replicate weights should be used to estimate variances of quarterly estimates.

7. Calculation of Annual Jackknife Replicates

Since 60 quarterly replicate weights were available in each quarter, a total of 180 annual replicate weights (CFWT1 – CFWT180) were constructed across the three quarters.

Figure 1: Construction of Annual replicate weights based on the quarterly replicate weights



1 – Q1 Replicate Weights
2 – Q2 Replicate Weights
3 – Q3 Replicate Weights
4 – Q1 Final weights
5 – Q2 Final weights
6 – Q3 Final weights

Each quarterly replicate weight was put into the data set as a form of block diagonal (1, 2, 3), and the quarterly final weights were put into the dataset for off-diagonal (5, 6, 7). This construction was based on the assumption that each quarterly sample was independent. The use of the quarterly final weights as the replicate weights for off-diagonal units in the dataset does not introduce variability into the variance. In fact, the replicate estimates from the off-diagonal are equal to the full sample estimate, because the replicate weights on the off-diagonal are the same as the quarterly final weight. Thus, the values of variance factor $(\hat{\theta}_{hi} - \hat{\theta})^2$, i.e., the differences between the estimates calculated from the replicate *r* and those calculated on the basis of full sample, are zero for replicates with off-diagonal units only.

The general formula for the jackknife variance estimator in SUDAAN (RTI 2002) can be expressed as:

$$v_{Jack}\left(\hat{\theta}\right) = \sum_h \frac{N_h - D_h}{D_h R_h} \sum_i \left(\hat{\theta}_{hi} - \hat{\theta}\right)^2$$

where

N_h is the number of PSUs or clusters within the stratum *h*,

D_h is the number of PSUs or clusters deleted in creating the replicate,

R_h is the number of replicates selected,

$\hat{\theta}_{hi}$ is the estimate of the parameter θ from the *i*-th replicate of the *h*-th stratum,

$\hat{\theta}$ is the estimate based on the entire sample.

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Chapter 3

Analysis

This chapter explains how the HCSDB variables were processed during the analysis phase of the project. It covers the procedures for calculating response rates, developing dependent and independent variables for the analysis, and estimating the variance of the statistics. The "Health Care Survey of DoD Beneficiaries: Annual Report" is described briefly along with an outline of the steps involved in creating charts for the reports.

A. RESPONSE RATES

In this section, we present the procedures for response rate calculations along with a brief analysis of response rates for domains of interest. Response rate calculations for the 2015 HCSDB were consistent with methods used since 2006. The procedure is based on the guidelines established by the Council of American Survey Research Organizations (CASRO 1982) for defining a response rate.

1. Definition of Response Rates

In calculating response rates and related measures, we considered two different rates: *unweighted* and *weighted*. The unweighted version of the response rate represents the counted proportion of respondents among all sampled units, and the weighted version indicates the estimated proportion of respondents among all population units. When sampling rates across all strata are equal, these two approaches yield the same result. However, for the 2015 HCSDB, we used different sampling rates across strata, and thus it is useful to report both "unweighted" and "weighted" response rates. As presented in Chapter 2, all sampled beneficiaries were completely classified into the following four main (seven detailed) groups:

- Group 1 (G1-1): eligible and complete questionnaire returned;
- Group 1 (G1-2): eligible and incomplete questionnaire returned;
- Group 2: eligible and questionnaire not returned;
- Group 3 (G3-1): returned ineligible
- Group 3 (G3-2): ineligible at time of Altarum address update
- Group 4 (G4-1): eligibility unknown and locatable; and
- Group 4 (G4-2): eligibility unknown and unlocatable.

The unweighted counts reflect the number of sampled cases (n_i for Group i, where i =1,2,3,4), and the weighted counts reflect the estimated population size[2] ($\hat{N}_i$ for Group i, where i =1,2,3,4) for the four main response categories.

These weighted and unweighted counts were also calculated for the subgroups G1-1, G1-2, G3-1, G4-1, and G4-2, where we denote the unweighted counts by $n_{1,1}$, $n_{1,2}$, $n_{3,1}$, $n_{4,1}$, and $n_{4,2}$, and the

[2] The weighted sum of sampled units can be regarded as an estimated population size. The base weight (BWT) was used in calculating weighted counts, where BWT is the inverse of selection probability.

weighted counts by $\hat{N}_{1,1}, \hat{N}_{1,2}, \hat{N}_{3,1}, \hat{N}_{4,1}$, and $\hat{N}_{4,2}$. With these values, we calculated response rates as follows.

Response rates can be partitioned into two measures: the location rate and the completion rate. To calculate the location rate, we first estimated the number of Group 4 "located" beneficiaries who were expected to be eligible for the survey:

(1)

$$l = \left(\frac{n_1 + n_2}{n_1 + n_2 + n_{3,1}} \right) n_{4,1} \qquad \text{and} \qquad l_w = \left(\frac{\hat{N}_1 + \hat{N}_2}{\hat{N}_1 + \hat{N}_2 + \hat{N}_{3,1}} \right) \hat{N}_{4,1}$$

where l and l_w are unweighted and weighted estimates of the number of "located" beneficiaries among Group 4. Then, the unweighted and weighted "location rates" are defined by:

(2)

$$LR = \frac{n_1 + n_2 + l}{n_1 + n_2 + n_4 \left(\frac{n_1 + n_2}{n_1 + n_2 + n_{3,1}} \right)} \qquad \text{and} \qquad LR_w = \frac{\hat{N}_1 + \hat{N}_2 + l_w}{\hat{N}_1 + \hat{N}_2 + \hat{N}_4 \left(\frac{\hat{N}_1 + \hat{N}_2}{\hat{N}_1 + \hat{N}_2 + \hat{N}_{3,1}} \right)}.$$

And the corresponding unweighted and weighted "completion rates" are defined by:

(3)

$$CR = \frac{n_{1,1}}{n_1 + n_2 + l} \qquad \text{and} \qquad CR_w = \frac{\hat{N}_{1,1}}{\hat{N}_1 + \hat{N}_2 + l_w}.$$

The final response rates in Equation (4) can be obtained by multiplying the location rate in Equation (2) by the completion rate in Equation (3).

(4)

$$FRR = LR \times CR \text{ and } FRR_w = LR_w \times CR_w$$

In the definitions in Equations (1) through (4), the subscript "w" indicates that all calculations involve weighted counts. The method used to calculate response rates is consistent with the CASRO guidelines.

2. Reporting

We examined response rates to identify patterns across different domains or characteristics. Whereas analysts prefer weighted rates that reflect the estimated proportion of respondents among all population beneficiaries, operational staff are often interested in receiving unweighted measures. Accordingly, all tables include both unweighted and weighted values. In the following pages, we focus on discussing unweighted response rates for domains of interest.

Table 3.1 includes overall response rates for the 2015 HCSDB for Quarters I-III individually and combined. It also contains response rates by beneficiary groups, and by enrollment status:

- Overall: The overall unweighted response rate for the combined 2015 Adult HCSDB was 9.6 percent (which is found in Table 3.1 in the "Overall" row and COMBINED column). This rate is higher than the 8.8 percent rate achieved in the combined 2014 Adult HCSDB.
- Beneficiary group and enrollment status: All response rates calculated by beneficiary group and enrollment status show similar patterns to the 2014 survey, with active duty beneficiaries and their family members having the lowest response rates and beneficiaries 65 years and older having the highest rates.[3]
- The response rates for the first two quarters include late respondents (respondents whose survey "trickled-in" after the deadline).

TABLE 3.1

RESPONSE RATES OVERALL AND BY ENROLLEE BENEFICIARY GROUP: QUARTERS I-III, 2015

	Q1 2015		Q2 2015		Q3 2015		COMBINED	
	Unweighted Percent	Weighted Percent	Unweighted Percent	Weighted Percent	Unweighted Percent	Weighted Percent	Unweighted Percent	Weighted Percent
Overall	9.1	14.8	9.2	14.3	10.6	20.1	9.6	16.4
Active Duty	14.6	13.1	14.5	12.8	11.3	9.6	13.5	11.8
Active Duty family, Prime,civilian PCM	3.1	3.0	4.0	4.0	6.1	5.9	4.4	4.3
Active Duty family, Prime,military PCM	3.9	4.0	4.4	4.3	5.8	6.0	4.7	4.8
Active Duty family, non-enrollee	3.0	3.0	3.0	2.9	4.0	4.0	3.3	3.3
Retired,<65,civilian PCM	14.3	14.1	14.0	14.0	17.9	18.0	15.4	15.4
Retired,<65,military PCM	13.4	13.6	13.7	14.6	17.2	18.3	14.8	15.5
Retired,<65,non-enrollee	11.1	11.6	10.6	11.2	12.9	14.9	11.6	12.6
Retired,65+,enrollee	27.3	27.6	28.6	28.3	44.7	44.8	33.0	33.0
Retired,65+,non-enrollee	23.4	23.4	21.3	21.3	37.9	37.8	27.6	27.6
TRICARE Reserve Select	8.4	8.4	8.0	8.0	11.0	11.0	9.1	9.2

Appendix D (Response Rate Tables) contains tables showing unweighted and weighted response rates for all three quarters and the combined annual dataset. A summary of results based on unweighted response rates for selected domains follows:

- TNEX Regions: Combined response rates across regions ranged from 9.1 percent Overseas to 9.9 percent in the North (Table D.9).
- Sex: The combined response rate for women was 7.6 percent as compared to 12.8 percent for men. (Table D.3).

[3] However, response patterns vary considerably across beneficiary and enrollment groups. The relatively low level of response for active duty persons and their family members could be due to frequent relocations and our inability to receive new addresses in a timely manner.

- CONUS: The combined response rate for Western Pacific was 8.4 percent as compared to 9.5 percent for both Latin America and Europe. (Table D.2).

- Catchment areas: Combined response rates across catchment areas that were represented in all quarters ranged from 5.2 percent for Winn ACH-Ft. Stewart to 36.4 percent for USCG Clinic Detroit. (Table D.6).

- Beneficiary groups by sex: Women responded at a higher rate than men for both Active Duty and Active Duty family members (15.7 percent versus 13.0 percent and 4.5 percent versus 2.5 percent, respectively). The opposite pattern emerged among retirees, survivors and family members 65 and older, with 24.4 percent of women and 32.4 percent of men responding. The response rate for retirees less than 65 was 15.3 for men and 12.4 for women. (Table D.11).

- Beneficiary group by service affiliation (Army, Navy, Air Force, Marine Corps, Coast Guard, Other/Unknown): Among service affiliations, the smallest combined response rate comes from dependents of Active Duty in the Marine Corps with 3.4 percent and the largest from Active Duty with unknown service affiliation with 30.7 percent. (Table D.12).

B. VARIANCE ESTIMATION

Due to the complex sample design, variance estimation for the 2015 HCSDB was not simple, and could most easily be achieved using one of two methods. The first – the Taylor series linearization via SUDAAN (Shah et al. 1996) or SAS/STAT version 8 or higher – is a direct variance estimation method that can be used to calculate the standard errors (the square root of the variance) of estimates. This method was used for the 2015 HCSDB analyses. For analysts who prefer a replication method of variance estimation, replicate weights for jackknife replication are provided in the public use file. This section details the two approaches to calculating variance estimates of the characteristics of interest associated with the 2015 HCSDB.

1. Taylor Series Linearization

Mathematica uses Taylor series linearization to produce standard errors for the estimates from the 2015 HCSDB. For most sample designs, including the 2015 HCSDB, design-based variance estimates for linear estimators of totals and means can be obtained via explicit formulas. However, estimators for nonlinear parameters, such as ratios, do not have exact expressions for the variance. The Taylor series linearization method can be used to approximate the variance of a nonlinear estimator with the variances of the linear terms from the Taylor series expansion for the estimator (Woodruff 1971). To calculate variance estimates based on the Taylor series linearization method given HCSDB's stratified sampling design, we needed to identify stratum as well as the final analysis weight for each data record. We have included these variables in the final database. For variance estimation, we used the general-purpose statistical software package SUDAAN to produce Taylor series variance estimates. SUDAAN is the most widely used of the publicly available software packages for the Taylor series linearization method. In SUDAAN, the user specifies the sample design and includes the stratum variables and the analysis weight for each record. Unlike WesVarPC, SUDAAN allows for unlimited strata, so stratification effects can be incorporated when calculating standard errors.

2. Jackknife Replication

Resampling methods are often used in estimating the variance for surveys with complex designs. In resampling, the sample is treated as if it were a population, and many smaller subsamples are drawn from the original sample (Lohr 1999, pages 298-308). These subsamples are then used to compute the variance. Replication methods have been recommended for surveys in which the sample design is complex, nonresponse adjustments are needed, and statistics of interest are complicated. In such surveys, the usual design-based estimation formula is extremely difficult or impossible to develop

(see, for example, Wolter 1985, pages 317-318). Jackknife replicate weights can be used to calculate the standard errors of estimates. An estimate of a characteristic of interest is calculated (with the same formula as the full sample estimate) using each set of replicate weights; these replicate estimates are used to derive the variance of the full sample statistic.

The jackknife variance of the full sample statistic of interest is estimated from the variability among the replicated estimates. When the replicate weights are produced according to the aforementioned procedure, jackknife replicate standard errors can be produced using custom publicly available statistical software. For instance, WesVarPC® (Brick et al. 1996) is a popular software package that calculates standard errors based on replication methods. It produces standard errors for functions of survey estimates, such as differences and ratios, as well as simple estimates such as means, proportions, and totals. Additional details about the jackknife replication approach can be found in Wolter (1985). Like other replication methods, the jackknife variance estimation can be easily implemented for any form of estimate without further algebraic manipulation.

C. SIGNIFICANCE TESTS

In certain charts in the Beneficiary Reports and the "Health Care Survey of DoD Beneficiaries: Annual Report", statistical testing is performed to show which columns of the chart (values of the independent variable) are statistically different from the CAHPS benchmark. Footnotes and differently colored, bolded, or italicized fonts indicate if a region performed significantly better than the CAHPS benchmark (bold green font) or significantly worse than the CAHPS benchmark (italicized red font); no change in font indicates is no statistically significant difference.

The null hypothesis for this significance test is that the mean for the column is essentially equal to the CONUS mean, and the alternative hypothesis is that the mean for the column is different from the CONUS mean. That is, we are testing:

$$H_0: \mu_1 = \mu_2 \quad \text{vs.} \quad H_a: \mu_1 \neq \mu_2$$

For instance, μ_1 might represent the characteristic of interest for the active duty group while μ_2 might represent the same characteristic for all CONUS regions. Another way to formulate that $\mu_1 = \mu_2$ is that $\mu_1 - \mu_2 = 0$.

With large sample sizes, the estimator $\overline{y_1} - \overline{y_2}$ approximately follows a normal distribution with mean zero and variance $\sigma^2_{\overline{y_1}-\overline{y_2}}$ under the null hypothesis. In testing the hypothesis, a test statistic T is thus calculated as:

$$T = \frac{\overline{y_1} - \overline{y_2}}{\hat{\sigma}_{\overline{y_1}-\overline{y_2}}}.$$

With a type I error rate of $\alpha = 0.05$, the null hypothesis should be rejected if $|T| > 1.96$. The denominator of T (i.e., the standard error of $\overline{y_1} - \overline{y_2}$) can be calculated as the square root of the variance estimator $\hat{\sigma}^2_{\overline{y_1}-\overline{y_2}}$, where:

$$\hat{\sigma}^2_{\overline{y_1}-\overline{y_2}} = \mathrm{var}(\overline{y_1}) + \mathrm{var}(\overline{y_2}) - 2\,\mathrm{cov}(\overline{y_1}, \overline{y_2}).$$

If $\overline{y_1}$ and $\overline{y_2}$ are independent, then the covariance term equals zero and thus the variance estimator can be easily obtained as the sum of two individual variance estimators. However, there are some cases in which the condition of independence does not hold. For example, the active duty MTF group is not independent of the CONUS region because these two domains share active duty

group within the CONUS regions. In this case, the covariance term should be incorporated into the variance formula. With suitable algebra and program modification, these covariance terms were calculated for all such cases. All detailed programs are included in Appendix G.

D. DEMOGRAPHIC ADJUSTMENTS

All scores in the TRICARE Beneficiary Reports are adjusted for patient characteristics affecting their scores. Scores can be adjusted for a wide range of socioeconomic and demographic variables.

The purpose of risk adjustment is to make comparisons of outcomes, either internally or to external benchmarks, after controlling for characteristics beyond the health care provider's control. Based on previous work with satisfaction scales derived from Consumer Assessment of Healthcare Providers and Systems (CAHPS) Health Plan Survey, we have observed that satisfaction increases with age and decreases with poor health across social classes and insurance types. The methodology is an adaptation of that found in CAHPS 2.0 Survey and Reporting Kit (DHHS, 1999). In addition to controlling for these factors, the methodology used for the 2015 HCSDB achieves the following:

- Permits risk-adjusted comparisons among regions and catchment areas within and across beneficiary and enrollment groups
- Permits testing the hypothesis that the difference in risk-adjusted scores between a region or catchment area and a benchmark is due to chance
- Is appropriate for CAHPS composites and global satisfaction ratings.

The model used for demographic adjustment is:

$$Y_{ijkl} = \beta_{1l}A_{1l} + \beta_{2l}A_{2l} + \ldots + \beta_{5l}A_{5l} + \beta_{6l}P_l + \varepsilon_{ijkl},$$

where Y_{ijkl} is a dependent variable, β_{ql}'s are parameters to be estimated, A_{ql}'s are age dummy variables (A_{ql} = 1 if the beneficiary is in age group q, and 0 otherwise; A_l = age 18-24, A_2 = age 25-34, A_3 = age 35-44, A_4 = age 45-54, A_5 = age 55-64), P_l is health status. The subscripts *i*, *j*, *k and l* refer to the service/region, MTF, beneficiary, and beneficiary's enrollment group, respectively.

Given 24 region and service combinations and *J*+1 catchment areas, the specifications that we used for the error term were:

$$\varepsilon_{ijkl} = \delta_{0l} + \delta_{1l}R_{1l} + \delta_{2l}R_{2l} + \ldots + \delta_{24l}R_{24l} + w_{ijkl}, \quad (1)$$

when catchment area values were not reported where R_i 's are service/region dummy variables (R_{il} = 1 if the beneficiary is in service/region *i* and beneficiary group *l*, and 0 otherwise), and

$$\varepsilon_{ijkl} = \gamma_{0l} + \gamma_{1l}H_{1l} + \gamma_{2l}H_{2l} + \ldots + \gamma_{Jl}H_{Jl} + w_{ijkl}, \quad (2)$$

when catchment areas were reported where H_{jl} 's are catchment area dummy variables (H_{jl} = 1 if the beneficiary is in catchment area *j* and beneficiary group *l*, and 0 otherwise).

The methods for calculating demographically adjusted values and testing hypotheses of differences in demographically adjusted scores among geographic areas vary with the way ε_{ijkl} is defined. For specification (1), the adjusted mean of the dependent variable *Y* for region *i* can be obtained as:

$$\overline{y_i} = \hat{\delta}_0 + \hat{\delta}_i + \hat{\beta}_1\hat{A}_1 + \hat{\beta}_2\hat{A}_2 + \ldots + \hat{\beta}_5\hat{A}_5 + \hat{\beta}_6\hat{P},$$

where $\hat{\beta}_i$'s are estimated model parameters, $\hat{A}_i$'s are weighted proportions of age group *i* among the total U.S. population, and $\hat{P}$ is the weighted MHS mean of the variable *P.* For beneficiary group *l*, the adjusted regional value is:

$$\overline{y_{il}} = \hat{\delta}_{0l} + \hat{\delta}_{il} + \hat{\beta}_{1l}\hat{A} + \hat{\beta}_{2l}\hat{A}_{2l} + \ldots + \hat{\beta}_{5l}\hat{A}_{5l} + \hat{\beta}_{6l}\hat{P}_l ,$$

where $\hat{A}_{ql}$'s are weighted proportions of age group *q* in the MHS.

For specification (2), an adjusted catchment area value can be calculated as:

$$\overline{y_{ijl}} = \hat{\gamma}_{0l} + \hat{\gamma}_{ijl} + \hat{\beta}_{1l}\hat{A}_{1l} + \hat{\beta}_{2l}\hat{A}_{2l} + \ldots + \hat{\beta}_{5l}\hat{A}_{5l} + \hat{\beta}_{6l}\hat{P}_l ,$$

while the regional value is calculated using specification 1.

Standard errors can then be estimated using SUDAAN as the standard error of residuals for catchment areas or regions. These standard errors can be used in hypothesis tests comparing adjusted values to other adjusted values or to external benchmarks. Composite values are calculated as averages of regional or catchment area adjusted values of questions making up the composites, in which each question is equally weighted.

Benchmarks can also be adjusted for age and health status, as can scores taken from survey responses. If the benchmark data set contains age and health status information, we fit a model of the form

$$y = \alpha + \beta_1 A_1 + \beta_2 A_2 + \ldots + \beta_5 A_5 + \beta_6 P$$

where the A's are age groups and P is health status. Then the adjusted benchmark is

$$\hat{y}_l = \hat{\alpha} + \hat{\beta}_1 \overline{A}_{1l} + \hat{\beta}_2 \overline{A}_{2l} + \ldots + \hat{\beta}_5 \overline{A}_{5l} + \hat{\beta}_6 \overline{P}_l$$

using the mean values of A and P for beneficiary group l.

The adjusted values for that beneficiary group can then be compared to a benchmark appropriate for their age distribution and health status.

In some cases, it may be desirable for a single benchmark to be presented for comparison with multiple beneficiary groups. We accomplish this by recentering scores for beneficiary groups. In the Beneficiary Reports, described below, the benchmark presented is the all-users beneficiary group, but scores for many other beneficiary groups are also presented. Each score and benchmark is calculated for the appropriate beneficiary group. Then, a recentering factor for each beneficiary group is calculated as the difference in adjusted benchmarks between a beneficiary group and the all-users group. For the all-users group, that recentering factor is zero. The recentering factor is added to the score for each region or catchment area for that beneficiary group. Thus, beneficiary groups can also be compared controlling for age and health status and can be compared to the same benchmark.

E. CALCULATING SCORES

Beneficiary Reports (see below) include four types of scores: CAHPS composites, ratings, a preventive care composite, and a healthy behaviors composite. Beginning Q1 FY 2014, the HCSDB survey transitioned from CAHPS version 4.0 to version 5.0. Additionally, new benchmark data from

the National Committee for Quality Assurance (NCQA) for FY 2013, were used in calculating benchmarks for FY 2015.

Composites and Ratings

The preventive care composite is calculated as $P_i = \Sigma w_i r_i$, where w is the proportion of the eligible population for whom the preventive care measure is relevant, and r is the proportion of that eligible group receiving preventive care.

CAHPS composites are calculated as:

$$S_i=(1/n_i)\ \Sigma(q_j/k_j),$$

where n_i is the number of questions in the composite *i*, q_j is the number giving a favorable response to question *j* in the composite *i*, and k_j is the number responding to that question *j*. CAHPS ratings are calculated as

$$S_i=q_i/k_i,$$

where q_i is the number giving a favorable response and k_i is the (weighted) number responding to rating *i*. All scores are adjusted for age and health status (see above).

F. TESTS FOR TREND

In the Beneficiary Reports (see below), we use linear regression to estimate a quarterly rate of change and test if it is statistically significantly different from zero (no change). Our estimate for the rate of change, *T*, is

$$T = \sum_{t=1}^{4} w_t (S_t - \bar{S})(t - \bar{t}) / \sum_{t=1}^{4} w_t (t - \bar{t})^2 ,$$

where t is the quarter, S_i is the score and w_i is the total weight of quarter i's observations. In order to test the hypothesis that trend is zero, we use the standard error for the trend coefficient

$$\sigma = \frac{\sqrt{\sum_{t=1}^{4} w_t^2 \sigma_t^2}}{\sum_{t=1}^{4} w_t}, \text{ and}$$

$$S = \sigma / \sqrt{\sum_{t=1}^{4} w_t (t - \bar{t})^2 / \sum_{t=1}^{4} w_t}$$

where σ_t is the standard error for quarter t. The hypothesis test is based on a t-test of the hypothesis that T=0, where n is the total number of observations for all 3 quarters p=Prob(abs(T/S)>0,n).

G. DEPENDENT AND INDEPENDENT VARIABLES

Dependent (i.e., outcome) variables represent the variables to be analyzed to answer the research questions. For example, beneficiary satisfaction and access are dependent variables in this analysis. The research questions are listed in Chapter 1.

Independent (i.e., explanatory) variables are entered into regression models to help to explain differences in one or more of the outcome variables. They may also be correlated with one or more dependent variables. For example, a beneficiary's satisfaction with health care may be correlated with their age and/or TRICARE Prime enrollment status. Each table is designed to help determine whether a particular dependent variable is correlated with a particular independent variable.

In analyzing the relationship between dependent and independent variables, Mathematica produced charts and tables that are found in the reports described below. Generally, dependent variables form the rows of the tables and the vertical axes of the charts. Independent variables form the columns of the tables and the horizontal axes of the charts. Beginning with the HCSDB in a SAS format, Mathematica programmers utilized SAS procedures such as PROC FREQ and PROC MEANS and SAS-callable SUDAAN procedures such as PROC DESCRIPT and PROC CROSSTAB to generate the relevant statistics (e.g., percents, means, and standard errors). These statistical values were exported directly from SAS to Excel tables using a dynamic data exchange to populate the cells of the tables. Graphical displays were generated from table values wherever feasible.

H. REPORTS

This section lists the three types of reports produced and states the main purpose of each report: 2015 TRICARE Beneficiary Reports, the TRICARE Consumer Watch, and the "Health Care Survey of DoD Beneficiaries: Annual Report." The 2015 TRICARE Beneficiary Reports and the TRICARE Consumer Watch are presented on a quarterly basis (for 3 of 4 quarters) and display results from the most recent quarter. The "Health Care Survey of DoD Beneficiaries: Annual Report" is produced annually and describes findings from all three quarters of survey data. All of these reports are available on the TRICARE website and comply with the standards in Section 508 of the Federal Acquisition Regulation (FAR) to be usable by persons with disabilities.

1. 2015 TRICARE Beneficiary Reports

a. Purpose

The purpose of the Beneficiary Reports is to provide TRICARE Regional offices, services and MTF commanders with a comprehensive description of TRICARE beneficiaries' satisfaction with care, access to care, and use of preventive care, and to compare such with other regions and catchment areas, and with relevant national benchmarks. MHS scores are adjusted using demographic characteristics. Both quarterly and annual Beneficiary Reports are produced. The quarterly reports present results from the most recent quarter for each region, service and for CONUS MHS by beneficiary status and enrollment group, making it easy for the reader to compare findings across groups and quarters. The annual report is a cumulative report that combines results from three quarters and previous years and presents results by catchment area, region, and service.

b. Beneficiary Report Production

1. Content

The quarterly Beneficiary Report presents 11 scores for all beneficiary groups and all enrollment groups by region and CONUS MHS overall. Scores are presented in the following areas: getting needed care; getting care quickly; how well doctors communicate; customer service; claims processing; rating of the health plan, health care, personal doctor, and specialist; healthy behavior; and preventive care standards. The first 6 scores are CAHPS composites, which encompass responses to several related survey questions. The CAHPS composite questions are shown in Appendix E. The scores are presented against national benchmarks.

The four ratings of health care and health care providers are health plan, health care, personal doctor, and specialist. Each rating is based on a scale of 0 to 10, where 0 is the worst and 10 is the best. The scores are adjusted for patient age and health status and are presented relative to national benchmarks.

The DHA Standard Composite for preventive care is based on how beneficiaries compare preventive care services offered through the MHS with the Healthy People 2020 goals. Preventive care indicators include prenatal care, hypertension, mammography, and Pap smears.

Healthy behavior combines the non-smoking rate, the rate at which smokers are counseled to quit, and the percent non-obese.

2. Format

a. Programming Specifications

Data for the Beneficiary Reports are organized in a SAS data set, consisting of records indexed by region, service, catchment area, enrollment group, beneficiary category, and table column. A benchmark corresponding to the MHS population is also included in the SAS data set. Records contain scores and categorical variables showing the existence and directions of significant differences. The benchmark record contains national mean values, where available, for a comparable non-MHS population.

Data files serve as the basis for the electronic reports and quality assurance. The file for the quarterly Beneficiary Reports is updated each quarter and referenced by the report card application. In each quarter, a separate file is created. The quarterly and annual Beneficiary Reports data are uploaded to a SQL database, and ColdFusion queries extract the data that populates webpages corresponding to the cells in the tables of the reports described below. Appendix G contains the programs to generate the Beneficiary Reports.

b. Web Specifications

Quarterly Beneficiary Reports are published in an interactive tabular HTML format on TRICARE's website, allowing users to filter the reports to follow the performance of the MHS over time by enrollment status and beneficiary group. Each report consists of several pages of tables. The first set of tables presents the findings for a single quarter for all enrollment and beneficiary groups, by region and USA MHS. A second set of tables presents the findings for the current quarter and for the past quarters for each enrollment and beneficiary group, by region and USA MHS. Significant differences between the scores and the benchmark are indicated by color, bolding and italics, and footnotes. Scores significantly above the benchmark are green and bold. Scores significantly below the benchmark are red and italicized.

Like the quarterly report, the annual report is presented in HTML tabular format. One set of tables shows cumulative scores for the 2015 HCSDB by region for all beneficiary groups and enrollment groups. Another set shows scores for the questions that make up the composite. A third set shows composites or ratings from prior years. The fourth set of tables shows scores for the catchment areas that comprise the MHS regions.

Starting with FY 2014, users also have the option of generating weighted frequency tables of survey response data, by question or by question and analysis group, using drop down menus on the reporting website. Along with frequencies, we also report standard errors to indicate the precision of the survey estimates.

2. TRICARE Consumer Watch

a. Purpose

Like the TRICARE Beneficiary Reports, the TRICARE Consumer Watch is targeted to TRICARE Regional offices, services, and MTF commanders. TRICARE Consumer Watch presents key results from the quarterly HCSDB in graphical format. The exhibits present TRICARE beneficiaries' experiences with their health care and health plan and utilization rates for preventive services. The TRICARE Consumer Watch is produced on a quarterly basis for all regions and three service affiliations. In the last quarter, the TRICARE Consumer Watch is produced for all catchment areas.

Two versions of the quarterly TRICARE Consumer Watch are produced: one for all Prime Enrollees, and one comparing beneficiaries who are enrolled to military facilities (direct care users) with those who rely on civilian care financed by TRICARE through Prime or Standard/Extra (purchased care users).

b. 2015 TRICARE Consumer Watch Production

1. Content

The Consumer Watch contains graphs of four ratings and six composite scores. These graphs are based on data from the Beneficiary Reports. Beneficiaries are asked to rate their experiences with their health care and health plan, and their personal provider on a scale of 0 to 10 where 0 is the worst and 10 is the best. Composite scores evaluate beneficiaries' experiences with the following: getting needed care, getting care quickly, how well doctors communicate, customer service, and claims processing. Using data from the NCQA, ratings and composites are compared to experiences of individuals in civilian health plans. Ratings and composites are also compared to results from previous surveys.

Utilization of preventive care services are measured against the goals established by Healthy People 2020 as well as results from the prior years. Preventive care indicators include preventive cancer screenings, such as mammography and Pap smears, hypertension screening, and prenatal care. Preventative care also includes a non-smoking rate and the percentage of smokers counseled to quit.

2. Format

a. Programming Specifications

Data for the Consumer Watch are organized in a SAS data set consisting of records indexed by region, catchment area, enrollment group, and beneficiary category. Graphs of the rating and composite scores were produced using the same programs as for the TRICARE Beneficiary Reports. The data file for the Consumer Watch is updated each quarter. The programs to generate the Consumer Watch are in Appendix H and Appendix I.

b. Report Production Specifications

Though the Consumer Watch files reside on TRICARE's website, they are designed to be accessed primarily in print form. The reports are created in portable document format (PDF). The Consumer Watch is arranged on two pages; the key findings are presented as bar graphs. Preventive care scores are presented in table format.

3. "Health Care Survey of DoD Beneficiaries: Annual Report"

a. Purpose

The purpose of the "Health Care Survey of DoD Beneficiaries: Annual Report" is to provide OASD(HA) and in particular DHA with a comprehensive national summary of the HCSDB findings. The "Health Care Survey of DoD Beneficiaries: Annual Report" bar charts reflect survey data from all respondents in the domestic MHS and incorporates data from the adult HCSDB for 2015 and previous years.

b. Procedures for Report Production

1. Content

The content will reflect areas relevant for policy makers, to be determined. Possible topics include choices of health plan and sources of health care, access to care, and satisfaction with care.

2. Programming Specification

Programs for calculating the statistics appearing in the report are written in SAS-callable SUDAAN. Means and proportions and their standard errors are calculated using PROC DESCRIPT. Tests for linear trends are performed using PROC REGRESS or PROC RLOGIST. Values are compared with benchmarks from the National CAHPS Benchmarking Database. The benchmarks are readjusted for age and health status using the methods described in Chapter 3, Section D above.

3. Report Production

Numbers and text are presented using publishing software following models developed by importing SUDAAN results into Excel as a text file. Results in the finished report are compared with their Excel models for accuracy. Methods used in the Annual Report are also described in the "Health Care Survey of DoD Beneficiary: Annual Report."

References

Biggs, D., B. de Ville, and E. Suen. “A Method of Choosing Multiway Partitions for Classification and Decision Trees.” *Journal of Applied Statistics*, vol. 18, 1991, pp. 49-62.

Brick, J.M., P. Broene, P. James, and J. Severynse. A User’s Guide to WesVarPC. Version 2.0. Rockville, MD: Westat, Inc., 1996.

Carlson, Barbara Lepidus and Stephen Williams. "A Comparison of Two Methods to Adjust Weights for Non-response: Propensity Modeling and Weighting Class Adjustments." 2001 Proceedings of the American Statistical Association, Survey Research Methods Section [CD-ROM]. Alexandra, VA: American Statistical Association.

CASRO. “On the Definition of Response Rates.” A Special Report of the CASRO Task Force on Completion Rates, Lester R. Frankel, Chairman, and published by the Council of American Survey Research Organizations, June, 1982.

Friedman, Esther M., Don Jang, and Thomas V. Williams, (2002). "Combined Estimates From Four Quarterly Survey Data Sets." 2002 Proceedings of the American Statistical Association, Survey Research Methods Section [CD-ROM]. Alexandria, VA: American Statistical Association.

Healthy People 2020 [Internet]. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Available from: http://www.healthypeople.gov.

Holt, D. and T.M.F. Smith "Post Stratification." Journal of the Royal Statistical Society, A, 42, 1979, pp. 33-46.

Hosmer, David W.; Lemeshow, Stanley (2013). Applied Logistic Regression. New York: Wiley.

Kalton, Graham and Dalisay S. Maligalig. "A Comparison of Methods of Weighting Adjustments for Nonresponse." 1991 Annual Research Conference, March 17-20, 1991, pp.409-428

Lessler, J.T., and W.D. Kalsbeek. *Nonsampling Errors in Surveys*. New York: John Wiley & Sons, 1992.

Little, Roderick J. and Sonya Vartivarian. "On Weighting the Rates in Non-response Weights." Statistics in Medicine, vol. 22, 2003, pp.1589-1599.

Lohr, S.L. *Sampling: Design and Analysis*. Brooks/Cole Publishing. Pacific Grove, CA: 1999.

Mathematica Policy Research, Inc. “Health Care Survey of DoD Beneficiaries: 2015 Adult Sampling Report” Report submitted to the Defense Health Agency. Washington, DC: Mathematica, 2014.

Oh, H.L. and Fritz Scheuren. "Weighting Adjustments for Unit Nonresponse." In Incomplete Data in Sample Surveys, vol. 2: Theory and Bibliographies, edited by W.G. Madow, I. Olkin, and D. Rubin. New York: Academic Press, 1983.

Rizzo, Lou, Graham Kalton, Mike Brick, and Rita Petroni. “Adjusting for Panel Nonresponse in the Survey of Income and Program Participation.” 1994 Proceedings of the American Statistical Association, Survey Research Methods Section. Alexandria, VA: American Statistical Association.

Shah, B.V., B.G. Barnwell, and G.S. Bieler. *SUDAAN User’s Manual.* Release 7.0. Research Triangle Park, NC: Research Triangle Institute, 1996.

U.S. Department of Health and Human Services. *CAHPS 2.0 Survey and Reporting Kit.* Rockville, MD 1999.

Vartivarian, Sonya and Roderick J. Little "Weighting Adjustments for Unit Nonresponse with Multiple Outcome Variables." 2003 Proceedings of the American Statistical Association, Survey Research Methods Section [CD-ROM]. Alexandra, VA: American Statistical Association.

Wolter, Kirk M. *Introduction to Variance Estimation*. New York: Springer-Verlag. 1985.

Woodruff, R.S. “A Simple Method for Approximating the Variance of a Complicated Estimate.” J*ournal of the American Statistical Association*, 66, 1971, pp. 414-414.

APPENDIX A

ANNOTATED QUESTIONNAIRE – QUARTER I

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RCS: DD-HA(A) 1942

Health Care Survey of DoD Beneficiaries

A world-wide survey of beneficiaries eligible for health care coverage through the military health system

December 2014

Military Health Care Survey:

Adult Questionnaire

December 2014

Privacy Advisory

Providing information in this Survey is voluntary. There is no penalty nor will your benefits be affected if you choose not to respond, although maximum participation is encouraged so that the data will be complete and representative.

The Survey was written so that answers should not require you to provide any personally identifiable information (PII), but please be assured that any PII provided will be treated as confidential. Your responses are collected via a secure system which does not collect any information that could be used to determine your identity.

Answering the questions is voluntary; you may stop the Survey at any time.

According to the Privacy Act of 1974 (5 U.S.C. §552a), the Department of Defense is required to inform you of the purposes and use of this survey. Please read it carefully.

Authority: 10 U.S.C. §1074 (Medical and Dental Care for Members and Certain Former Members, as amended by National Defense Authorization Act of 1993, Public Law 102-484, §706); 10 U.S.C. §1074f (Medical Tracking System for Members Deployed Overseas); 32 C.F.R. §199.17 (TRICARE Program); 45 C.F.R. Part 160 Subparts A and E of Part 164 (Health Insurance Portability and Accountability Act of 1996, Privacy Rule); DoD 6025.18-R (Department of Defense Health Information Privacy Regulation); DoD 6025.13-R (Military Health System Clinical Quality Assurance Program Regulation); 64 FR 22837 (DHA 08 – Health Affairs Survey Data Base, April 28, 1999); and, E.O. 9397 (as amended, November 20, 2008, for SSN collection).

Purpose: This survey helps health policy makers gauge beneficiary satisfaction with the current military health care system and provides valuable input from beneficiaries that will be used to improve the Military Health System.

Routine Uses: None.

Disclosure: Participation is voluntary. Failure to respond will not result in any penalty to the respondent however maximum participation is encouraged so that data will be as complete and representative as possible.

SURVEY INSTRUCTIONS

Thank you for taking the time to participate in this online survey.

Please note, if the survey is idle for more than 5 minutes, you will be logged out automatically to protect your privacy. If that happens, simply wait 15 minutes and log back in. Please keep your password because you may need it later.

During the survey, please do not use your browser's FORWARD and BACK buttons. Instead, please always use the buttons below to move backward and forward through the survey.

To begin, just click on the "Next" button below. This will take you right into the survey.

SURVEY STARTS HERE

As an eligible TRICARE beneficiary, please complete this survey even if you did not receive your health care from a military facility.

Please recognize that some specific questions about TRICARE benefits may not apply to you, depending on your entitlement and particular TRICARE program.

This survey is about the health care of the person whose name appears on the cover letter. The questionnaire should be completed by that person. If you are not the addressee, please give this survey to that person.

Question 1: Are you the person whose name appears on the cover letter?
Variable name: H15001
Editing notes: None

Response	Directions	Value	Percent
Yes	Go to Question 2	1	99.7%
No	Please give this questionnaire to the person addressed on the cover letter.	2	0.3%

Question 2: By which of the following health plans are you currently covered?
MARK ALL THAT APPLY
Variable names: H15002A, H15002C, H15002F-H15002V
Editing notes: None

Military Health Plans

Response	Variable Name	Percent Marked
TRICARE Prime (including most Active Duty, TRICARE Prime Remote, and TRICARE Overseas)	H15002A	46.1%
TRICARE Extra or Standard (CHAMPUS)	H15002C	12.4%
TRICARE Plus	H15002N	0.8%
TRICARE for Life	H15002O	30.2%
TRICARE Supplemental Insurance	H15002P	0.5%
TRICARE Reserve Select	H15002Q	2.6%
TRICARE Retired Reserve	H15002S	1.6%
TRICARE Young Adult Prime	H15002T	0.7%
TRICARE Young Adult Extra or Standard	H15002V	0.5%
Uniformed Services Family Health Plan (USFHP)	H15002K	1.6%
Continued Health Care Benefit Program (CHCBP) (a COBRA-like premium-based health care program)	H15002U	0.1%

Other Health Plans

Response	Variable Name	Percent Marked
Medicare	H15002F	29.3%
Federal Employees Health Benefit Program (FEHBP)	H15002G	2.5%
Medicaid	H15002H	0.7%
A civilian HMO (such as Kaiser)	H15002I	1.1%
Other civilian health insurance (such as Blue Cross)	H15002J	7.6%
The Veterans Administration (VA)	H15002M	6.5%
Government health insurance from a country other than the US	H15002R	0.2%
Not sure	H15002L	4.1%

Question 3: Which health plan did you use for all or most of your healthcare in the last 12 months? MARK ONLY ONE
Variable name: H15003
Editing notes: See Note 1

Response	Directions	Value	Percent
TRICARE Prime (including most Active Duty, TRICARE Prime Remote, and TRICARE Overseas)		1	44.7%
TRICARE Extra or Standard (CHAMPUS)		3	8.5%
TRICARE Plus		11	24.9%
TRICARE Reserve Select		12	1.6%
TRICARE Retired Reserve		14	0.5%
TRICARE Young Adult Prime		15	1.4%
TRICARE Young Adult Extra or Standard		17	6.2%
Uniformed Services Family Health Plan (USFHP)		9	1.6%
Continued Health Care Benefit Program (CHCBP) (a COBRA-like premium-based health care program)		16	3.1%
Medicare (may include TRICARE for Life)		4	0.7%
Federal Employees Health Benefit Program (FEHBP)		5	2.4%
Medicaid		6	0.1%
A civilian HMO (such as Kaiser)		7	1.1%
Other civilian health insurance (such as Blue Cross)		8	0.5%
The Veterans Administration (VA)		10	0.2%
Government health insurance from a country other than the US		13	2.5%
Not sure	Go to Question 5	-5	44.7%
Did not use any health plan in the last 12 months	Go to Question 5	-6	

For the remainder of this questionnaire, the term <u>health plan</u> refers to the plan you indicated in Question 3.

Question 4: How many months or years in a row have you been in this health plan?
Variable name: H15004
Editing notes: See Note 1

Response	Value	Percent
Less than 6 months	1	1.6%
6 up to 12 months	2	5.0%
12 up to 24 months	3	10.3%
2 up to 5 years	4	21.2%
5 up to 10 years	5	19.8%
10 or more years	6	42.1%

YOUR HEALTH CARE IN THE LAST 12 MONTHS

These questions ask about your own health care. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

Question 5: In the last 12 months, where did you go most often for your health care?
MARK ONLY ONE ANSWER
Variable name: H15005
Editing notes: None

Response	Value	Percent
A military facility – This includes: Military clinic Military hospital PRIMUS clinic NAVCARE clinic	1	35.8%
A civilian facility – This includes: Doctor's office Clinic Hospital Civilian TRICARE contractor	2	56.2%
Uniformed Services Family Health Plan facility (USFHP)	3	0.8%
Veterans Affairs (VA) clinic or hospital	4	4.1%
I went to none of the listed types of facilities in the last 12 months	5	3.1%

Question 6: In the last 12 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?
Variable name: H15006
Editing notes: See Note 2

Response	Directions	Value	Percent
Yes		1	42.7%
No	Go to Question 9	2	57.3%

Question 7: In the last 12 months, when you needed care right away, how often did you get care as soon as you needed?
Variable name: H15007
Editing notes: See Note 2

Response	Value	Percent
Never	1	2.6%
Sometimes	2	10.8%
Usually	3	19.5%
Always	4	67.1%
I didn't need care right away for an illness, injury or condition in the last 12 months	-6	

Question 8: In the last 12 months, when you <u>needed care right away</u> for an illness, injury, or condition, how long did you usually have to wait between trying to get care and actually seeing a provider?
Variable name: H15008
Editing notes: See Note 2

Response	Value	Percent
Same day	1	64.3%
1 day	2	12.7%
2 days	3	7.1%
3 days	4	3.5%
4-7 days	5	4.6%
8-14 days	6	3.4%
15 days or longer	7	4.3%
I didn't need care right away for an illness, injury or condition in the last 12 months	-6	

Question 9: In the last 12 months, not counting the times you needed health care right away, did you make any <u>appointments</u> for your health care at a doctor's office or clinic?
Variable name: H15009
Editing notes: See Note 3

Response	Directions	Value	Percent
Yes		1	87.9%
No	Go to Question 12	2	12.1%

Question 10: In the last 12 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?
Variable name: H15010
Editing notes: See Note 3

Response	Value	Percent
Never	1	3.2%
Sometimes	2	16.1%
Usually	3	27.2%
Always	4	53.4%
I had no appointments in the last 12 months	-6	

Question 11: In the last 12 months, not counting the times you needed health care right away, how many days did you usually have to wait between making an appointment and actually seeing a provider?
Variable name: H15011
Editing notes: See Note 3

Response	Value	Percent
Same day	1	7.9%
1 day	2	10.3%
2-3 days	3	23.4%
4-7 days	4	22.3%
8-14 days	5	16.8%
15-30 days	6	13.5%
31 days or longer	7	5.8%
I had no appointments in the last 12 months	-6	

Question 12: In the last 12 months, not counting the times you needed health care right away, did you try to make an appointment with a health care provider at a military treatment facility (MTF)?
MARK ALL THAT APPLY
Variable names: S15BC01A-S15BC01D
Editing notes: See Note 3_BC1 and Note 3_BC2

Response	Directions	Variable Name	Percent Marked
Yes, by calling the MTF	Go to Question 14	S15BC01A	29.7%
Yes, by using TRICARE Online or secure messaging (i.e. "Relay Health")	Go to Question 14	S15BC01B	6.6%
Yes, in person by walking in	Go to Question 14	S15BC01C	7.3%
No, I did not try to make an appointment at an MTF		S15BC01D	62.4%

Question 13: What are the reasons why you did not try to make an appointment at an MTF?
MARK ALL THAT APPLY
Variable names: S15BC04A-S15BC04G
Editing notes: See Note 3_BC1, Note 3_BC2, and Note 3_BC4

Response	Directions	Variable Name	Percent Marked
I didn't need health care in the last 12 months	Go to Question 17	S15BC04A	11.6%
I would not have been able to get an appointment when I needed care	Go to Question 17	S15BC04B	6.7%
I would not have been able to schedule the appointment at a convenient time	Go to Question 17	S15BC04C	3.2%
I did not have the referral needed to make an appointment with a specialist at the MTF	Go to Question 17	S15BC04D	5.9%
The MTF location is inconvenient	Go to Question 17	S15BC04E	40.8%
I only use civilian providers	Go to Question 17	S15BC04F	29.5%
I prefer to receive health care from a civilian provider	Go to Question 17	S15BC04G	27.7%

Question 14: Why did you try to make the appointment(s) at an MTF?
MARK ALL THAT APPLY
Variable names: S15BC02A-S15BC02D
Editing notes: See Note 3_BC2

Response	Variable Name	Percent Marked
I needed primary care for a new illness, condition, or injury (e.g. family practice, general medicine, internal medicine, aerospace/flight/submarine medicine)	S15BC02A	49.6%
My primary care provider referred me for specialist care (e.g. specialty clinic, physical therapy, occupational therapy)	S15BC02B	27.5%
For a routine wellness visit (e.g. routine physical exam, routine eye exam, mammography, pap smear, prostate exam)	S15BC02C	46.0%
For follow-up care of an illness, condition, or injury (e.g. follow up visit for a previously diagnosed medical condition, prescription renewal, prenatal care)	S15BC02D	40.7%

Question 15: Which of the following were true about the time(s) you tried to make an appointment at an MTF in the last 12 months?
MARK ALL THAT APPLY
Variable names: S15BC03A-S15BC03E
Editing notes: See Note 3_BC2, Note 3_BC3, and Note 3_BC4

Response	Directions	Variable Name	Percent Marked
I did not make an appointment because no appointments were available		S15BC03A	8.1%
I did not make an appointment because the only appointments available were too far in the future		S15BC03B	8.6%
I did not make an appointment because no convenient appointment times were available		S15BC03C	4.4%
I made an appointment for a time that was not convenient for me	Go to Question 17	S15BC03D	23.7%
I was always able to make an appointment at a time that was convenient for me	Go to Question 17	S15BC03E	58.4%

Question 16: Were you asked to call back at a future date when appointments might be available?
Variable name: S15BC09
Editing notes: See Note 3_BC2 and Note 3_BC4

Response	Value	Percent
Yes	1	65.7%
No	2	34.3%

Question 17: In the last 12 months, not counting the times you needed health care right away, did you try to make an appointment with a civilian health care provider?
MARK ALL THAT APPLY
Variable names: S15BC05A-S15BC05D
Editing notes: See Note 3_BC5 and Note 3_BC6

Response	Directions	Variable Name	Percent Marked
Yes, by phone	Go to Question 19	S15BC05A	62.4%
Yes, online	Go to Question 19	S15BC05B	3.9%
Yes, in person by walking in	Go to Question 19	S15BC05C	8.8%
No, I did not try to make an appointment with a civilian health provider		S15BC05D	32.4%

Question 18: What are the reasons why you did not try to make an appointment with a civilian health care provider?
MARK ALL THAT APPLY
Variable names: S15BC08A-S15BC08F
Editing notes: See Note 3_BC5, Note 3_BC6, and Note 3_BC8

Response	Directions	Variable Name	Percent Marked
I didn't need health care in the last 12 months	Go to Question 22	S15BC08A	28.3%
I receive all my health care from an MTF	Go to Question 22	S15BC08B	55.5%
I would not have been able to get an appointment when I needed care	Go to Question 22	S15BC08C	2.1%
I would not have been able to schedule the appointment at a convenient time	Go to Question 22	S15BC08D	1.5%
I did not have the referral needed to make an appointment with a specialist	Go to Question 22	S15BC08E	15.2%
The location of the civilian health care provider is inconvenient	Go to Question 22	S15BC08F	3.3%

Question 19: Why did you try to make the appointment(s) with a civilian health care provider?
MARK ALL THAT APPLY
Variable names: S15BC06A-S15BC06D
Editing notes: See Note 3_BC6

Response	Variable Name	Percent Marked
I needed primary care for a new illness, condition, or injury (e.g. family practice, general medicine, internal medicine)	S15BC06A	41.4%
My primary care provider referred me for specialist care (e.g. specialty clinic, physical therapy, occupational therapy)	S15BC06B	35.5%
For a routine wellness visit (e.g. routine physical exam, routine eye exam, mammography, pap smear, prostate exam)	S15BC06C	52.8%
For follow-up care of an illness, condition, or injury (e.g. follow up visit for a previously diagnosed medical condition, prescription renewal, prenatal care)	S15BC06D	45.2%

Question 20: Which of the following were true about the time(s) you tried to make an appointment with a civilian health care provider in the last 12 months?
MARK ALL THAT APPLY
Variable names: S15BC07A-S15BC07E
Editing notes: See Note 3_BC6, Note 3_BC7 and Note 3_BC8

Response	Directions	Variable Name	Percent Marked
I did not make an appointment because no appointments were available		S15BC07A	1.0%
I did not make an appointment because the only appointments available were too far in the future		S15BC07B	1.1%
I did not make an appointment because no convenient appointment times were available		S15BC07C	0.7%
I made an appointment for a time that was not convenient for me	Go to Question 22	S15BC07D	9.9%
I was always able to make an appointment at a time that was convenient for me	Go to Question 22	S15BC07E	86.0%

Question 21: Were you asked to call back at a future date when appointments might be available?
Variable name: S15BC10
Editing notes: See Note 3_BC6 and Note 3_BC8

Response	Value	Percent
Yes	1	42.1%
No	2	57.9%

Question 22: In the last 12 months, how many times did you go to an <u>emergency room</u> to get care for yourself?
Variable name: H15012
Editing notes: None

Response	Value	Percent
None	1	72.9%
1	2	17.9%
2	3	6.0%
3	4	1.8%
4	5	0.8%
5 to 9	6	0.4%
10 or more	7	0.1%

Question 23: In the last 12 months (not counting times you went to an emergency room), how many times did you go to a doctor's office or clinic to get health care for yourself?
Variable name: H15013
Editing notes: See Note 4

Response	Directions	Value	Percent
None	Go to Question 29	1	12.9%
1		2	9.2%
2		3	15.4%
3		4	15.7%
4		5	13.7%
5 to 9		6	23.1%
10 or more		7	10.1%

Question 24: In the last 12 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness?
Variable name: H15014
Editing notes: See Note 4

Response	Value	Percent
Never	1	11.2%
Sometimes	2	26.0%
Usually	3	30.2%
Always	4	32.6%

Question 25: Choices for your treatment or health care can include choices about medicine, surgery, or other treatment. In the last 12 months, did a doctor or other health provider tell you there was more than one choice for your treatment or health care?
Variable name: H15015
Editing notes: See Notes 4 and 5

Response	Directions	Value	Percent
Yes		1	60.1%
No	Go to Question 28	2	39.9%

Question 26: In the last 12 months, did a doctor or other health provider talk with you about the pros and cons of each choice for your treatment or health care?
Variable name: H15016
Editing notes: See Notes 4 and 5

Response	Value	Percent
Definitely yes	1	70.9%
Somewhat yes	2	26.0%
Somewhat no	3	2.3%
Definitely no	4	0.9%

Question 27: In the last 12 months, when there was more than one choice for your treatment or health care, did a doctor or other health provider ask which choice you thought was best for you?
Variable name: H15017
Editing notes: See Notes 4 and 5

Response	Value	Percent
Definitely yes	1	62.0%
Somewhat yes	2	29.4%
Somewhat no	3	5.6%
Definitely no	4	3.0%

Question 28: Using <u>any number from 0 to 10</u>, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 12 months?
Variable name: H15018
Editing notes: See Note 4

Response	Value	Percent
0 – Worst health care possible	0	0.4%
1	1	0.6%
2	2	1.1%
3	3	1.5%
4	4	1.7%
5	5	4.5%
6	6	4.2%
7	7	10.2%
8	8	19.6%
9	9	22.3%
10 – Best health care possible	10	33.9%
I had no visits in the last 12 months	-6	

YOUR PERSONAL DOCTOR

Question 29: A personal doctor is the one you would see if you need a checkup, want advice about a health problem, or get sick or hurt. Do you have a personal doctor?
Variable name: H15019
Editing notes: See Note 6

Response	Directions	Value	Percent
Yes		1	76.8%
No	Go to Question 39	2	23.2%

Question 30: In the last 12 months, how many times did you visit your personal doctor to get care for yourself?
Variable name: H15020
Editing notes: See Notes 6 and 7

Response	Directions	Value	Percent
None	Go to Question 37	0	6.9%
1		1	17.6%
2		2	24.1%
3		3	18.9%
4		4	14.6%
5 to 9		5	14.9%
10 or more		6	3.0%

Question 31: In the last 12 months, how often did your personal doctor listen carefully to you?
Variable name: H15021
Editing notes: See Notes 6 and 7

Response	Value	Percent
Never	1	0.7%
Sometimes	2	5.2%
Usually	3	17.2%
Always	4	76.9%
I had no visits in the last 12 months	-6	

Question 32: In the last 12 months, how often did your personal doctor explain things in a way that was easy to understand?
Variable name: H15022
Editing notes: See Notes 6 and 7

Response	Value	Percent
Never	1	0.6%
Sometimes	2	2.8%
Usually	3	18.1%
Always	4	78.4%
I had no visits in the last 12 months	-6	

Question 33: In the last 12 months, how often did your personal doctor show respect for what you had to say?
Variable name: H15023
Editing notes: See Notes 6 and 7

Response	Value	Percent
Never	1	0.7%
Sometimes	2	4.0%
Usually	3	14.7%
Always	4	80.7%
I had no visits in the last 12 months	-6	

Question 34: In the last 12 months, how often did your personal doctor spend enough time with you?
Variable name: H15024
Editing notes: See Notes 6 and 7

Response	Value	Percent
Never	1	1.6%
Sometimes	2	5.9%
Usually	3	22.9%
Always	4	69.6%
I had no visits in the last 12 months	-6	

Question 35: In the last 12 months, did you get care from a doctor or other health provider besides your personal doctor?
Variable name: H15025
Editing notes: See Notes 6, 7, and 8

Response	Directions	Value	Percent
Yes		1	73.4%
No	Go to Question 37	2	26.6%

Question 36: In the last 12 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?
Variable name: H15026
Editing notes: See Notes 6, 7, and 8

Response	Value	Percent
Never	1	6.3%
Sometimes	2	12.5%
Usually	3	32.1%
Always	4	49.1%

Question 37: Using any number from 0 to 10, where 0 is the worst personal doctor possible and 10 is the best personal doctor possible, what number would you use to rate your personal doctor?
Variable name: H15027
Editing notes: See Note 6

Response	Value	Percent
0 – Worst personal doctor possible	0	0.6%
1	1	0.4%
2	2	0.4%
3	3	0.9%
4	4	1.1%
5	5	3.6%
6	6	2.9%
7	7	7.1%
8	8	16.1%
9	9	25.4%
10 – Best personal doctor possible	10	41.6%
I don't have a personal doctor	-6	

Question 38: Did you have the same personal doctor <u>before</u> you joined this health plan?
Variable name: S15009
Editing notes: See Notes 6 and 8_01

Response	Directions	Value	Percent
Yes	Go to Question 40	1	33.0%
No		2	67.0%

Question 39: Since you joined your health plan, how much of a problem, if any, was it to get a personal doctor you are happy with?
Variable name: S15010
Editing notes: See Note 8_01

Response	Value	Percent
A big problem	1	12.9%
A small problem	2	22.4%
Not a problem	3	64.7%

GETTING HEALTH CARE FROM A SPECIALIST

When you answer the next questions, do not include dental visits or care you got when you stayed overnight in a hospital.

Question 40: Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care. In the last 12 months, did you try to make any appointments to see a specialist?
Variable name: H15028
Editing notes: See Note 9

Response	Directions	Value	Percent
Yes		1	62.0%
No	Go to Question 44	2	38.0%

Question 41: In the last 12 months, how often did you get an appointment to see a specialist as soon as you needed?
Variable name: H15029
Editing notes: See Note 9

Response	Value	Percent
Never	1	4.8%
Sometimes	2	12.7%
Usually	3	27.1%
Always	4	55.3%
I didn't need a specialist in the last 12 months	-6	

Question 42: How many specialists have you seen in the last 12 months?
Variable name: H15030
Editing notes: See Notes 9 and 10

Response	Directions	Value	Percent
None	Go to Question 44	0	2.3%
1 specialist		1	38.8%
2		2	31.1%
3		3	17.2%
4		4	7.0%
5 or more specialists		5	3.5%

Question 43: We want to know your rating of the specialist you saw most often in the last 12 months. Using any number from 0 to 10 where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate the specialist?
Variable name: H15031
Editing notes: See Notes 9 and 10

Response	Value	Percent
0 – Worst specialist possible	0	0.4%
1	1	0.3%
2	2	0.5%
3	3	0.9%
4	4	1.9%
5	5	2.7%
6	6	2.2%
7	7	7.0%
8	8	16.6%
9	9	25.3%
10 – Best specialist possible	10	42.4%
I didn't see a specialist in the last 12 months	-6	

Question 44: In general, how would you rate your overall mental or emotional health?
Variable name: S15B01
Editing notes: None

Response	Value	Percent
Excellent	1	42.8%
Very good	2	32.7%
Good	3	16.1%
Fair	4	6.3%
Poor	5	2.1%

Question 45: In the last 12 months, did you need any treatment or counseling for a personal or family problem?
Variable name: S15B02
Editing notes: See Note 10_B1

Response	Directions	Value	Percent
Yes		1	11.6%
No	Go to Question 48	2	88.4%

Question 46: In the last 12 months, how much of a problem, if any, was it to get the treatment or counseling you needed through your health plan?
Variable name: S15B03
Editing notes: See Note 10_B1

Response	Value	Percent
A big problem	1	17.4%
A small problem	2	19.9%
Not a problem	3	62.7%

Question 47: Using <u>any number from 0 to 10</u> where 0 is the worst treatment or counseling possible and 10 is the best treatment or counseling possible, what number would you use to rate your treatment or counseling in the last 12 months?
Variable name: S15B04
Editing notes: See Note 10_B1

Response	Value	Percent
0 – Worst treatment or counseling possible	0	1.9%
1	1	1.5%
2	2	1.5%
3	3	2.3%
4	4	3.6%
5	5	7.8%
6	6	7.4%
7	7	13.7%
8	8	15.0%
9	9	18.3%
10 – Best treatment or counseling possible	10	26.9%
I had no treatment or counseling in the last 12 months	-6	

YOUR HEALTH PLAN

The next questions ask about your experience with your health plan. By your health plan, we mean the health plan you marked in Question 3.

Question 48: In the last 12 months, did you try to get any kind of care, tests, or treatment through your health plan?
Variable name: H15032
Editing notes: See Note 11

Response	Directions	Value	Percent
Yes		1	76.0%
No	Go to Question 50	2	24.0%

Question 49: In the last 12 months, how often was it easy to get the care, tests, or treatment you needed?
Variable name: H15033
Editing notes: See Note 11

Response	Value	Percent
Never	1	2.7%
Sometimes	2	8.5%
Usually	3	24.3%
Always	4	64.5%
I didn't need care, tests, or treatment through my health plan in the last 12 months	-6	

Question 50: In the last 12 months, did you look for any information in written materials or on the Internet about how your health plan works?
Variable name: H15034
Editing notes: See Note 12

Response	Directions	Value	Percent
Yes		1	31.8%
No	Go to Question 52	2	68.2%

Question 51: In the last 12 months, how often did the written material or the Internet provide the information you needed about how your plan works?
Variable name: H15035
Editing notes: See Note 12

Response	Value	Percent
Never	1	2.7%
Sometimes	2	27.7%
Usually	3	46.6%
Always	4	23.0%
I didn't look for information from my health plan in the last 12 months	-6	

Question 52: Sometimes people need services or equipment beyond what is provided in a regular or routine office visit, such as care from a specialist, physical therapy, a hearing aid, or oxygen. In the last 12 months, did you look for information from your health plan on how much you would have to pay for a health care service or equipment?
Variable name: H15036
Editing notes: See Note 13

Response	Directions	Value	Percent
Yes		1	14.3%
No	Go to Question 54	2	85.7%

Question 53: In the last 12 months, how often were you able to find out from your health plan how much you would have to pay for a health care service or equipment?
Variable name: H15037
Editing notes: See Note 13

Response	Value	Percent
Never	1	11.5%
Sometimes	2	26.5%
Usually	3	30.1%
Always	4	31.9%
I didn't need a health care service or equipment from my health plan in the last 12 months	-6	

Question 54: In some health plans, the amount you pay for a prescription medicine can be different for different medicines, or can be different for prescriptions filled by mail instead of at the pharmacy. In the last 12 months, did you look for information from your health plan on how much you would have to pay for specific prescription medicines?
Variable name: H15038
Editing notes: See Note 14

Response	Directions	Value	Percent
Yes		1	19.5%
No	Go to Question 56	2	80.5%

Question 55: In the last 12 months, how often were you able to find out from your health plan how much you would have to pay for specific prescription medications?
Variable name: H15039
Editing notes: See Note 14

Response	Value	Percent
Never	1	7.2%
Sometimes	2	17.5%
Usually	3	27.7%
Always	4	47.6%
I didn't need prescription medications from my health plan in the last 12 months	-6	

Question 56: In the last 12 months, did you try to get information or help from your health plan's customer service?
Variable name: H15040
Editing notes: See Note 15

Response	Directions	Value	Percent
Yes		1	24.9%
No	Go to Question 59	2	75.1%

Question 57: In the last 12 months, how often did your health plan's customer service give you the information or help you needed?
Variable name: H15041
Editing notes: See Note 15

Response	Value	Percent
Never	1	5.9%
Sometimes	2	20.1%
Usually	3	26.8%
Always	4	47.2%
I didn't call my health plan's customer service in the last 12 months	-6	

Question 58: In the last 12 months, how often did your health plan's customer service staff treat you with courtesy and respect?
Variable name: H15042
Editing notes: See Note 15

Response	Value	Percent
Never	1	1.2%
Sometimes	2	8.2%
Usually	3	23.5%
Always	4	67.1%
I didn't call my health plan's customer service in the last 12 months	-6	

Question 59: In the last 12 months, did your health plan give you any forms to fill out?
Variable name: H15043
Editing notes: See Note 16

Response	Directions	Value	Percent
Yes		1	23.0%
No	Go to Question 61	2	77.0%

Question 60: In the last 12 months, how often were the forms from your health plan easy to fill out?
Variable name: H15044
Editing notes: See Note 16

Response	Value	Percent
Never	1	2.8%
Sometimes	2	13.7%
Usually	3	45.5%
Always	4	38.0%
I didn't have any experiences with paperwork for my health plan in the last 12 months	-6	

Question 61: Claims are sent to a health plan for payment. You may send in the claims yourself, or doctors, hospitals, or others may do this for you. In the last 12 months, did you or anyone else send in any claims to your health plan?
Variable name: H15045
Editing notes: See Note 17

Response	Directions	Value	Percent
Yes		1	50.4%
No	Go to Question 64	2	31.2%
Don't know	Go to Question 64	-5	18.4%

Question 62: In the last 12 months, how often did your health plan handle your claims quickly?
Variable name: H15046
Editing notes: See Note 17

Response	Value	Percent
Never	1	2.3%
Sometimes	2	6.6%
Usually	3	30.9%
Always	4	46.1%
Don't know	-5	14.0%
No claims were sent for me in the last 12 months	-6	

Question 63: In the last 12 months, how often did your health plan handle your claims correctly?
Variable name: H15047
Editing notes: See Note 17

Response	Value	Percent
Never	1	1.3%
Sometimes	2	5.3%
Usually	3	26.5%
Always	4	54.8%
Don't know	-5	12.1%
No claims were sent for me in the last 12 months	-6	

Question 64: Using any number from 0 to 10 where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?
Variable name: H15048
Editing notes: None

Response	Value	Percent
0 – Worst health plan possible	0	0.6%
1	1	0.4%
2	2	0.6%
3	3	1.7%
4	4	1.6%
5	5	5.9%
6	6	5.1%
7	7	10.7%
8	8	19.3%
9	9	22.5%
10 – Best health plan possible	10	31.5%

PREVENTIVE CARE

Preventive care is medical care you receive that is intended to maintain your good health or prevent a future medical problem. A physical or blood pressure screening are examples of preventive care.

Question 65: When did you last have a blood pressure reading?
Variable name: H15049
Editing notes: None

Response	Value	Percent
Less than 12 months ago	3	94.2%
1 to 2 years ago	2	4.1%
More than 2 years ago	1	1.7%

Question 66: Do you know if your blood pressure is too high?
Variable name: H15050
Editing notes: None

Response	Value	Percent
Yes, it is too high	1	17.1%
No, it is not too high	2	78.3%
Don't know	3	4.7%

Question 67: When did you last have a flu shot?
Variable name: H15051
Editing notes: None

Response	Value	Percent
Less than 12 months ago	4	73.0%
1 – 2 years ago	3	9.5%
More than 2 years ago	2	9.4%
Never had a flu shot	1	8.0%

Question 68: Have you ever smoked at least 100 cigarettes in your entire life?
Variable name: H15052
Editing notes: None

Response	Value	Percent
Yes	1	36.9%
No	2	61.7%
Don't know	-5	1.4%

Question 69: Do you now smoke cigarettes or use tobacco every day, some days or not at all?
Variable name: H15053
Editing notes: See Note 18

Response	Directions	Value	Percent
Every day		4	6.6%
Some days		3	4.7%
Not at all	Go to Question 74	2	88.4%
Don't know	Go to Question 74	-5	0.2%

Question 70: In the last 12 months, how often were you advised to quit smoking or using tobacco by a doctor or other health provider in your plan?
Variable name: H15054
Editing notes: See Note 18

Response	Value	Percent
Never	1	16.8%
Sometimes	2	21.1%
Usually	3	24.3%
Always	4	37.7%

Question 71: In the last 12 months, how often was medication recommended or discussed by a doctor or health provider to assist you with quitting smoking or using tobacco? Examples of medication are: nicotine gum, patch, nasal spray, inhaler, or prescription medication.
Variable name: H15055
Editing notes: See Note 18

Response	Value	Percent
Never	1	46.7%
Sometimes	2	23.0%
Usually	3	15.9%
Always	4	14.4%

Question 72: In the last 12 months, how often did your doctor or health provider discuss or provide methods and strategies other than medication to assist you with quitting smoking or using tobacco? Examples of methods and strategies are: telephone helpline, individual or group counseling, or cessation program.
Variable name: H15056
Editing notes: See Note 18

Response	Value	Percent
Never	1	48.5%
Sometimes	2	22.6%
Usually	3	16.1%
Always	4	12.7%

Question 73: On the days you smoke or use tobacco products, what type of product do you smoke or use?
MARK ALL THAT APPLY
Variable names: H15057A-H15057D
Editing notes: See Note 18

Response	Variable Name	Percent Marked
Cigarettes	H14057A	64.9%
Dip, chewing tobacco, snuff or snus	H14057B	18.9%
Cigars	H14057C	9.4%
Pipes, bidis, or kreteks (Pipes include hookahs. Bidis are small, brown, hand-rolled cigarettes from India and other Southeast Asian countries. Kreteks are clove cigarettes made in Indonesia that contain clove extract and tobacco.)	H14057D	6.0%

Question 74: Are you male or female?
Variable name: H15058
Editing notes: See Note 19A

Response	Directions	Value	Percent
Male	Go to Question 81	1	49.5%
Female		2	50.5%

Question 75: When did you last have a Pap smear test?
Variable name: H15059B
Editing notes: See Notes 19A and 19B

Response	Value	Percent
Within the last 12 months	6	39.3%
1 to 2 years ago	5	25.4%
More than 2 but less than 3 years ago	4	9.6%
More than 3 but less than 5 years ago	3	5.7%
5 or more years ago	2	14.2%
Never had a pap smear test	1	5.7%

Question 76: Are you under age 40?
Variable name: H15060
Editing notes: See Notes 19A, 19B, and 20

Response	Directions	Value	Percent
Yes	Go to Question 78	1	36.5%
No		2	63.5%

Question 77: When was the last time your breasts were checked by mammography?
Variable name: H15061
Editing notes: See Notes 19A, 19B, and 20

Response	Value	Percent
Within the last 12 months	5	63.4%
1 to 2 years ago	4	19.8%
More than 2 but less than 5 years ago	3	7.0%
5 or more years ago	2	7.1%
Never had a mammogram	1	2.8%

Question 78: Have you been pregnant in the last 12 months or are you pregnant now?
Variable name: H15062
Editing notes: See Notes 19A, 19B, and 21

Response	Directions	Value	Percent
Yes, I am currently pregnant		1	3.0%
No, I am not currently pregnant, but have been pregnant in the past 12 months	Go to Question 80	2	5.4%
No, I am not currently pregnant, and have not been pregnant in the past 12 months	Go to Question 81	3	91.7%

Question 79: In what trimester is your pregnancy?
Variable name: H15063
Editing notes: See Notes 19A, 19B, and 21

Response	Directions	Value	Percent
First trimester (up to 12 weeks after 1st day of last period)	Go to Question 81	1	16.5%
Second trimester (13th through 27th week)		2	27.3%
Third trimester (28th week until delivery)		3	56.1%

Question 80: In which trimester did you first receive prenatal care?
Variable name: H15064
Editing notes: See Notes 19A, 19B, and 21

Response	Value	Percent
First trimester (up to 12 weeks after 1st day of last period)	4	81.8%
Second trimester (13th through 27th week)	3	13.4%
Third trimester (28th week until delivery)	2	1.4%
Did not receive prenatal care	1	3.3%

ABOUT YOU

Question 81: In general, how would you rate your overall health?
Variable name: H15065
Editing notes: None

Response	Value	Percent
Excellent	5	18.3%
Very good	4	41.3%
Good	3	29.7%
Fair	2	8.8%
Poor	1	1.9%

Question 82: Are you limited in any way in any activities because of any impairment or health problem?
Variable name: H15066
Editing notes: None

Response	Value	Percent
Yes	1	35.8%
No	2	64.2%

Question 83: In the last 12 months, did you get health care 3 or more times for the same condition or problem?
Variable name: H15067
Editing notes: See Note 22

Response	Directions	Value	Percent
Yes		1	41.3%
No	Go to Question 85	2	58.7%

Question 84: Is this a condition or problem that has lasted for at least 3 months? Do not include pregnancy or menopause.
Variable name: H15068
Editing notes: See Note 22

Response	Value	Percent
Yes	1	90.7%
No	2	9.3%

Question 85: Do you now need or take medicine prescribed by a doctor? Do not include birth control.
Variable name: H15069
Editing notes: See Note 23

Response	Directions	Value	Percent
Yes		1	65.7%
No	Go to Question 87	2	34.3%

Question 86: Is this medicine to treat a condition that has lasted for at least 3 months? Do not include pregnancy or menopause.
Variable name: H15070
Editing notes: See Note 23

Response	Value	Percent
Yes	1	95.2%
No	2	4.8%

Question 87: How tall are you without your shoes on? Please give your answer in feet and inches.
Variable name: H15071F, H15071I
Editing notes: See Note 23_HT

Response	Example feet	Example inches	Percent of responses
Please give your answer in feet and inches. Please write one number in each box.	5	06	94.8%

Question 88: How much do you weigh without your shoes on? Please give your answer in pounds.
Variable name: H15072
Editing notes: See Note 23_WT

Response	Example pounds	Percent of responses
Please give your answer in pounds. Please write one number in each box.	152	94.2%

Question 89: What is the highest grade or level of school that you have completed?
Variable name: SREDA
Editing notes: None

Response	Value	Percent
8th grade or less	1	0.6%
Some high school, but did not graduate	2	1.2%
High school graduate or GED	3	18.7%
Some college or 2-year degree	4	41.1%
4-year college graduate	5	17.1%
More than 4-year college degree	6	21.4%

Question 90: Are you of Hispanic or Latino origin or descent? (Mark "NO" if not Spanish/Hispanic/Latino.)
MARK ALL THAT APPLY
Variable names: H15073A-H15073E, H15073
Editing notes: See Note 24

Response	Variable Name	H14073 Value	Percent Marked
No, not Spanish, Hispanic, or Latino	H14073A	1	87.3%
Yes, Mexican, Mexican American, Chicano	H14073B	2	3.8%
Yes, Puerto Rican	H14073C	3	2.7%
Yes, Cuban	H14073D	4	0.3%
Yes, other Spanish, Hispanic, or Latino	H14073E	5	3.5%

Question 91: What is your race?
MARK ALL THAT APPLY
Variable names: SRRACEA-SRRACEE
Editing notes: None

Response	Variable Name	Percent Marked
White	SRRACEA	79.1%
Black or African American	SRRACEB	11.3%
American Indian or Alaska Native	SRRACEC	2.7%
Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)	SRRACED	5.8%
Native Hawaiian or other Pacific Islander (e.g., Samoan, Guamanian or Chamorro)	SRRACEE	1.0%

Question 92: What is your age now?
Variable name: SRAGE
Editing notes: none

Response	Value	Percent
18 to 24	1	12.2%
25 to 34	2	16.8%
35 to 44	3	11.3%
45 to 54	4	10.4%
55 to 64	5	18.9%
65 to 75	6	18.3%
75 or older	7	12.1%

Question 93: Are you currently covered by Medicare?
Variable name: H15074
Editing notes: See Note 25

Response	Directions	Value	Percent
Yes		1	32.6%
No	Go to Question 99	2	59.8%
Don't know	Go to Question 99	-5	7.6%

Question 94: Currently, are you covered by Medicare Part A? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part A helps pay for inpatient hospital care.
Variable name: H15075
Editing notes: See Note 25

Response	Value	Percent
Yes, I am now covered by Medicare Part A	1	94.1%
No, I am not covered by Medicare Part A	2	5.9%

Question 95: Currently, are you covered by Medicare Part B? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part B helps pay for doctor's services, outpatient hospital services, and certain other services.
Variable name: H15076
Editing notes: See Note 25

Response	Value	Percent
Yes, I am now covered by Medicare Part B	1	92.3%
No, I am not covered by Medicare Part B	2	7.7%

Question 96: Medicare Advantage is the name for Medicare Plus Choice plans. Are you enrolled in a Medicare Advantage Plan? This plan is also sometimes known as Medicare Part C.
Variable name: H15077
Editing notes: See Note 25

Response	Value	Percent
Yes	1	3.4%
No	2	85.0%
Don' t know	-5	11.7%

Question 97: Currently, are you covered by Medicare supplemental insurance? Medicare supplemental insurance, also called Medigap or MediSup, is usually obtained from private insurance companies and covers some of the costs not paid for by Medicare.
Variable name: H15078
Editing notes: See Note 25

Response	Value	Percent
Yes, I am now covered by Medicare supplemental insurance	1	12.5%
No, I am not covered by Medicare supplemental insurance	2	87.5%

Question 98: Are you enrolled in Medicare Part D, also known as the Medicare Prescription Drug Plan?
Variable name: H15079
Editing notes: See Note 25

Response	Value	Percent
Yes	1	9.8%
No	2	81.6%
Don' t know	-5	8.6%

Question 99: Using a scale of 1 to 5, with 1 being "strongly disagree" and 5 being "strongly agree", how much do you agree with the following statement: In general, I am able to see my provider(s) when needed?
Variable name: S15011
Editing notes: None

Response	Value	Percent
Strongly disagree	1	6.4%
Disagree	2	3.8%
Neither agree nor disagree	3	9.0%
Agree	4	40.9%
Strongly agree	5	39.8%

Question 100: Using a scale of 1 to 5, with 1 being "completely dissatisfied" and 5 being "completely satisfied", how satisfied are you, overall, with the health care you received during your last visit?
Variable name: S15014
Editing notes: None

Response	Value	Percent
Completely dissatisfied	1	3.3%
Somewhat dissatisfied	2	4.2%
Neither satisfied nor dissatisfied	3	6.4%
Somewhat satisfied	4	23.6%
Completely satisfied	5	62.5%

THANK YOU FOR TAKING THE TIME TO COMPLETE THE SURVEY!

Your generous contribution will greatly aid efforts to improve the health of our military community.

APPENDIX A

ANNOTATED QUESTIONNAIRE – QUARTER II

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RCS: DD-HA(A) 1942

Health Care Survey of DoD Beneficiaries

A world-wide survey of beneficiaries eligible for health care coverage through the military health system

January 2015

Military Health Care Survey:

Adult Questionnaire

January 2015

Privacy Advisory

Providing information in this Survey is voluntary. There is no penalty nor will your benefits be affected if you choose not to respond, although maximum participation is encouraged so that the data will be complete and representative.

The Survey was written so that answers should not require you to provide any personally identifiable information (PII), but please be assured that any PII provided will be treated as confidential. Your responses are collected via a secure system which does not collect any information that could be used to determine your identity.

Answering the questions is voluntary; you may stop the Survey at any time.

According to the Privacy Act of 1974 (5 U.S.C. §552a), the Department of Defense is required to inform you of the purposes and use of this survey. Please read it carefully.

Authority: 10 U.S.C. §1074 (Medical and Dental Care for Members and Certain Former Members, as amended by National Defense Authorization Act of 1993, Public Law 102-484, §706); 10 U.S.C. §1074f (Medical Tracking System for Members Deployed Overseas); 32 C.F.R. §199.17 (TRICARE Program); 45 C.F.R. Part 160 Subparts A and E of Part 164 (Health Insurance Portability and Accountability Act of 1996, Privacy Rule); DoD 6025.18-R (Department of Defense Health Information Privacy Regulation); DoD 6025.13-R (Military Health System Clinical Quality Assurance Program Regulation); 64 FR 22837 (DHA 08 – Health Affairs Survey Data Base, April 28, 1999); and, E.O. 9397 (as amended, November 20, 2008, for SSN collection).

Purpose: This survey helps health policy makers gauge beneficiary satisfaction with the current military health care system and provides valuable input from beneficiaries that will be used to improve the Military Health System.

Routine Uses: None.

Disclosure: Participation is voluntary. Failure to respond will not result in any penalty to the respondent however maximum participation is encouraged so that data will be as complete and representative as possible.

SURVEY INSTRUCTIONS

Thank you for taking the time to participate in this online survey.

Please note, if the survey is idle for more than 5 minutes, you will be logged out automatically to protect your privacy. If that happens, simply wait 15 minutes and log back in. Please keep your password because you may need it later.

During the survey, please do not use your browser's FORWARD and BACK buttons. Instead, please always use the buttons below to move backward and forward through the survey.

To begin, just click on the "Next" button below. This will take you right into the survey.

SURVEY STARTS HERE

As an eligible TRICARE beneficiary, please complete this survey even if you did not receive your health care from a military facility.

Please recognize that some specific questions about TRICARE benefits may not apply to you, depending on your entitlement and particular TRICARE program.

This survey is about the health care of the person whose name appears on the cover letter. The questionnaire should be completed by that person. If you are not the addressee, please give this survey to that person.

Question 1: Are you the person whose name appears on the cover letter?
Variable name: H15001
Editing notes: None

Response	Directions	Value	Percent
Yes	Go to Question 2	1	99.6%
No	Please give this questionnaire to the person addressed on the cover letter.	2	0.4%

Question 2: By which of the following health plans are you currently covered?
MARK ALL THAT APPLY
Variable names: H15002A, H15002C, H15002F-H15002V
Editing notes: None

Military Health Plans

Response	Variable Name	Percent Marked
TRICARE Prime (including most Active Duty, TRICARE Prime Remote, and TRICARE Overseas)	H15002A	45.9%
TRICARE Extra or Standard (CHAMPUS)	H15002C	12.8%
TRICARE Plus	H15002N	1.2%
TRICARE for Life	H15002O	30.1%
TRICARE Supplemental Insurance	H15002P	0.8%
TRICARE Reserve Select	H15002Q	3.0%
TRICARE Retired Reserve	H15002S	1.3%
TRICARE Young Adult Prime	H15002T	0.5%
TRICARE Young Adult Extra or Standard	H15002V	0.5%
Uniformed Services Family Health Plan (USFHP)	H15002K	1.5%
Continued Health Care Benefit Program (CHCBP) (a COBRA-like premium-based health care program)	H15002U	0.2%

Other Health Plans

Response	Variable Name	Percent Marked
Medicare	H15002F	29.5%
Federal Employees Health Benefit Program (FEHBP)	H15002G	2.1%
Medicaid	H15002H	0.6%
A civilian HMO (such as Kaiser)	H15002I	1.0%
Other civilian health insurance (such as Blue Cross)	H15002J	6.8%
The Veterans Administration (VA)	H15002M	7.6%
Government health insurance from a country other than the US	H15002R	0.2%
Not sure	H15002L	3.7%

Question 3: Which health plan did you use for all or most of your healthcare in the last 12 months? MARK ONLY ONE
Variable name: H15003
Editing notes: See Note 1

Response	Directions	Value	Percent
TRICARE Prime (including most Active Duty, TRICARE Prime Remote, and TRICARE Overseas)		1	44.6%
TRICARE Extra or Standard (CHAMPUS)		3	8.8%
TRICARE Plus		11	0.7%
TRICARE Reserve Select		12	2.9%
TRICARE Retired Reserve		14	1.2%
TRICARE Young Adult Prime		15	0.4%
TRICARE Young Adult Extra or Standard		17	0.3%
Uniformed Services Family Health Plan (USFHP)		9	1.4%
Continued Health Care Benefit Program (CHCBP) (a COBRA-like premium-based health care program)		16	0.0%
Medicare (may include TRICARE for Life)		4	25.0%
Federal Employees Health Benefit Program (FEHBP)		5	1.5%
Medicaid		6	0.4%
A civilian HMO (such as Kaiser)		7	1.0%
Other civilian health insurance (such as Blue Cross)		8	5.8%
The Veterans Administration (VA)		10	3.5%
Government health insurance from a country other than the US		13	0.2%
Not sure	Go to Question 5	-5	2.2%
Did not use any health plan in the last 12 months	Go to Question 5	-6	

For the remainder of this questionnaire, the term <u>health plan</u> refers to the plan you indicated in Question 3.

Question 4: How many months or years in a row have you been in this health plan?
Variable name: H15004
Editing notes: See Note 1

Response	Value	Percent
Less than 6 months	1	1.5%
6 up to 12 months	2	5.5%
12 up to 24 months	3	10.2%
2 up to 5 years	4	19.4%
5 up to 10 years	5	18.8%
10 or more years	6	44.6%

Many beneficiaries who are eligible for TRICARE also have the opportunity to obtain other civilian health insurance through their job or a family member's job, through COBRA, or through retirement coverage from a previous job, or from some other group. COBRA lets beneficiaries pay to keep their coverage temporarily when they leave their job.

Question 5: Do you currently have the opportunity to obtain civilian health insurance coverage for yourself through some civilian plan?
Variable name: S15J01
Editing notes: See Note 1_J1

Response	Directions	Value	Percent
Yes		1	24.6%
No	Go to Question 17	2	75.4%

Question 6: What options do you have for obtaining civilian coverage?
MARK ALL THAT APPLY
Variable names: S15J02A-S15J02I
Editing notes: See Note 1_J1

Response	Variable Name	Percent Marked
Through my current employer	S15J02A	56.2%
Through COBRA from my previous employer	S15J02B	1.4%
Through retirement coverage from my previous employer	S15J02C	9.9%
Through a family member's current employer	S15J02D	18.7%
Through COBRA from a family member's previous employer	S15J02E	0.1%
Through retirement coverage from a family member's previous employer	S15J02F	5.4%
Through another organization	S15J02G	4.5%
Through a government program	S15J02H	6.0%
Don't know	S15J02I	7.6%

Question 7: Are you alone or are you and others in your household now covered by a civilian policy?
Variable name: S15J03
Editing notes: See Note 1_J1 and Note 1_J2

Response	Directions	Value	Percent
Yes, I alone am covered		1	15.8%
Yes, I and at least one other person in my household are covered		2	33.7%
No	Go to Question 10	4	50.5%

Question 8: For your civilian coverage, do you or your family member pay all or part of the insurance premium?
Variable name: S15J04
Editing notes: See Note 1_J1, Note 1_J2, and Note 1_J3

Response	Directions	Value	Percent
Yes, I or my family members pay all of the premium		1	26.8%
Yes, I or my family members pay part of the premium		2	45.1%
No, coverage is available at no cost	Go to Question 10	3	18.8%
Don't know	Go to Question 10	-5	9.4%

Question 9: How much per month do you or your family member pay for this coverage? If you do not know the exact amount, please indicate the approximate amount.
Variable name: S15J05
Editing notes: See Note 1_J1, Note 1_J2, and Note 1_J3

Response	Example dollars	Percent of responses
Please give your answer in dollars.	$456	7.9%

Question 10: Have you used civilian coverage for any of your health care in the past 12 months?
Variable name: S15J06
Editing notes: See Note 1_J1 and Note 1_J4

Response	Directions	Value	Percent
Yes	Go to Question 12	1	43.3%
No		2	56.7%

Question 11: Why haven't you used civilian coverage?
MARK ALL THAT APPLY
Variable names: S15J07A-S15J07O
Editing notes: See Note 1_J1 and Note 1_J4

Response	Variable Name	Percent Marked
Civilian coverage is not available to me	S15J07A	3.2%
I have a better choice of doctors with TRICARE	S15J07B	23.6%
My personal doctor is only available to me through TRICARE	S15J07F	8.6%
I prefer to use military doctors	S15J07I	14.7%
I prefer military hospitals	S15J07J	12.8%
I want to be sure I can always use military health care	S15J07G	17.8%
I get better customer service with TRICARE	S15J07D	22.3%
Civilian benefits are poor compared to TRICARE	S15J07E	19.7%
I do not want to pay the premium for civilian coverage	S15J07C	48.5%
My employer pays a bonus for not taking employee coverage	S15J07M	2.7%
My family member's employer pays a bonus for not taking employee coverage	S15J07N	1.1%
I pay less for TRICARE than I would for civilian care	S15J07H	53.6%
I have access to better quality care through TRICARE	S15J07O	23.6%
I have not needed health care	S15J07K	1.1%
Another reason	S15J07L	1.6%

Question 12: Have you used TRICARE for any health care (except for prescription drugs) in the past 12 months?
Variable name: S15J08
Editing notes: See Note 1_J1 and Note 1_J5

Response	Directions	Value	Percent
Yes	Go to Question 14	1	79.3%
No		2	20.7%

Question 13: Why haven't you used TRICARE?
MARK ALL THAT APPLY
Variable names: S15J09A-S15J09L
Editing notes: See Note 1_J1 and Note 1_J5

Response	Variable Name	Percent Marked
I have a greater choice of doctors with my civilian plan	S15J09A	17.9%
My personal doctor is not available to me through TRICARE	S15J09D	10.3%
I prefer civilian doctors	S15J09I	6.5%
I prefer civilian hospitals	S15J09J	4.2%
There are no military facilities near me	S15J09H	18.4%
I get better customer service with civilian plans	S15J09C	5.6%
TRICARE benefits are poor compared to my civilian plan	S15J09E	5.4%
It is easier for me to get care through my civilian plan	S15J09F	19.4%
I do not want to pay the premium for TRICARE	S15J09B	3.4%
I pay less for civilian care than I would for TRICARE	S15J09G	6.6%
I have not needed health care	S15J09K	25.6%
Another reason	S15J09L	34.2%

Question 14: Have you dropped civilian coverage in the past 12 months?
Variable name: S15J10
Editing notes: See Note 1_J1 and Note 1_J6

Response	Directions	Value	Percent
Yes		1	5.0%
No	Go to Question 17	2	95.0%

Question 15: Which of the following are reasons you dropped civilian coverage in the past 12 months?
MARK ALL THAT APPLY
Variable names: S15J11A-S15J11N
Editing notes: See Note 1_J1 and Note 1_J6

Response	Variable Name	Percent Marked
You lost your job	S15J11A	10.4%
Your husband/wife/parent lost job	S15J11B	0.0%
You changed jobs	S15J11C	16.3%
Your husband/wife/parent changed jobs	S15J11D	0.0%
You retired from a job	S15J11E	8.6%
Your husband/wife/parent retired from a job	S15J11F	5.7%
Moved to new location	S15J11G	8.2%
You/your husband/wife/parent are/is Select Reserves and became active	S15J11H	9.3%
You/your husband/wife/parent are/is a Reservist and returned to Select Reserve	S15J11I	1.5%
Employer changed plans	S15J11J	4.5%
Found a less expensive health plan	S15J11K	5.6%
Married, divorced, or widowed	S15J11L	18.5%
Went on Medicare	S15J11M	17.0%
Problems with health plan	S15J11N	2.1%

Question 16: Can you explain the main reason you dropped civilian coverage in the past 12 months? MARK ONLY ONE
Variable names: S15J12
Editing notes: See Note 1_J1 and Note 1_J6

Response	Value	Percent
You lost your job	1	10.0%
Your husband/wife/parent lost job	2	15.0%
You changed jobs	3	0.2%
Your husband/wife/parent changed jobs	4	9.0%
You retired from a job	5	7.1%
Your husband/wife/parent retired from a job	6	4.0%
Moved to new location	7	7.6%
You/your husband/wife/parent are/is Select Reserves and became active	8	1.5%
You/your husband/wife/parent are/is a Reservist and returned to Select Reserve	9	3.8%
Employer changed plans	10	5.8%
Found a less expensive health plan	11	21.5%
Married, divorced, or widowed	12	13.0%
Went on Medicare	13	1.4%
Problems with health plan	14	10.0%

YOUR HEALTH CARE IN THE LAST 12 MONTHS

These questions ask about your own health care. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

Question 17: In the last 12 months, where did you go most often for your health care?
MARK ONLY ONE
Variable name: H15005
Editing notes: None

Response	Value	Percent
A military facility – This includes: Military clinic Military hospital PRIMUS clinic	1	35.9%
A civilian facility – This includes: Doctor's office Clinic Hospital Civilian TRICARE contractor	2	55.1%
Uniformed Services Family Health Plan facility (USFHP)	3	0.9%
Veterans Affairs (VA) clinic or hospital	4	4.9%
I went to none of the listed types of facilities in the last 12 months	5	3.1%

Question 18: In the last 12 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?
Variable name: H15006
Editing notes: See Note 2

Response	Directions	Value	Percent
Yes		1	44.4%
No	Go to Question 21	2	55.6%

Question 19: In the last 12 months, when you needed care right away, how often did you get care as soon as you needed?
Variable name: H15007
Editing notes: See Note 2

Response	Value	Percent
Never	1	1.8%
Sometimes	2	10.8%
Usually	3	20.0%
Always	4	67.4%
I didn't need care right away for an illness, injury or condition in the last 12 months	-6	

Question 20: In the last 12 months, when you <u>needed care right away</u> for an illness, injury, or condition, how long did you usually have to wait between trying to get care and actually seeing a provider?
Variable name: H15008
Editing notes: See Note 2

Response	Value	Percent
Same day	1	67.0%
1 day	2	12.3%
2 days	3	5.1%
3 days	4	3.5%
4-7 days	5	6.0%
8-14 days	6	2.2%
15 days or longer	7	3.9%
I didn't need care right away for an illness, injury or condition in the last 12 months	-6	

Question 21: In the last 12 months, not counting the times you needed health care right away, did you make any <u>appointments</u> for your health care at a doctor's office or clinic?
Variable name: H15009
Editing notes: See Note 3

Response	Directions	Value	Percent
Yes		1	87.5%
No	Go to Question 24	2	12.5%

Question 22: In the last 12 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?
Variable name: H15010
Editing notes: See Note 3

Response	Value	Percent
Never	1	3.9%
Sometimes	2	16.4%
Usually	3	25.3%
Always	4	54.3%
I had no appointments in the last 12 months	-6	

Question 23: In the last 12 months, not counting the times you needed health care right away, how many days did you usually have to wait between making an appointment and actually seeing a provider?
Variable name: H15011
Editing notes: See Note 3

Response	Value	Percent
Same day	1	9.0%
1 day	2	10.3%
2-3 days	3	23.5%
4-7 days	4	22.6%
8-14 days	5	17.3%
15-30 days	6	12.1%
31 days or longer	7	5.1%
I had no appointments in the last 12 months	-6	

Question 24: In the last 12 months, how many times did you go to an emergency room to get care for yourself?
Variable name: H15012
Editing notes: None

Response	Value	Percent
None	1	73.2%
1	2	16.9%
2	3	6.6%
3	4	2.0%
4	5	0.7%
5 to 9	6	0.5%
10 or more	7	0.1%

Question 25: In the last 12 months (not counting times you went to an emergency room), how many times did you go to a doctor's office or clinic to get health care for yourself?
Variable name: H15013
Editing notes: See Note 4

Response	Directions	Value	Percent
None	Go to Question 31	1	10.7%
1		2	10.7%
2		3	17.5%
3		4	16.0%
4		5	13.8%
5 to 9		6	20.7%
10 or more		7	10.6%

Question 26: In the last 12 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness?
Variable name: H15014
Editing notes: See Note 4

Response	Value	Percent
Never	1	12.0%
Sometimes	2	27.1%
Usually	3	29.1%
Always	4	31.8%

Question 27: Choices for your treatment or health care can include choices about medicine, surgery, or other treatment. In the last 12 months, did a doctor or other health provider tell you there was more than one choice for your treatment or health care?
Variable name: H15015
Editing notes: See Notes 4 and 5

Response	Directions	Value	Percent
Yes		1	56.7%
No	Go to Question 30	2	43.3%

Question 28: In the last 12 months, did a doctor or other health provider talk with you about the pros and cons of each choice for your treatment or health care?
Variable name: H15016
Editing notes: See Notes 4 and 5

Response	Value	Percent
Definitely yes	1	69.6%
Somewhat yes	2	27.0%
Somewhat no	3	2.4%
Definitely no	4	0.9%

Question 29: In the last 12 months, when there was more than one choice for your treatment or health care, did a doctor or other health provider ask which choice you thought was best for you?
Variable name: H15017
Editing notes: See Notes 4 and 5

Response	Value	Percent
Definitely yes	1	59.9%
Somewhat yes	2	30.7%
Somewhat no	3	6.5%
Definitely no	4	2.9%

Question 30: Using <u>any number from 0 to 10</u>, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 12 months?
Variable name: H15018
Editing notes: See Note 4

Response	Value	Percent
0 – Worst health care possible	0	0.3%
1	1	0.4%
2	2	0.8%
3	3	1.8%
4	4	1.9%
5	5	4.9%
6	6	5.1%
7	7	11.0%
8	8	19.7%
9	9	21.6%
10 – Best health care possible	10	32.6%
I had no visits in the last 12 months	-6	

YOUR PERSONAL DOCTOR

Question 31: A personal doctor is the one you would see if you need a checkup, want advice about a health problem, or get sick or hurt. Do you have a personal doctor?
Variable name: H15019
Editing notes: See Note 6

Response	Directions	Value	Percent
Yes		1	78.8%
No	Go to Question 41	2	21.2%

Question 32: In the last 12 months, how many times did you visit your personal doctor to get care for yourself?
Variable name: H15020
Editing notes: See Notes 6 and 7

Response	Directions	Value	Percent
None	Go to Question 39	0	8.0%
1		1	18.4%
2		2	23.3%
3		3	19.2%
4		4	13.8%
5 to 9		5	14.2%
10 or more		6	3.0%

Question 33: In the last 12 months, how often did your personal doctor listen carefully to you?
Variable name: H15021
Editing notes: See Notes 6 and 7

Response	Value	Percent
Never	1	0.8%
Sometimes	2	6.1%
Usually	3	18.1%
Always	4	74.9%
I had no visits in the last 12 months	-6	

Question 34: In the last 12 months, how often did your personal doctor explain things in a way that was easy to understand?
Variable name: H15022
Editing notes: See Notes 6 and 7

Response	Value	Percent
Never	1	0.8%
Sometimes	2	3.7%
Usually	3	18.5%
Always	4	77.0%
I had no visits in the last 12 months	-6	

Question 35: In the last 12 months, how often did your personal doctor show respect for what you had to say?
Variable name: H15023
Editing notes: See Notes 6 and 7

Response	Value	Percent
Never	1	1.0%
Sometimes	2	4.3%
Usually	3	15.5%
Always	4	79.1%
I had no visits in the last 12 months	-6	

Question 36: In the last 12 months, how often did your personal doctor spend enough time with you?
Variable name: H15024
Editing notes: See Notes 6 and 7

Response	Value	Percent
Never	1	1.3%
Sometimes	2	7.4%
Usually	3	23.1%
Always	4	68.2%
I had no visits in the last 12 months	-6	

Question 37: In the last 12 months, did you get care from a doctor or other health provider besides your personal doctor?
Variable name: H15025
Editing notes: See Notes 6, 7, and 8

Response	Directions	Value	Percent
Yes		1	73.8%
No	Go to Question 39	2	26.2%

Question 38: In the last 12 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?
Variable name: H15026
Editing notes: See Notes 6, 7, and 8

Response	Value	Percent
Never	1	7.6%
Sometimes	2	13.8%
Usually	3	30.7%
Always	4	47.9%

Question 39: Using any number from 0 to 10, where 0 is the worst personal doctor possible and 10 is the best personal doctor possible, what number would you use to rate your personal doctor?
Variable name: H15027
Editing notes: See Note 6

Response	Value	Percent
0 – Worst personal doctor possible	0	0.5%
1	1	0.5%
2	2	0.4%
3	3	1.3%
4	4	1.2%
5	5	3.8%
6	6	3.7%
7	7	8.2%
8	8	15.4%
9	9	23.1%
10 – Best personal doctor possible	10	41.9%
I don't have a personal doctor	-6	

Question 40: Did you have the same personal doctor <u>before</u> you joined this health plan?
Variable name: S15009
Editing notes: See Notes 6 and 8_01

Response	Directions	Value	Percent
Yes	Go to Question 42	1	33.8%
No		2	66.2%

Question 41: Since you joined your health plan, how much of a problem, if any, was it to get a personal doctor you are happy with?
Variable name: S15010
Editing notes: See Note 8_01

Response	Value	Percent
A big problem	1	13.2%
A small problem	2	24.1%
Not a problem	3	62.8%

GETTING HEALTH CARE FROM A SPECIALIST

When you answer the next questions, do not include dental visits or care you got when you stayed overnight in a hospital.

Question 42: Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care. In the last 12 months, did you try to make any appointments to see a specialist?
Variable name: H15028
Editing notes: See Note 9

Response	Directions	Value	Percent
Yes		1	61.2%
No	Go to Question 46	2	38.8%

Question 43: In the last 12 months, how often did you get an appointment to see a specialist as soon as you needed?
Variable name: H15029
Editing notes: See Note 9

Response	Value	Percent
Never	1	5.0%
Sometimes	2	13.7%
Usually	3	28.6%
Always	4	52.7%
I didn't need a specialist in the last 12 months	-6	

Question 44: How many specialists have you seen in the last 12 months?
Variable name: H15030
Editing notes: See Notes 9 and 10

Response	Directions	Value	Percent
None	Go to Question 46	0	2.5%
1 specialist		1	40.9%
2		2	29.4%
3		3	16.1%
4		4	7.4%
5 or more specialists		5	3.8%

Question 45: We want to know your rating of the specialist you saw most often in the last 12 months. Using any number from 0 to 10 where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate the specialist?
Variable name: H15031
Editing notes: See Notes 9 and 10

Response	Value	Percent
0 – Worst specialist possible	0	0.7%
1	1	0.4%
2	2	0.6%
3	3	1.0%
4	4	1.0%
5	5	2.7%
6	6	2.8%
7	7	7.7%
8	8	16.6%
9	9	25.4%
10 – Best specialist possible	10	41.2%
I didn't see a specialist in the last 12 months	-6	

Question 46: In general, how would you rate your overall mental or emotional health?
Variable name: S15B01
Editing notes: None

Response	Value	Percent
Excellent	1	43.4%
Very good	2	30.9%
Good	3	17.3%
Fair	4	6.6%
Poor	5	1.9%

Question 47: In the last 12 months, did you need any treatment or counseling for a personal or family problem?
Variable name: S15B02
Editing notes: See Note 10_B1

Response	Directions	Value	Percent
Yes		1	10.8%
No	Go to Question 50	2	89.2%

Question 48: In the last 12 months, how much of a problem, if any, was it to get the treatment or counseling you needed through your health plan?
Variable name: S15B03
Editing notes: See Note 10_B1

Response	Value	Percent
A big problem	1	15.0%
A small problem	2	24.0%
Not a problem	3	61.0%

Question 49: Using <u>any number from 0 to 10</u> where 0 is the worst treatment or counseling possible and 10 is the best treatment or counseling possible, what number would you use to rate your treatment or counseling in the last 12 months?
Variable name: S15B04
Editing notes: See Note 10_B1

Response	Value	Percent
0 – Worst treatment or counseling possible	0	2.2%
1	1	0.8%
2	2	1.2%
3	3	3.8%
4	4	2.1%
5	5	6.5%
6	6	9.5%
7	7	11.6%
8	8	17.1%
9	9	17.4%
10 – Best treatment or counseling possible	10	27.8%
I had no treatment or counseling in the last 12 months	-6	

YOUR HEALTH PLAN

The next questions ask about your experience with your health plan. By your health plan, we mean the health plan you marked in Question 3.

Question 50: In the last 12 months, did you try to get any kind of care, tests, or treatment through your health plan?
Variable name: H15032
Editing notes: See Note 11

Response	Directions	Value	Percent
Yes		1	75.4%
No	Go to Question 52	2	24.6%

Question 51: In the last 12 months, how often was it easy to get the care, tests, or treatment you needed?
Variable name: H15033
Editing notes: See Note 11

Response	Value	Percent
Never	1	2.8%
Sometimes	2	10.5%
Usually	3	24.2%
Always	4	62.5%
I didn't need care, tests, or treatment through my health plan in the last 12 months	-6	

Question 52: In the last 12 months, did you look for any information in written materials or on the Internet about how your health plan works?
Variable name: H15034
Editing notes: See Note 12

Response	Directions	Value	Percent
Yes		1	32.4%
No	Go to Question 54	2	67.6%

Question 53: In the last 12 months, how often did the written material or the Internet provide the information you needed about how your plan works?
Variable name: H15035
Editing notes: See Note 12

Response	Value	Percent
Never	1	4.4%
Sometimes	2	27.7%
Usually	3	42.4%
Always	4	25.5%
I didn't look for information from my health plan in the last 12 months	-6	

Question 54: Sometimes people need services or equipment beyond what is provided in a regular or routine office visit, such as care from a specialist, physical therapy, a hearing aid, or oxygen. In the last 12 months, did you look for information from your health plan on how much you would have to pay for a health care service or equipment?
Variable name: H15036
Editing notes: See Note 13

Response	Directions	Value	Percent
Yes		1	16.0%
No	Go to Question 56	2	84.0%

Question 55: In the last 12 months, how often were you able to find out from your health plan how much you would have to pay for a health care service or equipment?
Variable name: H15037
Editing notes: See Note 13

Response	Value	Percent
Never	1	18.4%
Sometimes	2	19.4%
Usually	3	33.9%
Always	4	28.3%
I didn't need a health care service or equipment from my health plan in the last 12 months	-6	

Question 56: In some health plans, the amount you pay for a prescription medicine can be different for different medicines, or can be different for prescriptions filled by mail instead of at the pharmacy. In the last 12 months, did you look for information from your health plan on how much you would have to pay for specific prescription medicines?
Variable name: H15038
Editing notes: See Note 14

Response	Directions	Value	Percent
Yes		1	21.5%
No	Go to Question 58	2	78.5%

Question 57: In the last 12 months, how often were you able to find out from your health plan how much you would have to pay for specific prescription medications?
Variable name: H15039
Editing notes: See Note 14

Response	Value	Percent
Never	1	9.7%
Sometimes	2	14.4%
Usually	3	33.1%
Always	4	42.7%
I didn't need prescription medications from my health plan in the last 12 months	-6	

Question 58: In the last 12 months, did you try to get information or help from your health plan's customer service?
Variable name: H15040
Editing notes: See Note 15

Response	Directions	Value	Percent
Yes		1	26.8%
No	Go to Question 61	2	73.2%

Question 59: In the last 12 months, how often did your health plan's customer service give you the information or help you needed?
Variable name: H15041
Editing notes: See Note 15

Response	Value	Percent
Never	1	6.3%
Sometimes	2	18.5%
Usually	3	27.0%
Always	4	48.2%
I didn't call my health plan's customer service in the last 12 months	-6	

Question 60: In the last 12 months, how often did your health plan's customer service staff treat you with courtesy and respect?
Variable name: H15042
Editing notes: See Note 15

Response	Value	Percent
Never	1	2.9%
Sometimes	2	7.2%
Usually	3	21.2%
Always	4	68.7%
I didn't call my health plan's customer service in the last 12 months	-6	

Question 61: In the last 12 months, did your health plan give you any forms to fill out?
Variable name: H15043
Editing notes: See Note 16

Response	Directions	Value	Percent
Yes		1	23.1%
No	Go to Question 63	2	76.9%

Question 62: In the last 12 months, how often were the forms from your health plan easy to fill out?
Variable name: H15044
Editing notes: See Note 16

Response	Value	Percent
Never	1	2.7%
Sometimes	2	9.6%
Usually	3	45.1%
Always	4	42.6%
I didn't have any experiences with paperwork for my health plan in the last 12 months	-6	

Question 63: Claims are sent to a health plan for payment. You may send in the claims yourself, or doctors, hospitals, or others may do this for you. In the last 12 months, did you or anyone else send in any claims to your health plan?
Variable name: H15045
Editing notes: See Note 17

Response	Directions	Value	Percent
Yes		1	49.9%
No	Go to Question 66	2	33.8%
Don't know	Go to Question 66	-5	16.4%

Question 64: In the last 12 months, how often did your health plan handle your claims quickly?
Variable name: H15046
Editing notes: See Note 17

Response	Value	Percent
Never	1	2.5%
Sometimes	2	7.3%
Usually	3	29.2%
Always	4	45.8%
Don't know	-5	15.3%
No claims were sent for me in the last 12 months	-6	

Question 65: In the last 12 months, how often did your health plan handle your claims correctly?
Variable name: H15047
Editing notes: See Note 17

Response	Value	Percent
Never	1	1.1%
Sometimes	2	5.1%
Usually	3	25.9%
Always	4	54.5%
Don't know	-5	13.4%
No claims were sent for me in the last 12 months	-6	

Question 66: Using any number from 0 to 10 where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?
Variable name: H15048
Editing notes: None

Response	Value	Percent
0 – Worst health plan possible	0	0.7%
1	1	0.3%
2	2	0.7%
3	3	1.2%
4	4	1.8%
5	5	6.1%
6	6	5.2%
7	7	11.4%
8	8	18.7%
9	9	22.0%
10 – Best health plan possible	10	31.8%

PREVENTIVE CARE

Preventive care is medical care you receive that is intended to maintain your good health or prevent a future medical problem. A physical or blood pressure screening are examples of preventive care.

Question 67: When did you last have a blood pressure reading?
Variable name: H15049
Editing notes: None

Response	Value	Percent
Less than 12 months ago	3	94.1%
1 to 2 years ago	2	4.1%
More than 2 years ago	1	1.8%

Question 68: Do you know if your blood pressure is too high?
Variable name: H15050
Editing notes: None

Response	Value	Percent
Yes, it is too high	1	17.0%
No, it is not too high	2	78.2%
Don't know	3	4.8%

Question 69: When did you last have a flu shot?
Variable name: H15051
Editing notes: None

Response	Value	Percent
Less than 12 months ago	4	73.9%
1 – 2 years ago	3	8.1%
More than 2 years ago	2	9.8%
Never had a flu shot	1	8.2%

Question 70: Have you ever smoked at least 100 cigarettes in your entire life?
Variable name: H15052
Editing notes: None

Response	Value	Percent
Yes	1	38.5%
No	2	59.8%
Don't know	-5	1.8%

Question 71: Do you now smoke cigarettes or use tobacco every day, some days or not at all?
Variable name: H15053
Editing notes: See Note 18

Response	Directions	Value	Percent
Every day		4	6.7%
Some days		3	5.1%
Not at all	Go to Question 76	2	87.9%
Don't know	Go to Question 76	-5	0.4%

Question 72: In the last 12 months, how often were you advised to quit smoking or using tobacco by a doctor or other health provider in your plan?
Variable name: H15054
Editing notes: See Note 18

Response	Value	Percent
Never	1	23.3%
Sometimes	2	24.4%
Usually	3	23.2%
Always	4	29.1%

Question 73: In the last 12 months, how often was medication recommended or discussed by a doctor or health provider to assist you with quitting smoking or using tobacco? Examples of medication are: nicotine gum, patch, nasal spray, inhaler, or prescription medication.
Variable name: H15055
Editing notes: See Note 18

Response	Value	Percent
Never	1	51.1%
Sometimes	2	24.4%
Usually	3	13.5%
Always	4	11.0%

Question 74: In the last 12 months, how often did your doctor or health provider discuss or provide methods and strategies other than medication to assist you with quitting smoking or using tobacco? Examples of methods and strategies are: telephone helpline, individual or group counseling, or cessation program.
Variable name: H15056
Editing notes: See Note 18

Response	Value	Percent
Never	1	50.8%
Sometimes	2	21.6%
Usually	3	16.6%
Always	4	10.9%

Question 75: On the days you smoke or use tobacco products, what type of product do you smoke or use?
MARK ALL THAT APPLY
Variable names: H15057A-H15057D
Editing notes: See Note 18

Response	Variable Name	Percent Marked
Cigarettes	H14057A	65.4%
Dip, chewing tobacco, snuff or snus	H14057B	20.0%
Cigars	H14057C	10.6%
Pipes, bidis, or kreteks (Pipes include hookahs. Bidis are small, brown, hand-rolled cigarettes from India and other Southeast Asian countries. Kreteks are clove cigarettes made in Indonesia that contain clove extract and tobacco.)	H14057D	3.4%

Question 76: Are you male or female?
Variable name: H15058
Editing notes: See Note 19A

Response	Directions	Value	Percent
Male	Go to Question 83	1	54.4%
Female		2	45.6%

Question 77: When did you last have a Pap smear test?
Variable name: H15059B
Editing notes: See Notes 19A and 19B

Response	Value	Percent
Within the last 12 months	6	37.6%
1 to 2 years ago	5	24.4%
More than 2 but less than 3 years ago	4	9.8%
More than 3 but less than 5 years ago	3	7.9%
5 or more years ago	2	15.9%
Never had a pap smear test	1	4.4%

Question 78: Are you under age 40?
Variable name: H15060
Editing notes: See Notes 19A, 19B, and 20

Response	Directions	Value	Percent
Yes	Go to Question 80	1	33.9%
No		2	66.1%

Question 79: When was the last time your breasts were checked by mammography?
Variable name: H15061
Editing notes: See Notes 19A, 19B, and 20

Response	Value	Percent
Within the last 12 months	5	60.9%
1 to 2 years ago	4	19.6%
More than 2 but less than 5 years ago	3	9.8%
5 or more years ago	2	5.2%
Never had a mammogram	1	4.6%

Question 80: Have you been pregnant in the last 12 months or are you pregnant now?
Variable name: H15062
Editing notes: See Notes 19A, 19B, and 21

Response	Directions	Value	Percent
Yes, I am currently pregnant		1	2.8%
No, I am not currently pregnant, but have been pregnant in the past 12 months	Go to Question 82	2	5.4%
No, I am not currently pregnant, and have not been pregnant in the past 12 months	Go to Question 83	3	91.8%

Question 81: In what trimester is your pregnancy?
Variable name: H15063
Editing notes: See Notes 19A, 19B, and 21

Response	Directions	Value	Percent
First trimester (up to 12 weeks after 1st day of last period)	Go to Question 83	1	19.9%
Second trimester (13th through 27th week)		2	38.6%
Third trimester (28th week until delivery)		3	41.6%

Question 82: In which trimester did you first receive prenatal care?
Variable name: H15064
Editing notes: See Notes 19A, 19B, and 21

Response	Value	Percent
First trimester (up to 12 weeks after 1st day of last period)	4	86.8%
Second trimester (13th through 27th week)	3	6.1%
Third trimester (28th week until delivery)	2	0.2%
Did not receive prenatal care	1	6.8%

Question 83: Has a doctor ever told you that you have any of the following conditions? MARK ALL THAT APPLY
Variable names: S15BE01A-S15BE01D
Editing notes:

Response	Variable Name	Percent Marked
A heart attack	S15BE01A	4.6%
Angina or coronary heart disease	S15BE01B	6.1%
A stroke	S15BE01C	2.9%
Any kind of diabetes or high blood sugar	S15BE01D	14.9%

ABOUT YOU

Question 84: In general, how would you rate your overall health?
Variable name: H15065
Editing notes: None

Response	Value	Percent
Excellent	5	18.6%
Very good	4	41.0%
Good	3	29.5%
Fair	2	9.5%
Poor	1	1.5%

Question 85: Are you limited in any way in any activities because of any impairment or health problem?
Variable name: H15066
Editing notes: None

Response	Value	Percent
Yes	1	33.6%
No	2	66.4%

Question 86: In the last 12 months, did you get health care 3 or more times for the same condition or problem?
Variable name: H15067
Editing notes: See Note 22

Response	Directions	Value	Percent
Yes		1	41.2%
No	Go to Question 88	2	58.8%

Question 87: Is this a condition or problem that has lasted for at least 3 months? Do not include pregnancy or menopause.
Variable name: H15068
Editing notes: See Note 22

Response	Value	Percent
Yes	1	87.9%
No	2	12.1%

Question 88: Do you now need or take medicine prescribed by a doctor? Do not include birth control.
Variable name: H15069
Editing notes: See Note 23

Response	Directions	Value	Percent
Yes		1	65.8%
No	Go to Question 90	2	34.2%

Question 89: Is this medicine to treat a condition that has lasted for at least 3 months? Do not include pregnancy or menopause.
Variable name: H15070
Editing notes: See Note 23

Response	Value	Percent
Yes	1	94.4%
No	2	5.6%

Question 90: How tall are you without your shoes on? Please give your answer in feet and inches.
Variable name: H15071F, H15071I
Editing notes: See Note 23_HT

Response	Example feet	Example inches	Percent of responses
Please give your answer in feet and inches. Please write one number in each box.	5	06	94.9%

Question 91: How much do you weigh without your shoes on? Please give your answer in pounds.
Variable name: H15072
Editing notes: See Note 23_WT

Response	Example pounds	Percent of responses
Please give your answer in pounds. Please write one number in each box.	152	94.7%

Question 92: What is the highest grade or level of school that you have completed?
Variable name: SREDA
Editing notes: None

Response	Value	Percent
8th grade or less	1	0.3%
Some high school, but did not graduate	2	1.4%
High school graduate or GED	3	18.7%
Some college or 2-year degree	4	39.2%
4-year college graduate	5	17.0%
More than 4-year college degree	6	23.4%

Question 93: Are you of Hispanic or Latino origin or descent? (Mark "NO" if not Spanish/Hispanic/Latino.)
MARK ALL THAT APPLY
Variable names: H15073A-H15073E, H15073
Editing notes: See Note 24

Response	Variable Name	H14073 Value	Percent Marked
No, not Spanish, Hispanic, or Latino	H14073A	1	86.3%
Yes, Mexican, Mexican American, Chicano	H14073B	2	3.7%
Yes, Puerto Rican	H14073C	3	1.9%
Yes, Cuban	H14073D	4	0.3%
Yes, other Spanish, Hispanic, or Latino	H14073E	5	3.3%

Question 94: What is your race?
MARK ALL THAT APPLY
Variable names: SRRACEA-SRRACEE
Editing notes: None

Response	Variable Name	Percent Marked
White	SRRACEA	79.7%
Black or African American	SRRACEB	9.0%
American Indian or Alaska Native	SRRACEC	2.1%
Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)	SRRACED	5.7%
Native Hawaiian or other Pacific Islander (e.g., Samoan, Guamanian or Chamorro)	SRRACEE	0.9%

Question 95: What is your age now?
Variable name: SRAGE
Editing notes: none

Response	Value	Percent
18 to 24	1	12.0%
25 to 34	2	16.2%
35 to 44	3	11.2%
45 to 54	4	10.7%
55 to 64	5	19.2%
65 to 75	6	19.1%
75 or older	7	11.7%

Question 96: Are you currently covered by Medicare?
Variable name: H15074
Editing notes: See Note 25

Response	Directions	Value	Percent
Yes		1	33.3%
No	Go to Question 102	2	59.9%
Don't know	Go to Question 102	-5	6.8%

Question 97: Currently, are you covered by Medicare Part A? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part A helps pay for inpatient hospital care.
Variable name: H15075
Editing notes: See Note 25

Response	Value	Percent
Yes, I am now covered by Medicare Part A	1	93.1%
No, I am not covered by Medicare Part A	2	6.9%

Question 98: Currently, are you covered by Medicare Part B? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part B helps pay for doctor's services, outpatient hospital services, and certain other services.
Variable name: H15076
Editing notes: See Note 25

Response	Value	Percent
Yes, I am now covered by Medicare Part B	1	90.3%
No, I am not covered by Medicare Part B	2	9.7%

Question 99: Medicare Advantage is the name for Medicare Plus Choice plans. Are you enrolled in a Medicare Advantage Plan? This plan is also sometimes known as Medicare Part C.
Variable name: H15077
Editing notes: See Note 25

Response	Value	Percent
Yes	1	3.1%
No	2	85.9%
Don' t know	-5	11.0%

Question 100: Currently, are you covered by Medicare supplemental insurance? Medicare supplemental insurance, also called Medigap or MediSup, is usually obtained from private insurance companies and covers some of the costs not paid for by Medicare.
Variable name: H15078
Editing notes: See Note 25

Response	Value	Percent
Yes, I am now covered by Medicare supplemental insurance	1	10.2%
No, I am not covered by Medicare supplemental insurance	2	89.8%

Question 101: Are you enrolled in Medicare Part D, also known as the Medicare Prescription Drug Plan?
Variable name: H15079
Editing notes: See Note 25

Response	Value	Percent
Yes	1	8.6%
No	2	82.3%
Don' t know	-5	9.1%

Question 102: Using a scale of 1 to 5, with 1 being "strongly disagree" and 5 being "strongly agree", how much do you agree with the following statement: In general, I am able to see my provider(s) when needed?
Variable name: S15011
Editing notes: None

Response	Value	Percent
Strongly disagree	1	6.2%
Disagree	2	4.3%
Neither agree nor disagree	3	9.5%
Agree	4	40.2%
Strongly agree	5	39.8%

Question 103: Using a scale of 1 to 5, with 1 being "completely dissatisfied" and 5 being "completely satisfied", how satisfied are you, overall, with the health care you received during your last visit?
Variable name: S15014
Editing notes: None

Response	Value	Percent
Completely dissatisfied	1	3.5%
Somewhat dissatisfied	2	4.9%
Neither satisfied nor dissatisfied	3	6.7%
Somewhat satisfied	4	23.4%
Completely satisfied	5	61.4%

THANK YOU FOR TAKING THE TIME TO COMPLETE THE SURVEY!

Your generous contribution will greatly aid efforts to improve the health of our military community.

APPENDIX A

ANNOTATED QUESTIONNAIRE – QUARTER III

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RCS: DD-HA(A) 1942

Health Care Survey of DoD Beneficiaries

A world-wide survey of beneficiaries eligible for health care coverage through the military health system

April 2015

Military Health Care Survey:

Adult Questionnaire

April 2015

Privacy Advisory

Providing information in this Survey is voluntary. There is no penalty nor will your benefits be affected if you choose not to respond, although maximum participation is encouraged so that the data will be complete and representative.

The Survey was written so that answers should not require you to provide any personally identifiable information (PII), but please be assured that any PII provided will be treated as confidential. Your responses are collected via a secure system which does not collect any information that could be used to determine your identity.

Answering the questions is voluntary; you may stop the Survey at any time.

According to the Privacy Act of 1974 (5 U.S.C. §552a), the Department of Defense is required to inform you of the purposes and use of this survey. Please read it carefully.

Authority: 10 U.S.C. §1074 (Medical and Dental Care for Members and Certain Former Members, as amended by National Defense Authorization Act of 1993, Public Law 102-484, §706); 10 U.S.C. §1074f (Medical Tracking System for Members Deployed Overseas); 32 C.F.R. §199.17 (TRICARE Program); 45 C.F.R. Part 160 Subparts A and E of Part 164 (Health Insurance Portability and Accountability Act of 1996, Privacy Rule); DoD 6025.18-R (Department of Defense Health Information Privacy Regulation); DoD 6025.13-R (Military Health System Clinical Quality Assurance Program Regulation); 64 FR 22837 (DHA 08 – Health Affairs Survey Data Base, April 28, 1999); and, E.O. 9397 (as amended, November 20, 2008, for SSN collection).

Purpose: This survey helps health policy makers gauge beneficiary satisfaction with the current military health care system and provides valuable input from beneficiaries that will be used to improve the Military Health System.

Routine Uses: None.

Disclosure: Participation is voluntary. Failure to respond will not result in any penalty to the respondent however maximum participation is encouraged so that data will be as complete and representative as possible.

SURVEY INSTRUCTIONS

Thank you for taking the time to participate in this online survey.

Please note, if the survey is idle for more than 5 minutes, you will be logged out automatically to protect your privacy. If that happens, simply wait 15 minutes and log back in. Please keep your password because you may need it later.

During the survey, please do not use your browser's FORWARD and BACK buttons. Instead, please always use the buttons below to move backward and forward through the survey.

To begin, just click on the "Next" button below. This will take you right into the survey.

SURVEY STARTS HERE

As an eligible TRICARE beneficiary, please complete this survey even if you did not receive your health care from a military facility.

Please recognize that some specific questions about TRICARE benefits may not apply to you, depending on your entitlement and particular TRICARE program.

This survey is about the health care of the person whose name appears on the cover letter. The questionnaire should be completed by that person. If you are not the addressee, please give this survey to that person.

Question 1: Are you the person whose name appears on the cover letter?
Variable name: H15001
Editing notes: None

Response	Directions	Value	Percent
Yes	Go to Question 2	1	99.6%
No	Please give this questionnaire to the person addressed on the cover letter.	2	0.4%

Question 2: By which of the following health plans are you currently covered?
MARK ALL THAT APPLY
Variable names: H15002A, H15002C, H15002F-H15002V
Editing notes: None

Military Health Plans

Response	Variable Name	Percent Marked
TRICARE Prime (including most Active Duty, TRICARE Prime Remote, and TRICARE Overseas)	H15002A	46.7%
TRICARE Extra or Standard (CHAMPUS)	H15002C	13.9%
TRICARE Plus	H15002N	0.6%
TRICARE for Life	H15002O	30.4%
TRICARE Supplemental Insurance	H15002P	0.5%
TRICARE Reserve Select	H15002Q	2.9%
TRICARE Retired Reserve	H15002S	1.4%
TRICARE Young Adult Prime	H15002T	0.5%
TRICARE Young Adult Extra or Standard	H15002V	0.4%
Uniformed Services Family Health Plan (USFHP)	H15002K	1.4%
Continued Health Care Benefit Program (CHCBP) (a COBRA-like premium-based health care program)	H15002U	0.1%

Other Health Plans

Response	Variable Name	Percent Marked
Medicare	H15002F	30.6%
Federal Employees Health Benefit Program (FEHBP)	H15002G	2.5%
Medicaid	H15002H	1.2%
A civilian HMO (such as Kaiser)	H15002I	1.2%
Other civilian health insurance (such as Blue Cross)	H15002J	6.7%
The Veterans Administration (VA)	H15002M	7.0%
Government health insurance from a country other than the US	H15002R	0.2%
Not sure	H15002L	4.3%

Question 3: Which health plan did you use for all or most of your healthcare in the last 12 months? MARK ONLY ONE
Variable name: H15003
Editing notes: See Note 1

Response	Directions	Value	Percent
TRICARE Prime (including most Active Duty, TRICARE Prime Remote, and TRICARE Overseas)		1	44.6%
TRICARE Extra or Standard (CHAMPUS)		3	10.2%
TRICARE Plus		11	0.5%
TRICARE Reserve Select		12	2.7%
TRICARE Retired Reserve		14	1.0%
TRICARE Young Adult Prime		15	0.2%
TRICARE Young Adult Extra or Standard		17	0.2%
Uniformed Services Family Health Plan (USFHP)		9	1.3%
Continued Health Care Benefit Program (CHCBP) (a COBRA-like premium-based health care program)		16	0.0%
Medicare (may include TRICARE for Life)		4	25.8%
Federal Employees Health Benefit Program (FEHBP)		5	1.6%
Medicaid		6	0.4%
A civilian HMO (such as Kaiser)		7	1.1%
Other civilian health insurance (such as Blue Cross)		8	4.7%
The Veterans Administration (VA)		10	3.3%
Government health insurance from a country other than the US		13	0.1%
Not sure	Go to Question 5	-5	2.3%
Did not use any health plan in the last 12 months	Go to Question 5	-6	

For the remainder of this questionnaire, the term <u>health plan</u> refers to the plan you indicated in Question 3.

Question 4: How many months or years in a row have you been in this health plan?
Variable name: H15004
Editing notes: See Note 1

Response	Value	Percent
Less than 6 months	1	1.3%
6 up to 12 months	2	6.3%
12 up to 24 months	3	8.9%
2 up to 5 years	4	18.9%
5 up to 10 years	5	19.9%
10 or more years	6	44.6%

YOUR HEALTH CARE IN THE LAST 12 MONTHS

These questions ask about your own health care. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

Question 5: In the last 12 months, where did you go most often for your health care?
MARK ONLY ONE
Variable name: H15005
Editing notes: None

Response	Value	Percent
A military facility – This includes: Military clinic Military hospital PRIMUS clinic NAVCARE clinic	1	36.5%
A civilian facility – This includes: Doctor's office Clinic Hospital Civilian TRICARE contractor	2	54.5%
Uniformed Services Family Health Plan facility (USFHP)	3	0.8%
Veterans Affairs (VA) clinic or hospital	4	5.0%
I went to none of the listed types of facilities in the last 12 months	5	3.2%

Question 6: In the last 12 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?
Variable name: H15006
Editing notes: See Note 2

Response	Directions	Value	Percent
Yes		1	44.6%
No	Go to Question 9	2	55.4%

Question 7: In the last 12 months, when you needed care right away, how often did you get care as soon as you needed?
Variable name: H15007
Editing notes: See Note 2

Response	Value	Percent
Never	1	2.5%
Sometimes	2	12.3%
Usually	3	20.6%
Always	4	64.6%
I didn't need care right away for an illness, injury or condition in the last 12 months	-6	

Question 8: In the last 12 months, when you <u>needed care right away</u> for an illness, injury, or condition, how long did you usually have to wait between trying to get care and actually seeing a provider?
Variable name: H15008
Editing notes: See Note 2

Response	Value	Percent
Same day	1	61.5%
1 day	2	15.1%
2 days	3	7.1%
3 days	4	3.4%
4-7 days	5	6.0%
8-14 days	6	3.4%
15 days or longer	7	3.5%
I didn't need care right away for an illness, injury or condition in the last 12 months	-6	

Question 9: In the last 12 months, not counting the times you needed health care right away, did you make any <u>appointments</u> for your health care at a doctor's office or clinic?
Variable name: H15009
Editing notes: See Note 3

Response	Directions	Value	Percent
Yes		1	86.9%
No	Go to Question 12	2	13.1%

Question 10: In the last 12 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?
Variable name: H15010
Editing notes: See Note 3

Response	Value	Percent
Never	1	3.2%
Sometimes	2	15.9%
Usually	3	26.6%
Always	4	54.3%
I had no appointments in the last 12 months	-6	

Question 11: In the last 12 months, not counting the times you needed health care right away, how many days did you usually have to wait between making an appointment and actually seeing a provider?
Variable name: H15011
Editing notes: See Note 3

Response	Value	Percent
Same day	1	8.8%
1 day	2	10.4%
2-3 days	3	23.9%
4-7 days	4	22.4%
8-14 days	5	16.7%
15-30 days	6	12.0%
31 days or longer	7	5.7%
I had no appointments in the last 12 months	-6	

Question 12: In the last 12 months, how many times did you go to an emergency room to get care for yourself?
Variable name: H15012
Editing notes: None

Response	Value	Percent
None	1	71.4%
1	2	18.3%
2	3	6.4%
3	4	2.0%
4	5	1.1%
5 to 9	6	0.6%
10 or more	7	0.2%

Question 13: In the last 12 months (not counting times you went to an emergency room), how many times did you go to a doctor's office or clinic to get health care for yourself?
Variable name: H15013
Editing notes: See Note 4

Response	Directions	Value	Percent
None	Go to Question 19	1	11.6%
1		2	11.3%
2		3	17.8%
3		4	15.0%
4		5	14.3%
5 to 9		6	19.4%
10 or more		7	10.6%

Question 14: In the last 12 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness?
Variable name: H15014
Editing notes: See Note 4

Response	Value	Percent
Never	1	12.9%
Sometimes	2	27.2%
Usually	3	29.3%
Always	4	30.6%

Question 15: Choices for your treatment or health care can include choices about medicine, surgery, or other treatment. In the last 12 months, did a doctor or other health provider tell you there was more than one choice for your treatment or health care?
Variable name: H15015
Editing notes: See Notes 4 and 5

Response	Directions	Value	Percent
Yes		1	57.6%
No	Go to Question 18	2	42.4%

Question 16: In the last 12 months, did a doctor or other health provider talk with you about the pros and cons of each choice for your treatment or health care?
Variable name: H15016
Editing notes: See Notes 4 and 5

Response	Value	Percent
Definitely yes	1	64.7%
Somewhat yes	2	30.3%
Somewhat no	3	3.2%
Definitely no	4	1.8%

Question 17: In the last 12 months, when there was more than one choice for your treatment or health care, did a doctor or other health provider ask which choice you thought was best for you?
Variable name: H15017
Editing notes: See Notes 4 and 5

Response	Value	Percent
Definitely yes	1	56.7%
Somewhat yes	2	33.1%
Somewhat no	3	7.0%
Definitely no	4	3.2%

Question 18: Using <u>any number from 0 to 10</u>, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 12 months?
Variable name: H15018
Editing notes: See Note 4

Response	Value	Percent
0 – Worst health care possible	0	0.5%
1	1	0.6%
2	2	1.0%
3	3	1.6%
4	4	1.9%
5	5	5.4%
6	6	5.0%
7	7	11.9%
8	8	20.0%
9	9	20.2%
10 – Best health care possible	10	31.8%
I had no visits in the last 12 months	-6	

Question 19: In the last 12 months, did you have a health problem for which you <u>needed special medical equipment</u>, such as a cane, a wheelchair, or oxygen equipment?
Variable name: S15C09
Editing notes: See Note 5_C1

Response	Directions	Value	Percent
Yes		1	14.4%
No	Go to Question 21	2	85.6%

Question 20: In the last 12 months, how much of a problem, if any, was it to get the special medical equipment you needed through your health plan?
Variable name: S15C10
Editing notes: See Note 5_C1

Response	Value	Percent
A big problem	1	9.5%
A small problem	2	15.7%
Not a problem	3	74.8%
I didn't need to get any special medical equipment in the last 12 months	-6	

Question 21: In the last 12 months, did you have any health problems that needed special therapy, such as physical, occupational, or speech therapy?
Variable name: S15C11
Editing notes: See Note 5_C2

Response	Directions	Value	Percent
Yes		1	20.5%
No	Go to Question 23	2	79.5%

Question 22: In the last 12 months, how much of a problem, if any, was it to get the special therapy you needed through your health plan?
Variable name: S15C12
Editing notes: See Note 5_C2

Response	Value	Percent
A big problem	1	8.2%
A small problem	2	16.3%
Not a problem	3	75.6%
I didn't need special therapy in the last 12 months	-6	

Question 23: Home health care or assistance means home nursing, help with bathing or dressing, and help with basic household tasks. In the last 12 months, did you need someone to come into your home to give you home health care or assistance?
Variable name: S15C13
Editing notes: See Note 5_C3

Response	Directions	Value	Percent
Yes		1	3.1%
No	Go to Question 25	2	96.9%

Question 24: In the last 12 months, how much of a problem, if any, was it to get the <u>home health care</u> you needed through your health plan?
Variable name: S15C14
Editing notes: See Note 5_C3

Response	Value	Percent
A big problem	1	11.1%
A small problem	2	11.7%
Not a problem	3	77.2%
I didn’t need home health care or assistance in the last 12 months	-6	

YOUR PERSONAL DOCTOR

Question 25: A personal doctor is the one you would see if you need a checkup, want advice about a health problem, or get sick or hurt. Do you have a personal doctor?
Variable name: H15019
Editing notes: See Note 6

Response	Directions	Value	Percent
Yes		1	79.1%
No	Go to Question 35	2	20.9%

Question 26: In the last 12 months, how many times did you visit your personal doctor to get care for yourself?
Variable name: H15020
Editing notes: See Notes 6 and 7

Response	Directions	Value	Percent
None	Go to Question 33	0	8.5%
1		1	17.5%
2		2	23.9%
3		3	18.2%
4		4	15.1%
5 to 9		5	13.6%
10 or more		6	3.2%

Question 27: In the last 12 months, how often did your personal doctor listen carefully to you?
Variable name: H15021
Editing notes: See Notes 6 and 7

Response	Value	Percent
Never	1	1.0%
Sometimes	2	5.6%
Usually	3	18.0%
Always	4	75.4%
I had no visits in the last 12 months	-6	

Question 28: In the last 12 months, how often did your personal doctor explain things in a way that was easy to understand?
Variable name: H15022
Editing notes: See Notes 6 and 7

Response	Value	Percent
Never	1	0.7%
Sometimes	2	3.9%
Usually	3	18.2%
Always	4	77.2%
I had no visits in the last 12 months	-6	

Question 29: In the last 12 months, how often did your personal doctor show respect for what you had to say?
Variable name: H15023
Editing notes: See Notes 6 and 7

Response	Value	Percent
Never	1	1.1%
Sometimes	2	4.4%
Usually	3	14.4%
Always	4	80.1%
I had no visits in the last 12 months	-6	

Question 30: In the last 12 months, how often did your personal doctor spend enough time with you?
Variable name: H15024
Editing notes: See Notes 6 and 7

Response	Value	Percent
Never	1	1.8%
Sometimes	2	6.8%
Usually	3	23.2%
Always	4	68.2%
I had no visits in the last 12 months	-6	

Question 31: In the last 12 months, did you get care from a doctor or other health provider besides your personal doctor?
Variable name: H15025
Editing notes: See Notes 6, 7, and 8

Response	Directions	Value	Percent
Yes		1	74.3%
No	Go to Question 33	2	25.7%

Question 32: In the last 12 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?
Variable name: H15026
Editing notes: See Notes 6, 7, and 8

Response	Value	Percent
Never	1	9.0%
Sometimes	2	14.6%
Usually	3	30.0%
Always	4	46.4%

Question 33: Using any number from 0 to 10, where 0 is the worst personal doctor possible and 10 is the best personal doctor possible, what number would you use to rate your personal doctor?
Variable name: H15027
Editing notes: See Note 6

Response	Value	Percent
0 – Worst personal doctor possible	0	0.4%
1	1	0.4%
2	2	0.8%
3	3	1.2%
4	4	1.4%
5	5	4.3%
6	6	3.4%
7	7	7.7%
8	8	15.5%
9	9	22.3%
10 – Best personal doctor possible	10	42.6%
I don't have a personal doctor	-6	

Question 34: Did you have the same personal doctor <u>before</u> you joined this health plan?
Variable name: S15009
Editing notes: See Notes 6 and 8_01

Response	Directions	Value	Percent
Yes	Go to Question 36	1	32.8%
No		2	67.2%

Question 35: Since you joined your health plan, how much of a problem, if any, was it to get a personal doctor you are happy with?
Variable name: S15010
Editing notes: See Note 8_01

Response	Value	Percent
A big problem	1	11.9%
A small problem	2	23.2%
Not a problem	3	64.9%

GETTING HEALTH CARE FROM A SPECIALIST

When you answer the next questions, do not include dental visits or care you got when you stayed overnight in a hospital.

Question 36: Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care. In the last 12 months, did you try to make any appointments to see a specialist?
Variable name: H15028
Editing notes: See Note 9

Response	Directions	Value	Percent
Yes		1	58.3%
No	Go to Question 40	2	41.7%

Question 37: In the last 12 months, how often did you get an appointment to see a specialist as soon as you needed?
Variable name: H15029
Editing notes: See Note 9

Response	Value	Percent
Never	1	6.2%
Sometimes	2	14.2%
Usually	3	30.5%
Always	4	49.1%
I didn't need a specialist in the last 12 months	-6	

Question 38: How many specialists have you seen in the last 12 months?
Variable name: H15030
Editing notes: See Notes 9 and 10

Response	Directions	Value	Percent
None	Go to Question 40	0	3.4%
1 specialist		1	40.6%
2		2	30.7%
3		3	15.4%
4		4	5.5%
5 or more specialists		5	4.4%

Question 39: We want to know your rating of the specialist you saw most often in the last 12 months. Using any number from 0 to 10 where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate the specialist?
Variable name: H15031
Editing notes: See Notes 9 and 10

Response	Value	Percent
0 – Worst specialist possible	0	0.5%
1	1	0.3%
2	2	0.9%
3	3	1.0%
4	4	1.2%
5	5	4.1%
6	6	3.2%
7	7	8.0%
8	8	16.5%
9	9	24.0%
10 – Best specialist possible	10	40.3%
I didn't see a specialist in the last 12 months	-6	

Question 40: In general, how would you rate your overall mental or emotional health?
Variable name: S15B01
Editing notes: None

Response	Value	Percent
Excellent	1	41.9%
Very good	2	31.5%
Good	3	17.8%
Fair	4	7.0%
Poor	5	1.8%

Question 41: In the last 12 months, did you need any treatment or counseling for a personal or family problem?
Variable name: S15B02
Editing notes: See Note 10_B1

Response	Directions	Value	Percent
Yes		1	13.7%
No	Go to Question 44	2	86.3%

Question 42: In the last 12 months, how much of a problem, if any, was it to get the treatment or counseling you needed through your health plan?
Variable name: S15B03
Editing notes: See Note 10_B1

Response	Value	Percent
A big problem	1	14.7%
A small problem	2	19.1%
Not a problem	3	66.2%

Question 43: Using <u>any number from 0 to 10</u> where 0 is the worst treatment or counseling possible and 10 is the best treatment or counseling possible, what number would you use to rate your treatment or counseling in the last 12 months?
Variable name: S15B04
Editing notes: See Note 10_B1

Response	Value	Percent
0 – Worst treatment or counseling possible	0	2.7%
1	1	2.3%
2	2	3.0%
3	3	1.9%
4	4	5.8%
5	5	9.0%
6	6	5.1%
7	7	9.8%
8	8	13.8%
9	9	18.8%
10 – Best treatment or counseling possible	10	27.7%
I had no treatment or counseling in the last 12 months	-6	

YOUR HEALTH PLAN

The next questions ask about your experience with your health plan. By your health plan, we mean the health plan you marked in Question 3.

Question 44: In the last 12 months, did you try to get any kind of care, tests, or treatment through your health plan?
Variable name: H15032
Editing notes: See Note 11

Response	Directions	Value	Percent
Yes		1	67.7%
No	Go to Question 46	2	32.3%

Question 45: In the last 12 months, how often was it easy to get the care, tests, or treatment you needed?
Variable name: H15033
Editing notes: See Note 11

Response	Value	Percent
Never	1	2.9%
Sometimes	2	9.8%
Usually	3	26.2%
Always	4	61.1%
I didn't need care, tests, or treatment through my health plan in the last 12 months	-6	

Question 46: In the last 12 months, did you look for any information in written materials or on the Internet about how your health plan works?
Variable name: H15034
Editing notes: See Note 12

Response	Directions	Value	Percent
Yes		1	29.0%
No	Go to Question 48	2	71.0%

Question 47: In the last 12 months, how often did the written material or the Internet provide the information you needed about how your plan works?
Variable name: H15035
Editing notes: See Note 12

Response	Value	Percent
Never	1	5.9%
Sometimes	2	26.4%
Usually	3	47.2%
Always	4	20.6%
I didn't look for information from my health plan in the last 12 months	-6	

Question 48: Sometimes people need services or equipment beyond what is provided in a regular or routine office visit, such as care from a specialist, physical therapy, a hearing aid, or oxygen. In the last 12 months, did you look for information from your health plan on how much you would have to pay for a health care service or equipment?
Variable name: H15036
Editing notes: See Note 13

Response	Directions	Value	Percent
Yes		1	14.8%
No	Go to Question 50	2	85.2%

Question 49: In the last 12 months, how often were you able to find out from your health plan how much you would have to pay for a health care service or equipment?
Variable name: H15037
Editing notes: See Note 13

Response	Value	Percent
Never	1	21.0%
Sometimes	2	23.7%
Usually	3	29.7%
Always	4	25.5%
I didn't need a health care service or equipment from my health plan in the last 12 months	-6	

Question 50: In some health plans, the amount you pay for a prescription medicine can be different for different medicines, or can be different for prescriptions filled by mail instead of at the pharmacy. In the last 12 months, did you look for information from your health plan on how much you would have to pay for specific prescription medicines?
Variable name: H15038
Editing notes: See Note 14

Response	Directions	Value	Percent
Yes		1	19.4%
No	Go to Question 52	2	80.6%

Question 51: In the last 12 months, how often were you able to find out from your health plan how much you would have to pay for specific prescription medications?
Variable name: H15039
Editing notes: See Note 14

Response	Value	Percent
Never	1	13.6%
Sometimes	2	20.3%
Usually	3	28.7%
Always	4	37.4%
I didn't need prescription medications from my health plan in the last 12 months	-6	

Question 52: In the last 12 months, did you try to get information or help from your health plan's customer service?
Variable name: H15040
Editing notes: See Note 15

Response	Directions	Value	Percent
Yes		1	26.0%
No	Go to Question 55	2	74.0%

Question 53: In the last 12 months, how often did your health plan's customer service give you the information or help you needed?
Variable name: H15041
Editing notes: See Note 15

Response	Value	Percent
Never	1	7.3%
Sometimes	2	19.9%
Usually	3	28.1%
Always	4	44.7%
I didn't call my health plan's customer service in the last 12 months	-6	

Question 54: In the last 12 months, how often did your health plan's customer service staff treat you with courtesy and respect?
Variable name: H15042
Editing notes: See Note 15

Response	Value	Percent
Never	1	1.1%
Sometimes	2	9.3%
Usually	3	23.8%
Always	4	65.9%
I didn't call my health plan's customer service in the last 12 months	-6	

Question 55: In the last 12 months, did your health plan give you any forms to fill out?
Variable name: H15043
Editing notes: See Note 16

Response	Directions	Value	Percent
Yes		1	22.4%
No	Go to Question 57	2	77.6%

Question 56: In the last 12 months, how often were the forms from your health plan easy to fill out?
Variable name: H15044
Editing notes: See Note 16

Response	Value	Percent
Never	1	4.1%
Sometimes	2	12.6%
Usually	3	42.1%
Always	4	41.2%
I didn't have any experiences with paperwork for my health plan in the last 12 months	-6	

Question 57: Claims are sent to a health plan for payment. You may send in the claims yourself, or doctors, hospitals, or others may do this for you. In the last 12 months, did you or anyone else send in any claims to your health plan?
Variable name: H15045
Editing notes: See Note 17

Response	Directions	Value	Percent
Yes		1	48.5%
No	Go to Question 60	2	33.8%
Don't know	Go to Question 60	-5	17.7%

Question 58: In the last 12 months, how often did your health plan handle your claims quickly?
Variable name: H15046
Editing notes: See Note 17

Response	Value	Percent
Never	1	2.2%
Sometimes	2	7.5%
Usually	3	29.5%
Always	4	47.2%
Don't know	-5	13.6%
No claims were sent for me in the last 12 months	-6	

Question 59: In the last 12 months, how often did your health plan handle your claims correctly?
Variable name: H15047
Editing notes: See Note 17

Response	Value	Percent
Never	1	1.3%
Sometimes	2	5.8%
Usually	3	26.6%
Always	4	53.4%
Don't know	-5	12.9%
No claims were sent for me in the last 12 months	-6	

Question 60: Using any number from 0 to 10 where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?
Variable name: H15048
Editing notes: None

Response	Value	Percent
0 – Worst health plan possible	0	0.6%
1	1	0.3%
2	2	0.8%
3	3	1.4%
4	4	1.3%
5	5	7.3%
6	6	5.4%
7	7	12.1%
8	8	18.4%
9	9	20.0%
10 – Best health plan possible	10	32.4%

REFERRALS TO SPECIALISTS

The following questions ask about your experiences getting referrals to specialists. Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and others who specialize in one area of healthcare. Beneficiaries enrolled in TRICARE Prime must get a referral before seeing a specialist, while other health plans may have different requirements.

Question 61: Does the plan you use for all or most of your healthcare require you to get a referral from a doctor in order to see a specialist?
Variable name: S15R01
Editing notes: See Note 17_R1

Response	Directions	Value	Percent
Yes		1	62.8%
No	Go to Question 63	2	37.2%

Question 62: In the last 12 months did a doctor refer you to a specialist?
Variable name: S15R02
Editing notes: See Note 17_R1

Response	Value	Percent
Yes	1	59.6%
No	2	40.4%

Question 63: In the last 12 months how did you select the specialist(s) you saw?
MARK ALL THAT APPLY
Variable names: S15R03A-S15R03E
Editing notes: See Note 17_R2

Response	Directions	Variable Name	Percent Marked
I did not see a specialist in the last 12 months	Go to Question 76	S15R03A	12.1%
My doctor told me what specialist to see		S15R03B	45.7%
I received a suggestion from a friend or relative		S15R03C	5.9%
I picked the specialist from a list supplied by TRICARE or my health plan		S15R03D	11.4%
I picked the specialist on my own		S15R03E	15.1%

Question 64: In the last 12 months, when you needed to see a specialist, how did you make an appointment?
MARK ALL THAT APPLY
Variable names: S15R04A-S15R04G
Editing notes: See Note 17_R2

Response	Variable Name	Percent Marked
Contacted the appointment line or referral desk	S15R04A	16.0%
Called an MTF	S15R04B	1.7%
Called my personal doctor's office	S15R04C	5.5%
Called the specialist's office	S15R04D	36.8%
Asked my personal doctor to make the appointment	S15R04E	4.3%
My personal doctor made the appointment for me	S15R04F	16.1%
Other	S15R04G	5.0%

Question 65: In the last 12 months, how much of a problem, if any, was it to understand the process you needed to follow to see a specialist?
Variable name: S15R05
Editing notes: See Note 17_R2

Response	Value	Percent
A big problem	1	4.0%
A small problem	2	16.2%
Not a problem	3	79.8%

Question 66: In the last 12 months, were you referred to any civilian specialists?
Variable name: S15R06
Editing notes: See Notes 17_R2 and 17_R3

Response	Directions	Value	Percent
Yes		1	75.8%
No	Go to Question 71	2	24.2%

Question 67: How much of a problem, if any, was your wait time to see a civilian specialist?
Variable name: S15R07
Editing notes: See Notes 17_R2 and 17_R3

Response	Value	Percent
A big problem	1	6.2%
A small problem	2	17.4%
Not a problem	3	76.4%

Question 68: In the last 12 months, what is the longest time you spent traveling (round-trip) to see a civilian specialist?
Variable name: S15R08
Editing notes: See Notes 17_R2 and 17_R3

Response	Value	Percent
Less than ½ hour	1	35.7%
½ hour to less than 1 hour	2	34.7%
1 hour to less than 2 hours	3	18.2%
2 hours to less than 4 hours	4	7.7%
4 hours to less than 8 hours	5	2.5%
8 hours or more	6	1.3%

Question 69: In the last 12 months did you travel more than 100 miles (one way) to see a civilian specialist?
Variable name: S15R09
Editing notes: See Notes 17_R2 and 17_R3

Response	Value	Percent
Yes	1	6.0%
No	2	94.0%

Question 70: In the past 12 months, how often did your doctor seem informed and up-to-date about the care you got from these civilian specialists?
Variable name: S15R10
Editing notes: See Notes 17_R2 and 17_R3

Response	Value	Percent
Never	1	10.3%
Sometimes	2	13.7%
Usually	3	32.2%
Always	4	43.8%

Question 71: In the last 12 months, were you referred to a specialist at an MTF?
Variable name: S15R11
Editing notes: See Notes 17_R2 and 17_R4

Response	Directions	Value	Percent
Yes		1	82.0%
No	Go to Question 76	2	18.0%

Question 72: How much of a problem, if any, was your wait time to see a specialist at an MTF?
Variable name: S15R12
Editing notes: See Notes 17_R2 and 17_R4

Response	Value	Percent
A big problem	1	13.3%
A small problem	2	24.8%
Not a problem	3	61.9%

Question 73: In the last 12 months, what is the longest time you spent traveling (round-trip) to see a specialist at an MTF?
Variable name: S15R13
Editing notes: See Notes 17_R2 and 17_R4

Response	Value	Percent
Less than ½ hour	1	40.5%
½ hour to less than 1 hour	2	32.1%
1 hour to less than 2 hours	3	16.0%
2 hours to less than 4 hours	4	7.3%
4 hours to less than 8 hours	5	3.3%
8 hours or more	6	0.9%

Question 74: In the last 12 months did you travel more than 100 miles (one way) to see a specialist at an MTF?
Variable name: S15R14
Editing notes: See Notes 17_R2 and 17_R4

Response	Value	Percent
Yes	1	4.4%
No	2	95.6%

Question 75: In the past 12 months, how often did your doctor seem informed and up-to-date about the care you got from these specialists at an MTF?
Variable name: S15R15
Editing notes: See Notes 17_R2 and 17_R4

Response	Value	Percent
Never	1	17.1%
Sometimes	2	18.8%
Usually	3	27.7%
Always	4	36.4%

PREVENTIVE CARE

Preventive care is medical care you receive that is intended to maintain your good health or prevent a future medical problem. A physical or blood pressure screening are examples of preventive care.

Question 76: When did you last have a blood pressure reading?
Variable name: H15049
Editing notes: None

Response	Value	Percent
Less than 12 months ago	3	94.0%
1 to 2 years ago	2	4.5%
More than 2 years ago	1	1.5%

Question 77: Do you know if your blood pressure is too high?
Variable name: H15050
Editing notes: None

Response	Value	Percent
Yes, it is too high	1	15.8%
No, it is not too high	2	78.5%
Don't know	3	5.6%

Question 78: When did you last have a cholesterol screening, that is, a test to determine the level of cholesterol in your blood?
Variable name: S15015
Editing notes: none

Response	Value	Percent
Less than 12 months ago	5	64.1%
1 to 2 years ago	4	14.1%
More than 2 but less than 5 years ago	3	5.2%
5 or more years ago	2	2.2%
Never had a cholesterol screening	1	14.4%

Question 79: When did you last have a flu shot?
Variable name: H15051
Editing notes: None

Response	Value	Percent
Less than 12 months ago	4	71.9%
1 – 2 years ago	3	9.1%
More than 2 years ago	2	9.4%
Never had a flu shot	1	9.6%

Question 80: Have you ever smoked at least 100 cigarettes in your entire life?
Variable name: H15052
Editing notes: None

Response	Value	Percent
Yes	1	36.5%
No	2	61.5%
Don't know	-5	2.0%

Question 81: Do you now smoke cigarettes or use tobacco every day, some days or not at all?
Variable name: H15053
Editing notes: See Note 18

Response	Directions	Value	Percent
Every day		4	7.4%
Some days		3	5.0%
Not at all	Go to Question 86	2	87.2%
Don't know	Go to Question 86	-5	0.4%

Question 82: In the last 12 months, how often were you advised to quit smoking or using tobacco by a doctor or other health provider in your plan?
Variable name: H15054
Editing notes: See Note 18

Response	Value	Percent
Never	1	24.6%
Sometimes	2	21.5%
Usually	3	21.5%
Always	4	32.5%

Question 83: In the last 12 months, how often was medication recommended or discussed by a doctor or health provider to assist you with quitting smoking or using tobacco? Examples of medication are: nicotine gum, patch, nasal spray, inhaler, or prescription medication.
Variable name: H15055
Editing notes: See Note 18

Response	Value	Percent
Never	1	50.2%
Sometimes	2	21.8%
Usually	3	14.1%
Always	4	13.8%

Question 84: In the last 12 months, how often did your doctor or health provider discuss or provide methods and strategies other than medication to assist you with quitting smoking or using tobacco? Examples of methods and strategies are: telephone helpline, individual or group counseling, or cessation program.
Variable name: H15056
Editing notes: See Note 18

Response	Value	Percent
Never	1	48.5%
Sometimes	2	26.0%
Usually	3	12.5%
Always	4	12.9%

Question 85: On the days you smoke or use tobacco products, what type of product do you smoke or use?
MARK ALL THAT APPLY
Variable names: H15057A-H15057D
Editing notes: See Note 18

Response	Variable Name	Percent Marked
Cigarettes	H15057A	60.5%
Dip, chewing tobacco, snuff or snus	H15057B	18.5%
Cigars	H15057C	11.4%
Pipes, bidis, or kreteks (Pipes include hookahs. Bidis are small, brown, hand-rolled cigarettes from India and other Southeast Asian countries. Kreteks are clove cigarettes made in Indonesia that contain clove extract and tobacco.)	H15057D	2.6%

Question 86: Are you male or female?
Variable name: H15058
Editing notes: See Note 19A

Response	Directions	Value	Percent
Male	Go to Question 93	1	50.2%
Female		2	49.8%

Question 87: When did you last have a Pap smear test?
Variable name: H15059B
Editing notes: See Notes 19A and 19B

Response	Value	Percent
Within the last 12 months	6	37.4%
1 to 2 years ago	5	24.7%
More than 2 but less than 3 years ago	4	9.9%
More than 3 but less than 5 years ago	3	7.4%
5 or more years ago	2	16.3%
Never had a pap smear test	1	4.3%

Question 88: Are you under age 40?
Variable name: H15060
Editing notes: See Notes 19A, 19B, and 20

Response	Directions	Value	Percent
Yes	Go to Question 90	1	33.9%
No		2	66.1%

Question 89: When was the last time your breasts were checked by mammography?
Variable name: H15061
Editing notes: See Notes 19A, 19B, and 20

Response	Value	Percent
Within the last 12 months	5	62.8%
1 to 2 years ago	4	17.2%
More than 2 but less than 5 years ago	3	8.3%
5 or more years ago	2	7.1%
Never had a mammogram	1	4.6%

Question 90: Have you been pregnant in the last 12 months or are you pregnant now?
Variable name: H15062
Editing notes: See Notes 19A, 19B, and 21

Response	Directions	Value	Percent
Yes, I am currently pregnant		1	2.9%
No, I am not currently pregnant, but have been pregnant in the past 12 months	Go to Question 92	2	7.2%
No, I am not currently pregnant, and have not been pregnant in the past 12 months	Go to Question 93	3	89.9%

Question 91: In what trimester is your pregnancy?
Variable name: H15063
Editing notes: See Notes 19A, 19B, and 21

Response	Directions	Value	Percent
First trimester (up to 12 weeks after 1st day of last period)	Go to Question 93	1	17.9%
Second trimester (13th through 27th week)		2	45.0%
Third trimester (28th week until delivery)		3	37.0%

Question 92: In which trimester did you first receive prenatal care?
Variable name: H15064
Editing notes: See Notes 19A, 19B, and 21

Response	Value	Percent
First trimester (up to 12 weeks after 1st day of last period)	4	88.5%
Second trimester (13th through 27th week)	3	6.0%
Third trimester (28th week until delivery)	2	0.3%
Did not receive prenatal care	1	5.2%

ABOUT YOU

Question 93: In general, how would you rate your overall health?
Variable name: H15065
Editing notes: None

Response	Value	Percent
Excellent	5	18.1%
Very good	4	39.1%
Good	3	31.0%
Fair	2	9.6%
Poor	1	2.2%

Question 94: Are you limited in any way in any activities because of any impairment or health problem?
Variable name: H15066
Editing notes: None

Response	Value	Percent
Yes	1	34.1%
No	2	65.9%

Question 95: In the last 12 months, did you get health care 3 or more times for the same condition or problem?
Variable name: H15067
Editing notes: See Note 22

Response	Directions	Value	Percent
Yes		1	42.0%
No	Go to Question 97	2	58.0%

Question 96: Is this a condition or problem that has lasted for at least 3 months? Do not include pregnancy or menopause.
Variable name: H15068
Editing notes: See Note 22

Response	Value	Percent
Yes	1	83.6%
No	2	16.4%

Question 97: Do you now need or take medicine prescribed by a doctor? Do not include birth control.
Variable name: H15069
Editing notes: See Note 23

Response	Directions	Value	Percent
Yes		1	66.3%
No	Go to Question 99	2	33.7%

Question 98: Is this medicine to treat a condition that has lasted for at least 3 months? Do not include pregnancy or menopause.
Variable name: H15070
Editing notes: See Note 23

Response	Value	Percent
Yes	1	94.0%
No	2	6.0%

Question 99: How tall are you without your shoes on? Please give your answer in feet and inches.
Variable name: H15071F, H15071I
Editing notes: See Note 23_HT

Response	Example feet	Example inches	Percent of responses
Please give your answer in feet and inches. Please write one number in each box.	5	06	95.0%

Question 100: How much do you weigh without your shoes on? Please give your answer in pounds.
Variable name: H15072
Editing notes: See Note 23_WT

Response	Example pounds	Percent of responses
Please give your answer in pounds. Please write one number in each box.	152	94.7%

Question 101: What is the highest grade or level of school that you have completed?
Variable name: SREDA
Editing notes: None

Response	Value	Percent
8th grade or less	1	0.6%
Some high school, but did not graduate	2	1.6%
High school graduate or GED	3	21.7%
Some college or 2-year degree	4	39.7%
4-year college graduate	5	16.5%
More than 4-year college degree	6	19.9%

Question 102: Are you of Hispanic or Latino origin or descent? (Mark "NO" if not Spanish/Hispanic/Latino.)
MARK ALL THAT APPLY
Variable names: H15073A-H15073E, H15073
Editing notes: See Note 24

Response	Variable Name	H14073 Value	Percent Marked
No, not Spanish, Hispanic, or Latino	H14073A	1	86.9%
Yes, Mexican, Mexican American, Chicano	H14073B	2	3.8%
Yes, Puerto Rican	H14073C	3	2.3%
Yes, Cuban	H14073D	4	0.1%
Yes, other Spanish, Hispanic, or Latino	H14073E	5	3.4%

Question 103: What is your race?
MARK ALL THAT APPLY
Variable names: SRRACEA-SRRACEE
Editing notes: None

Response	Variable Name	Percent Marked
White	SRRACEA	79.1%
Black or African American	SRRACEB	10.7%
American Indian or Alaska Native	SRRACEC	2.0%
Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)	SRRACED	6.1%
Native Hawaiian or other Pacific Islander (e.g., Samoan, Guamanian or Chamorro)	SRRACEE	0.9%

Question 104: What is your age now?
Variable name: SRAGE
Editing notes: none

Response	Value	Percent
18 to 24	1	12.8%
25 to 34	2	16.2%
35 to 44	3	12.1%
45 to 54	4	9.9%
55 to 64	5	18.3%
65 to 75	6	16.7%
75 or older	7	14.0%

Question 105: Are you currently covered by Medicare?
Variable name: H15074
Editing notes: See Note 25

Response	Directions	Value	Percent
Yes		1	34.4%
No	Go to Question 111	2	58.8%
Don't know	Go to Question 111	-5	6.8%

Question 106: Currently, are you covered by Medicare Part A? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part A helps pay for inpatient hospital care.
Variable name: H15075
Editing notes: See Note 25

Response	Value	Percent
Yes, I am now covered by Medicare Part A	1	93.0%
No, I am not covered by Medicare Part A	2	7.0%

Question 107: Currently, are you covered by Medicare Part B? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part B helps pay for doctor's services, outpatient hospital services, and certain other services.
Variable name: H15076
Editing notes: See Note 25

Response	Value	Percent
Yes, I am now covered by Medicare Part B	1	91.6%
No, I am not covered by Medicare Part B	2	8.4%

Question 108: Medicare Advantage is the name for Medicare Plus Choice plans. Are you enrolled in a Medicare Advantage Plan? This plan is also sometimes known as Medicare Part C.
Variable name: H15077
Editing notes: See Note 25

Response	Value	Percent
Yes	1	3.1%
No	2	78.3%
Don' t know	-5	18.6%

Question 109: Currently, are you covered by Medicare supplemental insurance? Medicare supplemental insurance, also called Medigap or MediSup, is usually obtained from private insurance companies and covers some of the costs not paid for by Medicare.
Variable name: H15078
Editing notes: See Note 25

Response	Value	Percent
Yes, I am now covered by Medicare supplemental insurance	1	15.1%
No, I am not covered by Medicare supplemental insurance	2	84.9%

Question 110: Are you enrolled in Medicare Part D, also known as the Medicare Prescription Drug Plan?
Variable name: H15079
Editing notes: See Note 25

Response	Value	Percent
Yes	1	9.7%
No	2	80.1%
Don' t know	-5	10.2%

Question 111: Using a scale of 1 to 5, with 1 being "strongly disagree" and 5 being "strongly agree", how much do you agree with the following statement: In general, I am able to see my provider(s) when needed?
Variable name: S15011
Editing notes: None

Response	Value	Percent
Strongly disagree	1	5.4%
Disagree	2	4.5%
Neither agree nor disagree	3	10.0%
Agree	4	40.5%
Strongly agree	5	39.5%

Question 112: Using a scale of 1 to 5, with 1 being "completely dissatisfied" and 5 being "completely satisfied", how satisfied are you, overall, with the health care you received during your last visit?
Variable name: S15014
Editing notes: None

Response	Value	Percent
Completely dissatisfied	1	4.2%
Somewhat dissatisfied	2	4.7%
Neither satisfied nor dissatisfied	3	6.9%
Somewhat satisfied	4	23.2%
Completely satisfied	5	61.0%

THANK YOU FOR TAKING THE TIME TO COMPLETE THE SURVEY!

Your generous contribution will greatly aid efforts to improve the health of our military community.

APPENDIX B

CODING SCHEME AND CODING TABLES – QUARTER I

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BASIC SAS AND ASCII/EBCDIC MISSING DATA AND NOT APPLICABLE CODES

SAS	ASCII/EBCDIC	
Numeric	Numeric	Description
.	-9	No response
.O	-7	Out of range error
.N	-6	Not applicable or valid skip
.D	-5	Scalable response of “don’t know” or “not sure”
.I	-4	Incomplete grid error
.C	-1	Question should have been skipped

Missing values ‘.’ and incomplete grids ‘.I’ are encoded prior to implementation of the Coding Scheme Notes (see below).

Coding Table for Note 1:
H15003, H15004

N1	H15003 is:	H15004 is:	H15003 is coded as:	H15004 is coded as:	*
1	1-17: Health plan	Marked or missing response	Stands as original value	Stands as original value	
2	-6: No usage in past 12 months or -5: Not sure	Marked response	Stands as original value	.C: Question should be skipped	F
3	-6: No usage in past 12 months or -5: Not sure	Missing response	Stands as original value	.N: Valid skip	F
4	Missing response	Marked or missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 2:
H15006, H15007, H15008

N2	H15006 is:	H15007-H15008 are:	H15006 is coded as:	H15007-H15008 are coded as:	*
1	1: Yes	"All are blank"	Stands as original value	Stand as original value	
2	1: Yes or .: missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	1: Yes	"One marked and one NA"	Stands as original value	.: Missing if –6; stand as original value otherwise	F
4	1: Yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: No	"One marked and one NA"	Stands as original value	.C: Question should be skipped	F
6	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stand as original value otherwise	B F
7	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
8	.: Missing	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 2:
Responses to H15007-H15008 are all missing.

Definition of "blank or NA" in Coding Table for Note 2:
All of the following are true: H15007-H15008 are a combination of not applicable (-6) or missing.

Definition of "one marked and one NA" in Coding Table for Note 2:
H15007-H15008 have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 2:
Any pattern of marks outside the definitions "all are blank", "one marked and one NA", and "blank or NA".

Coding Table for Note 3:
H15009, H15010, H15011

N3	H15009 is:	H15010-H15011 are:	H15009 is coded as:	H15010-H15011 are coded as:	*
1	1: Yes	"All are blank"	Stands as original value	Stand as original value	
2	1: Yes or .: missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	1: Yes	"One marked and one NA"	Stands as original value	.: Missing if –6; stand as original value otherwise	F
4	1: Yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: No	"One marked and one NA"	Stands as original value	.C: Question should be skipped	F
6	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stand as original value otherwise	B F
7	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
8	.: Missing	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 3:
Responses to H15010-H15011 are all missing.

Definition of "blank or NA" in Coding Table for Note 3:
All of the following are true: H15010-H15011 are a combination of not applicable (-6) or missing.

Definition of "one marked and one NA" in Coding Table for Note 3:
H15010-H15011 have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 3:
Any pattern of marks outside the definitions "all are blank", "one marked and one NA", and "blank or NA".

Coding Table for Note 3_BC1:
S15BC01A- S15BC01D, S15BC04A- S15BC04G

N3_BC1	S15BC01A-S15BC01C are:	S15BC01D is:	S15BC04A-S15BC04G are:	S15BC01A-S15BC01C are coded as:	S15BC01D is coded as:	S15BC04A-S15BC04G is coded as:	*
1	At least one is 1: marked	Any value	Any value	Stand as original	2: Unmarked	.N: Valid skip if missing or unmarked; .C: question should be skipped if marked	F
2	All are 2: unmarked	1: Marked	Any value	Stand as original	Stands as original	Stand as original	
3	All are 2: unmarked	2: Unmarked	None are marked	Stand as original	Stands as original	.N: Valid skip if missing or unmarked	
4	All are 2: unmarked	2: Unmarked	At least one is 1: marked	Stand as original	1: Marked	Stand as original	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3_BC2:
S15BC01D, S15BC02A- S15BC02D, S15BC03A- S15BC03E, S15BC04A- S15BC04G, S15BC09

N3_BC2	S15BC01D is:	S15BC04A-S15BC04G are:	S15BC02A-D, S15BC03A-E and S15BC09 are:	S15BC01D is coded as:	S15BC04A-S15BC04G are coded as:	S15BC02A-D, S15BC03A-E and S15BC09 are coded as:	*
1	2: Unmarked	.N: Valid skip, or .C: question should be skipped	Any value	Stands as original	Stand as original	Stand as original	
2	1: Marked	Any value	Any value	Stands as original	Stand as original	.N: Valid skip if missing or unmarked; .C: question should be skipped if marked	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3_BC3:
S15BC03d- S15BC03E

N3_BC3	S15BC03D is:	S15BC03E is:	S15BC03D is coded as:	S15BC03E is coded as:	*
1	Any value	1: Marked	2: Unmarked	Stands as original	B
2	1: Marked	2: Unmarked	Stands as original	Stands as original	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3_BC4:
S15BC03A- S15BC03E, S15BC04A- S15BC04G, S15BC09

N3_BC4	S15BC03A-S15BC03C are:	S15BC03D-S15BC03E are:	S15BC09 are:	S15BC03A-S15BC03C are coded as:	S15BC03D-S15BC03E are coded as:	S15BC09 are coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stand as original	Stand as original	Stands as original	
2	At least one is 1: marked	All are 2: unmarked	Any value	Stand as original	Stand as original	Stands as original	
3	Any pattern of 1: marked or 2: unmarked	At least one is 1: marked	Any value	2: Unmarked	Stand as original	.N: Valid skip if missing or unmarked; .C: question should be skipped if marked	B F
4	All are 2: unmarked	All are 2: unmarked	Any value	Stand as original	Stand as original	Stands as original	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3_BC5:
S15BC05A- S15BC05D, S15BC08A- S15BC08F

N3_BC5	S15BC05A-S15BC05C are:	S15BC05D is:	S15BC08A-S15BC08F are:	S15BC05A-S15BC05C are coded as:	S15BC05D is coded as:	S15BC08A-S15BC08F are coded as:	*
1	At least one is 1: marked	Any value	Any value	Stand as original	2: Unmarked	.N: Valid skip if missing or unmarked; .C: question should be skipped if marked	F
2	All are 2: unmarked	1: Marked	Any value	Stand as original	Stands as original	Stand as original	
3	All are 2: unmarked	2: Unmarked	All are 2: unmarked	Stand as original	Stands as original	.N: Valid skip if missing or unmarked; .C: question should be skipped if marked	
4	All are 2: unmarked	2: Unmarked	At least one is 1: marked	Stand as original	1: Marked	Stand as original	B

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3_BC6:
S15BC05D, S15BC06A- S15BC06D, S15BC07A- S15BC07E, S15BC08A- S15BC08F, S15BC10

N3_BC6	S15BC05D is:	S15BC08A-S15BC08F are:	S15BC06A-S15BC06D, S15BC07A-S15BC07E and S15BC10 are:	S15BC05D is coded as:	S15BC08A-S15BC08F are coded as:	S15BC06A-S15BC06D, S15BC07A-S15BC07E and S15BC10 are coded as:	*
1	2: Unmarked	.N: Valid skip, or .C: question should be skipped	Any value	Stands as original	Stand as original	Stand as original	
2	1: Marked	Any value	Any value	Stands as original	Stand as original	.N: Valid skip if missing or unmarked; .C: question should be skipped if marked	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3_BC7:
S15BC07D- S15BC07E

N3_BC7	S15BC07D is:	S15BC07E is:	S15BC07D is coded as:	S15BC07E is coded as:	*
1	Any value	1: Marked	2: Unmarked	Stands as original	B
2	1: Marked	2: Unmarked	Stands as original	Stands as original	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3_BC8:
S15BC07A- S15BC07E, S15BC08A- S15BC08F, S15BC10

N3_BC8	S15BC07A-S15BC07C are:	S15BC07D-S15BC07E are:	S15BC10 is:	S15BC07A-S15BC07C are coded as:	S15BC07D-S15BC07E is coded as:	S15BC10 is coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stand as original	Stand as original	Stands as original	
2	At least one is 1: marked	All are 2: unmarked	Any value	Stand as original	Stand as original	Stands as original	
3	Any pattern of 1: marked or 2: unmarked	At least one is 1: marked	Any value	2: Unmarked	Stand as original	.N: Valid skip if missing or unmarked; .C: question should be skipped if marked	B F
4	All are 2: unmarked	All are 2: unmarked	Any value	Stand as original	Stand as original	Stands as original	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 4:
H15013, H15014-H15018

N4	H15013 is:	H15014-H15018 are:	H15013 is coded as:	H15014-H15018 are coded as:	*
1	1: None	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
2	2-7: Visits, or .: missing	"Blank or NA"	1: None	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	2-7: Visits	At least one is "marked" or "all are blank"	Stands as original value	.: Missing if –6; stand as original value otherwise	F
4	.: Missing	"All are blank"	Stands as original value	Stand as original value	
5	.: Missing	At least one is "marked"	Stands as original value	.: Missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 4:
Responses to H15014-H15018 are all missing.

Definition of "blank or NA" in Coding Table for Note 4:
All of the following are true: H15014-H15018 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 4:
Any pattern of marks outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 5:
H15015, H15016-H15017

N5	H15015 is:	H15016 is:	H15017 is:	H15015 is coded as:	H15016 is coded as:	H15017 is coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stands as original value	Stands as original value	
2	1: Yes	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
3	2: No or .: missing	1: Definitely yes 2: somewhat yes	Any value	1: Yes	Stands as original value	Stands as original value	B
4	2: No or .: missing	3: Somewhat no, 4: definitely no, or .: missing	1: Definitely yes 2: somewhat yes	1: Yes	Stands as original value	Stands as original value	B
5	2: No	3: Somewhat no, 4: definitely no, or .: missing	3: Somewhat no, 4: definitely no, or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	F
6	.: Missing	3: Somewhat no, 4: definitely no, or .: missing	3: Somewhat no, 4: definitely no, or .: missing	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 6:
H15019, H15020-H15027, S15009

N6	H15019 is:	H15020-H15024 are:	H15025-H15026, S15009 are:	H15027 is:	H15019 is coded as:	H15020-H15026, S15009 are coded as:	H15027 is coded as:	*
1	1: Yes	Any value	Any value	Any value	Stands as original value	Stand as original value	.: Missing if –6; stands as original value otherwise	F
2	2: No or .: missing	Any value	Any value	0-10	1: Yes	Stand as original value	Stands as original value	B
3	2: No or .: missing	At least one is “marked”	Any value	.: Missing	1: Yes	Stand as original value	Stands as original value	B
4	2: No	At least one is “marked”	Any value	-6: No personal doctor	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.C: Question should be skipped	F
5	2: No	“Blank or NA”	Any value	-6: No personal doctor or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	F
6	.: Missing	Any value	Any value	-6: No personal doctor	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	.C: Question should be skipped	B F
7	.: Missing	“Blank or NA”	Any value	.: Missing	Stands as original value	Stand as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of “blank or NA” in Coding Table for Note 6:
All of the following are true: H15020 is either 0: None or missing and H15021-H15024 are either not applicable (-6) or missing.

Definition of “marked” in Coding Table for Note 6:
Any pattern of marks for H15020-H15024 outside the definition “blank or NA”.

Coding Table for Note 7:
H15020, H15021-H15026

N7	H15020 is:	H15021-H15024 are:	H15025-H15026 are:	H15020 is coded as:	H15021-H15026 are coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Any value	Stands as original value	Stand as original value	
2	0: None	Any value	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	1-6: Visits, or .: missing	"Blank or NA"	Any value	0: None	.N: Valid skip if missing; .C: question should be skipped if marked	B F
4	1-6: Visits, or .: missing	At least one is "marked" or "all are blank"	Any value	Stands as original value	.: Missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 7:
Responses to H15021-H15024 are all missing.

Definition of "blank or NA" in Coding Table for Note 7:
Responses to H15021-H15024 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 7:
Any pattern of marks for H15021-H15024 outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 8:
H15025, H15026

N8	H15025 is:	H15026 is:	H15025 is coded as:	H15026 is coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stands as original value	
2	1: Yes	Any value	Stands as original value	Stands as original value	
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	.: Missing	Stands as original value	.N: Valid skip	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 8_01:
S15009, S15010

N8_01	S15009 is:	S15010 is:	S15009 is coded as:	S15010 is coded as:	*
1	.N: Valid skip, or .C: question should be skipped	Any value	Stands as original value	Stands as original value	
2	1: Yes	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	2: No	Any value	Stands as original value	Stands as original value	
4	.: Missing	Any value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 9:
H15028, H15029-H15031

N9	H15028 is:	H15029-H15031 are:	H15028 is coded as:	H15029 is coded as:	H15030-H15031 are coded as:	*
1	1: Yes	Any value	Stands as original value	.: Missing if –6; stands as original value otherwise	Stand as original value	F
2	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stands as original value otherwise	Stand as original value	B
3	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	F
4	.: Missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	B F
5	.: Missing	"All are blank"	Stands as original value	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 9:
Responses to H15029-H15031 are all missing.

Definition of "blank or NA" in Coding Table for Note 9:
All of the following are true: H15029 and H15031 are a combination of not applicable (-6) or missing. H15030 is either missing or 0: None.

Definition of "marked" in Coding Table for Note 9:
Any pattern of marks outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 10:
H15030, H15031

N10	H15030 is:	H15031 is:	H15030 is coded as:	H15031 is coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stands as original value	
2	1-5: Specialists	0-10 or .: missing	Stands as original value	Stands as original value	
3	1-5: Specialists or .: missing	-6: Didn't see a specialist in the last 12 months	0: None	.C: Question should be skipped	B F
4	0: None	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	0-10 or .: missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 10_B1:
S15B02, S15B03-S15B04

N10_B1	S15B02 is:	S15B03-S15B04 are:	S15B02 is coded as:	S15B03-S15B04 are coded as:	*
1	1: Yes	Any value	Stands as original value	.: Missing if –6; stand as original value otherwise	F
2	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stand as original value otherwise	B F
3	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
4	.: Missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
5	.: Missing	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 10_B1:
Responses to S15B03-S15B04 are all missing.

Definition of "blank or NA" in Coding Table for Note 10_B1:
All of the following are true: S15B03-S15B04 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 10_B1:
Any pattern of marks outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 11:
H15032, H15033

N11	H15032 is:	H15033 is:	H15032 is coded as:	H15033 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't need care, tests, or treatment	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	–6: Didn't need care, tests, or treatment or .: missing	Stands as original value	.N: Valid skip if missing; .C: Question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 12:
H15034, H15035

N12	H15034 is:	H15035 is:	H15034 is coded as:	H15035 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't look for information	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	-6: Didn't look for information or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 13:
H15036, H15037

N13	H15036 is:	H15037 is:	H15036 is coded as:	H15037 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't need service or equipment	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	-6: Didn't need service or equipment or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 14:
H15038, H15039

N14	H15038 is:	H15039 is:	H15038 is coded as:	H15039 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't need prescription meds	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	-6: Didn't need prescription meds or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 15:
H15040, H15041-H15042

N15	H15040 is:	H15041-H15042 are:	H15040 is coded as:	H15041-H15042 are coded as:	*
1	1: Yes	At least one is "marked" or "all are blank"	Stands as original value	.: Missing if –6; stand as original value otherwise	F
2	1: Yes or .: missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stand as original value otherwise	B F
4	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 15:
Responses to H15041-H15042 are all missing.

Definition of "blank or NA" in Coding Table for Note 15:
All of the following are true: H15041-H15042 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 15:
Any pattern of marks outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 16:
H15043, H15044

N16	H15043 is:	H15044 is:	H15043 is coded as:	H15044 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't receive forms to fill out	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	-6: Didn't receive forms to fill out or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 17:
H15045, H15046-H15047

N17	H15045 is:	H15046-H15047 are:	H15045 is coded as:	H15046-H15047 are coded as:	*
1	1: Yes	At least one is "marked", "all are blank" or "blank or don't know"	Stands as original value	.: Missing if –6; stands as original value otherwise	F
2	1: Yes, -5: don't know or .: missing	"Blank or NA" or "NA or don't know"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	2: No, -5: don't know or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stands as original value otherwise	B F
4	2: No	None are "marked"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	-5: Don't know	"Blank or don't know" or "all are blank"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
6	.: Missing	"Blank or don't know" or "all are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 17:
Responses to H15046-H15047 are all missing.

Definition of "blank or NA" in Coding Table for Note 17:
Responses to H15046-H15047 are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of "blank or don't know" in Coding Table for Note 17:
Responses to H15046-H15047 are either all don't know (-5) or a combination of missing and don't know (-5).

Definition of "NA or don't know" in Coding Table for Note 17:
Responses to H15046-H15047 are a combination of not applicable (-6) and don't know (-5).

Definition of "marked" in Coding Table for Note 17:
Any pattern of marks outside the definitions "all are blank," "blank or NA," "blank or don't know," or "NA or don't know".

Coding Table for Note 18:
H14053, H14054-H14056, H14057A-H14057D

N18	H14053 is:	H14054-H14056 are:	H14057A-H14057D are:	H14053 is coded as:	H14054- H14056, H14057A-H14057D are coded as:	*
1	3: Some days, 4: every day, or .: missing	Any value	Any value	Stands as original value	Stand as original value	
2	2: Not at all or -5: don't know	Any value	"All are unmarked"	Stands as original value	.N: Valid skip if missing or unmarked; .C: question should be skipped if marked	F
3	2: Not at all	Any value	At least one is "marked"	.: Missing	Stand as original value	B
4	-5: Don't know	Any value	At least one is "marked"	Stands as original value	.N: Valid skip if missing or unmarked; .C: question should be skipped if marked	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are unmarked" in Coding Table for Note 18:
Responses to H14057A-H14057D are all missing or unmarked.

Definition of "marked" in Coding Table for Note 18:
Any pattern of marks outside the definition "all are unmarked"

Coding Table for Note 19:

Note 19 (Part A)
H15058, H15059B, H15060-H15064, SEX, XSEXA

N19A	H15058 is:	SEX is:	H15059B--H15064 are:	XSEXA is coded as:
1	.: Missing	F	Any marked	2: Female
2	.: Missing	F	All missing	2: Female
3	.: Missing	M	Any marked	1: Male
4	.: Missing	M	All missing	1: Male
5	.: Missing	Z or .: missing	Any marked	2: Female
6	.: Missing	Z	All missing	.: Missing
7	.: Missing	.: Missing	All missing	.: Missing
8	1: Male	Any value	All missing	1: Male
9	1: Male	F	Any marked	2: Female
10	1: Male	M, Z, or .: missing	Any marked	1: Male
11	2: Female	Any value	Any marked	2: Female
12	2: Female	M	All missing	1: Male
13	2: Female	F, Z, or .: missing	All missing	2: Female

SEX (PNSEXCD) is the gender from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

XSEXA is the recoded gender variable after taking into account the self-reported response (H15058), any responses to gender-specific questions, and the gender of the sample beneficiary from DEERS.

Note 19 (Part B):
XSEXA, H15059B, H15060-H15064

N19B	XSEXA is:	H15059B--H15064 are:	H15059B--H15064 are coded as:	*
1	1: Male	"All are blank"	.N: Valid skip	F
2	1: Male	At least one is "marked"	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	2: Female	"All are blank" or at least one is "marked"	Stand as original value	
4	.: Missing	"All are blank" or at least one is "marked"	Missing value	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 19b:
All variables H15059B--H15064 are missing.

Definition of "marked" in Coding Table for Note 19b:
Any pattern of marks outside the definition "all are blank".

Coding Table for Note 20
XSEXA, AGE, H15060, H15061

N20	XSEXA is:	AGE is:	H15060 is:	H15061 is:	H15060 is coded as:	H15061 is coded as:	*
1	1: Male	Any value	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stands as original value	
2	2: Female	Any value	2: 40 or over	Any value	Stands as original value	Stands as original value	
3	2: Female	Any value	1: Under 40	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
4	2: Female	Any value	.: Missing	Marked	2: >= 40	Stands as original value	B
5	2: Female	< 40	.: Missing	.: Missing	1: < 40	.N: Valid skip	F B
6	2: Female	>=40	.: Missing	.: Missing	2: >= 40	Stands as original value	B
7	2: Female	.: Missing	.: Missing	.: Missing	Stands as original value	Stands as original value	
8	.: Missing	Any value	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

AGE (DAGEQY) is from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

Coding Table for Note 21:
XSEXA, H15062-H15064

N21	XSEXA is:	H15062 is:	H15063 is:	H15064 is:	H15062 is coded as:	H15063 is coded as:	H15064 is coded as:	*
1	1: Male	Any value	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
2	2: Female	1: Pregnant now	1: First trimester	Any value	Stands as original value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	2: Female	1: Pregnant now	2: Second trimester	2: Third trimester	Stands as original value	Stands as original value	.: Missing	F
4	2: Female	1: Pregnant now	2: Second trimester	4: First trimester, 3: second trimester, 1: did not receive prenatal care, or .: missing	Stands as original value	Stands as original value	Stands as original value	
5	2: Female	1: Pregnant now	3: Third trimester or .: missing	Any value	Stands as original value	Stands as original value	Stands as original value	
6	2: Female	2: Pregnant in last 12 months	Any value	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	Stands as original value	F
7	2: Female	3: Not pregnant in past 12 months	Any value	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	F
8	2: Female	.: Missing	1: First trimester	Any value	1: Pregnant now	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	B F
9	2: Female	.: Missing	2: Second trimester	2: Third trimester	1: Pregnant now	Stands as original value	.: Missing	B F
10	2: Female	.: Missing	2: Second trimester	4: First trimester, 3: second trimester, 1: did not receive prenatal care, or .: missing	1: Pregnant now	Stands as original value	Stands as original value	B
11	2: Female	.: Missing	3: Third trimester	Any value	1: Pregnant now	Stands as original value	Stands as original value	B
12	2: Female	.: Missing	.: Missing	Any value	Stands as original value	Stands as original value	Stands as original value	F
13	.: Missing	.: Missing	Marked or .: missing	Any value	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F)

Coding Table for Note 22:
H15067, H15068

N22	H15067 is:	H15068 is:	H15067 is coded as:	H15068 is coded as:	*
1	1: Yes	Any value	Stands as original value	Stands as original value	
2	2: No or .: missing	1: Yes or 2: no	1: Yes	Stands as original value	B
3	2: No	.: Missing	Stands as original value	.N: Valid skip	F
4	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 23:
H15069, H15070

N23	H15069 is:	H15070 is:	H15069 is coded as:	H15070 is coded as:	*
1	1: Yes	Any value	Stands as original value	Stands as original value	
2	2: No or .: missing	1: Yes or 2: no	1: Yes	Stands as original value	B
3	2: No	.: Missing	Stands as original value	.N: Valid skip	F
4	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 23_HT:
XSEXA, H15071F, H15071I

N23_HT	XSEXA is:	H15071F and H15071I is:	H15071F and H15071I are coded as:	*
1	1: Male or 2:Female	"Height within range for gender" or .: missing	Stands as original value	
2	1: Male or 2:Female	"Height out of range for gender"	.O: Out of range	F
3	.:Missing	"Height within range for either gender" or .: missing	Stands as original	
4	.:Missing	"Height out of range for either gender"	.O: Out of range	F

* Indication of backward coding (B) or forward coding (F).

Definition of "Height within range for gender" in Coding Table for Note 23_1:
From 2006 NHIS, height for men is 63"-76" (5'3"-6'4"), height for woman is 59"-70" (4'11"-5'10").

Definition of "Height out of range for gender" in Coding Table for Note 23_1:
Any height outside the definition of "Height within range for gender".

Definition of "Height within range for either gender" in Coding Table for Note 23_1:
Use lowest and highest height from either gender to set range: 59"-76" (4'11"- 6'4").

Definition of "Height out of range for either gender" in Coding Table for Note 23_1:
Any height outside the definition of "Height within range for either gender".

Coding Table for Note 23_WT:
XSEXA, H15072

N23_WT	XSEXA is:	H15072 is:	H15072 is coded as:	*
1	1: Male or 2:Female	"Weight within range for gender" or .: missing	Stands as original value	
2	1: Male or 2:Female	"Weight out of range for gender"	.O: Out of range	F
3	.:Missing	"Weight within range for either gender" or .: missing	Stands as original	
4	.:Missing	"Weight out of range for either gender"	.O: Out of range	F

* Indication of backward coding (B) or forward coding (F).

Definition of "Weight within range for gender" in Coding Table for Note 23_2:
From 2006 NHIS, weight for men is 126-299 pounds, weight for woman is 100-274 pounds.

Definition of "Weight out of range for gender" in Coding Table for Note 23_2:
Any height outside the definition of "Weight within range for gender".

Definition of "Weight within range for either gender" in Coding Table for Note 23_2:
Use lowest and highest weight from either gender to set range: 100-299 pounds.

Definition of "Weight out of range for either gender" in Coding Table for Note 23_2:
Any height outside the definition of "Weight within range for either gender".

Coding Table for Note 24:
H15073, H15073A-H15073E

N24	H15073A is:	H15073B is:	H15073C is:	H15073D is:	H15073E is:	H15073 is coded as:	H15073A-E are coded as:	*
1	Any value	1: Marked	Any value	Any value	Any value	2: Yes, Mexican, Mexican American, Chicano	Stand as original value	F
2	Any value	2: Unmarked	Any value	Any value	1: Marked	5: Yes, other Spanish, Hispanic, or Latino	Stand as original value	F
3	Any value	2: Unmarked	1: Marked	Any value	2: Unmarked	3: Yes, Puerto Rican	Stand as original value	F
4	Any value	2: Unmarked	2: Unmarked	1: Marked	2: Unmarked	4: Yes, Cuban	Stand as original value	F
5	1: Marked	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	1: No, not Spanish, Hispanic, or Latino	Stand as original value	F
6	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	.: Missing	Stand as original value	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 25:
H15074, H15075-H15079

N25	H15074 is:	H15075-H15079 are:	H15074 is coded as:	H15075-H15079 are coded as:	*
1	1: Yes	Any value	Stands as original value	Stand as original value	
2	2: No or -5: don't know	"All are uncovered/unknown"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	2: No, -5: don't know, or .: missing	At least one is "covered"	1: Yes	Stand as original value	B
4	.: Missing	"All are uncovered/unknown"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are uncovered/unknown" in Coding Table for Note 25:
Responses to H15075-H15079 are all 2: no, -5: don't know, or missing.

Definition of "covered" in Coding Table for Note 25:
Any pattern of marks outside the definition "all are uncovered/unknown".

APPENDIX B

CODING SCHEME AND CODING TABLES – QUARTER II

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BASIC SAS AND ASCII/EBCDIC MISSING DATA AND NOT APPLICABLE CODES

SAS	ASCII/EBCDIC	
Numeric	Numeric	Description
.	-9	No response
.O	-7	Out of range error
.N	-6	Not applicable or valid skip
.D	-5	Scalable response of “don’t know” or “not sure”
.I	-4	Incomplete grid error
.C	-1	Question should have been skipped

Missing values ‘.’ and incomplete grids ‘.I’ are encoded prior to implementation of the Coding Scheme Notes (see below).

Coding Table for Note 1:
H15003, H15004

N1	H15003 is:	H15004 is:	H15003 is coded as:	H15004 is coded as:	*
1	1-17: Health plan	Marked or missing response	Stands as original value	Stands as original value	
2	-6: No usage in past 12 months or -5: not sure	Marked response	Stands as original value	.C: Question should be skipped	F
3	-6: No usage in past 12 months or -5: not sure	Missing response	Stands as original value	.N: Valid skip	F
4	Missing response	Marked or missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 1_J1:
S15J01, S15J02A-S15J02I, S15J03-S15J06, S15J07A-S15J07O, S15J08, S15J09A-S15J09L, S15J10, S15J11A-S15J11N, S15J12

N1_J1	S15J01 is:	S15J02A-S15J02H are:	S15J02I, S15J03-S15J06, S15J07A-S15J07O, S15J08, S15J09A-S15J09L, S15J10, S15J11A-S15J11N, S15J12 are:	S15J01 is coded as:	S15J02A-S15J02H are coded as:	S15J02I, S15J03-S15J06, S15J07A-S15J07O, S15J08, S15J09A-S15J09L, S15J10, S15J11A-S15J11N, S15J12 are coded as:	*
1	1: Yes	Any value	Any value	Stands as original value	Stand as original value	Stand as original value	
2	2: No or .: missing	At least one value is 1: marked	Any value	1: Yes	Stand as original value	Stand as original value	B
3	2: No	All values are 2: unmarked or missing response	Any value	Stands as original value	.N: Valid skip	.N: Valid skip if missing or unmarked; .C: question should be skipped if marked	F
4	.: Missing	All values are 2: unmarked or missing response	At least one is "marked"	1: Yes	Stand as original value	Stand as original value	B
5	.: Missing	All values are 2: unmarked or missing response	"All are blank or don't know"	Stands as original value	.: Missing	.: Missing if 2: unmarked; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank or don't know" in Coding Table for Note 1_J1:
Responses to S15J03-S15J06, S15J07A-S15J07O, S15J08, S15J09A-S15J09L, S15J10, S15J11A-S15J11N, and S15J12 are all missing or unmarked or -5:don't know. (Because the 1: marked value for S15J02I indicates a "don't know" response, it does not matter if S15J02I is marked, unmarked, or missing).

Definition of "marked" in Coding Table for Note 1_J1:
Any pattern of marks outside the definition "all are blank or don't know".

Coding Table for Note 1_J2:
S15J03, S15J04, S15J05

N1_J2	S15J03 is:	S15J04-S15J05 are:	S15J03 is coded as:	S15J04-S15J05 are coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stand as original value	
2	1-2: Yes	Any value	Stands as original value	Stand as original value	
3	4: No	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
4	.: Missing	Any value	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 1_J3:
S15J04, S15J05

N1_J3	S15J04 is:	S15J05 are:	S15J04 is coded as:	S15J05 is coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stands as original value	
2	1, 2: Yes or .: missing	Any positive value, don't know, or .: missing	Stands as original value	Stands as original value	
3	1, 2: Yes or .: missing	0	3: No	.C: Question should be skipped	B F
4	3: No or -5: don't know	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 1_J4:
S15J06, S15J07A- S15J07O

N1_J4	S15J06 is:	S15J07A- S15J07O are:	S15J06 is coded as:	S15J07A- S15J07O are coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stand as original value	
2	1: Yes or .: missing	At least one is "marked"	2: No	Stand as original value	B
3	1: Yes	"All are blank"	Stands as original value	.N: Valid skip	F
4	2: No	Any value	Stands as original value	Stand as original value	
5	.: Missing	"All are blank"	Stands as original value	.: Missing	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 1_J4:
Responses to S15J07A- S15J07O are all missing or unmarked.

Definition of "marked" in Coding Table for Note 1_J4:
Any pattern of marks outside the definitions "all are blank".

Coding Table for Note 1_J5:
S15J08, S15J09A- S15J09L

N1_J5	S15J08 is:	S15J09A- S15J09L are:	S15J08 is coded as:	S15J09A- S15J09L are coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stand as original value	
2	1: Yes or .: missing	At least one is "marked"	2: No	Stand as original value	B
3	1: Yes	"All are blank"	Stands as original value	.N: Valid skip	F
4	2: No	Any value	Stands as original value	Stand as original value	
5	.: Missing	"All are blank"	Stands as original value	.: Missing	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 1_J5:
Responses to S15J09A- S15J09L are all missing or unmarked.

Definition of "marked" in Coding Table for Note 1_J5:
Any pattern of marks outside the definitions "all are blank".

Coding Table for Note 1_J6:
S15J10, S15J11A- S15J11N, S15J12

N1_J6	S15J10 is:	S15J11A- S15J11N, S15J12 are:	S15J10 is coded as:	S15J11A- S15J11N, S15J12 are coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stand as original value	
2	1: Yes	Any value	Stands as original value	Stand as original value	
3	2: No or .: missing	At least one is "marked"	1: Yes	Stand as original value	B
4	2: No	"All are blank"	Stands as original value	.N: Valid skip	F
5	.: Missing	"All are blank"	Stands as original value	.: Missing	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 1_J6:
Responses to S15J11A-S15J11N and S15J12 are all missing or unmarked.

Definition of "marked" in Coding Table for Note 1_J6:
Any pattern of marks outside the definitions "all are blank".

Coding Table for Note 2:
H15006, H15007, H15008

N2	H15006 is:	H15007-H15008 are:	H15006 is coded as:	H15007-H15008 are coded as:	*
1	1: Yes	"All are blank"	Stands as original value	Stand as original value	
2	1: Yes or .: missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	1: Yes	"One marked and one NA"	Stands as original value	.: Missing if –6; stand as original value otherwise	F
4	1: Yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: No	"One marked and one NA"	Stands as original value	.C: Question should be skipped	F
6	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stand as original value otherwise	B F
7	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
8	.: Missing	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 2:
Responses to H15007-H15008 are all missing.

Definition of "blank or NA" in Coding Table for Note 2:
All of the following are true: H15007-H15008 are a combination of not applicable (-6) or missing.

Definition of "one marked and one NA" in Coding Table for Note 2:
H15007-H15008 have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 2:
Any pattern of marks outside the definitions "all are blank", "one marked and one NA", and "blank or NA".

Coding Table for Note 3:
H15009, H15010, H15011

N3	H15009 is:	H15010-H15011 are:	H15009 is coded as:	H15010-H15011 are coded as:	*
1	1: Yes	"All are blank"	Stands as original value	Stand as original value	
2	1: Yes or .: missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	1: Yes	"One marked and one NA"	Stands as original value	.: Missing if –6; stand as original value otherwise	F
4	1: Yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: No	"One marked and one NA"	Stands as original value	.C: Question should be skipped	F
6	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stand as original value otherwise	B F
7	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
8	.: Missing	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 3:
Responses to H15010-H15011 are all missing.

Definition of "blank or NA" in Coding Table for Note 3:
All of the following are true: H15010-H15011 are a combination of not applicable (-6) or missing.

Definition of "one marked and one NA" in Coding Table for Note 3:
H15010-H15011 have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 3:
Any pattern of marks outside the definitions "all are blank", "one marked and one NA", and "blank or NA".

Coding Table for Note 4:
H15013, H15014-H15018

N4	H15013 is:	H15014-H15018 are:	H15013 is coded as:	H15014-H15018 are coded as:	*
1	1: None	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
2	2-7: Visits, or .: missing	"Blank or NA"	1: None	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	2-7: Visits	At least one is "marked" or "all are blank"	Stands as original value	.: Missing if –6; stand as original value otherwise	F
4	.: Missing	"All are blank"	Stands as original value	Stand as original value	
5	.: Missing	At least one is "marked"	Stands as original value	.: Missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 4:
Responses to H15014-H15018 are all missing.

Definition of "blank or NA" in Coding Table for Note 4:
All of the following are true: H15014-H15018 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 4:
Any pattern of marks outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 5:
H15015, H15016-H15017

N5	H15015 is:	H15016 is:	H15017 is:	H15015 is coded as:	H15016 is coded as:	H15017 is coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stands as original value	Stands as original value	
2	1: Yes	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
3	2: No or .: missing	1: Definitely yes 2: somewhat yes	Any value	1: Yes	Stands as original value	Stands as original value	B
4	2: No or .: missing	3: Somewhat no, 4: definitely no, or .: missing	1: Definitely yes 2: somewhat yes	1: Yes	Stands as original value	Stands as original value	B
5	2: No	3: Somewhat no, 4: definitely no, or .: missing	3: Somewhat no, 4: definitely no, or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	F
6	.: Missing	3: Somewhat no, 4: definitely no, or .: missing	3: Somewhat no, 4: definitely no, or .: missing	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 6:
H15019, H15020-H15027, S15009

N6	H15019 is:	H15020-H15024 are:	H15025-H15026, S15009 are:	H15027 is:	H15019 is coded as:	H15020-H15026, S15009 are coded as:	H15027 is coded as:	*
1	1: Yes	Any value	Any value	Any value	Stands as original value	Stand as original value	.: Missing if –6; stands as original value otherwise	F
2	2: No or .: missing	Any value	Any value	0-10	1: Yes	Stand as original value	Stands as original value	B
3	2: No or .: missing	At least one is “marked”	Any value	.: Missing	1: Yes	Stand as original value	Stands as original value	B
4	2: No	At least one is “marked”	Any value	-6: No personal doctor	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.C: Question should be skipped	F
5	2: No	“Blank or NA”	Any value	-6: No personal doctor or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	F
6	.: Missing	Any value	Any value	-6: No personal doctor	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	.C: Question should be skipped	B F
7	.: Missing	“Blank or NA”	Any value	.: Missing	Stands as original value	Stand as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of “blank or NA” in Coding Table for Note 6:
All of the following are true: H15020 is either 0: None or missing and H15021-H15024 are either not applicable (-6) or missing.

Definition of “marked” in Coding Table for Note 6:
Any pattern of marks for H15020-H15024 outside the definition “blank or NA”.

Coding Table for Note 7:
H15020, H15021-H15026

N7	H15020 is:	H15021-H15024 are:	H15025-H15026 are:	H15020 is coded as:	H15021-H15026 are coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Any value	Stands as original value	Stand as original value	
2	0: None	Any value	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	1-6: Visits, or .: missing	"Blank or NA"	Any value	0: None	.N: Valid skip if missing; .C: question should be skipped if marked	B F
4	1-6: Visits, or .: missing	At least one is "marked" or "all are blank"	Any value	Stands as original value	.: Missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 7:
Responses to H15021-H15024 are all missing.

Definition of "blank or NA" in Coding Table for Note 7:
Responses to H15021-H15024 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 7:
Any pattern of marks for H15021-H15024 outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 8:
H15025, H15026

N8	H15025 is:	H15026 is:	H15025 is coded as:	H15026 is coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stands as original value	
2	1: Yes	Any value	Stands as original value	Stands as original value	
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	.: Missing	Stands as original value	.N: Valid skip	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 8_01:
S15009, S15010

N8_01	S15009 is:	S15010 is:	S15009 is coded as:	S15010 is coded as:	*
1	.N: Valid skip, or .C: question should be skipped	Any value	Stands as original value	Stands as original value	
2	1: Yes	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	2: No	Any value	Stands as original value	Stands as original value	
4	.: Missing	Any value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 9:
H15028, H15029-H15031

N9	H15028 is:	H15029-H15031 are:	H15028 is coded as:	H15029 is coded as:	H15030-H15031 are coded as:	*
1	1: Yes	Any value	Stands as original value	.: Missing if –6; stands as original value otherwise	Stand as original value	F
2	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stands as original value otherwise	Stand as original value	B
3	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	F
4	.: Missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	B F
5	.: Missing	"All are blank"	Stands as original value	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 9:
Responses to H15029-H15031 are all missing.

Definition of "blank or NA" in Coding Table for Note 9:
All of the following are true: H15029 and H15031 are a combination of not applicable (-6) or missing. H15030 is either missing or 0: None.

Definition of "marked" in Coding Table for Note 9:
Any pattern of marks outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 10:
H15030, H15031

N10	H15030 is:	H15031 is:	H15030 is coded as:	H15031 is coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stands as original value	
2	1-5: Specialists	0-10 or .: missing	Stands as original value	Stands as original value	
3	1-5: Specialists or .: missing	-6: Didn't see a specialist in the last 12 months	0: None	.C: Question should be skipped	B F
4	0: None	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	0-10 or .: missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 10_B1:
S15B02, S15B03-S15B04

N10_B1	S15B02 is:	S15B03-S15B04 are:	S15B02 is coded as:	S15B03-S15B04 are coded as:	*
1	1: Yes	Any value	Stands as original value	.: Missing if –6; stand as original value otherwise	F
2	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stand as original value otherwise	B F
3	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
4	.: Missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
5	.: Missing	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 10_B1:
Responses to S15B03-S15B04 are all missing.

Definition of "blank or NA" in Coding Table for Note 10_B1:
All of the following are true: S15B03-S15B04 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 10_B1:
Any pattern of marks outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 11:
H15032, H15033

N11	H15032 is:	H15033 is:	H15032 is coded as:	H15033 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't need care, tests, or treatment	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	–6: Didn't need care, tests, or treatment or .: missing	Stands as original value	.N: Valid skip if missing; .C: Question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 12:
H15034, H15035

N12	H15034 is:	H15035 is:	H15034 is coded as:	H15035 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't look for information	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	-6: Didn't look for information or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 13:
H15036, H15037

N13	H15036 is:	H15037 is:	H15036 is coded as:	H15037 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't need service or equipment	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	-6: Didn't need service or equipment or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 14:
H15038, H15039

N14	H15038 is:	H15039 is:	H15038 is coded as:	H15039 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't need prescription meds	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	-6: Didn't need prescription meds or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 15:
H15040, H15041-H15042

N15	H15040 is:	H15041-H15042 are:	H15040 is coded as:	H15041-H15042 are coded as:	*
1	1: Yes	At least one is "marked" or "all are blank"	Stands as original value	.: Missing if –6; stand as original value otherwise	F
2	1: Yes or .: missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stand as original value otherwise	B F
4	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 15:
Responses to H15041-H15042 are all missing.

Definition of "blank or NA" in Coding Table for Note 15:
All of the following are true: H15041-H15042 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 15:
Any pattern of marks outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 16:
H15043, H15044

N16	H15043 is:	H15044 is:	H15043 is coded as:	H15044 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't receive forms to fill out	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	-6: Didn't receive forms to fill out or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 17:
H15045, H15046-H15047

N17	H15045 is:	H15046-H15047 are:	H15045 is coded as:	H15046-H15047 are coded as:	*
1	1: Yes	At least one is "marked", "all are blank" or "blank or don't know"	Stands as original value	.: Missing if –6; stands as original value otherwise	F
2	1: Yes, -5: don't know or .: missing	"Blank or NA" or "NA or don't know"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	2: No, -5: don't know or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stands as original value otherwise	B F
4	2: No	None are "marked"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	-5: Don't know	"Blank or don't know" or "all are blank"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
6	.: Missing	"Blank or don't know" or "all are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 17:
Responses to H15046-H15047 are all missing.

Definition of "blank or NA" in Coding Table for Note 17:
Responses to H15046-H15047 are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of "blank or don't know" in Coding Table for Note 17:
Responses to H15046-H15047 are either all don't know (-5) or a combination of missing and don't know (-5).

Definition of "NA or don't know" in Coding Table for Note 17:
Responses to H15046-H15047 are a combination of not applicable (-6) and don't know (-5).

Definition of "marked" in Coding Table for Note 17:
Any pattern of marks outside the definitions "all are blank," "blank or NA," "blank or don't know," or "NA or don't know".

Coding Table for Note 18:
H14053, H14054-H14056, H14057A-H14057D

N18	H14053 is:	H14054-H14056 are:	H14057A-H14057D are:	H14053 is coded as:	H14054- H14056, H14057A-H14057D are coded as:	*
1	3: Some days, 4: every day, or .: missing	Any value	Any value	Stands as original value	Stand as original value	
2	2: Not at all or -5: don't know	Any value	"All are unmarked"	Stands as original value	.N: Valid skip if missing or unmarked; .C: question should be skipped if marked	F
3	2: Not at all	Any value	At least one is "marked"	.: Missing	Stand as original value	B
4	-5: Don't know	Any value	At least one is "marked"	Stands as original value	.N: Valid skip if missing or unmarked; .C: question should be skipped if marked	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are unmarked" in Coding Table for Note 18:
Responses to H14057A-H14057D are all missing or unmarked.

Definition of "marked" in Coding Table for Note 18:
Any pattern of marks outside the definition "all are unmarked"

Coding Table for Note 19:

Note 19 (Part A)
H15058, H15059B, H15060-H15064, SEX, XSEXA

N19A	H15058 is:	SEX is:	H15059B--H15064 are:	XSEXA is coded as:
1	.: Missing	F	Any marked	2: Female
2	.: Missing	F	All missing	2: Female
3	.: Missing	M	Any marked	1: Male
4	.: Missing	M	All missing	1: Male
5	.: Missing	Z or .: missing	Any marked	2: Female
6	.: Missing	Z	All missing	.: Missing
7	.: Missing	.: Missing	All missing	.: Missing
8	1: Male	Any value	All missing	1: Male
9	1: Male	F	Any marked	2: Female
10	1: Male	M, Z, or .: missing	Any marked	1: Male
11	2: Female	Any value	Any marked	2: Female
12	2: Female	M	All missing	1: Male
13	2: Female	F, Z, or .: missing	All missing	2: Female

SEX (PNSEXCD) is the gender from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

XSEXA is the recoded gender variable after taking into account the self-reported response (H15058), any responses to gender-specific questions, and the gender of the sample beneficiary from DEERS.

Note 19 (Part B):
XSEXA, H15059B, H15060-H15064

N19B	XSEXA is:	H15059B--H15064 are:	H15059B--H15064 are coded as:	*
1	1: Male	"All are blank"	.N: Valid skip	F
2	1: Male	At least one is "marked"	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	2: Female	"All are blank" or at least one is "marked"	Stand as original value	
4	.: Missing	"All are blank" or at least one is "marked"	Missing value	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 19b:
All variables H15059B--H15064 are missing.

Definition of "marked" in Coding Table for Note 19b:
Any pattern of marks outside the definition "all are blank".

Coding Table for Note 20
XSEXA, AGE, H15060, H15061

N20	XSEXA is:	AGE is:	H15060 is:	H15061 is:	H15060 is coded as:	H15061 is coded as:	*
1	1: Male	Any value	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stands as original value	
2	2: Female	Any value	2: 40 or over	Any value	Stands as original value	Stands as original value	
3	2: Female	Any value	1: Under 40	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
4	2: Female	Any value	.: Missing	Marked	2: >= 40	Stands as original value	B
5	2: Female	< 40	.: Missing	.: Missing	1: < 40	.N: Valid skip	F B
6	2: Female	>=40	.: Missing	.: Missing	2: >= 40	Stands as original value	B
7	2: Female	.: Missing	.: Missing	.: Missing	Stands as original value	Stands as original value	
8	.: Missing	Any value	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

AGE (DAGEQY) is from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

Coding Table for Note 21:
XSEXA, H15062-H15064

N21	XSEXA is:	H15062 is:	H15063 is:	H15064 is:	H15062 is coded as:	H15063 is coded as:	H15064 is coded as:	*
1	1: Male	Any value	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
2	2: Female	1: Pregnant now	1: First trimester	Any value	Stands as original value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	2: Female	1: Pregnant now	2: Second trimester	2: Third trimester	Stands as original value	Stands as original value	.: Missing	F
4	2: Female	1: Pregnant now	2: Second trimester	4: First trimester, 3: second trimester, 1: did not receive prenatal care, or .: missing	Stands as original value	Stands as original value	Stands as original value	
5	2: Female	1: Pregnant now	3: Third trimester or .: missing	Any value	Stands as original value	Stands as original value	Stands as original value	
6	2: Female	2: Pregnant in last 12 months	Any value	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	Stands as original value	F
7	2: Female	3: Not pregnant in past 12 months	Any value	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	F
8	2: Female	.: Missing	1: First trimester	Any value	1: Pregnant now	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	B F
9	2: Female	.: Missing	2: Second trimester	2: Third trimester	1: Pregnant now	Stands as original value	.: Missing	B F
10	2: Female	.: Missing	2: Second trimester	4: First trimester, 3: second trimester, 1: did not receive prenatal care, or .: missing	1: Pregnant now	Stands as original value	Stands as original value	B
11	2: Female	.: Missing	3: Third trimester	Any value	1: Pregnant now	Stands as original value	Stands as original value	B
12	2: Female	.: Missing	.: Missing	Any value	Stands as original value	Stands as original value	Stands as original value	F
13	.: Missing	.: Missing	Marked or .: missing	Any value	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F)

Coding Table for Note 22:
H15067, H15068

N22	H15067 is:	H15068 is:	H15067 is coded as:	H15068 is coded as:	*
1	1: Yes	Any value	Stands as original value	Stands as original value	
2	2: No or .: missing	1: Yes or 2: no	1: Yes	Stands as original value	B
3	2: No	.: Missing	Stands as original value	.N: Valid skip	F
4	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 23:
H15069, H15070

N23	H15069 is:	H15070 is:	H15069 is coded as:	H15070 is coded as:	*
1	1: Yes	Any value	Stands as original value	Stands as original value	
2	2: No or .: missing	1: Yes or 2: no	1: Yes	Stands as original value	B
3	2: No	.: Missing	Stands as original value	.N: Valid skip	F
4	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 23_HT:
XSEXA, H15071F, H15071I

N23_HT	XSEXA is:	H15071F and H15071I is:	H15071F and H15071I are coded as:	*
1	1: Male or 2: female	"Height within range for gender" or .: missing	Stands as original value	
2	1: Male or 2: female	"Height out of range for gender"	.O: Out of range	F
3	.: missing	"Height within range for either gender" or .: missing	Stands as original	
4	.: missing	"Height out of range for either gender"	.O: Out of range	F

* Indication of backward coding (B) or forward coding (F).

Definition of "Height within range for gender" in Coding Table for Note 23_1:
From 2006 NHIS, height for men is 63"-76" (5'3"-6'4"), height for woman is 59"-70" (4'11"-5'10").

Definition of "Height out of range for gender" in Coding Table for Note 23_1:
Any height outside the definition of "Height within range for gender".

Definition of "Height within range for either gender" in Coding Table for Note 23_1:
Use lowest and highest height from either gender to set range: 59"-76" (4'11"- 6'4").

Definition of "Height out of range for either gender" in Coding Table for Note 23_1:
Any height outside the definition of "Height within range for either gender".

Coding Table for Note 23_WT:
XSEXA, H15072

N23_WT	XSEXA is:	H15072 is:	H15072 is coded as:	*
1	1: Male or 2: female	"Weight within range for gender" or .: missing	Stands as original value	
2	1: Male or 2: female	"Weight out of range for gender"	.O: Out of range	F
3	.: missing	"Weight within range for either gender" or .: missing	Stands as original	
4	.: missing	"Weight out of range for either gender"	.O: Out of range	F

* Indication of backward coding (B) or forward coding (F).

Definition of "Weight within range for gender" in Coding Table for Note 23_2:
From 2006 NHIS, weight for men is 126-299 pounds, weight for woman is 100-274 pounds.

Definition of "Weight out of range for gender" in Coding Table for Note 23_2:
Any height outside the definition of "Weight within range for gender".

Definition of "Weight within range for either gender" in Coding Table for Note 23_2:
Use lowest and highest weight from either gender to set range: 100-299 pounds.

Definition of "Weight out of range for either gender" in Coding Table for Note 23_2:
Any height outside the definition of "Weight within range for either gender".

Coding Table for Note 24:
H15073, H15073A-H15073E

N24	H15073A is:	H15073B is:	H15073C is:	H15073D is:	H15073E is:	H15073 is coded as:	H15073A-E are coded as:	*
1	Any value	1: Marked	Any value	Any value	Any value	2: Yes, Mexican, Mexican American, Chicano	Stand as original value	F
2	Any value	2: Unmarked	Any value	Any value	1: Marked	5: Yes, other Spanish, Hispanic, or Latino	Stand as original value	F
3	Any value	2: Unmarked	1: Marked	Any value	2: Unmarked	3: Yes, Puerto Rican	Stand as original value	F
4	Any value	2: Unmarked	2: Unmarked	1: Marked	2: Unmarked	4: Yes, Cuban	Stand as original value	F
5	1: Marked	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	1: No, not Spanish, Hispanic, or Latino	Stand as original value	F
6	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	.: Missing	Stand as original value	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 25:
H15074, H15075-H15079

N25	H15074 is:	H15075-H15079 are:	H15074 is coded as:	H15075-H15079 are coded as:	*
1	1: Yes	Any value	Stands as original value	Stand as original value	
2	2: No or -5: don't know	"All are uncovered/unknown"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	2: No, -5: don't know, or .: missing	At least one is "covered"	1: Yes	Stand as original value	B
4	.: Missing	"All are uncovered/unknown"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are uncovered/unknown" in Coding Table for Note 25:
Responses to H15075-H15079 are all 2: no, -5: don't know, or missing.

Definition of "covered" in Coding Table for Note 25:
Any pattern of marks outside the definition "all are uncovered/unknown".

APPENDIX B

CODING SCHEME AND CODING TABLES – QUARTER III

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BASIC SAS AND ASCII/EBCDIC MISSING DATA AND NOT APPLICABLE CODES

SAS	ASCII/EBCDIC	
Numeric	Numeric	Description
.	-9	No response
.O	-7	Out of range error
.N	-6	Not applicable or valid skip
.D	-5	Scalable response of “don’t know” or “not sure”
.I	-4	Incomplete grid error
.C	-1	Question should have been skipped

Missing values ‘.’ and incomplete grids ‘.I’ are encoded prior to implementation of the Coding Scheme Notes (see below).

Coding Table for Note 1:
H15003, H15004

N1	H15003 is:	H15004 is:	H15003 is coded as:	H15004 is coded as:	*
1	1-17: Health plan	Marked or missing response	Stands as original value	Stands as original value	
2	-6: No usage in past 12 months or -5: not sure	Marked response	Stands as original value	.C: Question should be skipped	F
3	-6: No usage in past 12 months or -5: not sure	Missing response	Stands as original value	.N: Valid skip	F
4	Missing response	Marked or missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 2:
H15006, H15007, H15008

N2	H15006 is:	H15007-H15008 are:	H15006 is coded as:	H15007-H15008 are coded as:	*
1	1: Yes	"All are blank"	Stands as original value	Stand as original value	
2	1: Yes or .: missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	1: Yes	"One marked and one NA"	Stands as original value	.: Missing if –6; stand as original value otherwise	F
4	1: Yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: No	"One marked and one NA"	Stands as original value	.C: Question should be skipped	F
6	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stand as original value otherwise	B F
7	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
8	.: Missing	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 2:
Responses to H15007-H15008 are all missing.

Definition of "blank or NA" in Coding Table for Note 2:
All of the following are true: H15007-H15008 are a combination of not applicable (-6) or missing.

Definition of "one marked and one NA" in Coding Table for Note 2:
H15007-H15008 have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 2:
Any pattern of marks outside the definitions "all are blank", "one marked and one NA", and "blank or NA".

Coding Table for Note 3:
H15009, H15010, H15011

N3	H15009 is:	H15010-H15011 are:	H15009 is coded as:	H15010-H15011 are coded as:	*
1	1: Yes	"All are blank"	Stands as original value	Stand as original value	
2	1: Yes or .: missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	1: Yes	"One marked and one NA"	Stands as original value	.: Missing if –6; stand as original value otherwise	F
4	1: Yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: No	"One marked and one NA"	Stands as original value	.C: Question should be skipped	F
6	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stand as original value otherwise	B F
7	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
8	.: Missing	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 3:
Responses to H15010-H15011 are all missing.

Definition of "blank or NA" in Coding Table for Note 3:
All of the following are true: H15010-H15011 are a combination of not applicable (-6) or missing.

Definition of "one marked and one NA" in Coding Table for Note 3:
H15010-H15011 have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 3:
Any pattern of marks outside the definitions "all are blank", "one marked and one NA", and "blank or NA".

Coding Table for Note 4:
H15013, H15014-H15018

N4	H15013 is:	H15014-H15018 are:	H15013 is coded as:	H15014-H15018 are coded as:	*
1	1: None	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
2	2-7: Visits, or .: missing	"Blank or NA"	1: None	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	2-7: Visits	At least one is "marked" or "all are blank"	Stands as original value	.: Missing if –6; stand as original value otherwise	F
4	.: Missing	"All are blank"	Stands as original value	Stand as original value	
5	.: Missing	At least one is "marked"	Stands as original value	.: Missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 4:
Responses to H15014-H15018 are all missing.

Definition of "blank or NA" in Coding Table for Note 4:
All of the following are true: H15014-H15018 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 4:
Any pattern of marks outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 5:
H15015, H15016-H15017

N5	H15015 is:	H15016 is:	H15017 is:	H15015 is coded as:	H15016 is coded as:	H15017 is coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stands as original value	Stands as original value	
2	1: Yes	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
3	2: No or .: missing	1: Definitely yes 2: somewhat yes	Any value	1: Yes	Stands as original value	Stands as original value	B
4	2: No or .: missing	3: Somewhat no, 4: definitely no, or .: missing	1: Definitely yes 2: somewhat yes	1: Yes	Stands as original value	Stands as original value	B
5	2: No	3: Somewhat no, 4: definitely no, or .: missing	3: Somewhat no, 4: definitely no, or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	F
6	.: Missing	3: Somewhat no, 4: definitely no, or .: missing	3: Somewhat no, 4: definitely no, or .: missing	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 5_C1:
S15C09, S15C10

N5_C1	S15C09 is:	S15C10 is:	S15C09 is coded as:	S15C10 is coded as:	*
1	1: Yes	1-3: Marked or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't need to get special medical equipment	2: No	.C: Question should be skipped if marked	B F
3	2: No or .: missing	1-3: Marked	1: Yes	Stands as original value	B
4	2: No	-6: Didn't need to get special medical equipment or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 5_C2:
S15C11, S15C12

N5_C2	S15C11 is:	S15C12 is:	S15C11 is coded as:	S15C12 is coded as:	*
1	1: Yes	1-3: Marked or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't need to get special therapy	2: No	.C: Question should be skipped if marked	B F
3	2: No or .: missing	1-3: Marked	1: Yes	Stands as original value	B
4	2: No	-6: Didn't need to get special therapy or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 5_C3:
S15C13, S15C14

N5_C3	S15C13 is:	S15C14 is:	S15C13 is coded as:	S15C14 is coded as:	*
1	1: Yes	1-3: Marked or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't need to get home health care	2: No	.C: Question should be skipped if marked	B F
3	2: No or .: missing	1-3: Marked	1: Yes	Stands as original value	B
4	2: No	-6: Didn't need to get home health care or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 6:
H15019, H15020-H15027, S15009

N6	H15019 is:	H15020-H15024 are:	H15025-H15026, S15009 are:	H15027 is:	H15019 is coded as:	H15020-H15026, S15009 are coded as:	H15027 is coded as:	*
1	1: Yes	Any value	Any value	Any value	Stands as original value	Stand as original value	.: Missing if –6; stands as original value otherwise	F
2	2: No or .: missing	Any value	Any value	0-10	1: Yes	Stand as original value	Stands as original value	B
3	2: No or .: missing	At least one is “marked”	Any value	.: Missing	1: Yes	Stand as original value	Stands as original value	B
4	2: No	At least one is “marked”	Any value	-6: No personal doctor	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.C: Question should be skipped	F
5	2: No	“Blank or NA”	Any value	-6: No personal doctor or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	F
6	.: Missing	Any value	Any value	-6: No personal doctor	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	.C: Question should be skipped	B F
7	.: Missing	“Blank or NA”	Any value	.: Missing	Stands as original value	Stand as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of “blank or NA” in Coding Table for Note 6:
All of the following are true: H15020 is either 0: None or missing and H15021-H15024 are either not applicable (-6) or missing.

Definition of “marked” in Coding Table for Note 6:
Any pattern of marks for H15020-H15024 outside the definition “blank or NA”.

Coding Table for Note 7:
H15020, H15021-H15026

N7	H15020 is:	H15021-H15024 are:	H15025-H15026 are:	H15020 is coded as:	H15021-H15026 are coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Any value	Stands as original value	Stand as original value	
2	0: None	Any value	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	1-6: Visits, or .: missing	"Blank or NA"	Any value	0: None	.N: Valid skip if missing; .C: question should be skipped if marked	B F
4	1-6: Visits, or .: missing	At least one is "marked" or "all are blank"	Any value	Stands as original value	.: Missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 7:
Responses to H15021-H15024 are all missing.

Definition of "blank or NA" in Coding Table for Note 7:
Responses to H15021-H15024 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 7:
Any pattern of marks for H15021-H15024 outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 8:
H15025, H15026

N8	H15025 is:	H15026 is:	H15025 is coded as:	H15026 is coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stands as original value	
2	1: Yes	Any value	Stands as original value	Stands as original value	
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	.: Missing	Stands as original value	.N: Valid skip	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 8_01:
S15009, S15010

N8_01	S15009 is:	S15010 is:	S15009 is coded as:	S15010 is coded as:	*
1	.N: Valid skip, or .C: question should be skipped	Any value	Stands as original value	Stands as original value	
2	1: Yes	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	2: No	Any value	Stands as original value	Stands as original value	
4	.: Missing	Any value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 9:
H15028, H15029-H15031

N9	H15028 is:	H15029-H15031 are:	H15028 is coded as:	H15029 is coded as:	H15030-H15031 are coded as:	*
1	1: Yes	Any value	Stands as original value	.: Missing if –6; stands as original value otherwise	Stand as original value	F
2	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stands as original value otherwise	Stand as original value	B
3	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	F
4	.: Missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	B F
5	.: Missing	"All are blank"	Stands as original value	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 9:
Responses to H15029-H15031 are all missing.

Definition of "blank or NA" in Coding Table for Note 9:
All of the following are true: H15029 and H15031 are a combination of not applicable (-6) or missing. H15030 is either missing or 0: None.

Definition of "marked" in Coding Table for Note 9:
Any pattern of marks outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 10:
H15030, H15031

N10	H15030 is:	H15031 is:	H15030 is coded as:	H15031 is coded as:	*
1	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stands as original value	
2	1-5: Specialists	0-10 or .: missing	Stands as original value	Stands as original value	
3	1-5: Specialists or .: missing	-6: Didn't see a specialist in the last 12 months	0: None	.C: Question should be skipped	B F
4	0: None	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	0-10 or .: missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 10_B1:
S15B02, S15B03-S15B04

N10_B1	S15B02 is:	S15B03-S15B04 are:	S15B02 is coded as:	S15B03-S15B04 are coded as:	*
1	1: Yes	Any value	Stands as original value	.: Missing if –6; stand as original value otherwise	F
2	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stand as original value otherwise	B F
3	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
4	.: Missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
5	.: Missing	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 10_B1:
Responses to S15B03-S15B04 are all missing.

Definition of "blank or NA" in Coding Table for Note 10_B1:
All of the following are true: S15B03-S15B04 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 10_B1:
Any pattern of marks outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 11:
H15032, H15033

N11	H15032 is:	H15033 is:	H15032 is coded as:	H15033 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't need care, tests, or treatment	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	–6: Didn't need care, tests, or treatment or .: missing	Stands as original value	.N: Valid skip if missing; .C: Question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 12:
H15034, H15035

N12	H15034 is:	H15035 is:	H15034 is coded as:	H15035 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't look for information	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	-6: Didn't look for information or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 13:
H15036, H15037

N13	H15036 is:	H15037 is:	H15036 is coded as:	H15037 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't need service or equipment	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	-6: Didn't need service or equipment or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 14:
H15038, H15039

N14	H15038 is:	H15039 is:	H15038 is coded as:	H15039 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't need prescription meds	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	-6: Didn't need prescription meds or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 15:
H15040, H15041-H15042

N15	H15040 is:	H15041-H15042 are:	H15040 is coded as:	H15041-H15042 are coded as:	*
1	1: Yes	At least one is "marked" or "all are blank"	Stands as original value	.: Missing if –6; stand as original value otherwise	F
2	1: Yes or .: missing	"Blank or NA"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	2: No or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stand as original value otherwise	B F
4	2: No	"All are blank" or "blank or NA"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 15:
Responses to H15041-H15042 are all missing.

Definition of "blank or NA" in Coding Table for Note 15:
All of the following are true: H15041-H15042 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 15:
Any pattern of marks outside the definitions "all are blank" and "blank or NA".

Coding Table for Note 16:
H15043, H15044

N16	H15043 is:	H15044 is:	H15043 is coded as:	H15044 is coded as:	*
1	1: Yes	1-4: How often or .: missing	Stands as original value	Stands as original value	
2	1: Yes or .: missing	-6: Didn't receive forms to fill out	2: No	.C: Question should be skipped	B F
3	2: No or .: missing	1-4: How often	1: Yes	Stands as original value	B
4	2: No	-6: Didn't receive forms to fill out or .: missing	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 17:
H15045, H15046-H15047

N17	H15045 is:	H15046-H15047 are:	H15045 is coded as:	H15046-H15047 are coded as:	*
1	1: Yes	At least one is "marked", "all are blank" or "blank or don't know"	Stands as original value	.: Missing if –6; stands as original value otherwise	F
2	1: Yes, -5: don't know or .: missing	"Blank or NA" or "NA or don't know"	2: No	.N: Valid skip if missing; .C: question should be skipped if marked	B F
3	2: No, -5: don't know or .: missing	At least one is "marked"	1: Yes	.: Missing if –6; stands as original value otherwise	B F
4	2: No	None are "marked"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
5	-5: Don't know	"Blank or don't know" or "all are blank"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
6	.: Missing	"Blank or don't know" or "all are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 17:
Responses to H15046-H15047 are all missing.

Definition of "blank or NA" in Coding Table for Note 17:
Responses to H15046-H15047 are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of "blank or don't know" in Coding Table for Note 17:
Responses to H15046-H15047 are either all don't know (-5) or a combination of missing and don't know (-5).

Definition of "NA or don't know" in Coding Table for Note 17:
Responses to H15046-H15047 are a combination of not applicable (-6) and don't know (-5).

Definition of "marked" in Coding Table for Note 17:
Any pattern of marks outside the definitions "all are blank," "blank or NA," "blank or don't know," or "NA or don't know".

Coding Table for Note 17_R1:
S15R01, S15R02

N17_R1	S15R01 is:	S15R02 is:	S15R01 is coded as:	S15R02 is coded as:	*
1	1: Yes or missing response	Any value	Stands as original value	Stands as original value	
2	2: No	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 17_R2:
S15R03A-S15R03E, S15R04A-S15R04G, S15R05-S15R15

N17_R2	S15R03A is:	S15R03B-S15R03E, S15R04A-S15R04G, S15R05-S15R15 are:	S15R03A is coded as:	S15R03B-S15R03E, S15R04A-S15R04G, S15R05-S15R15 are coded as:	*
1	1: Marked	At least one is "marked"	2: Unmarked	Stand as original value	B
2	1: Marked	"All are blank"	Stands as original value	.N: Valid skip	F
3	2: Unmarked	Any value	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 17_R2:
Responses to S15R03B-S15R03E and S15R04A-S15R04G are all 2: unmarked and responses to S15R05-S15R15 are all missing.

Definition of "marked" in Coding Table for Note 17_R2:
Any pattern of marks outside the definition "all are blank".

Coding Table for Note 17_R3:
S15R06, S15R07-S15R10

N17_R3	S15R06 is:	S15R07-S15R10 are:	S15R06 is coded as:	S15R07-S15R10 are coded as:	*
1	.N: valid skip	.N: valid skip	Stands as original value	Stand as original value	
2	1: Yes or missing response	At least one is "marked"	1: Yes	Stand as original value	B
3	1: Yes or missing response	"All are blank"	Stands as original value	Stand as original value	
4	2: No	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 17_R4:
Responses to S15R07-S15R10 are all missing.

Definition of "marked" in Coding Table for Note 17_R2:
Any pattern of marks outside the definition "all are blank".

Coding Table for Note 17_R4:
S15R11, S15R12-S15R15

N17_R4	S15R11 is:	S15R12-S15R15 are:	S15R11 is coded as:	S15R12-S15R15 are coded as:	*
1	.N: valid skip	.N: valid skip	Stands as original value	Stand as original value	
2	1: Yes or missing response	At least one is "marked"	1: Yes	Stand as original value	B
3	1: Yes or missing response	"All are blank"	Stands as original value	Stand as original value	
4	2: No	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 17_R4:
Responses to S15R12-S15R15 are all missing.

Definition of "marked" in Coding Table for Note 17_R2:
Any pattern of marks outside the definition "all are blank".

Coding Table for Note 18:
H15053, H15054-H15056, H15057A-H15057D

N18	H15053 is:	H15054-H15056 are:	H15057A-H15057D are:	H15053 is coded as:	H15054- H15056, H15057A-H15057D are coded as:	*
1	3: Some days, 4: every day, or .: missing	Any value	Any value	Stands as original value	Stand as original value	
2	2: Not at all or -5: don't know	Any value	"All are unmarked"	Stands as original value	.N: Valid skip if missing or unmarked; .C: question should be skipped if marked	F
3	2: Not at all	Any value	At least one is "marked"	.: Missing	Stand as original value	B
4	-5: Don't know	Any value	At least one is "marked"	Stands as original value	.N: Valid skip if missing or unmarked; .C: question should be skipped if marked	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are unmarked" in Coding Table for Note 18:
Responses to H15057A-H15057D are all missing or unmarked.

Definition of "marked" in Coding Table for Note 18:
Any pattern of marks outside the definition "all are unmarked"

Coding Table for Note 19:

Note 19 (Part A)
H15058, H15059B, H15060-H15064, SEX, XSEXA

N19A	H15058 is:	SEX is:	H15059B--H15064 are:	XSEXA is coded as:
1	.: Missing	F	Any marked	2: Female
2	.: Missing	F	All missing	2: Female
3	.: Missing	M	Any marked	1: Male
4	.: Missing	M	All missing	1: Male
5	.: Missing	Z or .: missing	Any marked	2: Female
6	.: Missing	Z	All missing	.: Missing
7	.: Missing	.: Missing	All missing	.: Missing
8	1: Male	Any value	All missing	1: Male
9	1: Male	F	Any marked	2: Female
10	1: Male	M, Z, or .: missing	Any marked	1: Male
11	2: Female	Any value	Any marked	2: Female
12	2: Female	M	All missing	1: Male
13	2: Female	F, Z, or .: missing	All missing	2: Female

SEX (PNSEXCD) is the gender from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

XSEXA is the recoded gender variable after taking into account the self-reported response (H15058), any responses to gender-specific questions, and the gender of the sample beneficiary from DEERS.

Note 19 (Part B):
XSEXA, H15059B, H15060-H15064

N19B	XSEXA is:	H15059B--H15064 are:	H15059B--H15064 are coded as:	*
1	1: Male	"All are blank"	.N: Valid skip	F
2	1: Male	At least one is "marked"	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	2: Female	"All are blank" or at least one is "marked"	Stand as original value	
4	.: Missing	"All are blank" or at least one is "marked"	Missing value	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 19b:
All variables H15059B--H15064 are missing.

Definition of "marked" in Coding Table for Note 19b:
Any pattern of marks outside the definition "all are blank".

Coding Table for Note 20
XSEXA, AGE, H15060, H15061

N20	XSEXA is:	AGE is:	H15060 is:	H15061 is:	H15060 is coded as:	H15061 is coded as:	*
1	1: Male	Any value	.N: Valid skip, or .C: question should be skipped	.N: Valid skip, or .C: question should be skipped	Stands as original value	Stands as original value	
2	2: Female	Any value	2: 40 or over	Any value	Stands as original value	Stands as original value	
3	2: Female	Any value	1: Under 40	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
4	2: Female	Any value	.: Missing	Marked	2: >= 40	Stands as original value	B
5	2: Female	< 40	.: Missing	.: Missing	1: < 40	.N: Valid skip	F B
6	2: Female	>=40	.: Missing	.: Missing	2: >= 40	Stands as original value	B
7	2: Female	.: Missing	.: Missing	.: Missing	Stands as original value	Stands as original value	
8	.: Missing	Any value	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

AGE (DAGEQY) is from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

Coding Table for Note 21:
XSEXA, H15062-H15064

N21	XSEXA is:	H15062 is:	H15063 is:	H15064 is:	H15062 is coded as:	H15063 is coded as:	H15064 is coded as:	*
1	1: Male	Any value	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
2	2: Female	1: Pregnant now	1: First trimester	Any value	Stands as original value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	2: Female	1: Pregnant now	2: Second trimester	2: Third trimester	Stands as original value	Stands as original value	.: Missing	F
4	2: Female	1: Pregnant now	2: Second trimester	4: First trimester, 3: second trimester, 1: did not receive prenatal care, or .: missing	Stands as original value	Stands as original value	Stands as original value	
5	2: Female	1: Pregnant now	3: Third trimester or .: missing	Any value	Stands as original value	Stands as original value	Stands as original value	
6	2: Female	2: Pregnant in last 12 months	Any value	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	Stands as original value	F
7	2: Female	3: Not pregnant in past 12 months	Any value	Any value	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	.N: Valid skip if missing; .C: question should be skipped if marked	F
8	2: Female	.: Missing	1: First trimester	Any value	1: Pregnant now	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	B F
9	2: Female	.: Missing	2: Second trimester	2: Third trimester	1: Pregnant now	Stands as original value	.: Missing	B F
10	2: Female	.: Missing	2: Second trimester	4: First trimester, 3: second trimester, 1: did not receive prenatal care, or .: missing	1: Pregnant now	Stands as original value	Stands as original value	B
11	2: Female	.: Missing	3: Third trimester	Any value	1: Pregnant now	Stands as original value	Stands as original value	B
12	2: Female	.: Missing	.: Missing	Any value	Stands as original value	Stands as original value	Stands as original value	F
13	.: Missing	.: Missing	Marked or .: missing	Any value	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F)

Coding Table for Note 22:
H15067, H15068

N22	H15067 is:	H15068 is:	H15067 is coded as:	H15068 is coded as:	*
1	1: Yes	Any value	Stands as original value	Stands as original value	
2	2: No or .: missing	1: Yes or 2: no	1: Yes	Stands as original value	B
3	2: No	.: Missing	Stands as original value	.N: Valid skip	F
4	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 23:
H15069, H15070

N23	H15069 is:	H15070 is:	H15069 is coded as:	H15070 is coded as:	*
1	1: Yes	Any value	Stands as original value	Stands as original value	
2	2: No or .: missing	1: Yes or 2: no	1: Yes	Stands as original value	B
3	2: No	.: Missing	Stands as original value	.N: Valid skip	F
4	.: Missing	.: Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 23_HT:
XSEXA, H15071F, H15071I

N23_HT	XSEXA is:	H15071F and H15071I is:	H15071F and H15071I are coded as:	*
1	1: Male or 2: female	"Height within range for gender" or .: missing	Stands as original value	
2	1: Male or 2: female	"Height out of range for gender"	.O: Out of range	F
3	.: missing	"Height within range for either gender" or .: missing	Stands as original	
4	.: missing	"Height out of range for either gender"	.O: Out of range	F

* Indication of backward coding (B) or forward coding (F).

Definition of "Height within range for gender" in Coding Table for Note 23_1:
From 2006 NHIS, height for men is 63"-76" (5'3"-6'4"), height for woman is 59"-70" (4'11"-5'10").

Definition of "Height out of range for gender" in Coding Table for Note 23_1:
Any height outside the definition of "Height within range for gender".

Definition of "Height within range for either gender" in Coding Table for Note 23_1:
Use lowest and highest height from either gender to set range: 59"-76" (4'11"- 6'4").

Definition of "Height out of range for either gender" in Coding Table for Note 23_1:
Any height outside the definition of "Height within range for either gender".

Coding Table for Note 23_WT:
XSEXA, H15072

N23_WT	XSEXA is:	H15072 is:	H15072 is coded as:	*
1	1: Male or 2: female	"Weight within range for gender" or .: missing	Stands as original value	
2	1: Male or 2: female	"Weight out of range for gender"	.O: Out of range	F
3	.: missing	"Weight within range for either gender" or .: missing	Stands as original	
4	.: missing	"Weight out of range for either gender"	.O: Out of range	F

* Indication of backward coding (B) or forward coding (F).

Definition of "Weight within range for gender" in Coding Table for Note 23_2:
From 2006 NHIS, weight for men is 126-299 pounds, weight for woman is 100-274 pounds.

Definition of "Weight out of range for gender" in Coding Table for Note 23_2:
Any height outside the definition of "Weight within range for gender".

Definition of "Weight within range for either gender" in Coding Table for Note 23_2:
Use lowest and highest weight from either gender to set range: 100-299 pounds.

Definition of "Weight out of range for either gender" in Coding Table for Note 23_2:
Any height outside the definition of "Weight within range for either gender".

Coding Table for Note 24:
H15073, H15073A-H15073E

N24	H15073A is:	H15073B is:	H15073C is:	H15073D is:	H15073E is:	H15073 is coded as:	H15073A-E are coded as:	*
1	Any value	1: Marked	Any value	Any value	Any value	2: Yes, Mexican, Mexican American, Chicano	Stand as original value	F
2	Any value	2: Unmarked	Any value	Any value	1: Marked	5: Yes, other Spanish, Hispanic, or Latino	Stand as original value	F
3	Any value	2: Unmarked	1: Marked	Any value	2: Unmarked	3: Yes, Puerto Rican	Stand as original value	F
4	Any value	2: Unmarked	2: Unmarked	1: Marked	2: Unmarked	4: Yes, Cuban	Stand as original value	F
5	1: Marked	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	1: No, not Spanish, Hispanic, or Latino	Stand as original value	F
6	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	.: Missing	Stand as original value	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 25:
H15074, H15075-H15079

N25	H15074 is:	H15075-H15079 are:	H15074 is coded as:	H15075-H15079 are coded as:	*
1	1: Yes	Any value	Stands as original value	Stand as original value	
2	2: No or -5: don't know	"All are uncovered/unknown"	Stands as original value	.N: Valid skip if missing; .C: question should be skipped if marked	F
3	2: No, -5: don't know, or .: missing	At least one is "covered"	1: Yes	Stand as original value	B
4	.: Missing	"All are uncovered/unknown"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are uncovered/unknown" in Coding Table for Note 25:
Responses to H15075-H15079 are all 2: no, -5: don't know, or missing.

Definition of "covered" in Coding Table for Note 25:
Any pattern of marks outside the definition "all are uncovered/unknown".

APPENDIX C

MAPPING THE MILITARY TREATMENT FACILITY (MTF) TO THE CATCHMENT AREA

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GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
0001	0001	FOX AHC-REDSTONE ARSENAL	1443
0003	0003	LYSTER AHC-FT. RUCKER	1433
0004	0004	42nd MED GRP-MAXWELL	1447
0005	0005	BASSETT ACH-FT. WAINWRIGHT	998
0005	0204	TMC FT. RICHARDSON	256
0005	6033	KAMISH CLINIC-FT. WAINWRIGHT	239
0006	0006	673rd MED GRP-ELMENDORF	1532
0008	0008	R W BLISS AHC-FT. HUACHUCA	1423
0009	0009	56th MED GRP-LUKE	1464
0010	0010	355th MED GRP-DAVIS MONTHAN	1423
0013	0013	19th MED GRP-LITTLE ROCK	1440
0014	0014	60th MED GRP-TRAVIS	1446
0018	0018	30th MED GRP-VANDENBERG	1850
0019	0019	412th MED GRP-EDWARDS	2039
0024	0024	NH CAMP PENDLETON	1032
0024	0208	BMC MCB CAMP PENDLETON	51
0024	0210	BMC EDSON RANGE ANNEX	35
0024	0269	BMC YUMA	134
0024	1657	BMC CAMP DELMAR MCB	5
0024	1659	BMC SAN ONOFRE MCB	65
0024	6216	TRICARE OUTPATIENT-OCEANSIDE	123
0024	6225	62 AREA-SAN MATEO	35
0026	0026	NBHC PORT HUENEME	2173
0028	0028	NH LEMOORE	1225
0028	0319	NBHC FALLON	211
0029	0029	NMC SAN DIEGO	547
0029	0230	NBHC MCRD SAN DIEGO	11
0029	0232	BMC MCAS MIRAMAR	363
0029	0239	NBHC EL CENTRO	10
0029	0406	NBHC RANCHO BERNARDO	48
0029	0409	SD E COUNTY PRIMARY CARE CLIN	111
0029	0410	NBHC EASTLAKE	84
0029	0414	BMA NALF SAN CLEMENTE	2
0029	0701	NBHC NAVSTA SAN DIEGO	56
0029	6207	TRICARE OUTPATIENT-CLAIREMONT	312
0030	0030	NH TWENTYNINE PALMS	1280
0030	0212	NBHC NAVWPNCEN CHINA LAKE	195
0032	0032	EVANS ACH-FT. CARSON	788
0032	6102	PREMIER MEDICAL HOME-CARSON	107
0032	6123	MOUNTAIN POST MED HOME-CARSON	159
0032	7293	ROBINSON-FT.CARSON	169
0032	7300	DIRAIMONDO-FT. CARSON	204
0033	0033	10th MED GRP-USAF ACADEMY CO	1489
0038	0038	NH PENSACOLA	527
0038	0107	NBHC NSA MID-SOUTH	137
0038	0260	NBHC NAS PENSACOLA	80
0038	0261	NBHC MILTON WHITING FIELD	133
0038	0262	NBHC NATTC PENSACOLA	99
0038	0265	NBHC NAVCOASTSYSC PANAMA CITY	41
0038	0316	NBHC GULFPORT	176

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
0038	0317	NBHC MERIDIAN	44
0038	0436	NBHC NAS BELLE CHASE	167
0038	0513	NBHC NTTC PENSACOLA	47
0039	0039	NH JACKSONVILLE	938
0039	0266	NBHC NAS JACKSONVILLE	91
0039	0275	NBHC ALBANY	31
0039	0337	NBHC KINGS BAY	318
0039	0517	NBHC KEY WEST	73
0042	0042	96th MED GRP-EGLIN	1446
0043	0043	325th MED GRP-TYNDALL	2172
0045	0045	6th MED GRP-MACDILL	814
0045	1946	BRANDON COMM CLINIC-MILITARY	648
0046	0046	45th MED GRP-PATRICK	2165
0047	0047	EISENHOWER AMC-FT. GORDON	1204
0047	1550	TMC-4-FT. GORDON	188
0047	7197	CONNELLY HLTH CLINIC-FT.GORDON	10
0047	7239	SOUTHCOM CLINIC-FT. GORDON	32
0047	8924	RODRIGUEZ AHC-FT. BUCHANAN	21
0048	0048	MARTIN ACH-FT. BENNING	873
0048	1315	CTMC-FT. BENNING	121
0048	1316	WINDER FPC-FT. BENNING	76
0048	1330	CTMC 2-HARMONY CHURCH-BENNING	47
0048	1332	7TH SPECIAL FORCES-TMC 9-EGLIN	40
0048	1555	TMC-5-FT. BENNING	30
0048	6124	N COLUMBUS MED HOME-BENNING	251
0049	0049	WINN ACH-FT. STEWART	540
0049	0272	TUTTLE AHC-HUNTER ARMY AIRFLD	329
0049	6122	RICHMOND HILL MED HOME-STEWART	228
0049	7344	TROOP MED CLINIC-FT. STEWART	71
0049	7443	LLOYD C. HAWKS TMC-FT. STEWART	262
0051	0051	78th MED GRP-ROBINS	1437
0052	0052	TRIPLER AMC-FT SHAFTER	728
0052	0437	SCHOFIELD BARRACKS AHC	373
0052	0534	SCHOF BKS SCMH-SCHOFIELD BKS	234
0052	6120	WARRIOR OHANA MED HOME-SHAFTER	137
0053	0053	366th MED GRP-MOUNTAIN HOME	1896
0055	0055	375th MED GRP-SCOTT	1431
0056	0056	JAMES A LOVELL FHCC	1397
0056	1660	NBHC NCTC INPR GREAT LAKES	36
0056	1959	NBHC NTC GREAT LAKES	87
0057	0057	IRWIN ACH-FT. RILEY	403
0057	1539	AVIATION CLINIC-FT. RILEY	78
0057	7289	CUSTER HILL HC-FT. RILEY	359
0057	7337	AMH FARRELLY AHC-FT. RILEY	637
0058	0058	MUNSON AHC-FT. LEAVENWORTH	1404
0058	1488	TMC #2 (USDB 2)-FT LEAVENWORTH	9
0058	1530	TMC #1 (USDB)-FT LEAVENWORTH	10
0060	0060	BLANCHFIELD ACH-FT. CAMPBELL	728
0060	1506	AVIATION MEDICINE CLIN-CAMPBEL	121
0060	6108	SCREAMING EAGLE MED HOME-CAMPB	159

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
0060	7307	LA POINTE HLTH CLINIC-CAMPBELL	242
0060	7341	BYRD HEALTH CLIN-FT. CAMPBELL	271
0061	0061	IRELAND ACH-FT. KNOX	1329
0061	0290	ROCK ISLAND ARSENAL AHC	121
0062	0062	2nd MED GRP-BARKSDALE	1420
0064	0064	BAYNE-JONES ACH-FT. POLK	1063
0064	7199	CONSOLIDATED TMC-FT POLK	367
0066	0066	779th MED GRP-ANDREWS	1466
0067	0067	WALTER REED NATL MIL MED CNTR	1276
0067	0256	DILORENZO TRICARE HEALTH CLIN	192
0068	0068	NHC PATUXENT RIVER	968
0068	0301	NBHC INDIAN HEAD	154
0068	0386	NBHC DAHLGREN	219
0068	0522	NBHC ANDREWS AFB	87
0069	0069	KIMBROUGH AMB CAR CEN-FT MEADE	549
0069	0308	KIRK AHC-ABERDEEN PRVNG GD	170
0069	0309	BARQUIST AHC-FT. DETRICK	151
0069	0352	DUNHAM AHC-CARLISLE BARRACKS	181
0069	0390	ANDREW RADER AHC MYER-HENDERSN	303
0069	0441	FILLMORE AHC AT NEW CUMBERLAND	87
0069	0545	OHC EDGEWOOD ARS	6
0073	0073	81st MED GRP-KEESLER	1478
0074	0074	14th MED GRP-COLUMBUS	2439
0075	0075	L. WOOD ACH-FT. LEONARD WOOD	1081
0075	6115	OZARK MEDICAL HOME-LEONRD WOOD	347
0076	0076	509th MED GRP-WHITEMAN	1771
0077	0077	341st MED GRP-MALMSTROM	1944
0078	0078	55th MED GRP-OFFUTT	1442
0079	0079	99th MED GRP-O'CALLAGHAN HOSP	1413
0079	1271	CREECH AID STATION-NELLIS AFB	43
0083	0083	377th MED GRP-KIRTLAND	2099
0086	0086	KELLER ACH-WEST POINT	985
0086	1815	MOLOGNE TMC-WEST POINT	406
0086	7154	MILLS TROOP CLINIC-FT. DIX	18
0089	0089	WOMACK AMC-FT. BRAGG	198
0089	6034	TROOP & FAMILY MED CL-FT. BRAG	175
0089	6105	FAYETTEVILLE MEDICAL HOME-BRAG	121
0089	6106	HOPE MILLS MEDICAL HOME-BRAGG	132
0089	7143	ROBINSON CLINIC-FT. BRAGG	384
0089	7286	JOEL CLINIC-FT. BRAGG	128
0089	7294	CLARK CLINIC-FT. BRAGG	320
0091	0091	NH CAMP LEJEUNE	1394
0091	0333	BMC MCAS NEW RIVER	56
0091	1662	BMC CAMP GEIGER MCB	16
0091	1663	BMC CAMP JOHNSON MCB	9
0091	1664	BMC COURTHOUSE BAY MCB	4
0091	1992	BMC BLDG 15 MCB CAMP LEJEUNE	38
0091	1995	BMC FRENCH CREEK MCB	48
0092	0092	NHC CHERRY POINT	1432
0094	0094	5th MED GRP-MINOT	1703

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
0095	0095	88th MED GRP-WRIGHT-PATTERSON	1472
0096	0096	72nd MED GRP-TINKER	1425
0098	0098	REYNOLDS ACH-FT. SILL	1431
0100	0035	NBHC GROTON	662
0100	0100	NAVAL HLTH CLINIC NEW ENGLAND	445
0100	0321	NBHC PORTSMOUTH	173
0100	0328	NBHC SARATOGA SPRINGS	137
0101	0101	20th MED GRP-SHAW	1427
0103	0103	NAVAL HEALTH CLINIC CHARLESTON	1456
0104	0104	NH BEAUFORT	1365
0104	0358	NBHC MCRD PARRIS ISLAND	91
0104	0360	NBHC MCAS BEAUFORT	27
0105	0105	MONCRIEF ACH-FT. JACKSON	1076
0105	6114	MONCRIEF MEDICAL HOME-JACKSON	374
0108	0108	WILLIAM BEAUMONT AMC-FT. BLISS	145
0108	0327	AHC MCAFEE-WHITE SANDS MSL RAN	51
0108	1259	EAST BLISS CLINIC-FT. BLISS	85
0108	1481	MENDOZA SOLDIER FAMILY CC	698
0108	1617	TMC MED EXAM-FT. BLISS	358
0108	6103	RIO BRAVO MEDICAL HOME-BLISS	115
0109	0109	BAMC-SAMMC JBSA FSH	279
0109	1585	BAMC-TAYLOR BURK CL-CP BULLIS	177
0109	1587	BAMC-MCWETHY TMC-FSH	17
0109	6095	BAMC-FSH PRIMARY CARE CLINIC	749
0109	6119	BAMC-SCHERTZ MEDICAL HOME	279
0110	0110	DARNALL AMC-FT. HOOD	187
0110	1592	MONROE CONSOLIDATED-FT. HOOD	170
0110	1599	TMC-12-FT. HOOD	31
0110	6014	CHARLES MOORE HLTH CLN-FT HOOD	239
0110	6076	RUSSELL COLLIER HLTH CLIN-HOOD	190
0110	6111	HARKER HEIGHTS MED HOME-HOOD	170
0110	6112	KILLEEN MEDICAL HOME-HOOD	165
0110	6113	COPPERAS COVE MED HOME-HOOD	121
0110	7236	BENNETT FAM CARE CLINIC-HOOD	175
0112	0112	7th MED GRP-DYESS	1773
0113	0113	82nd MED GRP-SHEPPARD	2155
0117	0117	59th MDW-WHASC-JBSA-LACKLAND	1126
0117	0366	59th MDW-359 MDG-JBSA-RANDOLPH	165
0117	1350	59th MDW-559 MDG-REID-JBSA-LAF	7
0117	2170	59th MDW-NRTH CNTRL FED CLN-SA	153
0118	0118	NHC CORPUS CHRISTI	1542
0118	0369	NBHC KINGSVILLE	176
0118	0370	NBHC FORT WORTH	234
0119	0119	75th MED GRP-HILL	1432
0120	0120	633rd MED GRP LANGLEY-EUSTIS	1431
0121	0121	MCDONALD AHC-FT. EUSTIS	1164
0121	0464	AHC FT. STORY	67
0121	0553	TMC-1-FT. EUSTIS	39
0121	0554	TMC-2-FT. EUSTIS	168
0122	0122	KENNER AHC-FT. LEE	1433

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
0123	0123	FT BELVOIR COMMUNITY HOSP-FBCH	725
0123	6200	FAIRFAX HEALTH CENTER	308
0123	6201	DUMFRIES HEALTH CENTER	427
0124	0124	NMC PORTSMOUTH	738
0124	0380	NBHC NSY NORFOLK	9
0124	0381	NBHC YORKTOWN	58
0124	0382	NBHC DAM NECK	69
0124	0519	NBHC CHESAPEAKE	51
0124	6214	TRICARE OUTPATIENT CL VA BEACH	290
0124	6221	TRICARE OUTPATIENT CHESAPEAKE	303
0125	0125	MADIGAN AMC-FT. LEWIS	462
0125	0247	MONTEREY AHC	108
0125	1485	US ARMY HEALTH CLN-MCCHORD AFB	114
0125	1489	555 EN/17 FIB SOLDIER CARE MH	35
0125	1646	WINDER FAMILY MEDICAL CL-JBLM	315
0125	1649	OKUBO FAM PRACT CLIN-FT LEWIS	165
0125	6097	AVIATION SCMH-JBLM	2
0125	6116	MADIGAN-PUYALLUP MEDICAL HOME	95
0125	6117	MADIGAN-S. SOUND MEDICAL HOME	125
0126	0126	NH BREMERTON	1014
0126	0398	NBHC PUGET SOUND	3
0126	1656	NBHC SUBASE BANGOR	193
0126	7138	NHCL EVERETT	216
0127	0127	NH OAK HARBOR	1426
0128	0128	92nd MED GRP-FAIRCHILD	2116
0129	0129	90th MED GRP-F.E. WARREN	1893
0131	0131	WEED ACH-FT. IRWIN	1267
0131	0206	YUMA PROVING GROUND AHC	79
0131	1644	TMC-1-FT. IRWIN	298
0231	0231	NBHC NAS NORTH ISLAND	1662
0248	0248	61st MED GRP-LOS ANGELES	1970
0252	0252	21st MED GRP-PETERSON	1298
0252	1497	SCHRIEVER MEDICAL CLINIC	154
0280	0280	NHC HAWAII	1176
0280	0284	NBHC NAVCAMS EASTPAC	88
0280	0285	BMC MCAS KANEOHE BAY	560
0280	1987	NBHC MCB CAMP H.M. SMITH	41
0306	0306	NHC ANNAPOLIS	830
0306	0322	BMC COLTS NECK EARLE	142
0306	0401	BMC LAKEHURST	77
0306	0525	NBHC BANCROFT HALL	396
0310	0310	66th MED GRP-HANSCOM	1837
0330	0330	GUTHRIE AHC-FT. DRUM	834
0330	7113	CONNER CTMC-FT. DRUM	626
0364	0364	17th MED GRP-GOODFELLOW	1693
0366	0366	59th MDW-359 MDG-JBSA-RANDOLPH	976
0378	0378	NBHC LITTLE CREEK	1826
0385	0385	NHC QUANTICO	1173
0385	0404	BMC SUGAR GROVE	3
0385	0703	NBHC WASHINGTON NAVY YARD	144

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
0385	1670	BMC OCS BROWN FIELD	59
0385	1671	NBHC THE BASIC SCHOOL	127
0387	0387	NBHC OCEANA	1495
0405	0405	NBHC MAYPORT	1434
0407	0407	NBHC NTC SAN DIEGO	1518
0508	0508	NBHC NAVSTA SEWELLS	1419
0607	0606	AHC HEIDELBERG	1
0607	0607	LANDSTUHL REGIONAL MEDCEN	431
0607	0611	US ARMY HEALTH CENTER-VICENZA	253
0607	0614	AHC SHAPE	86
0607	1126	AHC BAUMHOLDER	107
0607	1128	AHC KAISERSLAUTERN	180
0607	1147	AHC WIESBADEN	246
0607	1154	AHC LIVORNO	12
0607	8977	AHC BRUSSELS	29
0607	8987	US ARMY HEALTH CLIN-STUTTGART	111
0609	0609	BAVARIA MEDDAC	1
0609	1013	AHC BAMBERG	1
0609	1014	AHC ILLESHEIM	97
0609	1015	AHC KATTERBACH	212
0609	1016	AHC GRAFENWOEHR	360
0609	1017	AHC VILSECK	452
0609	1019	AHC HOHENFELS	152
0609	1124	AHC SCHWEINFURT	1
0609	8987	US ARMY HEALTH CLIN-STUTTGART	302
0612	0612	BRIAN ALLGOOD ACH-SEOUL	507
0612	1156	USAHC CAMP STANLEY	55
0612	1157	USAHC CAMP CASEY	301
0612	8903	USAHC CAMP HUMPHREYS	358
0612	8907	USAHC-CAMP WALKER	171
0612	8912	USAHC-CAMP RED CLOUD	31
0612	8913	USAHC-CAMP CARROLL	47
0612	8916	USAHC-YONGSAN	119
0620	0620	NH GUAM-AGANA	1523
0620	0871	BMC NAVSTA GUAM	462
0621	0621	NH OKINAWA	940
0621	0861	BMC MCAS FUTENMA	14
0621	1269	BMC CAMP KINSER	160
0621	7032	BMC CAMP BUSH/COURTNEY	193
0621	7033	BMC CAMP HANSEN	157
0622	0622	NH YOKOSUKA	753
0622	0625	BMC IWAKUNI	238
0622	0852	NBHC COMFLEACT SASEBO	141
0622	0853	NBHC NAF ATSUGI	245
0622	0873	BMA CAMP FUJI	7
0622	8934	NBHC NSF DIEGO GARCIA	12
0622	8939	BMC CHINHAE	11
0633	0633	48th MED GRP-LAKENHEATH	1657
0804	0804	18th MED GRP-KADENA AB	1564
0805	0805	52nd MED GRP-SPANGDAHLEM	2916

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
0806	0806	86th MED GRP-RAMSTEIN	1575
6215	6215	TRICARE OUTPATIENT-CHULA VISTA	2429
7139	7139	1st SPCL OPS MED GRP-HURLBURT	1562
9001	0034	USCG CLINIC NEW LONDON	50
9001	0035	NBHC GROTON	1
9001	0036	436th MED GRP-DOVER	423
9001	0042	96th MED GRP-EGLIN	1
9001	0048	MARTIN ACH-FT. BENNING	1
9001	0050	23rd MED GRP-MOODY	2
9001	0055	375th MED GRP-SCOTT	4
9001	0056	JAMES A LOVELL FHCC	476
9001	0059	22nd MED GRP-MCCONNELL	4
9001	0060	BLANCHFIELD ACH-FT. CAMPBELL	897
9001	0061	IRELAND ACH-FT. KNOX	409
9001	0066	779th MED GRP-ANDREWS	7
9001	0067	WALTER REED NATL MIL MED CNTR	1774
9001	0069	KIMBROUGH AMB CAR CEN-FT MEADE	4
9001	0073	81st MED GRP-KEESLER	1
9001	0079	99th MED GRP-O'CALLAGHAN HOSP	1
9001	0084	49th MED GRP-HOLLOMAN	1
9001	0085	27th SPEC OPS MED GRP-CANNON	4
9001	0086	KELLER ACH-WEST POINT	382
9001	0089	WOMACK AMC-FT. BRAGG	1573
9001	0090	4th MED GRP-SEYMOUR JOHNSON	456
9001	0091	NH CAMP LEJEUNE	1242
9001	0092	NHC CHERRY POINT	2
9001	0093	319th MED GRP-GRAND FORKS	1
9001	0095	88th MED GRP-WRIGHT-PATTERSON	350
9001	0106	28th MED GRP-ELLSWORTH	1
9001	0114	47th MED GRP-LAUGHLIN	1
9001	0120	633rd MED GRP LANGLEY-EUSTIS	769
9001	0121	MCDONALD AHC-FT. EUSTIS	8
9001	0122	KENNER AHC-FT. LEE	1
9001	0123	FT BELVOIR COMMUNITY HOSP-FBCH	1899
9001	0124	NMC PORTSMOUTH	3145
9001	0203	354th MED GRP-EIELSON	1
9001	0287	15th MED GRP-HICKAM	3
9001	0308	KIRK AHC-ABERDEEN PRVNG GD	2
9001	0310	66th MED GRP-HANSCOM	2
9001	0326	87th MED GRP-MCGUIRE	634
9001	0338	71st MED GRP-VANCE	1
9001	0352	DUNHAM AHC-CARLISLE BARRACKS	3
9001	0356	628th MED GRP-CHARLESTON	4
9001	0390	ANDREW RADER AHC MYER-HENDERSN	9
9001	0395	62nd MED SQ-MCCHORD	1
9001	0413	579th MED GRP-BOLLING	302
9001	0418	USCG CLINIC ALAMEDA	5
9001	0419	USCG CLINIC PETALUMA	3
9001	0420	USCG CLINIC DISTRICT OF COLUMB	69
9001	0421	USCG CLINIC AIR STATION MIAMI	3

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
9001	0422	USCG CLINIC CLEARWATER	1
9001	0423	USCG CLINIC NEW ORLEANS	2
9001	0424	USCG CLINIC BALTIMORE	23
9001	0425	USCG CLINIC CAPE COD	24
9001	0426	USCG CLINIC BOSTON	28
9001	0427	USCG CLINIC TRAVERSE CITY	6
9001	0428	USCG CLINIC CAPE MAY	56
9001	0430	USCG CLINIC ELIZABETH CITY	28
9001	0432	USCG CLINIC PORTSMOUTH	54
9001	0433	USCG CLINIC YORKTOWN	28
9001	0435	USCG CLINIC SEATTLE	1
9001	0610	BG CRAWFORD SAMS AHC-CAMP ZAMA	2
9001	0615	NH GUANTANAMO BAY	40
9001	0617	NH NAPLES	5
9001	0618	NH ROTA	3
9001	0624	NH SIGONELLA	9
9001	0635	39th MED GRP-INCIRLIK	2
9001	0638	51st MED GRP-OSAN AB	5
9001	0639	35th MED GRP-MISAWA	4
9001	0640	374th MED GRP-YOKOTA AB	3
9001	0779	KENTUCKY-FT CAMPBELL AREA	45
9001	0780	KENTUCKY-EXCL FT CAMPBELL AREA	518
9001	0781	NORTHEAST WEST VIRGINIA	103
9001	0782	WESTERN WEST VIRGINIA	406
9001	0783	EASTERN MISSOURI-ST LOUIS AREA	392
9001	0789	IOWA-QUAD CITIES AREA	49
9001	0799	470th MED FLT-GEILENKIRCHEN	2
9001	0802	36th MED GRP-ANDERSEN	6
9001	0805	52nd MED GRP-SPANGDAHLEM	2
9001	0858	BMC NAVSUPPACT SOUDA BAY	1
9001	0907	CONNECTICUT	685
9001	0908	DELAWARE	303
9001	0914	ILLINOIS	1086
9001	0915	INDIANA	1255
9001	0920	MAINE	450
9001	0921	MARYLAND	501
9001	0922	MASSACHUSETTS	860
9001	0923	MICHIGAN	1363
9001	0930	NEW HAMPSHIRE	325
9001	0931	NEW JERSEY	906
9001	0933	NEW YORK	2318
9001	0934	NORTH CAROLINA	1837
9001	0936	OHIO	1550
9001	0939	PENNSYLVANIA	2166
9001	0940	RHODE ISLAND	245
9001	0946	VERMONT	163
9001	0950	WISCONSIN	896
9001	0971	CENTRAL AMERICA	1
9001	0995	NORTHERN VIRGINIA	235
9001	0996	SOUTHERN VIRGINIA	1029

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
9001	0999	UNKNOWN LOCATION	255
9001	1153	BMC CAPODICHINO	2
9001	1170	NBHC NSA BAHRAIN	19
9001	5195	USCG CLINIC DETROIT	10
9001	5196	USCG CLINIC NEW YORK	19
9001	5199	USCG CLINIC KEY WEST	2
9001	6034	TROOP & FAMILY MED CL-FT. BRAG	4
9001	6200	FAIRFAX HEALTH CENTER	4
9001	6201	DUMFRIES HEALTH CENTER	11
9001	7042	USCG CLINIC BORINQUEN	1
9001	7043	USCG CLINIC HONOLULU	1
9001	7048	USCG CLINIC BASE MIAMI	1
9001	7082	USCG CLINIC HOUSTON/GALVESTON	2
9001	7200	460th MED GRP-BUCKLEY AFB	6
9001	7286	JOEL CLINIC-FT. BRAGG	9
9001	7294	CLARK CLINIC-FT. BRAGG	3
9002	0003	LYSTER AHC-FT. RUCKER	1
9002	0006	673rd MED GRP-ELMENDORF	1
9002	0014	60th MED GRP-TRAVIS	1
9002	0015	9th MED GRP-BEALE	7
9002	0034	USCG CLINIC NEW LONDON	7
9002	0036	436th MED GRP-DOVER	3
9002	0038	NH PENSACOLA	546
9002	0039	NH JACKSONVILLE	1430
9002	0042	96th MED GRP-EGLIN	814
9002	0045	6th MED GRP-MACDILL	1
9002	0046	45th MED GRP-PATRICK	3
9002	0047	EISENHOWER AMC-FT. GORDON	427
9002	0048	MARTIN ACH-FT. BENNING	612
9002	0049	WINN ACH-FT. STEWART	808
9002	0050	23rd MED GRP-MOODY	621
9002	0059	22nd MED GRP-MCCONNELL	2
9002	0064	BAYNE-JONES ACH-FT. POLK	186
9002	0067	WALTER REED NATL MIL MED CNTR	1
9002	0073	81st MED GRP-KEESLER	382
9002	0074	14th MED GRP-COLUMBUS	1
9002	0084	49th MED GRP-HOLLOMAN	7
9002	0085	27th SPEC OPS MED GRP-CANNON	6
9002	0090	4th MED GRP-SEYMOUR JOHNSON	5
9002	0093	319th MED GRP-GRAND FORKS	1
9002	0097	97th MED GRP-ALTUS	225
9002	0098	REYNOLDS ACH-FT. SILL	256
9002	0101	20th MED GRP-SHAW	1
9002	0104	NH BEAUFORT	252
9002	0105	MONCRIEF ACH-FT. JACKSON	620
9002	0106	28th MED GRP-ELLSWORTH	3
9002	0109	BAMC-SAMMC JBSA FSH	1245
9002	0110	DARNALL AMC-FT. HOOD	1433
9002	0113	82nd MED GRP-SHEPPARD	1
9002	0114	47th MED GRP-LAUGHLIN	195

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
9002	0117	59th MDW-WHASC-JBSA-LACKLAND	15
9002	0130	USCG CLINIC KODIAK	2
9002	0203	354th MED GRP-EIELSON	2
9002	0287	15th MED GRP-HICKAM	3
9002	0326	87th MED GRP-MCGUIRE	9
9002	0335	43rd MED SQ-POPE AFB	2
9002	0338	71st MED GRP-VANCE	207
9002	0356	628th MED GRP-CHARLESTON	701
9002	0364	17th MED GRP-GOODFELLOW	1
9002	0366	59th MDW-359 MDG-JBSA-RANDOLPH	2
9002	0395	62nd MED SQ-MCCHORD	5
9002	0413	579th MED GRP-BOLLING	20
9002	0416	USCG CLINIC MOBILE	48
9002	0418	USCG CLINIC ALAMEDA	1
9002	0419	USCG CLINIC PETALUMA	1
9002	0420	USCG CLINIC DISTRICT OF COLUMB	5
9002	0421	USCG CLINIC AIR STATION MIAMI	25
9002	0422	USCG CLINIC CLEARWATER	58
9002	0423	USCG CLINIC NEW ORLEANS	46
9002	0424	USCG CLINIC BALTIMORE	3
9002	0425	USCG CLINIC CAPE COD	2
9002	0426	USCG CLINIC BOSTON	1
9002	0427	USCG CLINIC TRAVERSE CITY	1
9002	0428	USCG CLINIC CAPE MAY	8
9002	0430	USCG CLINIC ELIZABETH CITY	4
9002	0433	USCG CLINIC YORKTOWN	10
9002	0434	USCG CLINIC PORT ANGELES	1
9002	0435	USCG CLINIC SEATTLE	1
9002	0610	BG CRAWFORD SAMS AHC-CAMP ZAMA	4
9002	0615	NH GUANTANAMO BAY	17
9002	0617	NH NAPLES	7
9002	0624	NH SIGONELLA	4
9002	0629	65th MED GRP-LAJES	1
9002	0635	39th MED GRP-INCIRLIK	2
9002	0637	8th MED GRP-KUNSAN AB	3
9002	0638	51st MED GRP-OSAN AB	18
9002	0639	35th MED GRP-MISAWA	9
9002	0640	374th MED GRP-YOKOTA AB	9
9002	0653	422nd ABS MED FLT-CROUGHTON	1
9002	0787	GEORGIA-FORMER NOBLE CATCHMENT	19
9002	0799	470th MED FLT-GEILENKIRCHEN	3
9002	0802	36th MED GRP-ANDERSEN	5
9002	0808	31st MED GRP-AVIANO	14
9002	0814	423rd MDS-RAF ALCONBURY	5
9002	0901	ALABAMA	2028
9002	0904	ARKANSAS	1038
9002	0911	GEORGIA	3161
9002	0925	MISSISSIPPI	1017
9002	0937	OKLAHOMA	1230
9002	0941	SOUTH CAROLINA	1364

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
9002	0943	TENNESSEE	1970
9002	0975	U.S. VIRGIN ISLANDS	1
9002	0987	EASTERN FLORIDA	4025
9002	0988	WESTERN FLORIDA	371
9002	0989	EASTERN LOUISIANA	699
9002	0990	WESTERN LOUISIANA	601
9002	0993	EASTERN TEXAS	5009
9002	0999	UNKNOWN LOCATION	276
9002	1170	NBHC NSA BAHRAIN	4
9002	1946	BRANDON COMM CLINIC-MILITARY	2
9002	5196	USCG CLINIC NEW YORK	1
9002	5197	USCG CLINIC SAN JUAN	1
9002	5199	USCG CLINIC KEY WEST	38
9002	6095	BAMC-FSH PRIMARY CARE CLINIC	7
9002	6114	MONCRIEF MEDICAL HOME-JACKSON	1
9002	6200	FAIRFAX HEALTH CENTER	1
9002	7048	USCG CLINIC BASE MIAMI	31
9002	7082	USCG CLINIC HOUSTON/GALVESTON	40
9002	7200	460th MED GRP-BUCKLEY AFB	4
9003	0005	BASSETT ACH-FT. WAINWRIGHT	84
9003	0006	673rd MED GRP-ELMENDORF	312
9003	0008	R W BLISS AHC-FT. HUACHUCA	3
9003	0009	56th MED GRP-LUKE	12
9003	0010	355th MED GRP-DAVIS MONTHAN	4
9003	0014	60th MED GRP-TRAVIS	819
9003	0015	9th MED GRP-BEALE	347
9003	0018	30th MED GRP-VANDENBERG	1
9003	0024	NH CAMP PENDLETON	1909
9003	0028	NH LEMOORE	248
9003	0029	NMC SAN DIEGO	3044
9003	0030	NH TWENTYNINE PALMS	152
9003	0032	EVANS ACH-FT. CARSON	1353
9003	0033	10th MED GRP-USAF ACADEMY CO	5
9003	0034	USCG CLINIC NEW LONDON	3
9003	0036	436th MED GRP-DOVER	2
9003	0042	96th MED GRP-EGLIN	1
9003	0050	23rd MED GRP-MOODY	1
9003	0052	TRIPLER AMC-FT SHAFTER	1297
9003	0053	366th MED GRP-MOUNTAIN HOME	36
9003	0057	IRWIN ACH-FT. RILEY	427
9003	0059	22nd MED GRP-MCCONNELL	386
9003	0067	WALTER REED NATL MIL MED CNTR	1
9003	0073	81st MED GRP-KEESLER	1
9003	0075	L. WOOD ACH-FT. LEONARD WOOD	212
9003	0078	55th MED GRP-OFFUTT	5
9003	0079	99th MED GRP-O'CALLAGHAN HOSP	551
9003	0084	49th MED GRP-HOLLOMAN	304
9003	0085	27th SPEC OPS MED GRP-CANNON	371
9003	0090	4th MED GRP-SEYMOUR JOHNSON	4
9003	0093	319th MED GRP-GRAND FORKS	173

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
9003	0097	97th MED GRP-ALTUS	2
9003	0106	28th MED GRP-ELLSWORTH	397
9003	0108	WILLIAM BEAUMONT AMC-FT. BLISS	728
9003	0114	47th MED GRP-LAUGHLIN	1
9003	0125	MADIGAN AMC-FT. LEWIS	1444
9003	0126	NH BREMERTON	443
9003	0127	NH OAK HARBOR	184
9003	0128	92nd MED GRP-FAIRCHILD	3
9003	0130	USCG CLINIC KODIAK	33
9003	0131	WEED ACH-FT. IRWIN	78
9003	0203	354th MED GRP-EIELSON	173
9003	0231	NBHC NAS NORTH ISLAND	1
9003	0232	BMC MCAS MIRAMAR	6
9003	0248	61st MED GRP-LOS ANGELES	1
9003	0287	15th MED GRP-HICKAM	543
9003	0326	87th MED GRP-MCGUIRE	4
9003	0338	71st MED GRP-VANCE	3
9003	0395	62nd MED SQ-MCCHORD	127
9003	0407	NBHC NTC SAN DIEGO	4
9003	0409	SD E COUNTY PRIMARY CARE CLIN	3
9003	0413	579th MED GRP-BOLLING	3
9003	0416	USCG CLINIC MOBILE	2
9003	0417	USCG CLINIC KETCHIKAN	4
9003	0418	USCG CLINIC ALAMEDA	60
9003	0419	USCG CLINIC PETALUMA	31
9003	0420	USCG CLINIC DISTRICT OF COLUMB	2
9003	0422	USCG CLINIC CLEARWATER	1
9003	0425	USCG CLINIC CAPE COD	1
9003	0426	USCG CLINIC BOSTON	2
9003	0428	USCG CLINIC CAPE MAY	9
9003	0430	USCG CLINIC ELIZABETH CITY	4
9003	0431	USCG CLINIC ASTORIA	12
9003	0432	USCG CLINIC PORTSMOUTH	4
9003	0433	USCG CLINIC YORKTOWN	3
9003	0434	USCG CLINIC PORT ANGELES	9
9003	0435	USCG CLINIC SEATTLE	39
9003	0437	SCHOFIELD BARRACKS AHC	1
9003	0610	BG CRAWFORD SAMS AHC-CAMP ZAMA	1
9003	0615	NH GUANTANAMO BAY	27
9003	0617	NH NAPLES	3
9003	0618	NH ROTA	2
9003	0624	NH SIGONELLA	3
9003	0629	65th MED GRP-LAJES	1
9003	0637	8th MED GRP-KUNSAN AB	2
9003	0638	51st MED GRP-OSAN AB	14
9003	0639	35th MED GRP-MISAWA	4
9003	0640	374th MED GRP-YOKOTA AB	4
9003	0653	422nd ABS MED FLT-CROUGHTON	1
9003	0784	WESTERN MISSOURI	1254
9003	0785	ARIZONA-EXCLUDING YUMA AREA	1897

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
9003	0786	YUMA ARIZONA AREA	189
9003	0788	IOWA-EXCLUDING QUAD CITIES	680
9003	0799	470th MED FLT-GEILENKIRCHEN	1
9003	0802	36th MED GRP-ANDERSEN	3
9003	0808	31st MED GRP-AVIANO	2
9003	0814	423rd MDS-RAF ALCONBURY	6
9003	0902	ALASKA	182
9003	0906	COLORADO	1022
9003	0912	HAWAII	111
9003	0917	KANSAS	837
9003	0924	MINNESOTA	1111
9003	0927	MONTANA	433
9003	0928	NEBRASKA	668
9003	0929	NEVADA	315
9003	0932	NEW MEXICO	728
9003	0935	NORTH DAKOTA	300
9003	0938	OREGON	1101
9003	0942	SOUTH DAKOTA	323
9003	0945	UTAH	936
9003	0948	WASHINGTON	1374
9003	0951	WYOMING	229
9003	0953	PUERTO RICO	1
9003	0973	NORTHERN IDAHO	83
9003	0974	SOUTHERN IDAHO	480
9003	0983	OTHER PACIFIC	1
9003	0985	NORTHERN CALIFORNIA	1940
9003	0986	SOUTHERN CALIFORNIA	2650
9003	0994	WESTERN TEXAS	3
9003	0999	UNKNOWN LOCATION	267
9003	1170	NBHC NSA BAHRAIN	21
9003	1485	US ARMY HEALTH CLN-MCCHORD AFB	3
9003	5189	USCG CLINIC SAN DIEGO	8
9003	5195	USCG CLINIC DETROIT	1
9003	6207	TRICARE OUTPATIENT-CLAIREMONT	4
9003	6215	TRICARE OUTPATIENT-CHULA VISTA	3
9003	6216	TRICARE OUTPATIENT-OCEANSIDE	3
9003	7043	USCG CLINIC HONOLULU	7
9003	7044	USCG CLINIC JUNEAU	4
9003	7045	USCG CLINIC NORTH BEND	9
9003	7046	USCG CLINIC SAN PEDRO	20
9003	7047	USCG CLINIC SITKA	4
9003	7082	USCG CLINIC HOUSTON/GALVESTON	2
9003	7083	USCG CLINIC HUMBOLDT BAY	9
9003	7200	460th MED GRP-BUCKLEY AFB	361
9003	7234	MENWITH HILL	1
9004	0015	9th MED GRP-BEALE	5
9004	0050	23rd MED GRP-MOODY	2
9004	0084	49th MED GRP-HOLLOMAN	3
9004	0085	27th SPEC OPS MED GRP-CANNON	2
9004	0090	4th MED GRP-SEYMOUR JOHNSON	1

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
9004	0097	97th MED GRP-ALTUS	1
9004	0106	28th MED GRP-ELLSWORTH	2
9004	0287	15th MED GRP-HICKAM	6
9004	0326	87th MED GRP-MCGUIRE	6
9004	0335	43rd MED SQ-POPE AFB	1
9004	0338	71st MED GRP-VANCE	1
9004	0356	628th MED GRP-CHARLESTON	3
9004	0413	579th MED GRP-BOLLING	2
9004	0418	USCG CLINIC ALAMEDA	1
9004	0422	USCG CLINIC CLEARWATER	1
9004	0428	USCG CLINIC CAPE MAY	1
9004	0607	LANDSTUHL REGIONAL MEDCEN	464
9004	0610	BG CRAWFORD SAMS AHC-CAMP ZAMA	147
9004	0611	US ARMY HEALTH CENTER-VICENZA	65
9004	0612	BRIAN ALLGOOD ACH-SEOUL	231
9004	0615	NH GUANTANAMO BAY	123
9004	0617	NH NAPLES	449
9004	0618	NH ROTA	336
9004	0620	NH GUAM-AGANA	296
9004	0621	NH OKINAWA	301
9004	0622	NH YOKOSUKA	374
9004	0624	NH SIGONELLA	253
9004	0629	65th MED GRP-LAJES	53
9004	0633	48th MED GRP-LAKENHEATH	180
9004	0635	39th MED GRP-INCIRLIK	143
9004	0637	8th MED GRP-KUNSAN AB	133
9004	0638	51st MED GRP-OSAN AB	633
9004	0639	35th MED GRP-MISAWA	504
9004	0640	374th MED GRP-YOKOTA AB	601
9004	0653	422nd ABS MED FLT-CROUGHTON	59
9004	0799	470th MED FLT-GEILENKIRCHEN	139
9004	0802	36th MED GRP-ANDERSEN	351
9004	0805	52nd MED GRP-SPANGDAHLEM	2
9004	0808	31st MED GRP-AVIANO	560
9004	0814	423rd MDS-RAF ALCONBURY	124
9004	0858	BMC NAVSUPPACT SOUDA BAY	12
9004	0953	PUERTO RICO	3715
9004	0957	GERMANY	1294
9004	0958	GREECE	27
9004	0960	ITALY	34
9004	0961	JAPAN	286
9004	0963	PHILIPPINES	262
9004	0964	PORTUGAL	13
9004	0965	KOREA	167
9004	0966	SPAIN	51
9004	0967	TURKEY	63
9004	0968	UNITED KINGDOM	110
9004	0969	CANADA	5
9004	0970	OTHER CARIBBEAN	16
9004	0971	CENTRAL AMERICA	132

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2014
9004	0972	SOUTH AMERICA	42
9004	0975	U.S. VIRGIN ISLANDS	136
9004	0976	AFRICA	25
9004	0977	MIDEAST	336
9004	0978	SOUTHEAST ASIA	122
9004	0979	BELGIUM	97
9004	0982	OTHER EUROPE	78
9004	0983	OTHER PACIFIC	227
9004	0999	UNKNOWN LOCATION	5092
9004	1126	AHC BAUMHOLDER	1
9004	1153	BMC CAPODICHINO	84
9004	1154	AHC LIVORNO	1
9004	1170	NBHC NSA BAHRAIN	250
9004	5197	USCG CLINIC SAN JUAN	23
9004	7032	BMC CAMP BUSH/COURTNEY	1
9004	7042	USCG CLINIC BORINQUEN	22
9004	7200	460th MED GRP-BUCKLEY AFB	3
9004	7234	MENWITH HILL	26
9004	8987	US ARMY HEALTH CLIN-STUTTGART	1
			299535

APPENDIX D

RESPONSE RATE TABLES – QUARTERS I-III

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TABLE D.1

RESPONSE RATES BY ENROLLMENT AND BENEFICIARY

	Q1 2015		Q2 2015		Q3 2015		COMBINED	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
Active Duty	14.6	13.1	14.5	12.8	11.3	9.6	13.5	11.8
Active Duty fam, Prime, civ PCM	3.1	3.0	4.0	4.0	6.1	5.9	4.4	4.3
Active Duty fam, Prime, mil PCM	3.9	4.0	4.4	4.3	5.8	6.0	4.7	4.8
Active Duty fam, non-enrollee	3.0	3.0	3.0	2.9	4.0	4.0	3.3	3.3
Retired,<65, civ PCM	14.3	14.1	14.0	14.0	17.9	18.0	15.4	15.4
Retired,<65, mil PCM	13.4	13.6	13.7	14.6	17.2	18.3	14.8	15.5
Retired,<65, non-enrollee	11.1	11.6	10.6	11.2	12.9	14.9	11.6	12.6
Retired,65+, enrolled	27.3	27.6	28.6	28.3	44.7	44.8	33.0	33.0
Retired,65+, non-enrollee	23.4	23.4	21.3	21.3	37.9	37.8	27.6	27.6
TRICARE Reserve Select	8.4	8.4	8.0	8.0	11.0	11.0	9.1	9.2

TABLE D.2

RESPONSE RATES BY XOCONUS

	Q1 2015		Q2 2015		Q3 2015		COMBINED	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
Europe	10.7	13.9	9.7	12.4	8.1	10.2	9.5	12.2
In Conus/Missing Region	9.0	14.8	9.2	14.3	10.9	20.5	9.7	16.6
Latin America	10.3	15.2	9.6	12.9	8.5	4.9	9.5	10.9
Western Pacific	8.3	11.2	8.8	12.5	8.1	9.4	8.4	11.0

TABLE D.3

RESPONSE RATES BY SEX

	Q1 2015		Q2 2015		Q3 2015		COMBINED	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
Female	6.7	12.7	6.9	11.7	9.2	19.9	7.6	14.7
Male	12.9	16.8	12.8	16.8	12.7	20.2	12.8	17.9

TABLE D.4

RESPONSE RATES BY USA/OVERSEAS INDICATOR

	Q1 2015		Q2 2015		Q3 2015		COMBINED	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
In USA	9.0	14.9	9.2	14.4	10.9	20.6	9.7	16.6
Invalid/Missing	8.7	10.2	10.1	13.2	10.6	19.4	9.8	14.2
Not in USA	9.7	12.8	9.3	12.5	8.1	9.2	9.0	11.5

TABLE D.5

RESPONSE RATES BY BENEFICIARY CATEGORY

	Q1 2015		Q2 2015		Q3 2015		COMBINED	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
Active Duty and Guard/Reserve	14.5	12.9	14.4	12.6	11.3	10.0	13.4	11.8
Dependent of Active Duty & Guard/Reserve	3.5	3.7	3.9	4.1	5.3	5.7	4.2	4.5
Retiree/Depend of Retir/ Surviv/Other 65+	23.8	23.8	22.1	22.0	38.4	38.4	28.1	28.1
Retiree/Depend of Retir/ Surviv/Other <65	12.7	12.8	12.7	12.8	15.8	16.6	13.8	14.1

TABLE D.6

RESPONSE RATES BY CATCHMENT AREA

	Q1 2015		Q2 2015		Q3 2015		COMBINED	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
10th Med Group-USAF Academy CO	8.9	12.6	11.3	19.4	12.4	19.0	10.9	16.9
18th Med Grp-Kadena AB	10.6	15.0	8.2	10.5	7.3	10.6	8.7	12.1
20th Med Grp-Shaw	9.4	19.9	9.8	12.3	8.9	12.3	9.4	15.0
21st Med Grp-Peterson	12.8	16.4	10.0	13.7	11.7	14.3	11.5	14.8
2nd Med Grp-Barksdale	9.1	12.9	11.1	15.0	11.4	13.8	10.6	13.9
325th Med Grp-Tyndall	12.3	15.5	12.8	14.2	13.6	12.9	12.9	14.2
355th Med Grp-Davis Monthan	10.2	11.6	11.3	15.9	12.8	21.4	11.4	16.1
366th Med Grp-Mountain Home	11.4	14.1	11.9	12.0	13.4	32.0	12.3	19.9
374th Med Grp-Yokota AB	9.8	16.0	12.4	18.8	9.4	12.1	10.5	15.7
375th Med Grp-Scott	9.4	17.0	8.9	10.7	11.5	19.2	9.9	15.7
377th Med Grp-Kirtland	13.8	15.2	14.1	15.2	14.2	15.7	14.0	15.4
3rd Med Grp-Elmendorf	8.5	11.4	7.5	14.4	7.8	15.5	7.9	13.7
422 ABS Med Flt-Croughton	10.5	10.6	5.0	10.4	23.8	41.6	13.3	21.8
42nd Medical Group-Maxwell	12.0	17.0	11.9	16.6	12.1	15.9	12.0	16.5
45th Med Grp-Patrick	14.0	14.4	15.1	20.9	18.9	27.9	15.6	21.3
470 Med Flt-Geilenkirchen	4.5	6.8	6.0	9.2	13.7	19.4	8.3	11.7
48th Med Grp-Lakenheath	9.4	13.7	8.9	12.1	6.5	8.9	8.3	11.6
52nd Med Group-Spangdahlem	12.9	23.3	11.4	14.9	9.4	13.0	11.3	17.3
55th Med Grp-Offutt	9.4	12.1	10.6	12.9	13.1	20.7	11.1	15.5
56th Med Grp-Luke	10.2	16.6	10.9	17.2	13.8	21.0	11.6	18.3
59th Med Wing-Lackland	10.6	14.5	10.4	12.1	11.8	21.2	11.0	16.0
60th Med Grp-Travis	9.3	14.5	10.8	18.6	11.3	20.0	10.5	17.7
633rd Med Grp Langley-Eustis	9.3	13.0	8.2	13.7	8.4	18.8	8.6	15.3
6th Med Grp-MacDill	8.8	11.6	10.7	15.2	11.0	16.0	10.2	14.3
72nd Med Grp-Tinker	9.5	13.9	10.6	15.0	9.4	11.4	9.8	13.4
75th Med Grp-Hill	10.2	13.7	9.0	11.9	12.5	13.6	10.6	13.1
779th Med Grp-Andrews	11.3	15.3	11.3	13.9	10.8	14.2	11.1	14.5
78th Med Grp-Robins	9.3	13.7	9.7	13.4	8.8	11.4	9.3	12.9
7th Med Grp-Dyess	10.5	13.4	9.2	10.7	12.3	12.7	10.7	12.3
81st Med Grp-Keesler	9.4	15.2	9.7	17.7	9.9	18.4	9.7	17.1
82nd Med Grp-Sheppard	11.5	10.6	11.5	14.9	13.5	13.6	12.1	12.9
88th Med Grp-Wright-Patterson	11.3	16.3	11.9	24.1	14.4	20.6	12.5	20.4
90th Med Grp-F.E. Warren	11.3	14.7	10.1	13.5	10.4	10.6	10.6	13.0

TABLE D.6 *(continued)*

	Q1 2015		Q2 2015		Q3 2015		COMBINED	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
92nd Med Grp-Fairchild	12.8	13.3	12.9	14.3	17.2	17.2	14.3	14.8
95th Med Grp-Edwards	9.1	11.8	9.1	15.4	10.3	12.7	9.5	13.4
96th Med Grp-Eglin	7.5	15.2	8.6	15.8	11.6	23.6	9.3	18.2
99th Med Grp-O'Callaghan Hosp	8.3	14.0	8.5	14.3	8.6	13.9	8.5	14.1
Bassett ACH-Ft. Wainwright	6.9	9.0	7.5	8.9	9.0	8.9	7.8	8.9
Bavaria Meddac	8.2	9.8	7.9	11.1	9.4	10.1	8.5	10.4
Bayne-Jones ACH-Ft. Polk	5.6	14.7	7.6	10.5	9.0	15.8	7.4	13.5
Blanchfield ACH-Ft. Campbell	5.5	8.1	5.5	6.5	8.8	10.7	6.6	8.4
Brian Allgood ACH-Seoul	6.7	8.3	8.3	12.7	9.3	11.5	8.1	10.8
Brooke AMC-Ft. Sam Houston	9.6	17.6	8.8	16.0	9.5	20.5	9.3	18.0
Darnall ACH-Ft. Hood	6.8	12.6	4.6	8.8	7.0	15.0	6.1	12.1
Eisenhower AMC-Ft. Gordon	9.5	19.9	8.1	12.3	10.5	19.8	9.4	17.2
Evans ACH-Ft. Carson	5.0	9.9	6.6	12.4	8.2	20.9	6.6	14.4
FHCC-Formerly NHC Great Lakes	5.7	7.6	7.5	13.3	6.3	16.7	6.6	12.6
Fox AHC-Redstone Arsenal	13.1	15.8	13.2	14.2	13.9	15.6	13.4	15.2
Ft Belvoir Community Hosp-FBCH	11.8	20.3	12.0	19.1	12.6	21.1	12.1	20.2
Guthrie AHC-Ft. Drum	6.6	6.3	5.8	6.2	5.4	4.3	5.9	5.6
Ireland ACH-Ft. Knox	10.3	18.6	10.3	12.5	12.2	19.4	10.9	17.0
Irwin ACH-Ft. Riley	6.4	6.3	5.0	6.0	6.9	7.3	6.1	6.6
Keller ACH-West Point	9.7	17.5	8.5	8.2	12.9	17.7	10.4	14.4
Kenner AHC-Ft. Lee	9.6	11.8	10.8	14.7	8.4	9.2	9.6	11.9
Kimbrough Amb Car Cen-Ft Meade	15.4	21.7	15.1	19.5	12.6	14.8	14.4	18.7
L. Wood ACH-Ft. Leonard Wood	6.9	7.3	6.9	7.5	8.0	11.8	7.2	8.8
Landstuhl Regional Medcen	9.9	13.0	9.3	12.5	7.2	11.7	8.8	12.4
Lyster AHC-Ft. Rucker	11.4	19.0	10.4	13.2	10.1	11.6	10.6	14.7
Madigan AMC-Ft. Lewis	6.8	10.9	7.9	13.9	10.6	20.1	8.4	14.9
Martin ACH-Ft. Benning	4.5	5.7	6.3	10.2	7.2	10.4	6.0	8.9
McDonald AHC-Ft. Eustis	8.6	21.5	12.7	17.4	12.6	18.9	11.3	19.3
Menwith Hill Medical Center	.	.	10.0	18.7	.	.	3.7	7.2
Moncrief ACH-Ft. Jackson	7.9	11.8	6.6	8.9	10.1	34.9	8.2	18.3
Munson AHC-Ft. Leavenworth	9.8	13.6	12.1	15.3	13.1	14.9	11.8	14.6
NBHC Little Creek	8.6	13.0	7.8	10.0	8.2	11.7	8.2	11.6
NBHC Mayport	9.5	13.2	10.2	13.4	10.5	13.5	10.1	13.4
NBHC NAS North Island	8.9	9.4	11.3	12.4	10.8	9.5	10.2	10.5

TABLE D.6 *(continued)*

	Q1 2015		Q2 2015		Q3 2015		COMBINED	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
NBHC NTC San Diego	9.8	18.4	8.3	10.6	11.0	12.7	9.7	13.9
NBHC Navsta Sewells	9.9	13.2	11.1	15.0	11.6	13.3	10.8	13.8
NBHC Oceana	6.6	8.9	7.1	9.2	8.1	9.5	7.3	9.2
NBHC Port Hueneme	9.3	12.2	9.6	12.8	12.0	13.2	10.3	12.7
NBHC Portsmouth	12.3	13.8	12.3	14.1	11.3	16.3	11.9	14.7
NH Beaufort	4.8	7.7	4.4	7.6	9.1	27.4	6.1	13.2
NH Bremerton	8.0	10.4	9.0	18.6	9.5	15.3	8.9	14.8
NH Camp Lejeune	5.1	5.9	6.3	9.9	7.8	11.0	6.4	8.9
NH Camp Pendleton	4.7	10.9	4.7	9.0	7.3	12.1	5.6	10.7
NH Guam-Agana	7.1	9.9	9.2	11.4	9.4	11.0	8.6	10.8
NH Guantanamo Bay	8.0	8.4	11.6	11.4	6.5	5.9	8.7	8.5
NH Jacksonville	7.4	13.2	7.7	15.8	11.5	24.7	8.9	17.9
NH LeMoore	6.4	13.9	8.2	11.9	8.2	17.6	7.6	14.6
NH Naples	10.4	12.9	8.6	12.0	7.1	8.4	8.7	11.1
NH Oak Harbor	8.3	21.6	9.8	15.9	7.6	9.7	8.6	15.9
NH Okinawa	7.2	10.6	7.9	13.3	4.7	5.7	6.6	9.7
NH Pensacola	7.7	11.4	7.1	10.5	10.6	21.1	8.5	14.2
NH Twentynine Palms	5.1	17.0	6.6	7.5	7.8	13.5	6.5	13.1
NH Yokosuka	7.3	10.1	6.4	8.5	5.5	6.6	6.4	8.4
NHC Cherry Point	6.5	8.7	6.9	9.0	9.1	11.8	7.5	9.8
NHC Corpus Christi	10.0	10.1	11.1	11.5	12.7	12.3	11.3	11.3
NHC Hawaii	7.6	7.8	7.7	9.4	9.4	9.9	8.2	9.0
NHC Patuxent River	13.8	19.9	12.5	17.4	12.9	16.2	13.0	17.8
NHC Quantico	11.3	14.2	12.2	16.6	11.2	13.3	11.6	14.6
NMC Portsmouth	7.3	14.0	6.4	10.2	6.8	11.9	6.8	12.1
NMC San Diego	7.1	13.6	6.7	13.1	7.3	10.7	7.0	12.5
Naval Health Care New England	10.6	14.7	9.1	12.0	11.9	17.0	10.6	14.6
Naval Health Clinic Charleston	4.8	6.3	6.8	8.3	8.5	9.0	6.7	7.9
Out of Catchment North Region	9.2	17.0	9.1	14.7	13.2	28.0	10.5	20.0
Out of Catchment OCONUS Region	9.7	10.0	9.8	12.4	9.3	13.6	9.6	12.0
Out of Catchment South Region	8.9	17.4	8.2	15.3	11.4	23.7	9.5	18.8
Out of Catchment West Region	9.7	16.4	9.9	18.9	12.4	25.0	10.7	20.1
R W Bliss AHC-Ft. Huachuca	11.0	13.0	9.4	11.1	10.1	10.3	10.2	11.4
RAF Upwood	12.2	18.7	11.8	12.2	5.7	9.2	10.4	13.6
Reynolds ACH-Ft. Sill	7.4	8.1	8.9	11.4	8.7	10.3	8.3	10.0

TABLE D.6 *(continued)*

	Q1 2015		Q2 2015		Q3 2015		COMBINED	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
TRICARE Outpatient-Chula Vista	7.1	7.0	8.8	18.8	13.0	13.0	10.1	12.1
Tripler AMC-Ft. Shafter	7.3	14.9	7.0	9.3	9.5	16.9	7.9	13.8
USCG Clinic Detroit	50.0	50.0	33.3	33.3	25.0	24.6	36.4	36.5
USCG Clinic Key West	11.1	10.5	13.3	13.3	13.3	12.9	12.8	12.5
Vicenza Medical Services Cntr	10.0	5.0	4.5	4.5	5.3	4.4	6.6	4.7
Walter Reed AMC-Washington DC	43.5	43.3	38.5	37.6	18.5	19.0	32.9	33.0
Walter Reed Natl Mil Med Cntr	11.1	16.2	12.7	17.0	12.3	21.3	12.0	18.1
Weed ACH-Ft. Irwin	6.3	8.2	5.9	7.6	6.9	14.6	6.4	10.1
William Beaumont AMC-Ft. Bliss	6.4	10.5	7.0	11.1	8.9	15.2	7.4	12.2
Winn ACH-Ft. Stewart	4.2	8.3	4.4	4.8	6.9	10.5	5.2	8.0
Womack AMC-Ft. Bragg	7.0	11.5	6.6	10.0	6.8	8.9	6.8	10.2

TABLE D.7

RESPONSE RATES BY SERVICE AFFILIATION

	Q1 2015		Q2 2015		Q3 2015		COMBINED	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
Administrative	6.7	2.8	12.5	3.5	17.6	42.7	12.5	18.1
Air Force	10.3	14.4	10.5	14.8	11.3	18.5	10.7	15.9
Army	7.9	12.0	7.7	11.1	9.0	14.6	8.2	12.6
Coast Guard	22.3	26.1	23.3	23.8	17.0	17.7	20.9	22.6
Missing/unknown	12.7	27.3	6.3	17.0	3.4	10.2	5.9	17.1
National Capital Region Medical Director	12.4	21.9	13.1	19.8	12.7	24.6	12.7	22.1
Navy	7.8	11.8	8.0	11.6	9.1	13.6	8.3	12.3
Noncatchment	8.9	17.9	8.5	16.5	12.4	28.7	9.9	21.0
Support Contractor	9.3	14.0	9.8	14.6	11.5	19.8	10.2	16.1
Uniformed Services Family Health Plan	13.8	21.0	13.1	21.9	17.4	28.5	14.8	23.9

TABLE D.8

RESPONSE RATES BY BRANCH OF SERVICE

	Q1 2015		Q2 2015		Q3 2015		COMBINED	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
Air Force	11.0	17.8	11.2	16.9	12.2	23.7	11.5	19.5
Army	7.9	13.2	7.9	12.9	9.3	18.1	8.4	14.7
Coast Guard	11.5	17.0	13.3	18.7	12.9	21.2	12.6	19.0
Marine Corps	6.0	11.2	6.7	11.7	8.2	14.1	6.9	12.3
Navy	8.9	14.6	8.7	13.7	10.6	20.8	9.4	16.3
Other/Unknown	15.5	23.8	17.5	17.2	12.3	19.9	15.1	20.3

TABLE D.9

RESPONSE RATES BY TRICARE NEXT GENERATION OF CONTRACTS REGION GROUPING

	Q1 2015		Q2 2015		Q3 2015		COMBINED	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
North	9.4	15.4	9.5	14.0	10.9	21.1	9.9	16.8
Overseas	9.5	12.5	9.5	12.9	8.4	9.2	9.1	11.5
South	9.0	15.3	9.0	13.8	11.0	21.3	9.7	16.8
West	8.8	13.9	9.1	15.2	10.8	19.3	9.6	16.1

TABLE D.10

RESPONSE RATES BY COMBINED GEOGRAPHIC AREA

		Q1 2015		Q2 2015		Q3 2015		COMBINED	
TNEX Reg	Catchment	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
TNEX Reg	Catchment	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
North	375th Med Grp-Scott	9.4	17.0	8.9	10.7	11.5	19.2	9.9	15.7
North	470 Med Flt-Geilenkirchen	.	.	.	.	.	.	.	.
North	633rd Med Grp Langley-Eustis	9.3	13.0	8.2	13.7	8.4	18.8	8.6	15.3
North	779th Med Grp-Andrews	11.3	15.3	11.3	13.9	10.8	14.2	11.1	14.5
North	88th Med Grp-Wright-Patterson	11.3	16.3	11.9	24.1	14.4	20.6	12.5	20.4
North	Blanchfield ACH-Ft. Campbell	5.5	8.1	5.5	6.5	8.8	10.7	6.6	8.4
North	FHCC-Formerly NHC Great Lakes	5.7	7.6	7.5	13.3	6.3	16.7	6.6	12.6
North	Ft Belvoir Community Hosp-FBCH	11.8	20.3	12.0	19.1	12.6	21.1	12.1	20.2
North	Guthrie AHC-Ft. Drum	6.6	6.3	5.8	6.2	5.4	4.3	5.9	5.6
North	Ireland ACH-Ft. Knox	10.3	18.6	10.3	12.5	12.2	19.4	10.9	17.0
North	Keller ACH-West Point	9.7	17.5	8.5	8.2	12.9	17.7	10.4	14.4
North	Kenner AHC-Ft. Lee	9.6	11.8	10.8	14.7	8.4	9.2	9.6	11.9
North	Kimbrough Amb Car Cen-Ft Meade	15.4	21.7	15.1	19.5	12.6	14.8	14.4	18.7
North	McDonald AHC-Ft. Eustis	8.6	21.5	12.7	17.4	12.6	18.9	11.3	19.3
North	NBHC Little Creek	8.6	13.0	7.8	10.0	8.2	11.7	8.2	11.6
North	NBHC Navsta Sewells	9.9	13.2	11.1	15.0	11.6	13.3	10.8	13.8
North	NBHC Oceana	6.6	8.9	7.1	9.2	8.1	9.5	7.3	9.2
North	NBHC Portsmouth	12.3	13.8	12.3	14.1	11.3	16.3	11.9	14.7
North	NH Camp Lejeune	5.1	5.9	6.3	9.9	7.8	11.0	6.4	8.9
North	NHC Cherry Point	6.5	8.7	6.9	9.0	9.1	11.8	7.5	9.8
North	NHC Patuxent River	13.8	19.9	12.5	17.4	12.9	16.2	13.0	17.8
North	NHC Quantico	11.3	14.2	12.2	16.6	11.2	13.3	11.6	14.6
North	NMC Portsmouth	7.3	14.0	6.4	10.2	6.8	11.9	6.8	12.1
North	Naval Health Care New England	10.6	14.7	9.1	12.0	11.9	17.0	10.6	14.6
North	Out of Catchment North Region	9.2	17.0	9.1	14.7	13.2	28.0	10.5	20.0
North	Out of Catchment OCONUS Region	8.0	8.4	14.0	13.9	17.4	19.3	12.9	13.5
North	Out of Catchment South Region	11.1	32.2	20.0	44.8	17.6	7.1	15.6	24.3
North	USCG Clinic Detroit	50.0	50.0	33.3	33.3	25.0	24.6	36.4	36.5
North	USCG Clinic Key West	.	.	.	.	.	.	.	.
North	Walter Reed AMC-Washington DC	43.5	43.3	38.5	37.6	18.5	19.0	32.9	33.0

TABLE D.10 (continued)

North	Walter Reed Natl Mil Med Cntr	11.1	16.2	12.7	17.0	12.3	21.3	12.0	18.1
North	Womack AMC-Ft. Bragg	7.0	11.5	6.6	10.0	6.8	8.9	6.8	10.2
Overseas	18th Med Grp-Kadena AB	10.6	15.0	8.2	10.5	7.3	10.6	8.7	12.1
Overseas	374th Med Grp-Yokota AB	9.8	16.0	12.4	18.8	9.4	12.1	10.5	15.7
Overseas	422 ABS Med Flt-Croughton	10.5	10.6	5.0	10.4	23.8	41.6	13.3	21.8
Overseas	470 Med Flt-Geilenkirchen	4.8	7.1	6.3	9.4	14.3	20.1	8.6	12.1
Overseas	48th Med Grp-Lakenheath	9.4	13.7	8.9	12.1	6.5	8.9	8.3	11.6
Overseas	52nd Med Group-Spangdahlem	12.9	23.3	11.4	14.9	9.4	13.0	11.3	17.3
Overseas	Bavaria Meddac	8.2	9.8	7.9	11.1	9.4	10.1	8.5	10.4
Overseas	Brian Allgood ACH-Seoul	6.7	8.3	8.3	12.7	9.3	11.5	8.1	10.8
Overseas	Landstuhl Regional Medcen	9.9	13.0	9.3	12.5	7.2	11.7	8.8	12.4
Overseas	Menwith Hill Medical Center	.	.	11.1	20.7	.	.	3.8	7.5
Overseas	NH Guam-Agana	7.1	9.9	9.2	11.4	9.4	11.0	8.6	10.8
Overseas	NH Guantanamo Bay	8.0	8.4	11.6	11.4	6.5	5.9	8.7	8.5
Overseas	NH Naples	10.4	12.9	8.6	12.0	7.1	8.4	8.7	11.1
Overseas	NH Okinawa	7.2	10.6	7.9	13.3	4.7	5.7	6.6	9.7
Overseas	NH Yokosuka	7.3	10.1	6.4	8.5	5.5	6.6	6.4	8.4
Overseas	Out of Catchment OCONUS Region	9.8	12.0	9.8	13.9	8.9	6.9	9.5	11.1
Overseas	RAF Upwood	12.2	18.7	11.8	12.2	5.7	9.2	10.4	13.6
Overseas	Vicenza Medical Services Cntr	10.0	5.0	4.5	4.5	5.3	4.4	6.6	4.7
South	20th Med Grp-Shaw	9.4	19.9	9.8	12.3	8.9	12.3	9.4	15.0
South	2nd Med Grp-Barksdale	9.1	12.9	11.1	15.0	11.4	13.8	10.6	13.9
South	325th Med Grp-Tyndall	12.3	15.5	12.8	14.2	13.6	12.9	12.9	14.2
South	42nd Medical Group-Maxwell	12.0	17.0	11.9	16.6	12.1	15.9	12.0	16.5
South	45th Med Grp-Patrick	14.0	14.4	15.1	20.9	18.9	27.9	15.6	21.3
South	470 Med Flt-Geilenkirchen	.	.	.	.	.	.	.	.
South	59th Med Wing-Lackland	10.6	14.5	10.4	12.1	11.8	21.2	11.0	16.0
South	6th Med Grp-MacDill	8.8	11.6	10.7	15.2	11.0	16.0	10.2	14.3
South	72nd Med Grp-Tinker	9.5	13.9	10.6	15.0	9.4	11.4	9.8	13.4
South	78th Med Grp-Robins	9.3	13.7	9.7	13.4	8.8	11.4	9.3	12.9
South	7th Med Grp-Dyess	10.5	13.4	9.2	10.7	12.3	12.7	10.7	12.3
South	81st Med Grp-Keesler	9.4	15.2	9.7	17.7	9.9	18.4	9.7	17.1
South	82nd Med Grp-Sheppard	11.5	10.6	11.5	14.9	13.5	13.6	12.1	12.9
South	96th Med Grp-Eglin	7.5	15.2	8.6	15.8	11.6	23.6	9.3	18.2
South	Bayne-Jones ACH-Ft. Polk	5.6	14.7	7.6	10.5	9.0	15.8	7.4	13.5
South	Brooke AMC-Ft. Sam Houston	9.6	17.6	8.8	16.0	9.5	20.5	9.3	18.0
South	Darnall ACH-Ft. Hood	6.8	12.6	4.6	8.8	7.0	15.0	6.1	12.1
South	Eisenhower AMC-Ft. Gordon	9.5	19.9	8.1	12.3	10.5	19.8	9.4	17.2
South	Fox AHC-Redstone Arsenal	13.1	15.8	13.2	14.2	13.9	15.6	13.4	15.2

TABLE D.10 (continued)

South	Lyster AHC-Ft. Rucker	11.4	19.0	10.4	13.2	10.1	11.6	10.6	14.7
South	Martin ACH-Ft. Benning	4.5	5.7	6.3	10.2	7.2	10.4	6.0	8.9
South	Moncrief ACH-Ft. Jackson	7.9	11.8	6.6	8.9	10.1	34.9	8.2	18.3
South	NBHC Mayport	9.5	13.2	10.2	13.4	10.5	13.5	10.1	13.4
South	NH Beaufort	4.8	7.7	4.4	7.6	9.1	27.4	6.1	13.2
South	NH Jacksonville	7.4	13.2	7.7	15.8	11.5	24.7	8.9	17.9
South	NH Pensacola	7.7	11.4	7.1	10.5	10.6	21.1	8.5	14.2
South	NHC Corpus Christi	10.0	10.1	11.1	11.5	12.7	12.3	11.3	11.3
South	Naval Health Clinic Charleston	4.8	6.3	6.8	8.3	8.5	9.0	6.7	7.9
South	Out of Catchment OCONUS Region	3.4	8.1	7.9	9.8	21.3	30.4	10.4	15.8
South	Out of Catchment South Region	8.9	17.3	8.2	15.3	11.4	23.7	9.5	18.8
South	Reynolds ACH-Ft. Sill	7.4	8.1	8.9	11.4	8.7	10.3	8.3	10.0
South	USCG Clinic Key West	12.5	12.5	13.3	13.3	14.3	14.3	13.5	13.5
South	Winn ACH-Ft. Stewart	4.2	8.3	4.4	4.8	6.9	10.5	5.2	8.0
West	10th Med Group-USAF Academy CO	8.9	12.6	11.3	19.4	12.4	19.0	10.9	16.9
West	21st Med Grp-Peterson	12.8	16.4	10.0	13.7	11.7	14.3	11.5	14.8
West	355th Med Grp-Davis Monthan	10.2	11.6	11.3	15.9	12.8	21.4	11.4	16.1
West	366th Med Grp-Mountain Home	11.4	14.1	11.9	12.0	13.4	32.0	12.3	19.9
West	377th Med Grp-Kirtland	13.8	15.2	14.1	15.2	14.2	15.7	14.0	15.4
West	3rd Med Grp-Elmendorf	8.5	11.4	7.5	14.4	7.8	15.5	7.9	13.7
West	470 Med Flt-Geilenkirchen	.	.	.	.	.	.	.	.
West	55th Med Grp-Offutt	9.4	12.1	10.6	12.9	13.1	20.7	11.1	15.5
West	56th Med Grp-Luke	10.2	16.6	10.9	17.2	13.8	21.0	11.6	18.3
West	60th Med Grp-Travis	9.3	14.5	10.8	18.6	11.3	20.0	10.5	17.7
West	75th Med Grp-Hill	10.2	13.7	9.0	11.9	12.5	13.6	10.6	13.1
West	90th Med Grp-F.E. Warren	11.3	14.7	10.1	13.5	10.4	10.6	10.6	13.0
West	92nd Med Grp-Fairchild	12.8	13.3	12.9	14.3	17.2	17.2	14.3	14.8
West	95th Med Grp-Edwards	9.1	11.8	9.1	15.4	10.3	12.7	9.5	13.4
West	99th Med Grp-O'Callaghan Hosp	8.3	14.0	8.5	14.3	8.6	13.9	8.5	14.1
West	Bassett ACH-Ft. Wainwright	6.9	9.0	7.5	8.9	9.0	8.9	7.8	8.9
West	Evans ACH-Ft. Carson	5.0	9.9	6.6	12.4	8.2	20.9	6.6	14.4
West	Irwin ACH-Ft. Riley	6.4	6.3	5.0	6.0	6.9	7.3	6.1	6.6
West	L. Wood ACH-Ft. Leonard Wood	6.9	7.3	6.9	7.5	8.0	11.8	7.2	8.8
West	Madigan AMC-Ft. Lewis	6.8	10.9	7.9	13.9	10.6	20.1	8.4	14.9
West	Menwith Hill Medical Center	.	.	.	.	.	.	.	.
West	Munson AHC-Ft. Leavenworth	9.8	13.6	12.1	15.3	13.1	14.9	11.8	14.6
West	NBHC NAS North Island	8.9	9.4	11.3	12.4	10.8	9.5	10.2	10.5
West	NBHC NTC San Diego	9.8	18.4	8.3	10.6	11.0	12.7	9.7	13.9

TABLE D.10 (continued)

West	NBHC Port Hueneme	9.3	12.2	9.6	12.8	12.0	13.2	10.3	12.7
West	NH Bremerton	8.0	10.4	9.0	18.6	9.5	15.3	8.9	14.8
West	NH Camp Pendleton	4.7	10.9	4.7	9.0	7.3	12.1	5.6	10.7
West	NH LeMoore	6.4	13.9	8.2	11.9	8.2	17.6	7.6	14.6
West	NH Oak Harbor	8.3	21.6	9.8	15.9	7.6	9.7	8.6	15.9
West	NH Twentynine Palms	5.1	17.0	6.6	7.5	7.8	13.5	6.5	13.1
West	NHC Hawaii	7.6	7.8	7.7	9.4	9.4	9.9	8.2	9.0
West	NMC San Diego	7.1	13.6	6.7	13.1	7.3	10.7	7.0	12.5
West	Out of Catchment OCONUS Region	9.2	5.4	7.9	8.0	12.0	15.5	9.6	9.6
West	Out of Catchment West Region	9.7	16.4	9.9	18.9	12.4	25.0	10.7	20.1
West	R W Bliss AHC-Ft. Huachuca	11.0	13.0	9.4	11.1	10.1	10.3	10.2	11.4
West	TRICARE Outpatient-Chula Vista	7.1	7.0	8.8	18.8	13.0	13.0	10.1	12.1
West	Tripler AMC-Ft. Shafter	7.3	14.9	7.0	9.3	9.5	16.9	7.9	13.8
West	Weed ACH-Ft. Irwin	6.3	8.2	5.9	7.6	6.9	14.6	6.4	10.1
West	William Beaumont AMC-Ft. Bliss	6.4	10.5	7.0	11.1	8.9	15.2	7.4	12.2

TABLE D.11

RESPONSE RATES BY BENEFICIARY CATEGORY AND SEX

Beneficiary Category	Sex	Q1 2015		Q2 2015		Q3 2015		COMBINED	
		Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
Active Duty and Guard/Reserve	Female	16.8	16.2	16.8	15.1	13.6	11.5	15.7	14.3
Active Duty and Guard/Reserve	Male	14.1	12.2	13.9	12.1	10.9	9.7	13.0	11.4
Dependent of Active Duty & Guard/Reserve	Female	3.7	4.0	4.1	4.2	5.7	6.1	4.5	4.8
Dependent of Active Duty & Guard/Reserve	Male	2.1	1.9	2.5	2.9	2.8	2.9	2.5	2.6
Retiree/Depend of Retir/Surviv/Other 65+	Female	19.8	19.8	17.1	17.1	36.3	36.3	24.4	24.4
Retiree/Depend of Retir/Surviv/Other 65+	Male	28.4	28.5	27.8	27.6	40.9	40.7	32.4	32.3
Retiree/Depend of Retir/Surviv/Other <65	Female	11.0	11.5	11.0	11.1	15.0	16.0	12.4	12.8
Retiree/Depend of Retir/Surviv/Other <65	Male	14.5	14.3	14.5	14.7	16.7	17.3	15.3	15.4

TABLE D.12

RESPONSE RATES BY BENEFICIARY CATEGORY AND SERVICE

		Q1 2015		Q2 2015		Q3 2015		COMBINED	
Beneficiary Category	Service	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
Active Duty and Guard/Reserve	Air Force	19.2	20.1	18.4	18.6	14.9	15.1	17.5	17.9
	Army	11.3	10.5	11.1	10.3	8.5	7.9	10.3	9.6
	Coast Guard	22.6	24.5	25.4	26.3	17.8	18.2	21.9	23.1
	Marine Corps	7.6	7.3	9.2	8.2	6.3	5.5	7.7	7.0
	Navy	12.8	11.0	12.4	10.9	10.1	9.6	11.8	10.5
	Other/Unknown	31.6	33.3	39.5	39.2	21.9	23.0	30.7	31.7
Dependent of Active Duty & Guard/Reserve	Air Force	3.6	3.7	4.2	4.7	5.5	5.9	4.4	4.7
	Army	3.4	3.7	3.7	3.6	5.0	5.6	4.0	4.3
	Coast Guard	3.7	3.1	5.4	5.7	5.2	6.1	4.8	4.9
	Marine Corps	2.5	2.6	2.8	3.1	4.7	4.7	3.4	3.4
	Navy	3.9	4.5	4.0	4.5	5.5	5.8	4.5	4.9
	Other/Unknown	8.8	8.3	8.9	10.2	9.1	9.4	8.9	9.2
Retiree/Depend of Retir/Surviv/ Other 65+	Air Force	25.4	25.6	22.0	22.1	39.2	39.1	29.0	29.0
	Army	22.7	22.6	21.8	21.7	37.0	37.1	27.0	27.1
	Coast Guard	15.7	15.5	25.0	24.1	38.5	38.2	26.2	25.9
	Marine Corps	28.6	28.4	26.6	26.4	32.9	32.6	29.5	29.3
	Navy	22.5	22.5	21.6	21.2	40.8	40.6	28.3	28.2
	Other/Unknown	37.5	37.5	0.0	0.0	50.0	50.1	30.4	30.0
Retiree/Depend of Retir/Surviv/ Other <65	Air Force	13.2	13.5	13.7	14.7	16.4	17.9	14.4	15.4
	Army	12.2	11.8	12.0	11.7	14.9	15.8	13.0	13.1
	Coast Guard	16.7	18.6	15.4	14.8	21.6	20.2	18.0	17.9
	Marine Corps	10.9	10.4	11.2	10.8	16.4	15.5	12.8	12.2
	Navy	12.9	13.5	12.3	12.4	15.8	16.4	13.7	14.1
	Other/Unknown	17.5	19.3	22.2	17.1	8.8	9.1	16.2	15.1

APPENDIX E

TECHNICAL DESCRIPTION OF THE 2015 TRICARE BENEFICIARY REPORTS

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The beneficiary reports present 11 scores for each region and catchment area in the MHS and for the MHS overall. Scores will enable users to compare providers to national benchmarks in these areas: getting needed care; getting care quickly; how well doctors communicate; customer service; claims processing; rating of the health plan, health care, personal doctor, and specialist; preventive care standards; and health behavior. These scores are made up of three different types, described in Table E.1: CAHPS composites, ratings, and TMA standard composites. A trend page compares composites and ratings with values from previous quarters, calculates a quarterly trend, and tests the trend for statistical significance in the quarterly version of the beneficiary reports. In the annual version, results from 3 years are presented.

TABLE E.1

CONTENT OF THE 2015 TRICARE BENEFICIARY REPORTS

CAHPS COMPOSITES
The CAHPS composites group together survey responses to a set of related HCSDB questions taken from CAHPS. Scores expressed as CAHPS composites profile TRICARE beneficiaries' satisfaction with their ability to get needed care, the speed with which they receive care, interactions with their doctor, their experience with customer service representatives, and their experience with claims processing. Scores are presented in relation to national benchmarks.
SATISFACTION RATINGS
Scores expressed as ratings reflect beneficiaries' self-rated satisfaction with their health plan, health care, and personal providers. The scores, adjusted for patient age and health status, are presented relative to national benchmarks.
TMA STANDARD COMPOSITES
Two TMA standard composite scores are reported. One score is based on how the preventive care that beneficiaries received compares with Healthy People 2020 standards. Preventive care indicators to be combined are prenatal care, hypertension screening, mammography, and Pap smears. Another composite combines a non-smoking rate, the rate at which smokers are counseled to quit, and rate of non-obese BMI ratio.

Table E.2 lists the questions and response choices for the CAHPS 5.0 composites in the beneficiary reports. Question numbers refer to the CAHPS 5.0 Adult Questionnaire (Commercial). CAHPS Supplemental questions are from CAHPS 4.0, as noted in the table. Response choices for each question within a composite are collapsed into three-item scales so that all composites have the same range. Along with the composites, mean responses to each question are presented and compared to national civilian benchmarks.

Four scores are based on respondents' ratings of health care and health care providers: health plan, health care, personal doctor, and specialist. These ratings are measures of overall beneficiary satisfaction. Questions about these aspects of care request beneficiaries to rate their health plan, health care, and physicians on a scale of 0 to 10, with 0 being the worst and 10 being the best. The rating score will be the mean. For the purpose of presentation, the means are multiplied by 100 so that the scores are presented on a scale of 0 to 100.

TABLE E.2

CAHPS 5.0 QUESTIONS AND RESPONSE CHOICES
EXPRESSED AS COMPOSITE SCORES AND RATINGS

ADULT QUESTIONNAIRE CAHPS 5.0	GETTING NEEDED CARE	RESPONSE CHOICE
Q18	In the last 12 months, how often did you get an appointment to see a specialist as soon as you needed?	Never Sometimes Usually Always
Q9	In the last 12 months, how often was it easy to get the care, tests, or treatment you needed?	Never Sometimes Usually Always
	GETTING CARE QUICKLY	
Q6	In the last 12 months, how often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?	Never Sometimes Usually Always
Q4	In the last 12 months, when you needed care right away, how often did you get care as soon as you needed?	Never Sometimes Usually Always
	HOW WELL DOCTORS COMMUNICATE	
Q13	In the last 12 months, how often did your personal doctor listen carefully to you?	Never Sometimes Usually Always
Q12	In the last 12 months, how often did your personal doctor explain things in a way that was easy to understand?	Never Sometimes Usually Always
Q14	In the last 12 months, how often did your personal doctor show respect for what you had to say?	Never Sometimes Usually Always
Q15	In the last 12 months, how often did your personal doctor spend enough time with you?	Never Sometimes Usually Always

Adult Questionnaire CAHPS 5.0	Customer Service	Response Choice
Q22	In the last 12 months, how often did your health plan's customer service give you the information or help you needed?	Never Sometimes Usually Always
Q23	In the last 12 months, how often did your health plan's customer service staff treat you with courtesy and respect?	Never Sometimes Usually Always
Adult Supplemental Questionnaire CAHPS 4.0	**Claims Processing**	
H14	In the last 12 months, how often did your health plan handle your claims quickly?	Never Sometimes Usually Always
H15	In the last 12 months, how often did your health plan handle your claims correctly?	Never Sometimes Usually Always
Adult Questionnaire CAHPS 5.0	**Rating of All Health Care**	
Q8	Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 12 months?	0 Worst health care possible 1 2 3 4 5 6 7 8 9 10 Best health care possible

Adult Questionnaire CAHPS 5.0	Rating of Health Plan	Response Choice
Q26	Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?	0 Worst health plan possible 1 2 3 4 5 6 7 8 9 10 Best health plan possible
	Rating of Personal Doctor	
Q16	Using any number from 0 to 10, where 0 is the worst personal doctor or nurse possible and 10 is the best personal doctor or nurse possible, what number would you use to rate your personal doctor or nurse?	0 Worst personal doctor or nurse possible 1 2 3 4 5 6 7 8 9 10 Best personal doctor or nurse possible
	Rating of Specialist	
Q20	We want to know your rating of the specialist you saw most often in the last 12 months. Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate the specialist?	0 Worst specialist possible 1 2 3 4 5 6 7 8 9 10 Best specialist possible

The preventive care composite in the beneficiary reports measures MHS performance in terms of meeting TMA's goals for the provision of preventive services. The composite is calculated by combining the responses to individual questions pertaining to these goals. Questions and responses from the present version of the 2015 HCSDB that are incorporated into the preventive care composite are presented in Table E.3. When individual scores in the preventive care composite are combined, the resulting composite is weighted by the number of

questions to which a normal population has responded. Therefore, the weight a particular question receives in the composite score is based on the number of responses it “receives”. The resulting proportion is presented as a percentage.

TABLE E.3

QUESTIONS AND RESPONSE CHOICES ON PREVENTIVE CARE
EXPRESSED AS A STANDARD TMA COMPOSITE

2015 ADULT HCSDB	COMPOSITE PREVENTIVE CARE	RESPONSE CHOICES
H14049	When did you last have a blood pressure reading?	Less than 12 months ago 1 to 2 years ago More than 2 years ago
H14050	Do you know if your blood pressure is too high?	Yes, it is too high No, it is not too high Don't know
H14059B	When did you last have a Pap smear test?	Within the last 12 months 1 to 2 years ago More than 2 but less than 3 years ago More than 3 but less than 5 years ago 5 or more years ago Never had a Pap smear
H14061	When was the last time your breasts were checked by mammography?	Within the last 12 months 1 to 2 years ago More than 2 but less than 5 years ago 5 or more years ago Never had a mammogram
H14064	In which trimester did you first receive prenatal care?	First trimester Second trimester Third trimester Did not receive prenatal care
H14071F, H14071I	How tall are you without your shoes on? Please give your answer in feet and inches.	_____ feet _____ inches
H14072	How much do your weigh without your shoes on? Please give your answer in pounds.	_____ pounds

The healthy behavior composite measures the success of TMA's efforts to reduce smoking and obesity rates. The composite consists of a non-smoking rate, which is the proportion of adults not smoking or who quit more than a year ago, the counseled to quit rate, which is the proportion of smokers with office visits who were counseled to quit during at least one visit, and the rate of adults with non-obese BMI ratio. The composite weights these three measures equally.

TABLE E.4.1

CAHPS 4.0 QUESTIONS AND RESPONSE CHOICES
EXPRESSED AS COMPOSITE SCORES AND RATINGS

ADULT SUPPLEMENTAL QUESTIONNAIRE CAHPS 4.0	SMOKING	RESPONSE CHOICE
H17	Do you now smoke cigarettes or use tobacco every day, some days or not at all?	Every day Some days Not at all Don't know
H18	In the last 12 months, how often were you advised to quit smoking or using tobacco by a doctor or other health provider in your plan?	Never Sometimes Usually Always

TABLE E.4.2

CAHPS 3.0 QUESTIONS AND RESPONSE CHOICES
EXPRESSED AS COMPOSITE SCORES AND RATINGS

ADULT SUPPLEMENTAL QUESTIONNAIRE CAHPS 3.0	SMOKING	RESPONSE CHOICE
H12	Have you ever smoked at least 100 cigarettes in your entire life?	Yes No Don't know

APPENDIX F

SAS CODE FOR FILE DEVELOPMENT – QUARTERS I-III

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F.1 Q3FY2015\PROGRAMS\WEIGHTING\MERGESYN.SAS - Combine Item Response Data from survey contractor with the MPR sampling and DEERS variables.

```
***************************************************************************
*
* PROGRAM:  Changed from MERGENRC.SAS to MERGESYN.SAS
* TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (6077-300)
* PURPOSE:  COMBINE ITEM RESPONSE DATA FROM IPSOS WITH THE MPR SAMPLING AND
*           DEERS VARIABLES.
* WRITTEN:  01/31/2001 BY KEITH RATHBUN
*
* MODIFIED: 06/12/2012 BY JACQUELINE AGUFA: Add code to modify the observations of the file from
Synovate
*              This process will reincorporate the overlapped cases(currently missing in the
synovate file)
*              back to the mergsyn file. The missing overlapped cases can be found in
bwt.sas7bdat or sampla02.sas7bdat
*
* INPUTS:   1) DODyyQnF.sas7bdat - Quarterly DOD Health Survey Data from IPSOS
*              where n = Quarter Number
                   yy = Survey Administration Year
*           2) BWT.sas7bdat - MPR Sampling and DEERS variables
*           3) EXTRACT.sas7bdat - DEERS variables
*
* OUTPUTS:  1) MERGESYN.sas7bdat - Quarterly DOD Health Survey Data
*              (Combined IPSOS, MPR, and DEERS variables)
*
***************************************************************************;
*LIBNAME  INr        "N:\Project\40309_HCS\Restricted\DC1\Q&QT.FY20&YR." access=readonly;
/*Restricted folder*/
LIBNAME  INr        "&EXPATH." access=readonly; /*Restricted folder*/
LIBNAME  IN         "N:\Project\40309_HCS\DC1\HCSDB\Q&QT.FY20&YR.\DATA\afinal" access=readonly;
LIBNAME  OUT        "..\..\DATA\afinal";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

%MACRO MERGE;
***************************************************************************
* SORT the IPSOS-Provided file and the original sample (BWT).
***************************************************************************;
PROC SORT DATA=IN.dod&YR.q&QT.f OUT=SYNFILE;
     BY MPRID;
FORMAT _ALL_;
RUN;




%if &trickle=1 %then %do;
LIBNAME  INt        "N:\Project\40309_HCS\DC1\HCSDB\Q&QT.FY20&YR.t\DATA\afinal";
PROC SORT DATA=INt.dod&YR.q&QT.f_trk OUT=SYNFILE2;
     BY MPRID;
RUN;


***************************************************************************
* To avoid the creation of more duplicates in the following data step,
* we are only keeping the complete trickle cases with Flag_fin=1
***************************************************************************;
DATA complete_in_trckle;
    SET SYNFILE2;
    if FLAG_FIN=1;
RUN;

PROC SORT DATA=complete_in_trckle NODUPKEY; BY MPRID; RUN;

DATA CHECKDUP DROPRND1(KEEP=MPRID DRP_RND1);
   MERGE complete_in_trckle(IN=in2 keep=MPRID FLAG_FIN RENAME=(FLAG_FIN=TFLAGFIN))
SYNFILE(IN=in1 keep=MPRID FLAG_FIN) ;

   LENGTH DRP_RND1 $3;

   BY MPRID;
```

```
   IF IN1 AND IN2 THEN DO;
      IF FLAG_FIN NE 1 AND TFLAGFIN=1 THEN DRP_RND1='YES';
      OUTPUT DROPRND1;
   END;

   OUTPUT CHECKDUP;
RUN;

*****************************************************************************
* delete the duplicate DROPRND1 records by MPRID since we only want to know the
* IDs that had a duplicate record in round 1 and complete in the trickle file.
*
* We will then use the variable DROPRND1 to change the value of dupflag for
* these case from YES to NO in SELECTQ.sas.  This then reduces the inflated
* value of DUPFLAG.
*****************************************************************************;
PROC SORT DATA=DROPRND1 NODUPKEY; BY MPRID; RUN;

PROC FREQ DATA=CHECKDUP;
   TABLES FLAG_FIN*TFLAGFIN/list missing;
RUN;

*End of trickle code;
%end;

DATA SYNFILE;
   LENGTH MPRID $8;
   SET SYNFILE (in=in1)
       %if &trickle.=1 %then %do;
       SYNFILE2 (in=in2)
       %end;
          ;
   BY MPRID;
   LENGTH ONTIME $3;
   IF IN1 THEN ONTIME="YES";
   ELSE ONTIME="NO";
   LABEL ONTIME = "Responded Within 8 weeks of Mail-Out";
RUN;



PROC SORT DATA=IN.BWT OUT=BWT; BY MPRID; RUN;

***************************************************************************
* Attach DEERS variables to the combined file that were omitted from the
* BWT file. Using extract.sas7bdat to obtain this data since the overlap cases
* are not in SAMPLA02.sas7bdat
***************************************************************************;
PROC SORT DATA=INr.EXTRACT OUT=EXTRACT
         (KEEP=MPRID DBENCAT DMEDELG DSPONSVC
               MEDTYPE MRTLSTAT RACEETHN
               PNBRTHDT PAYPLNCD );
   BY MPRID;

RUN;

***************************************************************************
* Attach the original sampling variables to the combined file.
***************************************************************************;
DATA MERGESYN;
   MERGE BWT(in=b) SYNFILE(in=in2) EXTRACT(in=in1)
         %if &trickle=1 %then %do; DROPRND1 %end;
   ;
   BY MPRID;

   ************************************************************************
   * DROP variables that are not needed.
   ************************************************************************;
   DROP SVCCD GEOSMPL GEOCELL EBSMPL
        D_INSTAL ;


   LABEL  BWT      = 'BWT - Basic Sampling Weight'
```

```
          ENBGSMPL = 'ENBGSMPL - Beneficiary/Enrollment Status'
          NHFF     = 'NHFF - Stratum Sample Size'
          SEXSMPL  = 'SEXSMPL - Sex'
          STRATUM  = 'Stratum'
          SVCSMPL  = 'SVCSMPL - Branch of Service'
          FLAG_FIN = 'Final Disposition'
         ;
   IF IN2 AND NOT IN1 THEN
      PUT "ERROR: MPRID Not Found in both the IPSOS and MPR files, MPRID = " MPRID;

   IF IN2 AND IN1 THEN OUTPUT MERGESYN;

   ***************************************************************************
    Assign a flag_fin value of 99 to cases that overlap with TSS
    Survey was never mailed to the respondent
   ***************************************************************************;
   IF b AND NOT in2 THEN DO;
      FLAG_FIN=99;
         ONTIME="NA";
      output MERGESYN;
   END;
RUN;

DATA OUT.MERGESYN;
   SET MERGESYN;
   BY MPRID;
   ************************************************************************
   * Construct MPCSMPL.
   ************************************************************************;
   IF PAYPLNCD = 'MO' THEN
      MPCSMPL = 2;
   ELSE IF PAYPLNCD = 'MW' THEN
      MPCSMPL = 3;
   ELSE
      MPCSMPL = 1;
   ************************************************************************
   * Calculate FIELDAGE based on PNBRTHDT using fielding period
   * starting date.
   ************************************************************************;
   FIELDATE = INPUT("&FIELDATE",mmddyy8.);
   DOB = SUBSTR(PNBRTHDT,5,2) || SUBSTR(PNBRTHDT,7,2) || SUBSTR(PNBRTHDT,1,4);
   BRTHDATE = INPUT(DOB,mmddyy8.);

   FIELDAGE = PUT(INT((FIELDATE - BRTHDATE)/365.25),Z3.);
   LABEL MPCSMPL  = "MPCSMPL - Military Personnel Category";
   LABEL FIELDAGE = "Age as of &FIELDLBL";
   LABEL DCATCH   = "Catchment Area";

   LENGTH QUARTER $8;
   QUARTER = "Q&QT.FY20&YR.";
   LABEL  QUARTER  = 'Survey Quarter';

   ************************************************************************
   * Recode unknown values of MRTLSTAT into one 'Unknown' group (Z).
   ************************************************************************;
   IF MRTLSTAT NOT IN ("A","D","I","L","M","N","S","W","Z"," ") THEN MRTLSTAT = "Z";

   DROP FIELDATE DOB BRTHDATE PNBRTHDT PAYPLNCD;

RUN;

TITLE1 "Quarterly DOD Health Survey - Combine IPSOS, MPR and DEERS variables (6663-0500)";
TITLE2 "Program Name: MERGESYN.SAS By Jacqueline Agufa";
TITLE3 "Program Inputs: DODyyQnF.sas7bdat, BWT.sas7bdat, EXTRACT.sas7bdat -- Program Output:
MERGESYN.sas7bdat";

PROC CONTENTS; RUN;

PROC FORMAT;
   Value $ACV
     'A'='Active Duty Prime'
     'B'='TRICARE Global Remote Overseas Prime Active Duty'
     'D'='TRICARE Senior Prime enrollee'
     'E'='Non-Active Duty Prime'
```

```
     'F'='TRICARE Global Remote Overseas Prime ADFM'
     'G'='TRICARE Plus (CHAMPUS/TFL Eligible)'
     'H'='TRICARE Overseas Prime AD'
     'J'='TRICARE Overseas Prime ADFM'
     'L'='TRICARE Plus (w/o civilian healthcare)'
     'M'='AD not reported as enrolled'
     'R'='TRICARE Reserve Select'
     'Q'='Active Duty enrolled to Op Forces'
     'U'='USFHP/USTF'
     'V'='TRICARE Retired Reserve'
 ' ','Z'='Not enrolled in TRICARE Prime or USFHP'
        ;

  VALUE $ENBGS
          '01' = "Active duty"
          '02' = "Active duty fam,Prime,civ PCM"
          '03' = "Active duty fam,Prime,mil PCM"
          '04' = "Active duty fam,non-enrollee"
          '05' = "Retired,<65,civ PCM"
          '06' = "Retired,<65,mil PCM"
          '07' = "Retired,<65,non-enrollee"
          '08' = "Retired,65+,civ PCM"
          '09' = "Retired,65+,mil PCM"
          '10' = "Retired,65+,non-enrollee"
          '11' = "TRICARE Reserve Select"
  ;

RUN;

PROC FREQ DATA=OUT.MERGESYN(DROP=MPRID PRN MIQCNTL);
  TABLES WEB ONTIME FLAG_FIN DAGEQY*FIELDAGE ACV PCM ENBGSMPL
         ACV*PCM ACV*ENBGSMPL
         _ALL_ /MISSING LIST;
  FORMAT ACV $ACV. ENBGSMPL $ENBGS.;
RUN;
%MEND;
%MERGE;
```

F.F.2.A Q1FY2015\PROGRAMS\CODINGSCHEME\CSCHM15Q.SAS - Implement Coding Scheme and Coding Tables for Quarter 1 FY2015

```
*****************************************************************************;
*  Program:  Cschmyyq.sas
*  Written:  06/04/2001
*   Author:  C. Rankin
*
*    Input:  MERGESYN.sas7bdat - Merged MPR Sampling, DEERS, and Synovate Response Data
*   Output:  CSCHMyyQ.sas7bdat - Coding scheme file
*
* Modified:
*          12/15/2012 - Removed logic for handling check boxes for height and
*                       weight variables. Also no longer have to convert the
*                       weight variable from character to numeric
*          12/21/2012 - Added code on line 146 to correct out of range height (in)
*          12/18/2013 - Updated for Q1 2014 - added ht/wt note
*          09/29/2014 - Added SQL statement to automatically make varlist1, varlist2, and
marked variables
*  Purpose:  Apply Coding Scheme Specifications to DoD Health Care Survey
*            Response Data, check for consistency in responses and skip
*            patterns
*  Include
*    files:  Cschmyyq.fmt
*
*****************************************************************************;

OPTIONS PS=80 LS=120 NOCENTER COMPRESS=YES SOURCE SOURCE2 VARLENCHK=NOWARN;
title "Coding Scheme for Q&qt. FY&yr."; title2; title3;

%LET INDATA=MERGESYN;
%LET OUTDATA=CSCHM&yr.q;

LIBNAME LIBRARY    "..\..\DATA\AFINAL\FMTLIB";
LIBNAME IN         "..\..\DATA\AFINAL";
LIBNAME OUT        "..\..\DATA\AFINAL";

%MACRO CSCHM;
DATA &INDATA;

  SET IN.&INDATA (rename=(S15BC06A  = S15BC06A2
                                                          S15BC06B  = S15BC06B2
                                                          S15BC06C  = S15BC06C2
                                                          S15BC06D  = S15BC06D2
                                                          S15BC06E  = S15BC06E2
                                                          S15BC06F  = S15BC06F2
                                                          ));

*RENAME AND CREATE VARIABLES NEEDED FOR CODING SCHEME;

  RENAME SRACEA = SRRACEA;
  RENAME SRACEB = SRRACEB;
  RENAME SRACEC = SRRACEC;
  RENAME SRACED = SRRACED;
  RENAME SRACEE = SRRACEE;

/** Included Q1FY2015 to rename these fields to match their 2014 questions. **/

RENAME S15BC08A  = S15BC06A;
RENAME S15BC08B  = S15BC06B;
RENAME S15BC08C  = S15BC06C;
RENAME S15BC08D  = S15BC06D;
RENAME S15BC06A2  = S15BC08A;
RENAME S15BC06B2  = S15BC08B;
RENAME S15BC06C2  = S15BC08C;
RENAME S15BC06D2  = S15BC08D;
RENAME S15BC06E2  = S15BC08E;
RENAME S15BC06F2  = S15BC08F;
```

```
RENAME INTERVIEWTIME = INTTIME;

  SEX=PNSEXCD;
  AGE=INPUT(DAGEQY,8.);


RUN;

*Create list of variables from dataset;
*O_ variables are the original values from the survey response;
*Must remove any variable that ends with an alphabetic letter that
is not a marked/unmarked variable from the 'markedvars' line of code;
PROC SQL;
  CREATE TABLE VARIABLES AS
    SELECT UPCASE(NAME) AS VARS,
               UPCASE(CAT('O_', NAME)) AS OVARS,
           CASE WHEN SUBSTR(NAME,LENGTH(NAME)) NOT IN ('0' '1' '2' '3' '4' '5' '6' '7' '8' '9')
                AND NAME NOT IN ("H&YR.059B", "H&YR.071F" ,"H&YR.071I", "SREDA", "SRAGE")
                               THEN UPCASE(NAME) END AS MARKEDVARS,
                  CASE WHEN CALCULATED MARKEDVARS NE ''
                THEN UPCASE(CAT('O_', CALCULATED MARKEDVARS)) END AS OMARKEDVARS
        FROM DICTIONARY.COLUMNS
        WHERE LIBNAME = 'WORK' AND MEMNAME = "&INDATA"
          AND (NAME CONTAINS ("H&YR.") OR NAME CONTAINS ("S&YR.") OR NAME CONTAINS ("SR")) ;
       SELECT COMPRESS(VARS), COMPRESS(OVARS), COMPRESS(MARKEDVARS), COMPRESS(OMARKEDVARS)
    INTO :VARLIST1 SEPARATED BY " ",
            :VARLIST2 SEPARATED BY " ",
                :MARKEDVARS SEPARATED BY " ",
                :OMARKEDVARS SEPARATED BY " "
        FROM VARIABLES;
QUIT;

proc print data=variables; run;

%PUT &VARLIST1;
%PUT &VARLIST2;
%PUT &MARKEDVARS;
%PUT &OMARKEDVARS;


TITLE  "DoD 20&YR Survey";
TITLE2 "Apply Coding Scheme";


DATA OUT.&outdata.;
/* label and format statements for original variables */
  LENGTH &VARLIST1. &VARLIST2. 4. MPRID $8.;
  INFORMAT &VARLIST2. 4.;
  %INCLUDE "CSCHM&YR.q.FMT";

   SET MERGESYN;


*************************************************************;
**** Recodes for invalid responses:***************************;
*************************************************************;


/* This is a version of the coding scheme and coding tables for the
   FY 20&YR. HCSDB Form A.
   The following tables outline the coding of screening questions (skip),
   and subsequent items to be answered (or not answered in a series
   following a skip question.) */

/* First set up new variables that capture the original values */
/* recode the initial numeric values to the SAS numeric values */
/* specified in the coding scheme                              */


  ARRAY RECODE(*) &VARLIST1;
  ARRAY   ORIG(*) &VARLIST2;

  DO I = 1 to DIM(ORIG);
      ORIG(I) = RECODE(I);
```

```
      IF ORIG(I) < 0 THEN DO;
              IF ORIG(I)= -9 THEN RECODE(I)=.;
         ELSE IF ORIG(I)= -7 THEN RECODE(I)=.O;
         ELSE IF ORIG(I)= -6 THEN RECODE(I)=.N;
         ELSE IF ORIG(I)= -5 THEN RECODE(I)=.D;
         ELSE IF ORIG(I)= -4 THEN RECODE(I)=.I;
         ELSE IF ORIG(I)= -1 THEN RECODE(I)=.C;
      END;
  END;
  DROP I;



/* recode selected responses to be 1=marked, 2=unmarked */

  ARRAY   MARKED(*) &MARKEDVARS. ;
  ARRAY INFORMAT(*) &OMARKEDVARS. ;


  DO J=1 TO DIM(INFORMAT);
     IF INFORMAT(J) = 1 THEN MARKED(J)=1;
     ELSE MARKED(J)=2;
  END;
  DROP J;

  FORMAT &MARKEDVARS.  MARKED.;


*********************************************************************;


/*  skip coding scheme for all surveys not returned  **/

 IF FLAG_FIN NE 1 THEN GOTO NOSURVEY;


/** Note 1 -- H&YR.003, H&YR.004 health plan usage  **/

  IF H&YR.003 > 0 THEN N1=1;
  ELSE IF H&YR.003=.N  OR H&YR.003 =.D THEN DO;
     IF H&YR.004 NOT=. THEN DO;
        N1=2;
        H&YR.004=.C;
     END;
     ELSE DO;
        N1=3;
        H&YR.004=.N;
     END;
  END;
  ELSE IF H&YR.003=.   THEN N1=4;



/** Note 2 -- H&YR.006,H&YR.007,H&YR.008:  illness or injury **/

  ARRAY NOTE2 H&YR.007 H&YR.008;
  N2MARK=0;
  N2NMISS=0;
  N2NN=0;

  DO OVER NOTE2;
     IF NOTE2 NE . THEN N2NMISS+1;
     IF NOTE2 NOT IN (.N,.) THEN N2MARK+1;
     IF NOTE2 EQ .N THEN N2NN+1;
  END;


  IF H&YR.006=1 AND N2NMISS=0 THEN DO;
       N2=1;
  END;
  ELSE IF H&YR.006 IN (1,.) AND N2NMISS>0 AND N2MARK=0 THEN DO;
     H&YR.006=2;
     N2=2;
     DO OVER NOTE2;
```

```
         IF NOTE2=. THEN NOTE2=.N;
         ELSE NOTE2=.C;
      END;
   END;
   ELSE IF H&YR.006=1 AND N2MARK=1 AND N2NN=1 THEN  DO;
      DO OVER NOTE2;
         IF NOTE2=.N THEN NOTE2=.;
      END;
      N2=3;
   END;
   ELSE IF H&YR.006=1 AND N2MARK>0 THEN DO;
      N2=4;
   END;
   ELSE IF H&YR.006=2 AND N2MARK=1 AND N2NN=1  THEN  DO;
      H&YR.007=.C;
      H&YR.008=.C;
      N2=5;
   END;
   ELSE IF H&YR.006 IN (2,.) AND N2MARK>0 THEN DO;
      H&YR.006=1;
      N2=6;
      DO OVER NOTE2;
         IF NOTE2=.N THEN NOTE2=.;
      END;
   END;
   ELSE IF H&YR.006=2 AND (N2NMISS=0 OR (N2NMISS>0 AND N2MARK=0)) THEN DO;
      N2=7;
      DO OVER NOTE2;
         IF NOTE2=. THEN NOTE2=.N;
         ELSE NOTE2=.C;
      END;
   END;
   ELSE IF H&YR.006=.  AND N2NMISS=0 THEN N2=8;


   DROP N2NMISS N2MARK N2NN;


/** Note 3 -- H&YR.009,H&YR.010,H&YR.011:  regular or routine healthcare **/

   ARRAY Note3 H&YR.010 H&YR.011;
   N3MARK=0;
   N3NMISS=0;
   N3NN=0;

   DO OVER Note3;
      IF Note3 NE . THEN N3NMISS+1;
      IF Note3 NOT IN (.N,.) THEN N3MARK+1;
      IF Note3 EQ .N THEN N3NN+1;
   END;

   IF H&YR.009=1 AND N3NMISS=0 THEN DO;
        N3=1;
   END;
   ELSE IF H&YR.009 IN (1,.) AND N3NMISS>0 AND N3MARK=0 THEN DO;
      H&YR.009=2;
      N3=2;
      DO OVER Note3;
         IF Note3=. THEN Note3=.N;
         ELSE Note3=.C;
      END;
   END;
   ELSE IF H&YR.009=1 AND N3MARK=1 AND N3NN=1 THEN  DO;
      DO OVER Note3;
         IF Note3=.N THEN Note3=.;
      END;
      N3=3;
   END;
   ELSE IF H&YR.009=1 AND N3MARK>0 THEN DO;
      N3=4;
   END;
   ELSE IF H&YR.009=2 AND N3MARK=1 AND N3NN=1  THEN  DO;
      H&YR.010=.C;
      H&YR.011=.C;
```

```
     N3=5;
  END;
  ELSE IF H&YR.009 IN (2,.) AND N3MARK>0 THEN DO;
     H&YR.009=1;
     N3=6;
     DO OVER Note3;
        IF Note3=.N THEN Note3=.;
     END;
  END;
  ELSE IF H&YR.009=2 AND (N3NMISS=0 OR (N3NMISS>0 AND N3MARK=0)) THEN DO;
     N3=7;
     DO OVER Note3;
        IF Note3=. THEN Note3=.N;
        ELSE Note3=.C;
     END;
  END;
  ELSE IF H&YR.009=.  AND N3NMISS=0 THEN N3=8;


  DROP N3NMISS N3MARK N3NN;



/** Note 3_BC1 -- S&YR.BC01A-S&YR.BC01D,S&YR.BC04A-S&YR.BC04G:  regular or routine healthcare
**/

  ARRAY Note3_BC1A S&YR.BC01A--S&YR.BC01C;
  ARRAY Note3_BC1B S&YR.BC04A--S&YR.BC04G;
  N3_BC1AMARK=0;
  N3_BC1BMARK=0;

  DO OVER Note3_BC1A;
     IF Note3_BC1A = 1 THEN N3_BC1AMARK+1;
  END;

  DO OVER Note3_BC1B;
     IF Note3_BC1B = 1 THEN N3_BC1BMARK+1;
  END;

  IF N3_BC1AMARK >= 1 THEN DO;
        N3_BC1=1;
        S&YR.BC01D=2;
     DO OVER Note3_BC1B;
        IF Note3_BC1B IN (2 .) THEN Note3_BC1B=.N;
        ELSE Note3_BC1B=.C;
     END;
  END;
  ELSE IF S&YR.BC01D = 1 THEN DO;
     N3_BC1=2;
  END;
  ELSE DO;
         N3_BC1 = 3;
     DO OVER Note3_BC1B;
        IF Note3_BC1B IN (2 .) THEN Note3_BC1B=.N;
        ELSE Note3_BC1B=.C;
     END;
  END;


  DROP  N3_BC1AMARK ;
  DROP  N3_BC1BMARK ;



  /** Note 3_BC2 -- S&YR.BC01A-S&YR.BC01D,S&YR.BC04A-S&YR.BC04G:  regular or routine healthcare
**/

  ARRAY Note3_BC2A  S&YR.BC04A--S&YR.BC04G;
  ARRAY Note3_BC2B  S&YR.BC02A--S&YR.BC02D;
  ARRAY Note3_BC2C  S&YR.BC03A--S&YR.BC03E;
  N3_BC2ASKIP=0;
  N3_BC2AMISS=0;
  N3_BC2AMARK=0;
```

```
  DO OVER Note3_BC2A;
     IF Note3_BC2A IN (.N, .C) THEN N3_BC2ASKIP+1;
     IF Note3_BC2A IN (2, ., 0) THEN N3_BC2AMISS+1;
     IF Note3_BC2A = 1 THEN N3_BC2AMARK+1;
  END;



  IF N3_BC2AMARK = 0 AND N3_BC2ASKIP >= 1 THEN DO;
     N3_BC2 = 1;
  END;
  ELSE IF S&YR.BC01D = 1 THEN DO;
     N3_BC2 = 2;
     DO OVER Note3_BC2B;
       IF Note3_BC2B IN (2 .) THEN Note3_BC2B=.N;
       ELSE Note3_BC2B=.C;
     END;
     DO OVER Note3_BC2C;
       IF Note3_BC2C IN (2 .) THEN Note3_BC2C=.N;
       ELSE Note3_BC2C=.C;
     END;
     IF S&YR.BC09 IN (2 .) THEN S&YR.BC09=.N;
     ELSE S&YR.BC09=.C;
  END;
  /*ELSE IF S&YR.BC01D = 2 AND N3_BC2AMARK = 0 AND N3_BC2AMISS >= 1 THEN DO;
     N3_BC2 = 3;
  END;
  ELSE DO;
     N3_BC2 = 4;
     DO OVER Note3_BC2B;
       IF Note3_BC2B IN (2 . .N) THEN Note3_BC2B=.N;
       ELSE Note3_BC2B=.C;
     END;
     DO OVER Note3_BC2C;
       IF Note3_BC2C IN (2 . .N) THEN Note3_BC2C=.N;
       ELSE Note3_BC2C=.C;
     END;
     IF S&YR.BC09 IN (2 . .N) THEN S&YR.BC09=.N;
     ELSE S&YR.BC09=.C;
  END;*/



  DROP  N3_BC2ASKIP ;
  DROP  N3_BC2AMISS ;
  DROP  N3_BC2AMARK ;





 /** Note 3_BC3 -- S&YR.BC03D-E **/

   IF S&YR.BC03E = 1 THEN DO;
     N3_BC3 = 1;
        S&YR.BC03D = 2;
  END;
  ELSE DO;
     N3_BC3 = 2;
  END;



 /** Note 3_BC4 -- S&YR.BC01A-S&YR.BC01D,S&YR.BC04A-S&YR.BC04G:  regular or routine healthcare
**/

  ARRAY Note3_BC4A  S&YR.BC03A--S&YR.BC03C;
  ARRAY Note3_BC4B  S&YR.BC03D--S&YR.BC03E;
  N3_BC4AMARK=0;
  N3_BC4BMARK=0;
  N3_BC4ASKIP=0;
  N3_BC4BSKIP=0;
```

```
  DO OVER Note3_BC4A;
     IF Note3_BC4A = 1 THEN N3_BC4AMARK+1;
     IF Note3_BC4A IN (.N .C) THEN N3_BC4ASKIP+1;
  END;

  DO OVER Note3_BC4B;
     IF Note3_BC4B = 1 THEN N3_BC4BMARK+1;
     IF Note3_BC4B IN (.N .C) THEN N3_BC4BSKIP+1;
  END;


  IF N3_BC4ASKIP = 3 AND N3_BC4BSKIP = 2 THEN DO;
     N3_BC4 = 1;
  END;
  ELSE DO;
     IF N3_BC4AMARK >= 1 THEN DO;
           IF N3_BC4BMARK = 0 THEN DO;
                  N3_BC4 = 2;
           END;
        END;
        ELSE DO;
           IF N3_BC4BMARK >= 1 THEN DO;
               N3_BC4 = 3;
                  DO OVER Note3_BC4A;
                    Note3_BC4A = 2;
                  END;
               IF S&YR.BC09 IN (2 . ) THEN S&YR.BC09=.N;
               ELSE S&YR.BC09=.C;
           END;
           ELSE IF N3_BC4AMARK = 0 THEN DO;
                  N3_BC4 = 4;
           END;
        END;
  END;


  DROP  N3_BC4AMARK N3_BC4ASKIP;
  DROP  N3_BC4BMARK N3_BC4BSKIP;



  /** Note 3_BC5 -- S&YR.BC01A-S&YR.BC01D,S&YR.BC04A-S&YR.BC04G:  regular or routine healthcare
**/

  ARRAY Note3_BC5A  S&YR.BC05A--S&YR.BC05C;
  ARRAY Note3_BC5B  S&YR.BC08A--S&YR.BC08F;
  N3_BC5AMARK=0;
  N3_BC5BMARK=0;

  DO OVER Note3_BC5A;
     IF Note3_BC5A = 1 THEN N3_BC5AMARK+1;
  END;

  DO OVER Note3_BC5B;
     IF Note3_BC5B = 1 THEN N3_BC5BMARK+1;
  END;


  IF N3_BC5AMARK >= 1 THEN DO;
     N3_BC5=1;
     S&YR.BC05D=2;
     DO OVER Note3_BC5B;
       IF Note3_BC5B IN (2 .) THEN Note3_BC5B=.N;
       ELSE Note3_BC5B=.C;
     END;
  END;
  ELSE IF S&YR.BC05D = 1 THEN DO;
     N3_BC5=2;
  END;
  ELSE DO;
        N3_BC5 = 4;
```

```
    DO OVER Note3_BC5B;
      IF Note3_BC5B IN (2 .) THEN Note3_BC5B=.N;
      ELSE Note3_BC5B=.C;
    END;
  END;


  DROP  N3_BC5AMARK ;
  DROP  N3_BC5BMARK ;




  /** Note 3_BC6 -- S&YR.BC01A-S&YR.BC01D,S&YR.BC04A-S&YR.BC04G:  regular or routine healthcare
**/

  ARRAY Note3_BC6A  S&YR.BC08A--S&YR.BC08F;
  ARRAY Note3_BC6B  S&YR.BC07A--S&YR.BC07E;
  ARRAY Note3_BC6C  S&YR.BC06A--S&YR.BC06D;
  N3_BC6ASKIP=0;
  N3_BC6AMISS=0;
  N3_BC6AMARK=0;


  DO OVER Note3_BC6A;
    IF Note3_BC6A IN (.N .C) THEN N3_BC6ASKIP+1;
    IF Note3_BC6A IN (2 .) THEN N3_BC6AMISS+1;
    IF Note3_BC6A = 1 THEN N3_BC6AMARK+1;
  END;



  IF N3_BC6AMARK = 0 AND N3_BC6ASKIP >= 1 THEN DO;
    N3_BC6 = 1;
  END;
  ELSE IF S&YR.BC05D = 1 THEN DO;
    N3_BC6 = 2;
    DO OVER Note3_BC6B;
      IF Note3_BC6B IN (2 .) THEN Note3_BC6B=.N;
      ELSE Note3_BC6B=.C;
    END;
    DO OVER Note3_BC6C;
      IF Note3_BC6C IN (2 .) THEN Note3_BC6C=.N;
      ELSE Note3_BC6C=.C;
    END;
    IF S&YR.BC10 IN (2 .) THEN S&YR.BC10=.N;
    ELSE S&YR.BC10=.C;
  END;
  /*ELSE IF S&YR.BC05D = 2 AND N3_BC6AMARK = 0 AND N3_BC6AMISS >= 1 THEN DO;
    N3_BC6 = 3;
  END;
  ELSE DO;
       N3_BC6 = 4;
       DO OVER Note3_BC6B;
       IF Note3_BC6B IN (2 . .N) THEN Note3_BC6B=.N;
       ELSE Note3_BC6B=.C;
       END;
       DO OVER Note3_BC6C;
       IF Note3_BC6C IN (2 . .N) THEN Note3_BC6C=.N;
       ELSE Note3_BC6C=.C;
       END;
   IF S&YR.BC10 IN (2 . .N) THEN S&YR.BC10=.N;
   ELSE S&YR.BC10=.C;
  END;*/



  DROP  N3_BC6ASKIP ;
  DROP  N3_BC6AMISS ;
  DROP  N3_BC6AMARK ;
```

```
 /** Note 3_BC7 -- S&YR.BC07D-E **/

   IF S&YR.BC07E = 1 THEN DO;
     N3_BC7 = 1;
         S&YR.BC07D = 2;
  END;
  ELSE DO;
     N3_BC7 = 2;
  END;




  /** Note 3_BC8 -- S&YR.BC01A-S&YR.BC01D,S&YR.BC04A-S&YR.BC04G:  regular or routine healthcare
**/

  ARRAY Note3_BC8A  S&YR.BC07A--S&YR.BC07C;
  ARRAY Note3_BC8B  S&YR.BC07D--S&YR.BC07E;
  N3_BC8AMARK=0;
  N3_BC8BMARK=0;
  N3_BC8ASKIP=0;
  N3_BC8BSKIP=0;

  DO OVER Note3_BC8A;
     IF Note3_BC8A = 1 THEN N3_BC8AMARK+1;
     IF Note3_BC8A IN (.N .C) THEN N3_BC8ASKIP+1;
  END;

  DO OVER Note3_BC8B;
     IF Note3_BC8B = 1 THEN N3_BC8BMARK+1;
     IF Note3_BC8B IN (.N .C) THEN N3_BC8BSKIP+1;
  END;

  IF N3_BC8ASKIP = 3 AND N3_BC8BSKIP = 2 THEN DO;
       N3_BC8 = 1;
  END;
  ELSE DO;
       IF N3_BC8AMARK >= 1 THEN DO;
               IF N3_BC8BMARK = 0 THEN DO;
                       N3_BC8 = 2;
               END;
       END;
       ELSE DO;
               IF N3_BC8BMARK >= 1 THEN DO;
                       N3_BC8 = 3;
                       DO OVER Note3_BC8A;
                               Note3_BC8A=2;
                       END;
               IF S&YR.BC10 IN (2 .) THEN S&YR.BC10=.N;
                       ELSE S&YR.BC10=.C;
               END;
               ELSE IF N3_BC8AMARK = 0 THEN DO;
                       N3_BC8 = 4;
               END;
    END;
  END;



  DROP N3_BC8AMARK N3_BC8ASKIP;
  DROP N3_BC8BMARK N3_BC8BSKIP;



/** Note 4 -- H&YR.013, H&YR.014-H&YR.018: doctor's office or clinic **/

  ARRAY NOTE4  H&YR.014-H&YR.018;

  N4MARK=0;
  N4NMISS=0;

  DO OVER NOTE4;
     IF NOTE4 NE . THEN N4NMISS+1;
     IF NOTE4 NOT IN  (., .N) THEN N4MARK+1;
```

```
  END;


  IF H&YR.013=1 THEN DO;
     N4=1;
     DO OVER NOTE4;
        IF NOTE4=. THEN NOTE4=.N;
        ELSE NOTE4=.C;
     END;
  END;
  ELSE IF H&YR.013 IN (2,3,4,5,6,7,.) AND N4NMISS>0 AND N4MARK=0 THEN DO;
     H&YR.013=1;
     N4=2;
     DO OVER NOTE4;
        IF NOTE4=. THEN NOTE4=.N;
        ELSE NOTE4=.C;
     END;
  END;
  ELSE IF H&YR.013 IN (2,3,4,5,6,7) AND (N4NMISS=0 OR N4MARK>0) THEN DO;
     DO OVER NOTE4;
        IF NOTE4=.N THEN NOTE4=.;
     END;
     N4=3;
  END;
  ELSE IF H&YR.013=.  AND N4NMISS=0 THEN N4=4;
  ELSE IF H&YR.013 IN (.) AND N4MARK>0 THEN DO;
     N4=5;
     DO OVER NOTE4;
        IF NOTE4=.N THEN NOTE4=.;
     END;
  END;

  DROP N4NMISS N4MARK;


/** Note 5 -- H&YR.015, H&YR.016-H&YR.017: doctor's office or clinic- treatment **/

 IF H&YR.015 IN (.N,.C) THEN N5=1;
 ELSE IF H&YR.015= 1  THEN N5=2;
 ELSE IF H&YR.015 IN (2,.) AND H&YR.016 IN (1,2) THEN  DO;
     N5=3;
     H&YR.015=1;
 END;
 ELSE IF H&YR.015 IN (2,.) AND (H&YR.016 IN (3,4,.) AND H&YR.017 IN (1,2)) THEN  DO;
     N5=4;
     H&YR.015=1;
 END;
 ELSE IF H&YR.015 IN (2) AND (H&YR.016 IN (3,4,.) AND H&YR.017 IN (3,4,.)) THEN  DO;
     N5=5;
     IF H&YR.016 = . THEN H&YR.016 = .N;
     ELSE H&YR.016 = .C;
     IF H&YR.017 = . THEN H&YR.017 = .N;
     ELSE H&YR.017 = .C;
 END;
 ELSE IF H&YR.015 IN (.) AND (H&YR.016 IN (3,4,.) AND H&YR.017 IN (3,4,.)) THEN  DO;
     N5=6;
 END;




/** Note 6 -- H&YR.019, H&YR.020-H&YR.027, S&YR.009: personal doctor **/
/* MER 07/01/09 */

  ARRAY NOTE6  H&YR.021-H&YR.024;

  N6MARK=0;

  DO OVER NOTE6;
     IF NOTE6 NOT IN  (., .N) THEN N6MARK+1;
  END;

  IF H&YR.020 NOT IN (0,.) THEN N6MARK+1;
```

```
  IF H&YR.019 = 1  THEN DO;
     N6=1;
     IF H&YR.027=.N THEN H&YR.027=.;
  END;
  ELSE IF H&YR.019 in (2,.) AND H&YR.027 in (0,1,2,3,4,5,6,7,8,9,10) THEN DO;
     N6=2;
     H&YR.019=1;
  END;
  ELSE IF H&YR.019 in (2,.) AND N6MARK>0 AND H&YR.027 = . THEN DO;
     N6=3;
     H&YR.019=1;
  END;
  ELSE IF H&YR.019 = 2 AND N6MARK>0 AND H&YR.027 = .N THEN DO;
     N6=4;
     IF H&YR.020=. THEN H&YR.020=.N;
     ELSE H&YR.020=.C;
     DO OVER NOTE6;
        IF NOTE6=. THEN NOTE6=.N;
        ELSE NOTE6=.C;
     END;
     IF H&YR.025=. THEN H&YR.025=.N;
     ELSE H&YR.025=.C;
     IF H&YR.026=. THEN H&YR.026=.N;
     ELSE H&YR.026=.C;
     IF S&YR.009=. THEN S&YR.009=.N;
     ELSE S&YR.009=.C;
     H&YR.027=.C;
  END;
  ELSE IF H&YR.019 = 2 AND N6MARK=0 AND H&YR.027 in (.N,.) THEN DO;
     N6=5;
     IF H&YR.020=. THEN H&YR.020=.N;
     ELSE H&YR.020=.C;
     DO OVER NOTE6;
        IF NOTE6=. THEN NOTE6=.N;
        ELSE NOTE6=.C;
     END;
     IF H&YR.025=. THEN H&YR.025=.N;
     ELSE H&YR.025=.C;
     IF H&YR.026=. THEN H&YR.026=.N;
     ELSE H&YR.026=.C;
     IF S&YR.009=. THEN S&YR.009=.N;
     ELSE S&YR.009=.C;
     IF H&YR.027=. THEN H&YR.027=.N;
     ELSE H&YR.027=.C;
  END;
  ELSE IF H&YR.019 = . AND H&YR.027 = .N THEN DO; /* MER 07/31/09 combined rows 6 and 7 */
     N6=6;
     H&YR.019=2;
     IF H&YR.020=. THEN H&YR.020=.N;
     ELSE H&YR.020=.C;
     DO OVER NOTE6;
        IF NOTE6=. THEN NOTE6=.N;
        ELSE NOTE6=.C;
     END;
     IF H&YR.025=. THEN H&YR.025=.N;
     ELSE H&YR.025=.C;
     IF H&YR.026=. THEN H&YR.026=.N;
     ELSE H&YR.026=.C;
     IF S&YR.009=. THEN S&YR.009=.N;
     ELSE S&YR.009=.C;
     H&YR.027=.C;
  END;
  ELSE IF H&YR.019 = . AND N6MARK=0 AND H&YR.027 = . THEN N6=7;

  DROP N6MARK;


/** Note 7 -- H&YR.020, H&YR.021-H&YR.026: personal doctor visit **/

  ARRAY NOTE7  H&YR.021-H&YR.024;

  N7MARK=0;
  N7NMISS=0;
```

```
  DO OVER NOTE7;
     IF NOTE7 NE . THEN N7NMISS+1;
     IF NOTE7 NOT IN  (., .N) THEN N7MARK+1;
  END;


  IF H&YR.020 IN (.N, .C) THEN N7=1;
  ELSE IF H&YR.020=0 THEN DO;
     N7=2;
     DO OVER NOTE7;
        IF NOTE7=. THEN NOTE7=.N;
        ELSE NOTE7=.C;
     END;
     IF H&YR.025=. THEN H&YR.025=.N;
     ELSE H&YR.025=.C;
     IF H&YR.026=. THEN H&YR.026=.N;
     ELSE H&YR.026=.C;
  END;
  ELSE IF H&YR.020 IN (1,2,3,4,5,6,.) AND N7NMISS>0 AND N7MARK=0 THEN DO;
     H&YR.020=0;
     N7=3;
     DO OVER NOTE7;
        IF NOTE7=. THEN NOTE7=.N;
        ELSE NOTE7=.C;
     END;
     IF H&YR.025=. THEN H&YR.025=.N;
     ELSE H&YR.025=.C;
     IF H&YR.026=. THEN H&YR.026=.N;
     ELSE H&YR.026=.C;
  END;
  ELSE IF H&YR.020 IN (1,2,3,4,5,6,.) AND (N7NMISS=0 OR N7MARK>0) THEN DO;
     DO OVER NOTE7;
        IF NOTE7=.N THEN NOTE7=.;
     END;
     N7=4;
  END;

  DROP N7NMISS N7MARK;


/** Note 8 -- H&YR.025, H&YR.026:  care from another doctor or healthcare provider **/

  IF H&YR.025 IN (.N, .C) THEN N8=1;
  ELSE IF H&YR.025=1 THEN N8=2;
  ELSE IF H&YR.025 IN (2,.) AND H&YR.026 IN (1,2,3,4) THEN DO;
     H&YR.025=1;
     N8=3;
  END;
  ELSE IF H&YR.025=2 AND H&YR.026 IN (.) THEN DO;
     H&YR.026=.N;
     N8=4;
  END;
  ELSE IF H&YR.025=.  AND H&YR.026=.  THEN N8=5;


/** Note 8_01 -- S&YR.009, S&YR.010:  problem getting new personal doctor or nurse **/

  IF S&YR.009 IN (.N,.C) THEN N8_01=1; /* MER 07/31/09 gave each S&YR.009 value its own row for
analysis purposes */
  ELSE IF S&YR.009=1 THEN DO;
     N8_01=2;
     IF S&YR.010=. THEN S&YR.010=.N;
     ELSE S&YR.010=.C;
  END;
  ELSE IF S&YR.009=2 THEN N8_01=3;
  ELSE IF S&YR.009=. THEN N8_01=4;  /* MER 07/31/09 eliminated backward coding for missing
S&YR.009 */


/** Note 9 -- H&YR.028, H&YR.029-H&YR.031:  needed to see a specialist in last 12 months **/

  ARRAY NOTE9  H&YR.029 H&YR.031;
```

```
  N9MARK=0;
  N9NMISS=0;

  DO OVER NOTE9;
     IF NOTE9 NE . THEN N9NMISS+1;
     IF NOTE9 NOT IN  (., .N) THEN N9MARK+1;
  END;

  IF H&YR.030 NE . THEN N9NMISS+1;
  IF H&YR.030 NOT IN (.,0) THEN N9MARK+1;


  IF H&YR.028 IN (1)  THEN DO;
     N9=1;
     IF H&YR.029=.N THEN H&YR.029=.;
  END;
  ELSE IF H&YR.028 in (2,.) AND N9MARK>0 THEN DO;
     N9=2;
     H&YR.028=1;
     IF H&YR.029=.N THEN H&YR.029=.;
  END;
  ELSE IF H&YR.028 in (2) THEN DO;
     N9=3;
     DO OVER NOTE9;
        IF NOTE9=. THEN NOTE9=.N;
        ELSE NOTE9=.C;
     END;
     IF H&YR.030=. THEN H&YR.030=.N;
     ELSE H&YR.030=.C;
  END;
  ELSE IF H&YR.028=.  AND N9NMISS>0 AND N9MARK=0 THEN DO;
     N9=4;
     H&YR.028=2;
     DO OVER NOTE9;
        IF NOTE9=. THEN NOTE9=.N;
        ELSE NOTE9=.C;
     END;
     IF H&YR.030=. THEN H&YR.030=.N;
     ELSE H&YR.030=.C;
  END;
  ELSE IF H&YR.028=.  AND N9NMISS=0 THEN N9=5;

  DROP N9NMISS N9MARK;


/** Note 10 -- H&YR.030, H&YR.031: saw a specialist in last 12 months **/

  IF H&YR.030 IN (.N,.C) AND H&YR.031 IN (.N,.C) THEN N10=1;
  ELSE IF H&YR.030 IN (1,2,3,4,5) AND H&YR.031 IN (0,1,2,3,4,5,6,7,8,9,10,.) THEN N10=2;
  ELSE IF H&YR.030 IN (1,2,3,4,5,.) AND H&YR.031 = .N THEN DO;
     N10=3;
     H&YR.030=0;
     H&YR.031=.C;
  END;
  ELSE IF H&YR.030 = 0 THEN DO;
     N10=4;
     IF H&YR.031 = . THEN H&YR.031 = .N;
     ELSE H&YR.031 = .C;
  END;
  ELSE IF H&YR.030 = . AND H&YR.031 IN (0,1,2,3,4,5,6,7,8,9,10,.) THEN N10=5;


/** Note 10_B1 -- S&YR.B02, S&YR.B03-S&YR.B04: overall mental health **/

  ARRAY NOTE10B1  S&YR.B03-S&YR.B04;

  N10B1MARK=0;
  N10B1NMISS=0;

  DO OVER NOTE10B1;
     IF NOTE10B1 NE . THEN N10B1NMISS+1;
     IF NOTE10B1 NOT IN  (., .N) THEN N10B1MARK+1;
  END;
```

```
  IF S&YR.B02 = 1 THEN DO;
     N10_B1=1;
     DO OVER NOTE10B1;
        IF NOTE10B1=.N THEN NOTE10B1=.;
     END;
  END;
  ELSE IF S&YR.B02 IN (2,.) AND (N10B1MARK>0) THEN DO;
     N10_B1=2;
     S&YR.B02=1;
     DO OVER NOTE10B1;
        IF NOTE10B1=.N THEN NOTE10B1=.;
     END;
  END;
  ELSE IF S&YR.B02=2  AND (N10B1NMISS=0 OR (N10B1NMISS > 0 AND N10B1MARK = 0)) THEN DO;
     N10_B1=3;
     DO OVER NOTE10B1;
        IF NOTE10B1 = . THEN NOTE10B1=.N;
        ELSE NOTE10B1 = .C;
     END;
  END;
  ELSE IF S&YR.B02 IN (.) AND (N10B1NMISS > 0 AND N10B1MARK = 0) THEN DO;
     N10_B1=4;
     S&YR.B02=2;
     DO OVER NOTE10B1;
        IF NOTE10B1 = . THEN NOTE10B1=.N;
        ELSE NOTE10B1 = .C;
     END;
  END;
  ELSE IF S&YR.B02 IN (.) AND N10B1NMISS=0 THEN N10_B1=5;

  DROP N10B1NMISS N10B1MARK;


/** Note 11 -- H&YR.032, H&YR.033:  tried to get care, tests, or treatment from health plan**/

  IF H&YR.032=1 AND H&YR.033 IN (1,2,3,4,.) THEN N11=1;
  ELSE IF H&YR.032 IN (1,.) AND H&YR.033=.N THEN DO;
     H&YR.032=2;
     H&YR.033=.C;
     N11=2;
  END;
  ELSE IF H&YR.032 IN (2,.) AND H&YR.033 IN (1,2,3,4) THEN DO;
     H&YR.032=1;
     N11=3;
  END;
  ELSE IF H&YR.032=2 AND H&YR.033 IN (.,.N) THEN DO;
     IF H&YR.033=. THEN H&YR.033=.N;
     ELSE H&YR.033=.C;
     N11=4;
  END;
  ELSE IF H&YR.032=.  AND H&YR.033=.  THEN N11=5;


/** Note 12 -- H&YR.034, H&YR.035:  look for info in written materials or on internet**/
  IF H&YR.034=1 AND H&YR.035 IN (1,2,3,4,.) THEN N12=1;
  ELSE IF H&YR.034 IN (1,.) AND H&YR.035=.N THEN DO;
     N12=2;
     H&YR.034=2;
     H&YR.035=.C;
  END;
  ELSE IF H&YR.034 IN (2,.) AND H&YR.035 IN (1,2,3,4) THEN DO;
     N12=3;
     H&YR.034=1;
  END;
  ELSE IF H&YR.034=2 AND H&YR.035 IN (.N,.) THEN DO;
     N12=4;
     IF H&YR.035=. THEN H&YR.035=.N;
     ELSE H&YR.035=.C;
  END;
  ELSE IF H&YR.034=. AND H&YR.035=. THEN N12=5;


/** Note 13 -- H&YR.036, H&YR.037:  tried to get cost of service/equipment from health plan**/
```

```
  IF H&YR.036=1 AND H&YR.037 IN (1,2,3,4,.) THEN N13=1;
  ELSE IF H&YR.036 IN (1,.) AND H&YR.037=.N THEN DO;
     H&YR.036=2;
     H&YR.037=.C;
     N13=2;
  END;
  ELSE IF H&YR.036 IN (2,.) AND H&YR.037 IN (1,2,3,4) THEN DO;
     H&YR.036=1;
     N13=3;
  END;
  ELSE IF H&YR.036=2 AND H&YR.037 IN (.,.N) THEN DO;
     IF H&YR.037=. THEN H&YR.037=.N;
     ELSE H&YR.037=.C;
     N13=4;
  END;
  ELSE IF H&YR.036=.  AND H&YR.037=.  THEN N13=5;


/** Note 14 -- H&YR.038, H&YR.039:  tried to get cost of prescription meds from health plan**/

  IF H&YR.038=1 AND H&YR.039 IN (1,2,3,4,.) THEN N14=1;
  ELSE IF H&YR.038 IN (1,.) AND H&YR.039=.N THEN DO;
     H&YR.038=2;
     H&YR.039=.C;
     N14=2;
  END;
  ELSE IF H&YR.038 IN (2,.) AND H&YR.039 IN (1,2,3,4) THEN DO;
     H&YR.038=1;
     N14=3;
  END;
  ELSE IF H&YR.038=2 AND H&YR.039 IN (.,.N) THEN DO;
     IF H&YR.039=. THEN H&YR.039=.N;
     ELSE H&YR.039=.C;
     N14=4;
  END;
  ELSE IF H&YR.038=.  AND H&YR.039=.  THEN N14=5;


/** Note 15 -- H&YR.040, H&YR.041-H&YR.042: tried to use health plan's customer service  **/

  ARRAY NOTE15  H&YR.041-H&YR.042;

  N15MARK=0;
  N15NMISS=0;

  DO OVER NOTE15;
     IF NOTE15 NE . THEN N15NMISS+1;
     IF NOTE15 NOT IN  (., .N) THEN N15MARK+1;
  END;

  IF H&YR.040 = 1 AND (N15MARK>0 OR N15NMISS=0) THEN DO;
     DO OVER NOTE15;
        IF NOTE15=.N THEN NOTE15=.;
     END;
     N15=1;
  END;
  ELSE IF H&YR.040 IN (1,.) AND (N15NMISS > 0 AND N15MARK = 0) THEN DO;
     N15=2;
     H&YR.040=2;
     DO OVER NOTE15;
        IF NOTE15 = . THEN NOTE15=.N;
        ELSE NOTE15 = .C;
     END;
  END;
  ELSE IF H&YR.040 IN (2,.) AND (N15MARK>0) THEN DO;
     N15=3;
     H&YR.040=1;
     DO OVER NOTE15;
        IF NOTE15=.N THEN NOTE15=.;
     END;
  END;
  ELSE IF H&YR.040=2  AND (N15NMISS=0 OR (N15NMISS > 0 AND N15MARK = 0)) THEN DO;
     N15=4;
     DO OVER NOTE15;
```

```
        IF NOTE15 = . THEN NOTE15=.N;
        ELSE NOTE15 = .C;
     END;
  END;
  ELSE IF H&YR.040 IN (.) AND N15NMISS=0 THEN N15=5;

  DROP N15NMISS N15MARK;


/** Note 16 -- H&YR.043, H&YR.044:  received forms to fill out from health plan **/

  IF H&YR.044 = 8 THEN H&YR.044 = .N;
  IF H&YR.043=1 AND H&YR.044 IN (1,2,3,4,.) THEN N16=1;
  ELSE IF H&YR.043 IN (1,.) AND H&YR.044=.N THEN DO;
     H&YR.043=2;
     H&YR.044=.C;
     N16=2;
  END;
  ELSE IF H&YR.043 IN (2,.) AND H&YR.044 IN (1,2,3,4) THEN DO;
     H&YR.043=1;
     N16=3;
  END;
  ELSE IF H&YR.043=2 AND H&YR.044 IN (.,.N) THEN DO;
     IF H&YR.044=. THEN H&YR.044=.N;
     ELSE H&YR.044=.C;
     N16=4;
  END;
  ELSE IF H&YR.043=.  AND H&YR.044=.  THEN N16=5;


/** Note 17 -- H&YR.045, H&YR.046-H&YR.047: claims to health plan **/

  ARRAY NOTE17 H&YR.046-H&YR.047;
  N17MARK=0;
  N17NDK=0;

  DO OVER NOTE17;
     IF NOTE17 NOT IN (.N,.D,.) THEN N17MARK+1; /* At least one is marked */
     IF NOTE17 NOT IN (.,.D) THEN N17NDK+1; /* All are missing or blank or dnk */
  END;

  IF H&YR.045=1 AND (N17MARK>0 OR N17NDK=0) THEN DO;
     N17=1;
     DO OVER NOTE17;
        IF NOTE17=.N THEN NOTE17=.;
     END;
  END;
  ELSE IF H&YR.045 IN (1,.,.D) AND N17MARK=0 AND N17NDK>0 THEN DO;
     N17=2;
     H&YR.045=2;
     DO OVER NOTE17;
        IF NOTE17=. THEN NOTE17=.N;
        ELSE NOTE17=.C;
     END;
  END;
  ELSE IF H&YR.045 IN (2,.,.D) AND N17MARK>0
       THEN DO;
     H&YR.045=1;
     N17=3;
     DO OVER NOTE17;
        IF NOTE17=.N THEN NOTE17=.;
     END;
  END;
  ELSE IF H&YR.045 IN (2) AND N17MARK=0 THEN DO;
     N17=4;
     DO OVER NOTE17;
        IF NOTE17=. THEN NOTE17=.N;
        ELSE NOTE17=.C;
     END;
  END;
  ELSE IF H&YR.045 IN (.D) AND N17NDK=0 THEN DO;
     N17=5;
     DO OVER NOTE17;
        IF NOTE17=. THEN NOTE17=.N;
```

```
        ELSE NOTE17=.C;
     END;
  END;
  ELSE IF H&YR.045 IN (.) AND N17NDK=0 THEN N17=6;

  DROP N17MARK N17NDK;


/** Note 18 -- smoking:  H&YR.053, H&YR.054-H&YR.056, H&YR.057A-H&YR.057D  **/

  ARRAY NOTE18a H&YR.054 H&YR.055 H&YR.056;
  ARRAY NOTE18b H&YR.057A--H&YR.057D;

  N18MARK = 0;

  DO OVER NOTE18b;
     IF NOTE18b NOT IN (2,.) THEN N18MARK+1;
  END;

  IF H&YR.053 IN (3,4,.) THEN N18=1;
  ELSE IF H&YR.053 IN (2,.D) AND N18MARK = 0 THEN DO;
     N18=2;
     DO OVER NOTE18a;
        IF NOTE18a=. THEN NOTE18a=.N;
        ELSE NOTE18a=.C;
     END;
     DO OVER NOTE18b;
        IF NOTE18b IN (2,.) THEN NOTE18b=.N;
        ELSE NOTE18b=.C;
     END;
  END;
  ELSE IF H&YR.053 = 2 AND N18MARK > 0 THEN DO;
     N18=3;
     H&YR.053=.;
  END;
  ELSE IF H&YR.053 = .D AND N18MARK > 0 THEN DO;
     N18=4;
     DO OVER NOTE18a;
        IF NOTE18a=. THEN NOTE18a=.N;
        ELSE NOTE18a=.C;
     END;
     DO OVER NOTE18b;
        IF NOTE18b IN (2,.) THEN NOTE18b=.N;
        ELSE NOTE18b=.C;
     END;
  END;

  DROP N18MARK;


/** Note 19a - gender H&YR.058, SEX, H&YR.059B--H&YR.064,
              XSEXA */

/* 1/21/98 use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed FMALE and MALE based on gender specific questions */


  ARRAY fmaleval H&YR.059B H&YR.060 H&YR.061 H&YR.062 H&YR.063 H&YR.064
                 ;

  cntfmale=0;
  DO OVER fmaleval;           /* mammogram/pap smear/PREGNANT*/
     IF fmaleval>0 THEN cntfmale=cntfmale+1;
  END;

  IF cntfmale>0 THEN FMALE=1;
  ELSE FMALE = 0;


  IF H&YR.058=. THEN DO;
     IF (SEX='F' AND FMALE) THEN DO;
        N19a=1;
        XSEXA=2;
```

```
      END;
      ELSE IF (SEX='F' AND FMALE=0) THEN DO;
         N19a=2;
         XSEXA=2;
      END;
      ELSE IF (SEX='M' AND FMALE) THEN DO;
         N19a=3;
         XSEXA=1;
      END;
      ELSE IF (SEX='M' AND FMALE=0) THEN DO;
         N19a=4;
         XSEXA=1;
      END;
      ELSE IF ((SEX IN ('Z',' ') AND FMALE)) THEN DO;
         N19a=5;
         XSEXA=2;
      END;
      ELSE IF (SEX='Z' AND FMALE=0) THEN DO;
         N19a=6;
         XSEXA=.;
      END;
      ELSE IF (SEX=' ' AND FMALE=0) THEN DO;
         N19a=7;
         XSEXA=.;
      END;
   END;
   ELSE IF (H&YR.058=1) THEN DO;
      IF FMALE=0 THEN DO;
         N19a=8;
         XSEXA=1;
      END;
      ELSE IF FMALE THEN DO;
         IF SEX='F' THEN DO;
            N19a=9;
            XSEXA=2;
         END;
         ELSE DO;
            N19a=10;
            XSEXA=1;
         END;
      END;
   END;
   ELSE IF (H&YR.058=2) THEN DO;
      IF FMALE THEN DO;
        N19a=11;
        XSEXA=2;
      END;
      ELSE IF FMALE=0 THEN DO;
         IF SEX='M' THEN DO;
           N19a=12;
           XSEXA=1;
         END;
         ELSE DO;
            N19a=13;
            XSEXA=2;
         END;
      END;
   END;


/* Note 19b - gender vs mammogram/paps/pregnancy */

    ARRAY NOTE19b H&YR.059B H&YR.060 H&YR.061 H&YR.062 H&YR.063 H&YR.064
                  ;
    IF XSEXA=1 THEN DO;   /* male */
      IF FMALE=0 THEN DO;
         N19b=1;
         DO OVER NOTE19b;
            NOTE19b=.N;
         END;
      END;   /* valid skip */
      ELSE IF FMALE=1 THEN DO;
         N19b=2;
         DO OVER NOTE19b;
```

```
          IF NOTE19b=. THEN NOTE19b = .N;
          ELSE NOTE19b=.C;
       END;
    END;   /* inconsistent response */
  END;
  ELSE IF XSEXA=2 THEN  N19b=3; /* female */
  ELSE IF XSEXA=. THEN DO;      /*  missing sex  */
     N19b=4;
     DO OVER NOTE19b;
        NOTE19b=.;
     END;
  END;


  DROP FMALE CNTFMALE;



/* Note 20- breast exam for female 40 or over  */

  IF XSEXA=1 THEN DO;  /* male */
     IF  (H&YR.060=.C OR H&YR.060=.N) AND (H&YR.061=.C OR H&YR.061=.N)
     THEN N20 = 1;
  END;
  ELSE IF XSEXA=2 THEN DO;
     IF H&YR.060=2 THEN N20=2;         /* female 40 or over */
     ELSE IF H&YR.060=1 THEN DO;   /* female < 40 */
        IF H&YR.061 NE . THEN H&YR.061=.C;
        ELSE H&YR.061=.N;
        N20=3;
     END;
     ELSE IF H&YR.060=. THEN DO;
        IF H&YR.061 NE . THEN DO;
           H&YR.060=2;
           N20=4;
        END;
        ELSE IF H&YR.061=.  THEN DO;
           IF AGE<40 THEN DO;
              H&YR.060 = 1;
              H&YR.061=.N;
              N20=5;
           END;
           ELSE IF AGE >= 40 THEN DO;
              H&YR.060=2;
              N20=6;
           END;
           ELSE IF AGE=. THEN N20=7;
        END;
     END;
  END;
  ELSE IF XSEXA=. THEN N20=8;



/* Note 21 - gender vs Pregnancy */


  IF XSEXA=1 THEN N21=1;          /* male     */
  ELSE IF XSEXA=2 THEN DO;        /* female   */
     IF H&YR.062=1 THEN DO;         /* pregnant */
        IF H&YR.063=1 THEN DO;
           N21=2;
           IF H&YR.064=. THEN H&YR.064 = .N;
           ELSE H&YR.064=.C;
        END;
        ELSE IF H&YR.063=2 AND H&YR.064 IN (2) THEN DO;
           N21=3;
           H&YR.064=.;
        END;
        ELSE IF H&YR.063=2 AND H&YR.064 IN (4,3,1,.) THEN DO;
           N21=4;
        END;
        ELSE IF H&YR.063 IN (3,.) THEN N21=5;
     END;
```

```
      ELSE IF H&YR.062=2 THEN DO;
         IF H&YR.063=. THEN H&YR.063 = .N;
         ELSE H&YR.063=.C;
         N21=6;
      END;
      ELSE IF H&YR.062=3 THEN DO;
         N21=7;
         IF H&YR.063=. THEN H&YR.063 = .N;
         ELSE H&YR.063=.C;
         IF H&YR.064=. THEN H&YR.064=.N;
         ELSE H&YR.064=.C;
      END;
      ELSE IF H&YR.062 IN (.) THEN DO;
         IF H&YR.063=1 THEN DO;
            N21=8;
            H&YR.062=1;
            IF H&YR.064=. THEN H&YR.064 = .N;
            ELSE H&YR.064=.C;
         END;
         ELSE IF H&YR.063=2 AND H&YR.064 IN (2) THEN DO;
            N21=9;
            H&YR.062=1;
            H&YR.064=.;
         END;
         ELSE IF H&YR.063=2 AND H&YR.064 IN (4,3,1,.) THEN DO;
            H&YR.062=1;
            N21=10;
         END;
         ELSE IF H&YR.063=3 THEN DO;
            H&YR.062=1;
            N21=11;
         END;
         ELSE IF H&YR.063=. THEN DO;
            N21=12;
         END;
      END;
   END;
   ELSE IF XSEXA=. AND H&YR.062 IN (.) THEN N21=13;



   DROP AGE SEX;



/** Note 22 -- H&YR.067, H&YR.068:  seen doctor 3 or more times for same condition **/

   IF H&YR.067=1 THEN N22=1;
   ELSE IF H&YR.067 IN (2,.) AND H&YR.068 IN (1,2) THEN DO;
      H&YR.067=1;
      N22=2;
   END;
   ELSE IF H&YR.067=2 AND H&YR.068 IN (.) THEN DO;
      H&YR.068=.N;
      N22=3;
   END;
   ELSE IF H&YR.067=.  AND H&YR.068=.  THEN N22=4;



/** Note 23 -- H&YR.069, H&YR.070:  need or take medicine prescribed by a doctor **/

   IF H&YR.069=1 THEN N23=1;
   ELSE IF H&YR.069 IN (2,.) AND H&YR.070 IN (1,2) THEN DO;
      H&YR.069=1;
      N23=2;
   END;
   ELSE IF H&YR.069=2 AND H&YR.070 IN (.) THEN DO;
      H&YR.070=.N;
      N23=3;
   END;
   ELSE IF H&YR.069=.  AND H&YR.070=.  THEN N23=4;
```

```
/** Note 23_HT -- XSEXA, H&YR.071F, H&YR.071I:  height restrictions                    **/
*AMK 9/25/13
 Set height and weight restriction to conform with NHIS 2006 guidelines
 Men: height between 63-76 inches, weight between 126-299 pounds
 Women: height between 59-70 inches, weight between 100-274 pounds;

 *INCHES;
  IF H&YR.071F NE . AND H&YR.071I = . THEN H&YR.071I=0;
  IF H&YR.071F =  . AND H&YR.071I >11 THEN DO;
     H&YR.071F=FLOOR(H&YR.071I/12);
     H&YR.071I=H&YR.071I-(H&YR.071F*12);
  END;
  IF H&YR.071F NE . THEN INCHES=(H&YR.071F*12+H&YR.071I);
  ELSE INCHES=H&YR.071I;

  IF (XSEXA = 1 AND (63<=INCHES<=76 OR INCHES = .)) OR
     (XSEXA = 2 AND (59<=INCHES<=70 OR INCHES = .)) THEN N23_HT=1;
  ELSE IF XSEXA IN (1,2) THEN DO;
     N23_HT=2;
     H&YR.071F=.O;
     H&YR.071I=.O;
  END;
  ELSE IF XSEXA = . THEN DO; *MISSING GENDER;
     IF 59<=INCHES<=76 OR INCHES = . THEN N23_HT=3;
     ELSE DO;
       N23_HT=4;
       H&YR.071F=.O;
       H&YR.071I=.O;
     END;
  END;

  DROP INCHES;

/** Note 23_WT -- H&YR.072:  weight restrictions                      **/
*AMK 9/25/13
 Set height and weight restriction to conform with NHIS 2006 guidelines
 Men: height between 63-76 inches, weight between 126-299 pounds
 Women: height between 59-70 inches, weight between 100-274 pounds;

  IF (XSEXA = 1 AND (126<=H&YR.072<=299 OR H&YR.072 = .)) OR
     (XSEXA = 2 AND (100<=H&YR.072<=274 OR H&YR.072 = .)) THEN N23_WT=1;
  ELSE IF XSEXA IN (1,2) THEN DO;
     N23_WT=2;
     H&YR.072 =.O;
  END;
  ELSE IF XSEXA = . THEN DO; *MISSING GENDER;
     IF 100<=H&YR.072<=299 OR H&YR.072 = . THEN N23_WT=3;
     ELSE DO;
       N23_WT=4;
       H&YR.072=.O;
     END;
  END;





/** Note 24 -- H&YR.073, H&YR.073A-H&YR.073E: Hispanic or Latino origin or descent **/

  /* JMA
  ****Multiple responses were given to this question so H&YR.073 is being created
  ****from the multiple responses.;
  */


  IF H&YR.073B=1 THEN DO;
     N24=1;
     H&YR.073=2;
  END;
  ELSE IF H&YR.073E=1 THEN DO;
     N24=2;
     H&YR.073=5;
  END;
```

```
  ELSE IF H&YR.073C=1 THEN DO;
     N24=3;
     H&YR.073=3;
  END;
  ELSE IF H&YR.073D=1 THEN DO;
     N24=4;
     H&YR.073=4;
  END;
  ELSE IF H&YR.073A=1 THEN DO;
     N24=5;
     H&YR.073=1;
  END;
  ELSE IF H&YR.073A IN (2,.) AND H&YR.073B IN (2,.) AND H&YR.073C IN (2,.) AND
          H&YR.073D IN (2,.) AND H&YR.073E IN (2,.) THEN DO;
     N24=6;
     H&YR.073=.;

  END;


/** Note 25 -- currently covered by Medicare:  H&YR.074, H&YR.075-H&YR.079 **/

  ARRAY NOTE25 H&YR.075-H&YR.079;

  N25MARK = 0;

  DO OVER NOTE25;
     IF NOTE25 NOT IN (2,.D,.) THEN N25MARK+1;
  END;

  IF H&YR.074 = 1 THEN N25=1;
  ELSE IF H&YR.074 IN (2,.D) AND N25MARK = 0 THEN DO;
     N25=2;
     DO OVER NOTE25;
        IF NOTE25=. THEN NOTE25=.N;
        ELSE NOTE25=.C;
     END;
  END;
  ELSE IF H&YR.074 IN (2,.D,.) AND N25MARK > 0 THEN DO;
     N25=3;
     H&YR.074=1;
  END;
  ELSE IF H&YR.074 = . AND N25MARK = 0 THEN N25=4;

  DROP N25MARK;


NOSURVEY:

/* missing values */

  ARRAY MISS MISS_9 MISS_7 MISS_6 MISS_5 MISS_4 MISS_1 ;
  MISS_TOT=0;
  DO OVER MISS;
     MISS = 0;
  END;
  ARRAY MISSARAY &VARLIST2.;

  DO OVER MISSARAY;
     IF (MISSARAY EQ -9 ) THEN MISS_9 = MISS_9 + 1;
     ELSE IF (MISSARAY EQ -7) THEN MISS_7 = MISS_7 + 1;
     ELSE IF (MISSARAY EQ -6) THEN MISS_6 = MISS_6 + 1;
     ELSE IF (MISSARAY EQ -5) THEN MISS_5 = MISS_5 + 1;
     ELSE IF (MISSARAY EQ -4) THEN MISS_4 = MISS_4 + 1;
     ELSE IF (MISSARAY EQ -1) THEN MISS_1 = MISS_1 + 1;
  END;
  DO OVER MISS;
     MISS_TOT=MISS_TOT + MISS;
  END;

*****************************************;

 OUTPUT;
```

```
RUN;


proc contents data=out.&outdata.;
run;
%MEND;
%CSCHM;
```

F.F.2.B Q1FY2015\PROGRAMS\CODINGSCHEME\CSCHM15Q.FMT - Include file for Coding Scheme for Quarter 1 FY2015

```
/*  Formats for original answers to survey questions,
     after variables have been recoded */

        FORMAT H&YR.001   O_H&YR.001 YN.

/*             H&YR.002 has no format.*/

               H&YR.003   O_H&YR.003 HPLAN1_.
               H&YR.004   O_H&YR.004 HPTIME.



               H&YR.005   O_H&YR.005 PLACE.

               H&YR.006   O_H&YR.006
               H&YR.009   O_H&YR.009
               H&YR.019   O_H&YR.019
                 YN.

               H&YR.007   O_H&YR.007 OFTEN2_.
               H&YR.008   O_H&YR.008 TIME1_.

               H&YR.010   O_H&YR.010 OFTEN3_.
               H&YR.011   O_H&YR.011 TIME2_.


            /*   S&YR.BC01    O_S&YR.BC01
               S&YR.BC02    O_S&YR.BC02
               S&YR.BC03    O_S&YR.BC03
               S&YR.BC04    O_S&YR.BC04
               S&YR.BC05    O_S&YR.BC05
               S&YR.BC06    O_S&YR.BC06
               S&YR.BC07    O_S&YR.BC07
               S&YR.BC08    O_S&YR.BC08 are marked*/


               S&YR.BC09    O_S&YR.BC09
               S&YR.BC10    O_S&YR.BC10  YN.




               H&YR.012   O_H&YR.012 OFTEN4_.
               H&YR.013   O_H&YR.013 OFTEN4_.
               H&YR.014   O_H&YR.014 OFTEN8_.
               H&YR.015   O_H&YR.015 YN.
               H&YR.016   O_H&YR.016 YNDEF.
               H&YR.017   O_H&YR.017 YNDEF.
               H&YR.018   O_H&YR.018 RATE3_.

/*             H&YR.019 has no format.*/

               H&YR.020   O_H&YR.020 OFTEN10_.

               H&YR.021-H&YR.024   O_H&YR.021--O_H&YR.024 OFTEN5_.

               H&YR.025   O_H&YR.025 YN.
               H&YR.026   O_H&YR.026 OFTEN8_.
               H&YR.027   O_H&YR.027 RATE6_.

               S&YR.009   O_S&YR.009 YN.
               S&YR.010   O_S&YR.010 PROB1_.

               H&YR.028   O_H&YR.028 YN.
               H&YR.029   O_H&YR.029 OFTEN9_.
               H&YR.030   O_H&YR.030 SPCLST.
               H&YR.031   O_H&YR.031 RATE2_.

               S&YR.B01   O_S&YR.B01 MNTLHLTH.
               S&YR.B02   O_S&YR.B02 YN.
```

```
S&YR.B03   O_S&YR.B03 PROB1_.
S&YR.B04   O_S&YR.B04 RATE5_.


H&YR.032   O_H&YR.032 YN.
H&YR.033   O_H&YR.033 OFTEN11_.
H&YR.034   O_H&YR.034 YN.
H&YR.035   O_H&YR.035 OFTEN12_.
H&YR.036   O_H&YR.036 YN.
H&YR.037   O_H&YR.037 OFTEN13_.
H&YR.038   O_H&YR.038 YN.
H&YR.039   O_H&YR.039 OFTEN14_.
H&YR.040   O_H&YR.040 YN.
H&YR.041   O_H&YR.041 OFTEN15_.
H&YR.042   O_H&YR.042 OFTEN15_.
H&YR.043   O_H&YR.043 YN.
H&YR.044   O_H&YR.044 OFTEN16_.
H&YR.045   O_H&YR.045 YNDNK.
H&YR.046   O_H&YR.046 OFTEN6_.
H&YR.047   O_H&YR.047 OFTEN6_.
H&YR.048   O_H&YR.048 RATE4_.


H&YR.049   O_H&YR.049 TIME5_.
H&YR.050   O_H&YR.050 YNBP_.
H&YR.051   O_H&YR.051 TIME7_.
H&YR.052   O_H&YR.052 YNDNK.
H&YR.053   O_H&YR.053 TIME8_.
H&YR.054   O_H&YR.054 OFTEN8_.
H&YR.055   O_H&YR.055 OFTEN8_.
H&YR.056   O_H&YR.056 OFTEN8_.


/*         H&YR.057 has no format.*/

           H&YR.058   O_H&YR.058 SEX.

           H&YR.059B  O_H&YR.059B TIME16_.

           H&YR.060   O_H&YR.060 H&YR.066   O_H&YR.066 YN.

           H&YR.061   O_H&YR.061 TIME12_.
           H&YR.062   O_H&YR.062 YNPREG.
           H&YR.063   O_H&YR.063 PREG1_.
           H&YR.064   O_H&YR.064 PREG2_.
           H&YR.065   O_H&YR.065 HEALTH.

           H&YR.067   O_H&YR.067 YN.
           H&YR.068   O_H&YR.068 YN.
           H&YR.069   O_H&YR.069 YN.

           H&YR.070   O_H&YR.070 YN.

           H&YR.071F O_H&YR.071F
           H&YR.071I O_H&YR.071I
           H&YR.072  O_H&YR.072
             TIME14_.

           SREDA    O_SREDA  EDUC.

           H&YR.073            HISP.

           SRAGE    SRAGE  AGEGRP.

           H&YR.074   O_H&YR.074 YNDNK.
           H&YR.075   O_H&YR.075 MEDA.
           H&YR.076   O_H&YR.076 MEDB.
           H&YR.077   O_H&YR.077 YNDNK.
           H&YR.078   O_H&YR.078 MEDSUPP.
           H&YR.079   O_H&YR.079 YNDNK.

           S&YR.011   O_S&YR.011 AGREE2_.
           S&YR.014   O_S&YR.014 SATISFY.
```

```
      MISS_1   MISS_4-MISS_7 MISS_9 MISS_TOT 4.
     ;


LABEL O_H&YR.001='Are you the person listed on envelope'
      H&YR.001  ='Are you the person listed on envelope'
      O_H&YR.002A='Health plan(s) covered: TRICARE Prime'
      H&YR.002A ='Health plan(s) covered: TRICARE Prime'
      O_H&YR.002C='Health plan(s) covered: TRICARE Ext/Stnd'
      H&YR.002C ='Health plan(s) covered: TRICARE Ext/Stnd'
      O_H&YR.002N='Health plan(s) covered: TRICARE Plus'
      H&YR.002N ='Health plan(s) covered: TRICARE Plus'
      O_H&YR.002O='Health plan(s) covered: TRICARE For Life'
      H&YR.002O ='Health plan(s) covered: TRICARE For Life'
      O_H&YR.002P='Health plan(s) covered: TRICARE Supplmntl Ins'
      H&YR.002P ='Health plan(s) covered: TRICARE Supplmntl Ins'
      O_H&YR.002Q='Health plan(s) covered: TRICARE Reserve Select'
      H&YR.002Q ='Health plan(s) covered: TRICARE Reserve Select'
      O_H&YR.002S='Health plan(s) covered: TRICARE Retired Reserve'
      H&YR.002S ='Health plan(s) covered: TRICARE Retired Reserve'
      O_H&YR.002T='Health plan(s) covered: TRICARE Young Adult Prime'
      H&YR.002T ='Health plan(s) covered: TRICARE Young Adult Prime'
      O_H&YR.002V='Health plan(s) covered: TRICARE Young Adult Ex or Standard'
      H&YR.002V ='Health plan(s) covered: TRICARE Young Adult Ex or Standard'
      O_H&YR.002U='Health plan(s) covered: CHCBP'
      H&YR.002U ='Health plan(s) covered: CHCBP'
      O_H&YR.002F='Health plan(s) covered: Medicare'
      H&YR.002F ='Health plan(s) covered: Medicare'
      O_H&YR.002G='Health plan(s) covered: FEHBP'
      H&YR.002G ='Health plan(s) covered: FEHBP'
      O_H&YR.002H='Health plan(s) covered: Medicaid'
      H&YR.002H ='Health plan(s) covered: Medicaid'
      O_H&YR.002I='Health plan(s) covered: civilian HMO'
      H&YR.002I ='Health plan(s) covered: civilian HMO'
      O_H&YR.002J='Health plan(s) covered: other civilian'
      H&YR.002J ='Health plan(s) covered: other civilian'
      O_H&YR.002K='Health plan(s) covered: USFHP'
      H&YR.002K ='Health plan(s) covered: USFHP'
      O_H&YR.002M='Health plan(s) covered: veterans'
      H&YR.002M ='Health plan(s) covered: veterans'
      O_H&YR.002R='Health plan(s) covered: gov hlth ins-other cntry'
      H&YR.002R ='Health plan(s) covered: gov hlth ins-other cntry'
      O_H&YR.002L='Health plan(s) covered: not sure'
      H&YR.002L ='Health plan(s) covered: not sure'
      O_H&YR.003='Which health plan did you use most'
      H&YR.003  ='Which health plan did you use most'
      O_H&YR.004='Yrs in a row with health plan'
      H&YR.004  ='Yrs in a row with health plan'
      O_H&YR.005='In lst yr:fclty use most for health care'
      H&YR.005  ='In lst yr:fclty use most for health care'
      O_H&YR.006='In lst yr:ill/injry/cond care right away'
      H&YR.006  ='In lst yr:ill/injry/cond care right away'
      O_H&YR.007='In lst yr:get urgnt care as soon as wntd'
      H&YR.007  ='In lst yr:get urgnt care as soon as wntd'
      O_H&YR.008='In lst yr:wait btwn try get care,see prv'
      H&YR.008  ='In lst yr:wait btwn try get care,see prv'
      O_H&YR.009='In lst yr:make appts non-urgnt hlth care'
      H&YR.009  ='In lst yr:make appts non-urgnt hlth care'
      O_H&YR.010='In lst yr:non-urg hlth cre appt whn wntd'
      H&YR.010  ='In lst yr:non-urg hlth cre appt whn wntd'
      O_H&YR.011='In lst yr:days btwn appt & see prvder'
      H&YR.011  ='In lst yr:days btwn appt & see prvder'
      O_H&YR.012='In lst yr:go to emrgncy rm for own care'
      H&YR.012  ='In lst yr:go to emrgncy rm for own care'
      O_H&YR.013='In lst yr:go to Dr office/clinic for care'
      H&YR.013  ='In lst yr:go to Dr office/clinic for care'
      O_H&YR.014  ='Lst yr: how often talk to doctor about illness prvntn'
      H&YR.014='Lst yr: how often talk to doctor about illness prvntn'
      O_H&YR.015  ='Lst yr: did doctor tell you more than 1 choice for trtmnt'
      H&YR.015='Lst yr: did doctor tell you more than 1 choice for trtmnt'
      O_H&YR.016  ='Lst yr: did talk to doctor about pros/cons of trtmnt'
      H&YR.016='Lst yr: did talk to doctor about pros/cons of trtmnt'
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O_H&YR.017  ='Lst yr: did doctor ask which trtmnt option best for you'
H&YR.017='Lst yr: did doctor ask which trtmnt option best for you'
O_H&YR.018='Rating of all health care in 1st yr'
H&YR.018  ='Rating of all health care in 1st yr'
O_H&YR.019='Have one person think of as personal Dr'
H&YR.019  ='Have one person think of as personal Dr'
O_H&YR.020  ='Lst yr: how often visit prsnl doctor for care for yourself'
H&YR.020='Lst yr: how often visit prsnl doctor for care for yourself'
O_H&YR.021='Lst yr: how oftn Drs listen to you'
H&YR.021  ='Lst yr: how oftn Drs listen to you'
O_H&YR.022='Lst yr: how oftn Drs explain things'
H&YR.022  ='Lst yr: how oftn Drs explain things'
O_H&YR.023='Lst yr: how oftn Drs show respect'
H&YR.023  ='Lst yr: how oftn Drs show respect'
O_H&YR.024='Lst yr: how oftn Drs spend enough time'
H&YR.024  ='Lst yr: how oftn Drs spend enough time'
O_H&YR.025  ='Lst yr: did get care from doctor other than prsnl doctor'
H&YR.025='Lst yr: did get care from doctor other than prsnl doctor'
O_H&YR.026  ='Lst yr: how often prsnl doctor seemed infrmd of care from other
doctors'
H&YR.026='Lst yr: how often prsnl doctor seemed infrmd of care from other
doctors'
O_H&YR.027='Rating of your personal Dr'
H&YR.027  ='Rating of your personal Dr'
O_H&YR.028  ='Lst yr: did make any appointments to see spclst'
H&YR.028='Lst yr: did make any appointments to see spclst'
O_H&YR.029  ='Lst yr: how often easy to get appointments with spclsts'
H&YR.029='Lst yr: how often easy to get appointments with spclsts'
O_H&YR.030  ='Lst yr: how many spclsts seen'
H&YR.030='Lst yr: how many spclsts seen'
O_H&YR.031='Rating of specialist seen in 1st yr'
H&YR.031  ='Rating of specialist seen in 1st yr'
O_H&YR.032  ='Lst yr: did try to get care, test, or trtmnt through health plan'
H&YR.032='Lst yr: did try to get care, test, or trtmnt through health plan'
O_H&YR.033  ='Lst yr: how often easy to get care, test, or trtmnt'
H&YR.033='Lst yr: how often easy to get care, test, or trtmnt'
O_H&YR.034  ='Lst yr: did look for info from written material/Internet'
H&YR.034='Lst yr: did look for info from written material/Internet'
O_H&YR.035  ='Lst yr: how often written material/Internet provide needed info'
H&YR.035='Lst yr: how often written material/Internet provide needed info'
O_H&YR.036  ='Lst yr: did look for info from health plan on cost of
service/equipment'
H&YR.036='Lst yr: did look for info from health plan on cost of
service/equipment'
O_H&YR.037  ='Lst yr: how often able to find out cost of service/equipment'
H&YR.037='Lst yr: how often able to find out cost of service/equipment'
O_H&YR.038  ='Lst yr: did look for info from health plan on cost of prescription
meds'
H&YR.038='Lst yr: did look for info from health plan on cost of prescription
meds'
O_H&YR.039  ='Lst yr: how often able to find out cost of prescription meds'
H&YR.039='Lst yr: how often able to find out cost of prescription meds'
O_H&YR.040  ="Lst yr: did try to get info/help from health plan's cstmr service"
H&YR.040="Lst yr: did try to get info/help from health plan's cstmr service"
O_H&YR.041  ='Lst yr: how often did cstmr service give needed info/help'
H&YR.041='Lst yr: how often did cstmr service give needed info/help'
O_H&YR.042  ='Lst yr: how often did cstmr service treat with courtesy/respect'
H&YR.042='Lst yr: how often did cstmr service treat with courtesy/respect'
O_H&YR.043  ='Lst yr: did health plan give any forms to fill out'
H&YR.043='Lst yr: did health plan give any forms to fill out'
O_H&YR.044  ='Lst yr: how often were forms easy to fill out'
H&YR.044='Lst yr: how often were forms easy to fill out'
O_H&YR.045  ='Lst yr: send in any claims'
H&YR.045='Lst yr: send in any claims'
O_H&YR.046  ='Lst yr: how often did health plan handle claims quickly'
H&YR.046='Lst yr: how often did health plan handle claims quickly'
O_H&YR.047='Lst yr: how oftn handle claims correctly'
H&YR.047  ='Lst yr: how oftn handle claims correctly'
O_H&YR.048  ='Rating of all experience with hlth plan'
H&YR.048='Rating of all experience with hlth plan'
O_H&YR.049='Blood pressure: when 1st reading'
H&YR.049  ='Blood pressure: when 1st reading'
O_H&YR.050='Blood pressure: know if too high or not'
H&YR.050  ='Blood pressure: know if too high or not'
```

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O_H&YR.051='When did you lst have a flu shot'
H&YR.051  ='When did you lst have a flu shot'
O_H&YR.052  ='Smoked at least 100 cigarettes in life'
H&YR.052='Smoked at least 100 cigarettes in life'
O_H&YR.053  ='Smoke or use tobacco everyday, some days or not at all'
H&YR.053='Smoke or use tobacco everyday, some days or not at all'
O_H&YR.054='Lst yr: how often advised to quit smoking or use tobacco'
H&YR.054  ='Lst yr: how often advised to quit smoking or use tobacco'
O_H&YR.055  ='Lst yr: how often recom medic assist quit smoking or using tobacco'
H&YR.055='Lst yr: how often recom medic assist quit smoking or using tobacco'
O_H&YR.056  ='Lst yr: how often discu meth/strag asst quit smoking or using
tobacco'
H&YR.056='Lst yr: how often discu meth/strag asst quit smoking or using tobacco'
O_H&YR.057A ='Do you smoke or use: cigarettes'
H&YR.057A='Do you smoke or use: cigarettes'
O_H&YR.057B ='Do you smoke or use: dip, chewing tobacco, snuff, or snus'
H&YR.057B='Do you smoke or use: dip, chewing tobacco, snuff, or snus'
O_H&YR.057C ='Do you smoke or use: cigars'
H&YR.057C='Do you smoke or use: cigars'
O_H&YR.057D ='Do you smoke or use: pipes, bidis, or kreteks'
H&YR.057D='Do you smoke or use: pipes, bidis, or kreteks'
O_H&YR.058='Are you male or female'
H&YR.058  ='Are you male or female'
O_H&YR.059B='Lst have a Pap smear test'
H&YR.059B ='Lst have a Pap smear test'
O_H&YR.060='Are you under age 40'
H&YR.060  ='Are you under age 40'
O_H&YR.061='Lst time: breasts checked mammography'
H&YR.061  ='Lst time: breasts checked mammography'
O_H&YR.062='Been pregnant in lst yr or pregnant now'
H&YR.062  ='Been pregnant in lst yr or pregnant now'
O_H&YR.063='In what trimester is your pregnancy'
H&YR.063  ='In what trimester is your pregnancy'
O_H&YR.064='Trimester first received prenatal care'
H&YR.064  ='Trimester first received prenatal care'
O_H&YR.065='In gnrl, how would you rate ovrall hlth'
H&YR.065  ='In gnrl, how would you rate ovrall hlth'
O_H&YR.066='Impairment/Hlth prblm limit activities'
H&YR.066  ='Impairment/Hlth prblm limit activities'
O_H&YR.067  ='Lst yr: have seen doctor 3 or more times for same condition'
H&YR.067='Lst yr: have seen doctor 3 or more times for same condition'
O_H&YR.068  ='Has condition lasted for at least 3 months'
H&YR.068='Has condition lasted for at least 3 months'
O_H&YR.069  ='Need to take medicine prescribed by a doctor'
H&YR.069='Need to take medicine prescribed by a doctor'
O_H&YR.070  ='Medicine to treat condition that has lasted for at least 3 months'
H&YR.070='Medicine to treat condition that has lasted for at least 3 months'
O_H&YR.071F='Height without shoes (feet)'
H&YR.071F ='Height without shoes (feet)'
O_H&YR.071I='Height without shoes (inches)'
H&YR.071I ='Height without shoes (inches)'
O_H&YR.072='Weight without shoes'
H&YR.072  ='Weight without shoes'
O_SREDA ='Highest grade completed'
SREDA   ='Highest grade completed'
H&YR.073  ='Are you Spanish/Hispanic/Latino'
O_H&YR.073A='Not Spanish/Hispanic/Latino'
H&YR.073A ='Not Spanish/Hispanic/Latino'
O_H&YR.073B='Mexican, Mexican American, Chicano'
H&YR.073B ='Mexican, Mexican American, Chicano'
O_H&YR.073C='Puerto Rican'
H&YR.073C ='Puerto Rican'
O_H&YR.073D='Cuban'
H&YR.073D ='Cuban'
O_H&YR.073E='Other Spanish, Hispanic, or Latino'
H&YR.073E ='Other Spanish, Hispanic, or Latino'
O_SRRACEA='Race: White'
SRRACEA ='Race: White'
O_SRRACEB='Race: Black or African American'
SRRACEB ='Race: Black or African American'
O_SRRACEC='Race: American Indian or Alaska Native'
SRRACEC ='Race: American Indian or Alaska Native'
O_SRRACED='Race: Asian'
SRRACED ='Race: Asian'
```

```
O_SRRACEE='Race: Native Hawaiian/other Pacific Isl.'
SRRACEE ='Race: Native Hawaiian/other Pacific Isl.'
O_SRAGE ='What is your age now'
SRAGE   ='What is your age now'
O_H&YR.074  ='Currently Covered Medicare'
H&YR.074='Currently Covered Medicare'
O_H&YR.075  ='Currently Covered Medicare Part A'
H&YR.075='Currently Covered Medicare Part A'
O_H&YR.076  ='Currently Covered Medicare Part B'
H&YR.076='Currently Covered Medicare Part B'
O_H&YR.077  ='Enrolled Medicare Advantage'
H&YR.077='Enrolled Medicare Advantage'
O_H&YR.078  ='Currently Covered Medicare Supplemental'
H&YR.078='Currently Covered Medicare Supplemental'
O_H&YR.079  ='Enrolled Medicare Part D'
H&YR.079='Enrolled Medicare Part D'


O_S&YR.009='Same prsnl doctor/nurse before this hlth plan'
S&YR.009  ='Same prsnl doctor/nurse before this hlth plan'
O_S&YR.010='Prblm getting prsnl doctor/nurse you are happy with'
S&YR.010  ='Prblm getting prsnl doctor/nurse you are happy with'

O_S&YR.B01='Self rate of overall mental/emotional health'
S&YR.B01  ='Self rate of overall mental/emotional health'
O_S&YR.B02='Lst yr: needed treatmnt/cnslng-prsnl prob'
S&YR.B02  ='Lst yr: needed treatmnt/cnslng-prsnl prob'
O_S&YR.B03='Lst yr: prblm gttng needed treatmnt/cnslng'
S&YR.B03  ='Lst yr: prblm gttng needed treatmnt/cnslng'
O_S&YR.B04='Lst yr: rate of treatmnt/cnslng received'
S&YR.B04  ='Lst yr: rate of treatmnt/cnslng received'


O_S&YR.BC01A = 'Past 12 mth: did you try making appt at MTF? Yes, by calling'
S&YR.BC01A = 'Past 12 mth: did you try making appt at MTF? Yes, by calling'
O_S&YR.BC01B = 'Past 12 mth: did you try making appt at MTF? Yes, online'
S&YR.BC01B = 'Past 12 mth: did you try making appt at MTF? Yes, online'
O_S&YR.BC01C = 'Past 12 mth: did you try making appt at MTF? Yes, in person'
S&YR.BC01C = 'Past 12 mth: did you try making appt at MTF? Yes, in person'
O_S&YR.BC01D = 'Past 12 mth: did you try making appt at MTF? No'
S&YR.BC01D = 'Past 12 mth: did you try making appt at MTF? No'
O_S&YR.BC02A = 'Why make appt at MTF? New illness, condition, or injury'
S&YR.BC02A = 'Why make appt at MTF? New illness, condition, or injury'
O_S&YR.BC02B = 'Why make appt at MTF? I was referred for specialist care'
S&YR.BC02B = 'Why make appt at MTF? I was referred for specialist care'
O_S&YR.BC02C = 'Why make appt at MTF? Routine wellness'
S&YR.BC02C = 'Why make appt at MTF? Routine wellness'
O_S&YR.BC02D = 'Why make appt at MTF? Follow-up on illness, condition, or injury'
S&YR.BC02D = 'Why make appt at MTF? Follow-up on illness, condition, or injury'
O_S&YR.BC03A = 'True when you tried to make appt at MTF: No appts available'
S&YR.BC03A = 'True when you tried to make appt at MTF: No appts available'
O_S&YR.BC03B = 'True when you tried to make appt at MTF: Appt too far in future'
S&YR.BC03B = 'True when you tried to make appt at MTF: Appt too far in future'
O_S&YR.BC03C = 'True when you tried to make appt at MTF: No convenient times'
S&YR.BC03C = 'True when you tried to make appt at MTF: No convenient times'
O_S&YR.BC03D = 'True when you tried to make appt at MTF: Time not convenient'
S&YR.BC03D = 'True when you tried to make appt at MTF: Time not convenient'
O_S&YR.BC03E = 'True when you tried to make appt at MTF: Always able to make appt'
S&YR.BC03E = 'True when you tried to make appt at MTF: Always able to make appt'
O_S&YR.BC04A = 'Why not try to make appt at MTF? Didn't need health care'
S&YR.BC04A = 'Why not try to make appt at MTF? Didn't need health care'
O_S&YR.BC04B = 'Why not try to make appt at MTF? Wouldn't have been able to get appt when
needed'
S&YR.BC04B = 'Why not try to make appt at MTF? Wouldn't have been able to get appt when needed'
O_S&YR.BC04C = 'Why not try to make appt at MTF? Wouldn't have gotten appt at good time'
S&YR.BC04C = 'Why not try to make appt at MTF? Wouldn't have gotten appt at good time'
O_S&YR.BC04D = 'Why not try to make appt at MTF? Did not have needed referral for specialist'
S&YR.BC04D = 'Why not try to make appt at MTF? Did not have needed referral for specialist'
O_S&YR.BC04E = 'Why not try to make appt at MTF? Inconvenient MTF location'
S&YR.BC04E = 'Why not try to make appt at MTF? Inconvenient MTF location'
O_S&YR.BC04F = 'Why not try to make appt at MTF? Only use civilian providers'
S&YR.BC04F = 'Why not try to make appt at MTF? Only use civilian providers'
O_S&YR.BC04G = 'Why not try to make appt at MTF? Prefer civilian providers'
S&YR.BC04G = 'Why not try to make appt at MTF? Prefer civilian providers'
```

O_S&YR.BC05A = 'Past 12 mth: did you try making appt at civ provider? Yes, by calling'
S&YR.BC05A = 'Past 12 mth: did you try making appt at civ provider? Yes, by calling'
O_S&YR.BC05B = 'Past 12 mth: did you try making appt at civ provider? Yes, online'
S&YR.BC05B = 'Past 12 mth: did you try making appt at civ provider? Yes, online'
O_S&YR.BC05C = 'Past 12 mth: did you try making appt at civ provider? Yes, in person'
S&YR.BC05C = 'Past 12 mth: did you try making appt at civ provider? Yes, in person'
O_S&YR.BC05D = 'Past 12 mth: did you try making appt at civ provider? No'
S&YR.BC05D = 'Past 12 mth: did you try making appt at civ provider? No'
O_S&YR.BC06A = 'Why make appt at MTF? New illness, condition, or injury'
S&YR.BC06A = 'Why make appt at MTF? New illness, condition, or injury'
O_S&YR.BC06B = 'Why make appt at MTF? I was referred for specialist care'
S&YR.BC06B = 'Why make appt at MTF? I was referred for specialist care'
O_S&YR.BC06C = 'Why make appt at MTF? Routine wellness'
S&YR.BC06C = 'Why make appt at MTF? Routine wellness'
O_S&YR.BC06D = 'Why make appt at MTF? Follow-up on illness, condition, or injury'
S&YR.BC06D = 'Why make appt at MTF? Follow-up on illness, condition, or injury'
O_S&YR.BC07A = 'True when you tried to make appt at civ provider: No appts available'
S&YR.BC07A = 'True when you tried to make appt at civ provider: No appts available'
O_S&YR.BC07B = 'True when you tried to make appt at civ provider: Appt too far in future'
S&YR.BC07B = 'True when you tried to make appt at civ provider: Appt too far in future'
O_S&YR.BC07C = 'True when you tried to make appt at civ provider: No convenient times'
S&YR.BC07C = 'True when you tried to make appt at civ provider: No convenient times'
O_S&YR.BC07D = 'True when you tried to make appt at civ provider: Time not convenient'
S&YR.BC07D = 'True when you tried to make appt at civ provider: Time not convenient'
O_S&YR.BC07E = 'True when you tried to make appt at civ provider: Always able to make appt'
S&YR.BC07E = 'True when you tried to make appt at civ provider: Always able to make appt'
O_S&YR.BC08A = 'Why not try to make appt at civ provider? Didn't need health care'
S&YR.BC08A = 'Why not try to make appt at civ provider? Didn't need health care'
O_S&YR.BC08B = 'Why not try to make appt at civ provider? Get all health care from MTF'
S&YR.BC08B = 'Why not try to make appt at civ provider? Get all health care from MTF'
O_S&YR.BC08C = 'Why not try to make appt at civ provider? Wouldn't have been able to get appt when needed'
S&YR.BC08C = 'Why not try to make appt at civ provider? Wouldn't have been able to get appt when needed'
O_S&YR.BC08D = 'Why not try to make appt at civ provider? Wouldn't have gotten appt at good time'
S&YR.BC08D = 'Why not try to make appt at civ provider? Wouldn't have gotten appt at good time'
O_S&YR.BC08E = 'Why not try to make appt at civ provider? Did not have needed referral for specialist'
S&YR.BC08E = 'Why not try to make appt at civ provider? Did not have needed referral for specialist'
O_S&YR.BC08F = 'Why not try to make appt at civ provider? Inconvenient location'
S&YR.BC08F = 'Why not try to make appt at civ provider? Inconvenient location'
O_S&YR.BC09 = 'Were you asked to call back at a future date when appts might be available [MTF]'
S&YR.BC09 = 'Were you asked to call back at a future date when appts might be available [MTF]'
O_S&YR.BC10 = 'Were you asked to call back at a future date when appts might be available [Civilian]'
S&YR.BC10 = 'Were you asked to call back at a future date when appts might be available [Civilian]'

O_S&YR.011 ='Agree/disagree: able to see provider when needed'
S&YR.011='Agree/disagree: able to see provider when needed'
O_S&YR.014 ='How satisfied with health care during last visit'
S&YR.014='How satisfied with health care during last visit'

N1 = "Coding Scheme Note 1"
N2 = "Coding Scheme Note 2"
N3 = "Coding Scheme Note 3"
N3_BC1= "Coding Scheme Note 3_BC1"
N3_BC2= "Coding Scheme Note 3_BC2"
N3_BC3= "Coding Scheme Note 3_BC3"
N3_BC4= "Coding Scheme Note 3_BC4"
N3_BC5= "Coding Scheme Note 3_BC5"
N3_BC6= "Coding Scheme Note 3_BC6"
N3_BC7= "Coding Scheme Note 3_BC7"
N3_BC8= "Coding Scheme Note 3_BC8"
N4 = "Coding Scheme Note 4"
N5 = "Coding Scheme Note 5"
N6 = "Coding Scheme Note 6"
N7 = "Coding Scheme Note 7"
N8 = "Coding Scheme Note 8"
N8_01 = "Coding Scheme Note 8_01"

```
              N9    = "Coding Scheme Note 9"
              N10   = "Coding Scheme Note 10"
              N10_B1= "Coding Scheme Note 10_B1"
              N11   = "Coding Scheme Note 11"
              N12   = "Coding Scheme Note 12"
              N13   = "Coding Scheme Note 13"
              N14   = "Coding Scheme Note 14"
              N15   = "Coding Scheme Note 15"
              N16   = "Coding Scheme Note 16"
              N17   = "Coding Scheme Note 17"
              N18   = "Coding Scheme Note 18"
              N19A  = "Coding Scheme Note 19A"
              N19B  = "Coding Scheme Note 19B"
              N20   = "Coding Scheme Note 20"
              N21   = "Coding Scheme Note 21"
              N22   = "Coding Scheme Note 22"
              N23   = "Coding Scheme Note 23"
              N23_HT= "Coding Scheme Note 23_HT"
              N23_WT= "Coding Scheme Note 23_WT"
              N24   = "Coding Scheme Note 24"
              N25   = "Coding Scheme Note 25"



              MISS_1 = "Count of original survey responses (pre-cleaning): violates skip
pattern"
              /*MISS_3 = "Count of original survey responses (pre-cleaning): do not use other
tobacco products response"*/
              MISS_4 = "Count of original survey responses (pre-cleaning): incomplete grid
error"
              MISS_5 = "Count of original survey responses (pre-cleaning): scalable reponse of
don't know"
              MISS_6 = "Count of original survey responses (pre-cleaning): not applicable -
valid skip"
              MISS_7 = "Count of original survey responses (pre-cleaning): out-of-range error"
              MISS_9 = "Count of original survey responses (pre-cleaning): no response -
invalid skip"
              MISS_TOT = "Total number of missing responses (pre-cleaning)"
              XSEXA = "Male or Female  - R"
            ;
```

F.F.2.C Q2FY2015\PROGRAMS\CODINGSCHEME\CSCHM15Q.SAS - Implement Coding Scheme and Coding Tables for Quarter 2 FY2015

```
*****************************************************************************;
*  Program:  Cschmyyq.sas
*  Written:  06/04/2001
*   Author:  C. Rankin
*
*    Input:  MERGESYN.sas7bdat - Merged MPR Sampling, DEERS, and Synovate Response Data
*   Output:  CSCHMyyQ.sas7bdat - Coding scheme file
*
* Modified:
*          12/15/2012 - Removed logic for handling check boxes for height and
*                       weight variables. Also no longer have to convert the
*                       weight variable from character to numeric
*          12/21/2012 - Added code on line 146 to correct out of range height (in)
*          12/18/2013 - Updated for Q1 2014 - added ht/wt note
*          09/29/2014 - Added SQL statement to automatically make varlist1, varlist2, and
marked variables
*  Purpose:  Apply Coding Scheme Specifications to DoD Health Care Survey
*            Response Data, check for consistency in responses and skip
*            patterns
*  Include
*    files:  Cschmyyq.fmt
*
*****************************************************************************;

OPTIONS PS=80 LS=120 NOCENTER COMPRESS=YES SOURCE SOURCE2 VARLENCHK=NOWARN;
title "Coding Scheme for Q&qt. FY&yr."; title2; title3;

%LET INDATA=MERGESYN;
%LET OUTDATA=CSCHM&yr.q;

LIBNAME LIBRARY    "..\..\DATA\AFINAL\FMTLIB";
LIBNAME IN         "..\..\DATA\AFINAL";
LIBNAME OUT        "..\..\DATA\AFINAL";

%MACRO CSCHM;

DATA &INDATA;

  SET IN.&INDATA ;

*RENAME AND CREATE VARIABLES NEEDED FOR CODING SCHEME;

  RENAME SRACEA = SRRACEA;
  RENAME SRACEB = SRRACEB;
  RENAME SRACEC = SRRACEC;
  RENAME SRACED = SRRACED;
  RENAME SRACEE = SRRACEE;





RENAME INTERVIEWTIME = INTTIME;

  SEX=PNSEXCD;
  AGE=INPUT(DAGEQY,8.);


RUN;

*Create list of variables from dataset;
*O_ variables are the original values from the survey response;
*Must remove any variable that ends with an alphabetic letter that
is not a marked/unmarked variable from the 'markedvars' line of code;
PROC SQL;
  CREATE TABLE VARIABLES AS
    SELECT UPCASE(NAME) AS VARS,
               UPCASE(CAT('O_', NAME)) AS OVARS,
           CASE WHEN SUBSTR(NAME,LENGTH(NAME)) NOT IN ('0' '1' '2' '3' '4' '5' '6' '7' '8' '9')
                AND NAME NOT IN ("H&YR.059B", "H&YR.071F" ,"H&YR.071I", "SREDA", "SRAGE")
```

```
                              THEN UPCASE(NAME) END AS MARKEDVARS,
                  CASE WHEN CALCULATED MARKEDVARS NE ''
                 THEN UPCASE(CAT('O_', CALCULATED MARKEDVARS)) END AS OMARKEDVARS
         FROM DICTIONARY.COLUMNS
         WHERE LIBNAME = 'WORK' AND MEMNAME = "&INDATA"
           AND (NAME CONTAINS ("H&YR.") OR NAME CONTAINS ("S&YR.") OR NAME CONTAINS ("SR")) ;
        SELECT COMPRESS(VARS), COMPRESS(OVARS), COMPRESS(MARKEDVARS), COMPRESS(OMARKEDVARS)
    INTO :VARLIST1 SEPARATED BY " ",
             :VARLIST2 SEPARATED BY " ",
                 :MARKEDVARS SEPARATED BY " ",
                 :OMARKEDVARS SEPARATED BY " "
         FROM VARIABLES;
QUIT;

proc print data=variables; run;

%PUT &VARLIST1;
%PUT &VARLIST2;
%PUT &MARKEDVARS;
%PUT &OMARKEDVARS;


TITLE  "DoD 20&YR Survey";
TITLE2 "Apply Coding Scheme";


DATA OUT.&outdata.;
/* label and format statements for original variables */
  LENGTH &VARLIST1. &VARLIST2. 4. MPRID $8.;
  INFORMAT &VARLIST2. 4.;
  %INCLUDE "CSCHM&YR.q.FMT";

   SET MERGESYN;


*************************************************************;
**** Recodes for invalid responses:***************************;
*************************************************************;


/* This is a version of the coding scheme and coding tables for the
   FY 20&YR. HCSDB Form A.
   The following tables outline the coding of screening questions (skip),
   and subsequent items to be answered (or not answered in a series
   following a skip question.) */

/* First set up new variables that capture the original values */
/* recode the initial numeric values to the SAS numeric values */
/* specified in the coding scheme                              */


  ARRAY RECODE(*) &VARLIST1;
  ARRAY   ORIG(*) &VARLIST2;

  DO I = 1 to DIM(ORIG);
      ORIG(I) = RECODE(I);
      IF ORIG(I) < 0 THEN DO;
              IF ORIG(I)= -9 THEN RECODE(I)=.;
         ELSE IF ORIG(I)= -7 THEN RECODE(I)=.O;
         ELSE IF ORIG(I)= -6 THEN RECODE(I)=.N;
         ELSE IF ORIG(I)= -5 THEN RECODE(I)=.D;
         ELSE IF ORIG(I)= -4 THEN RECODE(I)=.I;
         ELSE IF ORIG(I)= -1 THEN RECODE(I)=.C;
      END;
  END;
  DROP I;



/* recode selected responses to be 1=marked, 2=unmarked */

  ARRAY   MARKED(*) &MARKEDVARS. ;
  ARRAY INFORMAT(*) &OMARKEDVARS. ;
```

```
  DO J=1 TO DIM(INFORMAT);
     IF INFORMAT(J) = 1 THEN MARKED(J)=1;
     ELSE MARKED(J)=2;
  END;
  DROP J;

  FORMAT &MARKEDVARS.  MARKED.;


*********************************************************************;


/*  skip coding scheme for all surveys not returned  **/

 IF FLAG_FIN NE 1 THEN GOTO NOSURVEY;


/** Note 1 -- H&YR.003, H&YR.004 health plan usage  **/

  IF H&YR.003 > 0 THEN N1=1;
  ELSE IF H&YR.003=.N  OR H&YR.003 =.D THEN DO;
     IF H&YR.004 NOT=. THEN DO;
        N1=2;
        H&YR.004=.C;
     END;
     ELSE DO;
        N1=3;
        H&YR.004=.N;
     END;
  END;
  ELSE IF H&YR.003=.   THEN N1=4;



/** Note 1_J1 -- S&YR.J01, S&YR.J02A-S&YR.J02I, S&YR.J03-S&YR.J06,
               S&YR.J07A-S&YR.J07O, S&YR.J08, S&YR.J09A-S&YR.J09L,
               S&YR.J10, s&yr.j11A-s&yr.j11N, s&yr.j12: COBRA or retirement coverage
                       from a previous job or some other group **/
  ARRAY NOTE1J11  S&YR.J02A--S&YR.J02H;

  ARRAY NOTE1J12 S&YR.J07A--S&YR.J07O S&YR.J09A--S&YR.J09L s&yr.j11A--s&yr.j11N;

  ARRAY NOTE1J13  S&YR.J03-S&YR.J06 S&YR.J08 S&YR.J10 s&yr.j12;

  N1J1MARK1=0;
  N1J1MARK2=0;

  DO OVER NOTE1J11;
     IF NOTE1J11 NOT IN (.,2) THEN N1J1MARK1+1;
  END;

  DO OVER NOTE1J12;
     IF NOTE1J12 NOT IN (.,2) THEN N1J1MARK2+1;
  END;

  DO OVER NOTE1J13;
     IF NOTE1J13 NOT IN (.,.D) THEN N1J1MARK2+1;
  END;


  IF S&YR.J01=1 THEN N1_J1=1;
  ELSE IF S&YR.J01 IN (2,.) AND N1J1MARK1 > 0 THEN DO;
     N1_J1=2;
     S&YR.J01=1;
  END;
  ELSE IF S&YR.J01=2 AND N1J1MARK1=0 THEN DO;
     N1_J1=3;
     DO OVER NOTE1J11;
        NOTE1J11=.N;
     END;
     IF S&YR.J02I IN (.,2) THEN S&YR.J02I=.N;
     ELSE S&YR.J02I=.C;
     DO OVER NOTE1J12;
```

```
        IF NOTE1J12 IN (.,2) THEN NOTE1J12=.N;
        ELSE NOTE1J12=.C;
     END;
     DO OVER NOTE1J13;
        IF NOTE1J13=. THEN NOTE1J13=.N;
        ELSE NOTE1J13=.C;
     END;
  END;
  ELSE IF S&YR.J01=. AND N1J1MARK1=0 THEN DO;
     IF N1J1MARK2 > 0 THEN DO;
        N1_J1=4;
        S&YR.J01=1;
     END;
     ELSE DO;
        N1_J1=5;
        DO OVER NOTE1J11;
           NOTE1J11=.;
        END;
        S&YR.J02I=.;
        DO OVER NOTE1J12;
           NOTE1J12=.;
        END;
     END;
  END;

  DROP N1J1MARK1 N1J1MARK2;



/** Note 1_J2 -- S&YR.J03-S&YR.J05: You/you and others covered in civilian policy **/

  ARRAY NOTE1J2  S&YR.J04-S&YR.J05;


  IF S&YR.J03 IN (.N,.C) THEN N1_J2=1;
  ELSE IF S&YR.J03 IN (1, 2)
  THEN DO;
     N1_J2=2;
  END;
  ELSE IF S&YR.J03 IN (4)
       THEN DO;
     N1_J2=3;
     DO OVER NOTE1J2;
        IF NOTE1J2=. THEN NOTE1J2=.N;
        ELSE NOTE1J2=.C;
     END;
  END;
  ELSE IF S&YR.J03 IN (.)  THEN N1_J2=4;


/** Note 1_J3 -- S&YR.J04, S&YR.J05: Insurance Coverage payment **/

  IF S&YR.J04 IN(.N, .C) AND S&YR.J05 IN (.N, .C) THEN N1_J3=1;
  ELSE IF S&YR.J04 IN (1,2,.) AND (S&YR.J05 >0 or  S&YR.J05 IN (.D, .) )
  THEN DO;
     N1_J3=2;
  END;
  ELSE IF S&YR.J04 IN (1,2,.) AND (S&YR.J05=0) THEN DO;
     N1_J3=3;
     S&YR.J04=3;
     S&YR.J05=.C;
  END;
  ELSE IF S&YR.J04 IN (3, .D) THEN DO;
     N1_J3=4;
     IF S&YR.J05=. THEN S&YR.J05=.N;
     ELSE S&YR.J05=.C;
  END;


/** Note 1_J4 -- S&YR.J06, S&YR.J07A-S&YR.J07O: Used civilian coverage **/

  ARRAY NOTE1J4  S&YR.J07A S&YR.J07B S&YR.J07F S&YR.J07I S&YR.J07J S&YR.J07G S&YR.J07D
                 S&YR.J07E S&YR.J07C S&YR.J07M S&YR.J07N S&YR.J07H S&YR.J07O S&YR.J07K S&YR.J07L
;
```

```
  N1J4NMISS=0;

  DO OVER NOTE1J4;
     IF NOTE1J4 NOT IN (.,2) THEN N1J4NMISS+1;
  END;


  IF S&YR.J06 IN (.N, .C) THEN N1_J4=1;
  ELSE IF S&YR.J06 IN (.,1) AND N1J4NMISS > 0 THEN DO;
     N1_J4=2;
     S&YR.J06=2;
  END;
  ELSE IF S&YR.J06=1 AND N1J4NMISS=0 THEN DO;
     N1_J4=3;
     DO OVER NOTE1J4;
        NOTE1J4=.N;
     END;
  END;
  ELSE IF S&YR.J06=2 THEN DO;
     N1_J4=4;
  END;
  ELSE IF S&YR.J06=. AND N1J4NMISS=0 THEN DO;
     N1_J4=5;
     DO OVER NOTE1J4;
        IF NOTE1J4 NE . THEN NOTE1J4=.;
     END;
  END;

  DROP N1J4NMISS;


/** Note 1_J5 -- S&YR.J08, S&YR.J09A-S&YR.J09L: Used TRICARE for health coverage **/

  ARRAY NOTE1J5  S&YR.J09A S&YR.J09D S&YR.J09I S&YR.J09J S&YR.J09H S&YR.J09C S&YR.J09E
                 S&YR.J09F S&YR.J09B S&YR.J09G S&YR.J09K S&YR.J09L;

  N1J5NMISS=0;

  DO OVER NOTE1J5;
     IF NOTE1J5 NOT IN (.,2) THEN N1J5NMISS+1;
  END;


  IF S&YR.J08 IN (.N, .C) THEN N1_J5=1;
  ELSE IF S&YR.J08 IN (.,1) AND N1J5NMISS > 0 THEN DO;
     N1_J5=2;
     S&YR.J08=2;
  END;
  ELSE IF S&YR.J08=1 AND N1J5NMISS=0 THEN DO;
     N1_J5=3;
     DO OVER NOTE1J5;
        NOTE1J5=.N;
     END;
  END;
  ELSE IF S&YR.J08=2 THEN DO;
     N1_J5=4;
  END;
  ELSE IF S&YR.J08=. AND N1J5NMISS=0 THEN DO;
     N1_J5=5;
     DO OVER NOTE1J5;
        IF NOTE1J5 NE . THEN NOTE1J5=.;
     END;
  END;

  DROP N1J5NMISS;


/** Note 1_J6 -- S&YR.J10, s&yr.j11A-s&yr.j11N, s&yr.j12: Dropped civilian coverage **/

  ARRAY NOTE1J6  s&yr.j11A--s&yr.j11N;

  N1J6NMISS=0;
```

```
DO OVER NOTE1J6;
   IF NOTE1J6 NOT IN (.,2) THEN N1J6NMISS+1;
END;

IF s&yr.j12 > 0 THEN N1J6NMISS+1;

IF S&YR.J10 IN (.N, .C) THEN N1_J6=1;
ELSE IF S&YR.J10=1 THEN N1_J6=2;
ELSE IF S&YR.J10 IN (.,2) AND N1J6NMISS > 0 THEN DO;
   N1_J6=3;
   S&YR.J10=1;
END;
ELSE IF S&YR.J10=2 AND N1J6NMISS=0 THEN DO;
   N1_J6=4;
   DO OVER NOTE1J6;
      NOTE1J6=.N;
   END;
   s&yr.j12=.N;
END;
ELSE IF S&YR.J10=. AND N1J6NMISS=0 THEN DO;
   N1_J6=5;
   DO OVER NOTE1J6;
      IF NOTE1J6 NE . THEN NOTE1J6=.;
   END;
   s&yr.j12=.;
END;

DROP N1J6NMISS;



/** Note 2 -- H&YR.006,H&YR.007,H&YR.008:  illness or injury **/

ARRAY NOTE2 H&YR.007 H&YR.008;
N2MARK=0;
N2NMISS=0;
N2NN=0;

DO OVER NOTE2;
   IF NOTE2 NE . THEN N2NMISS+1;
   IF NOTE2 NOT IN (.N,.) THEN N2MARK+1;
   IF NOTE2 EQ .N THEN N2NN+1;
END;


IF H&YR.006=1 AND N2NMISS=0 THEN DO;
     N2=1;
END;
ELSE IF H&YR.006 IN (1,.) AND N2NMISS>0 AND N2MARK=0 THEN DO;
   H&YR.006=2;
   N2=2;
   DO OVER NOTE2;
      IF NOTE2=. THEN NOTE2=.N;
      ELSE NOTE2=.C;
   END;
END;
ELSE IF H&YR.006=1 AND N2MARK=1 AND N2NN=1 THEN  DO;
   DO OVER NOTE2;
      IF NOTE2=.N THEN NOTE2=.;
   END;
   N2=3;
END;
ELSE IF H&YR.006=1 AND N2MARK>0 THEN DO;
   N2=4;
END;
ELSE IF H&YR.006=2 AND N2MARK=1 AND N2NN=1  THEN  DO;
   H&YR.007=.C;
   H&YR.008=.C;
   N2=5;
END;
ELSE IF H&YR.006 IN (2,.) AND N2MARK>0 THEN DO;
   H&YR.006=1;
   N2=6;
   DO OVER NOTE2;
```

```
      IF NOTE2=.N THEN NOTE2=.;
   END;
END;
ELSE IF H&YR.006=2 AND (N2NMISS=0 OR (N2NMISS>0 AND N2MARK=0)) THEN DO;
   N2=7;
   DO OVER NOTE2;
      IF NOTE2=. THEN NOTE2=.N;
      ELSE NOTE2=.C;
   END;
END;
ELSE IF H&YR.006=.  AND N2NMISS=0 THEN N2=8;


DROP N2NMISS N2MARK N2NN;


/** Note 3 -- H&YR.009,H&YR.010,H&YR.011:  regular or routine healthcare **/

ARRAY Note3 H&YR.010 H&YR.011;
N3MARK=0;
N3NMISS=0;
N3NN=0;

DO OVER Note3;
   IF Note3 NE . THEN N3NMISS+1;
   IF Note3 NOT IN (.N,.) THEN N3MARK+1;
   IF Note3 EQ .N THEN N3NN+1;
END;

IF H&YR.009=1 AND N3NMISS=0 THEN DO;
     N3=1;
END;
ELSE IF H&YR.009 IN (1,.) AND N3NMISS>0 AND N3MARK=0 THEN DO;
   H&YR.009=2;
   N3=2;
   DO OVER Note3;
      IF Note3=. THEN Note3=.N;
      ELSE Note3=.C;
   END;
END;
ELSE IF H&YR.009=1 AND N3MARK=1 AND N3NN=1 THEN  DO;
   DO OVER Note3;
      IF Note3=.N THEN Note3=.;
   END;
   N3=3;
END;
ELSE IF H&YR.009=1 AND N3MARK>0 THEN DO;
   N3=4;
END;
ELSE IF H&YR.009=2 AND N3MARK=1 AND N3NN=1  THEN  DO;
   H&YR.010=.C;
   H&YR.011=.C;
   N3=5;
END;
ELSE IF H&YR.009 IN (2,.) AND N3MARK>0 THEN DO;
   H&YR.009=1;
   N3=6;
   DO OVER Note3;
      IF Note3=.N THEN Note3=.;
   END;
END;
ELSE IF H&YR.009=2 AND (N3NMISS=0 OR (N3NMISS>0 AND N3MARK=0)) THEN DO;
   N3=7;
   DO OVER Note3;
      IF Note3=. THEN Note3=.N;
      ELSE Note3=.C;
   END;
END;
ELSE IF H&YR.009=.  AND N3NMISS=0 THEN N3=8;


DROP N3NMISS N3MARK N3NN;
```

```
/** Note 4 -- H&YR.013, H&YR.014-H&YR.018: doctor's office or clinic **/

  ARRAY NOTE4  H&YR.014-H&YR.018;

  N4MARK=0;
  N4NMISS=0;

  DO OVER NOTE4;
     IF NOTE4 NE . THEN N4NMISS+1;
     IF NOTE4 NOT IN  (., .N) THEN N4MARK+1;
  END;


  IF H&YR.013=1 THEN DO;
     N4=1;
     DO OVER NOTE4;
        IF NOTE4=. THEN NOTE4=.N;
        ELSE NOTE4=.C;
     END;
  END;
  ELSE IF H&YR.013 IN (2,3,4,5,6,7,.) AND N4NMISS>0 AND N4MARK=0 THEN DO;
     H&YR.013=1;
     N4=2;
     DO OVER NOTE4;
        IF NOTE4=. THEN NOTE4=.N;
        ELSE NOTE4=.C;
     END;
  END;
  ELSE IF H&YR.013 IN (2,3,4,5,6,7) AND (N4NMISS=0 OR N4MARK>0) THEN DO;
     DO OVER NOTE4;
        IF NOTE4=.N THEN NOTE4=.;
     END;
     N4=3;
  END;
  ELSE IF H&YR.013=.  AND N4NMISS=0 THEN N4=4;
  ELSE IF H&YR.013 IN (.) AND N4MARK>0 THEN DO;
     N4=5;
     DO OVER NOTE4;
        IF NOTE4=.N THEN NOTE4=.;
     END;
  END;

  DROP N4NMISS N4MARK;


/** Note 5 -- H&YR.015, H&YR.016-H&YR.017: doctor's office or clinic- treatment **/

 IF H&YR.015 IN (.N,.C) THEN N5=1;
 ELSE IF H&YR.015= 1  THEN N5=2;
 ELSE IF H&YR.015 IN (2,.) AND H&YR.016 IN (1,2) THEN  DO;
     N5=3;
     H&YR.015=1;
 END;
 ELSE IF H&YR.015 IN (2,.) AND (H&YR.016 IN (3,4,.) AND H&YR.017 IN (1,2)) THEN  DO;
     N5=4;
     H&YR.015=1;
 END;
 ELSE IF H&YR.015 IN (2) AND (H&YR.016 IN (3,4,.) AND H&YR.017 IN (3,4,.)) THEN  DO;
     N5=5;
     IF H&YR.016 = . THEN H&YR.016 = .N;
     ELSE H&YR.016 = .C;
     IF H&YR.017 = . THEN H&YR.017 = .N;
     ELSE H&YR.017 = .C;
 END;
 ELSE IF H&YR.015 IN (.) AND (H&YR.016 IN (3,4,.) AND H&YR.017 IN (3,4,.)) THEN  DO;
     N5=6;
 END;



/** Note 6 -- H&YR.019, H&YR.020-H&YR.027, S&YR.009: personal doctor **/
```

```
/* MER 07/01/09 */

  ARRAY NOTE6  H&YR.021-H&YR.024;

  N6MARK=0;

  DO OVER NOTE6;
     IF NOTE6 NOT IN  (., .N) THEN N6MARK+1;
  END;

  IF H&YR.020 NOT IN (0,.) THEN N6MARK+1;


  IF H&YR.019 = 1  THEN DO;
     N6=1;
     IF H&YR.027=.N THEN H&YR.027=.;
  END;
  ELSE IF H&YR.019 in (2,.) AND H&YR.027 in (0,1,2,3,4,5,6,7,8,9,10) THEN DO;
     N6=2;
     H&YR.019=1;
  END;
  ELSE IF H&YR.019 in (2,.) AND N6MARK>0 AND H&YR.027 = . THEN DO;
     N6=3;
     H&YR.019=1;
  END;
  ELSE IF H&YR.019 = 2 AND N6MARK>0 AND H&YR.027 = .N THEN DO;
     N6=4;
     IF H&YR.020=. THEN H&YR.020=.N;
     ELSE H&YR.020=.C;
     DO OVER NOTE6;
        IF NOTE6=. THEN NOTE6=.N;
        ELSE NOTE6=.C;
     END;
     IF H&YR.025=. THEN H&YR.025=.N;
     ELSE H&YR.025=.C;
     IF H&YR.026=. THEN H&YR.026=.N;
     ELSE H&YR.026=.C;
     IF S&YR.009=. THEN S&YR.009=.N;
     ELSE S&YR.009=.C;
     H&YR.027=.C;
  END;
  ELSE IF H&YR.019 = 2 AND N6MARK=0 AND H&YR.027 in (.N,.) THEN DO;
     N6=5;
     IF H&YR.020=. THEN H&YR.020=.N;
     ELSE H&YR.020=.C;
     DO OVER NOTE6;
        IF NOTE6=. THEN NOTE6=.N;
        ELSE NOTE6=.C;
     END;
     IF H&YR.025=. THEN H&YR.025=.N;
     ELSE H&YR.025=.C;
     IF H&YR.026=. THEN H&YR.026=.N;
     ELSE H&YR.026=.C;
     IF S&YR.009=. THEN S&YR.009=.N;
     ELSE S&YR.009=.C;
     IF H&YR.027=. THEN H&YR.027=.N;
     ELSE H&YR.027=.C;
  END;
  ELSE IF H&YR.019 = . AND H&YR.027 = .N THEN DO; /* MER 07/31/09 combined rows 6 and 7 */
     N6=6;
     H&YR.019=2;
     IF H&YR.020=. THEN H&YR.020=.N;
     ELSE H&YR.020=.C;
     DO OVER NOTE6;
        IF NOTE6=. THEN NOTE6=.N;
        ELSE NOTE6=.C;
     END;
     IF H&YR.025=. THEN H&YR.025=.N;
     ELSE H&YR.025=.C;
     IF H&YR.026=. THEN H&YR.026=.N;
     ELSE H&YR.026=.C;
     IF S&YR.009=. THEN S&YR.009=.N;
     ELSE S&YR.009=.C;
     H&YR.027=.C;
```

```
  END;
  ELSE IF H&YR.019 = . AND N6MARK=0 AND H&YR.027 = . THEN N6=7;

  DROP N6MARK;


/** Note 7 -- H&YR.020, H&YR.021-H&YR.026: personal doctor visit **/

  ARRAY NOTE7  H&YR.021-H&YR.024;

  N7MARK=0;
  N7NMISS=0;

  DO OVER NOTE7;
     IF NOTE7 NE . THEN N7NMISS+1;
     IF NOTE7 NOT IN  (., .N) THEN N7MARK+1;
  END;


  IF H&YR.020 IN (.N, .C) THEN N7=1;
  ELSE IF H&YR.020=0 THEN DO;
     N7=2;
     DO OVER NOTE7;
        IF NOTE7=. THEN NOTE7=.N;
        ELSE NOTE7=.C;
     END;
     IF H&YR.025=. THEN H&YR.025=.N;
     ELSE H&YR.025=.C;
     IF H&YR.026=. THEN H&YR.026=.N;
     ELSE H&YR.026=.C;
  END;
  ELSE IF H&YR.020 IN (1,2,3,4,5,6,.) AND N7NMISS>0 AND N7MARK=0 THEN DO;
     H&YR.020=0;
     N7=3;
     DO OVER NOTE7;
        IF NOTE7=. THEN NOTE7=.N;
        ELSE NOTE7=.C;
     END;
     IF H&YR.025=. THEN H&YR.025=.N;
     ELSE H&YR.025=.C;
     IF H&YR.026=. THEN H&YR.026=.N;
     ELSE H&YR.026=.C;
  END;
  ELSE IF H&YR.020 IN (1,2,3,4,5,6,.) AND (N7NMISS=0 OR N7MARK>0) THEN DO;
     DO OVER NOTE7;
        IF NOTE7=.N THEN NOTE7=.;
     END;
     N7=4;
  END;

  DROP N7NMISS N7MARK;


/** Note 8 -- H&YR.025, H&YR.026:  care from another doctor or healthcare provider **/

  IF H&YR.025 IN (.N, .C) THEN N8=1;
  ELSE IF H&YR.025=1 THEN N8=2;
  ELSE IF H&YR.025 IN (2,.) AND H&YR.026 IN (1,2,3,4) THEN DO;
     H&YR.025=1;
     N8=3;
  END;
  ELSE IF H&YR.025=2 AND H&YR.026 IN (.) THEN DO;
     H&YR.026=.N;
     N8=4;
  END;
  ELSE IF H&YR.025=.  AND H&YR.026=.  THEN N8=5;


/** Note 8_01 -- S&YR.009, S&YR.010:  problem getting new personal doctor or nurse **/

  IF S&YR.009 IN (.N,.C) THEN N8_01=1; /* MER 07/31/09 gave each S&YR.009 value its own row for
analysis purposes */
  ELSE IF S&YR.009=1 THEN DO;
     N8_01=2;
```

```
     IF S&YR.010=. THEN S&YR.010=.N;
     ELSE S&YR.010=.C;
  END;
  ELSE IF S&YR.009=2 THEN N8_01=3;
  ELSE IF S&YR.009=. THEN N8_01=4;  /* MER 07/31/09 eliminated backward coding for missing
S&YR.009 */


/** Note 9 -- H&YR.028, H&YR.029-H&YR.031:  needed to see a specialist in last 12 months **/

  ARRAY NOTE9  H&YR.029 H&YR.031;

  N9MARK=0;
  N9NMISS=0;

  DO OVER NOTE9;
     IF NOTE9 NE . THEN N9NMISS+1;
     IF NOTE9 NOT IN  (., .N) THEN N9MARK+1;
  END;

  IF H&YR.030 NE . THEN N9NMISS+1;
  IF H&YR.030 NOT IN (.,0) THEN N9MARK+1;


  IF H&YR.028 IN (1)  THEN DO;
     N9=1;
     IF H&YR.029=.N THEN H&YR.029=.;
  END;
  ELSE IF H&YR.028 in (2,.) AND N9MARK>0 THEN DO;
     N9=2;
     H&YR.028=1;
     IF H&YR.029=.N THEN H&YR.029=.;
  END;
  ELSE IF H&YR.028 in (2) THEN DO;
     N9=3;
     DO OVER NOTE9;
        IF NOTE9=. THEN NOTE9=.N;
        ELSE NOTE9=.C;
     END;
     IF H&YR.030=. THEN H&YR.030=.N;
     ELSE H&YR.030=.C;
  END;
  ELSE IF H&YR.028=.  AND N9NMISS>0 AND N9MARK=0 THEN DO;
     N9=4;
     H&YR.028=2;
     DO OVER NOTE9;
        IF NOTE9=. THEN NOTE9=.N;
        ELSE NOTE9=.C;
     END;
     IF H&YR.030=. THEN H&YR.030=.N;
     ELSE H&YR.030=.C;
  END;
  ELSE IF H&YR.028=.  AND N9NMISS=0 THEN N9=5;

  DROP N9NMISS N9MARK;


/** Note 10 -- H&YR.030, H&YR.031: saw a specialist in last 12 months **/

  IF H&YR.030 IN (.N,.C) AND H&YR.031 IN (.N,.C) THEN N10=1;
  ELSE IF H&YR.030 IN (1,2,3,4,5) AND H&YR.031 IN (0,1,2,3,4,5,6,7,8,9,10,.) THEN N10=2;
  ELSE IF H&YR.030 IN (1,2,3,4,5,.) AND H&YR.031 = .N THEN DO;
     N10=3;
     H&YR.030=0;
     H&YR.031=.C;
  END;
  ELSE IF H&YR.030 = 0 THEN DO;
     N10=4;
     IF H&YR.031 = . THEN H&YR.031 = .N;
     ELSE H&YR.031 = .C;
  END;
  ELSE IF H&YR.030 = . AND H&YR.031 IN (0,1,2,3,4,5,6,7,8,9,10,.) THEN N10=5;
```

```
/** Note 10_B1 -- S&YR.B02, S&YR.B03-S&YR.B04: overall mental health **/

  ARRAY NOTE10B1  S&YR.B03-S&YR.B04;

  N10B1MARK=0;
  N10B1NMISS=0;

  DO OVER NOTE10B1;
     IF NOTE10B1 NE . THEN N10B1NMISS+1;
     IF NOTE10B1 NOT IN  (., .N) THEN N10B1MARK+1;
  END;

  IF S&YR.B02 = 1 THEN DO;
     N10_B1=1;
     DO OVER NOTE10B1;
        IF NOTE10B1=.N THEN NOTE10B1=.;
     END;
  END;
  ELSE IF S&YR.B02 IN (2,.) AND (N10B1MARK>0) THEN DO;
     N10_B1=2;
     S&YR.B02=1;
     DO OVER NOTE10B1;
        IF NOTE10B1=.N THEN NOTE10B1=.;
     END;
  END;
  ELSE IF S&YR.B02=2  AND (N10B1NMISS=0 OR (N10B1NMISS > 0 AND N10B1MARK = 0)) THEN DO;
     N10_B1=3;
     DO OVER NOTE10B1;
        IF NOTE10B1 = . THEN NOTE10B1=.N;
        ELSE NOTE10B1 = .C;
     END;
  END;
  ELSE IF S&YR.B02 IN (.) AND (N10B1NMISS > 0 AND N10B1MARK = 0) THEN DO;
     N10_B1=4;
     S&YR.B02=2;
     DO OVER NOTE10B1;
        IF NOTE10B1 = . THEN NOTE10B1=.N;
        ELSE NOTE10B1 = .C;
     END;
  END;
  ELSE IF S&YR.B02 IN (.) AND N10B1NMISS=0 THEN N10_B1=5;

  DROP N10B1NMISS N10B1MARK;


/** Note 11 -- H&YR.032, H&YR.033:  tried to get care, tests, or treatment from health plan**/

  IF H&YR.032=1 AND H&YR.033 IN (1,2,3,4,.) THEN N11=1;
  ELSE IF H&YR.032 IN (1,.) AND H&YR.033=.N THEN DO;
     H&YR.032=2;
     H&YR.033=.C;
     N11=2;
  END;
  ELSE IF H&YR.032 IN (2,.) AND H&YR.033 IN (1,2,3,4) THEN DO;
     H&YR.032=1;
     N11=3;
  END;
  ELSE IF H&YR.032=2 AND H&YR.033 IN (.,.N) THEN DO;
     IF H&YR.033=. THEN H&YR.033=.N;
     ELSE H&YR.033=.C;
     N11=4;
  END;
  ELSE IF H&YR.032=.  AND H&YR.033=.  THEN N11=5;


/** Note 12 -- H&YR.034, H&YR.035:  look for info in written materials or on internet**/
  IF H&YR.034=1 AND H&YR.035 IN (1,2,3,4,.) THEN N12=1;
  ELSE IF H&YR.034 IN (1,.) AND H&YR.035=.N THEN DO;
     N12=2;
     H&YR.034=2;
     H&YR.035=.C;
  END;
  ELSE IF H&YR.034 IN (2,.) AND H&YR.035 IN (1,2,3,4) THEN DO;
     N12=3;
```

```
      H&YR.034=1;
   END;
   ELSE IF H&YR.034=2 AND H&YR.035 IN (.N,.) THEN DO;
      N12=4;
      IF H&YR.035=. THEN H&YR.035=.N;
      ELSE H&YR.035=.C;
   END;
   ELSE IF H&YR.034=. AND H&YR.035=. THEN N12=5;


/** Note 13 -- H&YR.036, H&YR.037:  tried to get cost of service/equipment from health plan**/

   IF H&YR.036=1 AND H&YR.037 IN (1,2,3,4,.) THEN N13=1;
   ELSE IF H&YR.036 IN (1,.) AND H&YR.037=.N THEN DO;
      H&YR.036=2;
      H&YR.037=.C;
      N13=2;
   END;
   ELSE IF H&YR.036 IN (2,.) AND H&YR.037 IN (1,2,3,4) THEN DO;
      H&YR.036=1;
      N13=3;
   END;
   ELSE IF H&YR.036=2 AND H&YR.037 IN (.,.N) THEN DO;
      IF H&YR.037=. THEN H&YR.037=.N;
      ELSE H&YR.037=.C;
      N13=4;
   END;
   ELSE IF H&YR.036=.  AND H&YR.037=.  THEN N13=5;


/** Note 14 -- H&YR.038, H&YR.039:  tried to get cost of prescription meds from health plan**/

   IF H&YR.038=1 AND H&YR.039 IN (1,2,3,4,.) THEN N14=1;
   ELSE IF H&YR.038 IN (1,.) AND H&YR.039=.N THEN DO;
      H&YR.038=2;
      H&YR.039=.C;
      N14=2;
   END;
   ELSE IF H&YR.038 IN (2,.) AND H&YR.039 IN (1,2,3,4) THEN DO;
      H&YR.038=1;
      N14=3;
   END;
   ELSE IF H&YR.038=2 AND H&YR.039 IN (.,.N) THEN DO;
      IF H&YR.039=. THEN H&YR.039=.N;
      ELSE H&YR.039=.C;
      N14=4;
   END;
   ELSE IF H&YR.038=.  AND H&YR.039=.  THEN N14=5;


/** Note 15 -- H&YR.040, H&YR.041-H&YR.042: tried to use health plan's customer service  **/

   ARRAY NOTE15  H&YR.041-H&YR.042;

   N15MARK=0;
   N15NMISS=0;

   DO OVER NOTE15;
      IF NOTE15 NE . THEN N15NMISS+1;
      IF NOTE15 NOT IN  (., .N) THEN N15MARK+1;
   END;

   IF H&YR.040 = 1 AND (N15MARK>0 OR N15NMISS=0) THEN DO;
      DO OVER NOTE15;
         IF NOTE15=.N THEN NOTE15=.;
      END;
      N15=1;
   END;
   ELSE IF H&YR.040 IN (1,.) AND (N15NMISS > 0 AND N15MARK = 0) THEN DO;
      N15=2;
      H&YR.040=2;
      DO OVER NOTE15;
         IF NOTE15 = . THEN NOTE15=.N;
         ELSE NOTE15 = .C;
```

```
      END;
   END;
   ELSE IF H&YR.040 IN (2,.) AND (N15MARK>0) THEN DO;
      N15=3;
      H&YR.040=1;
      DO OVER NOTE15;
         IF NOTE15=.N THEN NOTE15=.;
      END;
   END;
   ELSE IF H&YR.040=2  AND (N15NMISS=0 OR (N15NMISS > 0 AND N15MARK = 0)) THEN DO;
      N15=4;
      DO OVER NOTE15;
         IF NOTE15 = . THEN NOTE15=.N;
         ELSE NOTE15 = .C;
      END;
   END;
   ELSE IF H&YR.040 IN (.) AND N15NMISS=0 THEN N15=5;

   DROP N15NMISS N15MARK;


/** Note 16 -- H&YR.043, H&YR.044:  received forms to fill out from health plan **/

   IF H&YR.043=1 AND H&YR.044 IN (1,2,3,4,.) THEN N16=1;
   ELSE IF H&YR.043 IN (1,.) AND H&YR.044=.N THEN DO;
      H&YR.043=2;
      H&YR.044=.C;
      N16=2;
   END;
   ELSE IF H&YR.043 IN (2,.) AND H&YR.044 IN (1,2,3,4) THEN DO;
      H&YR.043=1;
      N16=3;
   END;
   ELSE IF H&YR.043=2 AND H&YR.044 IN (.,.N) THEN DO;
      IF H&YR.044=. THEN H&YR.044=.N;
      ELSE H&YR.044=.C;
      N16=4;
   END;
   ELSE IF H&YR.043=.  AND H&YR.044=.  THEN N16=5;


/** Note 17 -- H&YR.045, H&YR.046-H&YR.047: claims to health plan **/

   ARRAY NOTE17 H&YR.046-H&YR.047;
   N17MARK=0;
   N17NDK=0;

   DO OVER NOTE17;
      IF NOTE17 NOT IN (.N,.D,.) THEN N17MARK+1; /* At least one is marked */
      IF NOTE17 NOT IN (.,.D) THEN N17NDK+1; /* All are missing or blank or dnk */
   END;

   IF H&YR.045=1 AND (N17MARK>0 OR N17NDK=0) THEN DO;
      N17=1;
      DO OVER NOTE17;
         IF NOTE17=.N THEN NOTE17=.;
      END;
   END;
   ELSE IF H&YR.045 IN (1,.,.D) AND N17MARK=0 AND N17NDK>0 THEN DO;
      N17=2;
      H&YR.045=2;
      DO OVER NOTE17;
         IF NOTE17=. THEN NOTE17=.N;
         ELSE NOTE17=.C;
      END;
   END;
   ELSE IF H&YR.045 IN (2,.,.D) AND N17MARK>0
        THEN DO;
      H&YR.045=1;
      N17=3;
      DO OVER NOTE17;
         IF NOTE17=.N THEN NOTE17=.;
      END;
   END;
```

```
  ELSE IF H&YR.045 IN (2) AND N17MARK=0 THEN DO;
     N17=4;
     DO OVER NOTE17;
        IF NOTE17=. THEN NOTE17=.N;
        ELSE NOTE17=.C;
     END;
  END;
  ELSE IF H&YR.045 IN (.D) AND N17NDK=0 THEN DO;
     N17=5;
     DO OVER NOTE17;
        IF NOTE17=. THEN NOTE17=.N;
        ELSE NOTE17=.C;
     END;
  END;
  ELSE IF H&YR.045 IN (.) AND N17NDK=0 THEN N17=6;

  DROP N17MARK N17NDK;


/** Note 18 -- smoking:  H&YR.053, H&YR.054-H&YR.056, H&YR.057A-H&YR.057D  **/

  ARRAY NOTE18a H&YR.054 H&YR.055 H&YR.056;
  ARRAY NOTE18b H&YR.057A--H&YR.057D;

  N18MARK = 0;

  DO OVER NOTE18b;
     IF NOTE18b NOT IN (2,.) THEN N18MARK+1;
  END;

  IF H&YR.053 IN (3,4,.) THEN N18=1;
  ELSE IF H&YR.053 IN (2,.D) AND N18MARK = 0 THEN DO;
     N18=2;
     DO OVER NOTE18a;
        IF NOTE18a=. THEN NOTE18a=.N;
        ELSE NOTE18a=.C;
     END;
     DO OVER NOTE18b;
        IF NOTE18b IN (2,.) THEN NOTE18b=.N;
        ELSE NOTE18b=.C;
     END;
  END;
  ELSE IF H&YR.053 = 2 AND N18MARK > 0 THEN DO;
     N18=3;
     H&YR.053=.;
  END;
  ELSE IF H&YR.053 = .D AND N18MARK > 0 THEN DO;
     N18=4;
     DO OVER NOTE18a;
        IF NOTE18a=. THEN NOTE18a=.N;
        ELSE NOTE18a=.C;
     END;
     DO OVER NOTE18b;
        IF NOTE18b IN (2,.) THEN NOTE18b=.N;
        ELSE NOTE18b=.C;
     END;
  END;

  DROP N18MARK;


/** Note 19a - gender H&YR.058, SEX, H&YR.059B--H&YR.064,
              XSEXA */

/* 1/21/98 use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed FMALE and MALE based on gender specific questions */


  ARRAY fmaleval H&YR.059B H&YR.060 H&YR.061 H&YR.062 H&YR.063 H&YR.064
                 ;

  cntfmale=0;
  DO OVER fmaleval;           /* mammogram/pap smear/PREGNANT*/
```

```
      IF fmaleval>0 THEN cntfmale=cntfmale+1;
   END;

   IF cntfmale>0 THEN FMALE=1;
   ELSE FMALE = 0;


   IF H&YR.058=. THEN DO;
      IF (SEX='F' AND FMALE) THEN DO;
         N19a=1;
         XSEXA=2;
      END;
      ELSE IF (SEX='F' AND FMALE=0) THEN DO;
         N19a=2;
         XSEXA=2;
      END;
      ELSE IF (SEX='M' AND FMALE) THEN DO;
         N19a=3;
         XSEXA=1;
      END;
      ELSE IF (SEX='M' AND FMALE=0) THEN DO;
         N19a=4;
         XSEXA=1;
      END;
      ELSE IF ((SEX IN ('Z',' ') AND FMALE)) THEN DO;
         N19a=5;
         XSEXA=2;
      END;
      ELSE IF (SEX='Z' AND FMALE=0) THEN DO;
         N19a=6;
         XSEXA=.;
      END;
      ELSE IF (SEX=' ' AND FMALE=0) THEN DO;
         N19a=7;
         XSEXA=.;
      END;
   END;
   ELSE IF (H&YR.058=1) THEN DO;
      IF FMALE=0 THEN DO;
         N19a=8;
         XSEXA=1;
      END;
      ELSE IF FMALE THEN DO;
         IF SEX='F' THEN DO;
            N19a=9;
            XSEXA=2;
         END;
         ELSE DO;
            N19a=10;
            XSEXA=1;
         END;
      END;
   END;
   ELSE IF (H&YR.058=2) THEN DO;
      IF FMALE THEN DO;
        N19a=11;
        XSEXA=2;
      END;
      ELSE IF FMALE=0 THEN DO;
         IF SEX='M' THEN DO;
           N19a=12;
           XSEXA=1;
         END;
         ELSE DO;
            N19a=13;
            XSEXA=2;
         END;
      END;
   END;


/* Note 19b - gender vs mammogram/paps/pregnancy */

    ARRAY NOTE19b H&YR.059B H&YR.060 H&YR.061 H&YR.062 H&YR.063 H&YR.064
```

```
                 ;
   IF XSEXA=1 THEN DO;   /* male */
     IF FMALE=0 THEN DO;
        N19b=1;
        DO OVER NOTE19b;
           NOTE19b=.N;
        END;
     END;   /* valid skip */
     ELSE IF FMALE=1 THEN DO;
        N19b=2;
        DO OVER NOTE19b;
           IF NOTE19b=. THEN NOTE19b = .N;
           ELSE NOTE19b=.C;
        END;
     END;   /* inconsistent response */
  END;
  ELSE IF XSEXA=2 THEN  N19b=3; /* female */
  ELSE IF XSEXA=. THEN DO;      /*  missing sex  */
     N19b=4;
     DO OVER NOTE19b;
        NOTE19b=.;
     END;
  END;


  DROP FMALE CNTFMALE;



/* Note 20- breast exam for female 40 or over  */

  IF XSEXA=1 THEN DO;  /* male */
     IF  (H&YR.060=.C OR H&YR.060=.N) AND (H&YR.061=.C OR H&YR.061=.N)
     THEN N20 = 1;
  END;
  ELSE IF XSEXA=2 THEN DO;
     IF H&YR.060=2 THEN N20=2;         /* female 40 or over */
     ELSE IF H&YR.060=1 THEN DO;   /* female < 40 */
        IF H&YR.061 NE . THEN H&YR.061=.C;
        ELSE H&YR.061=.N;
        N20=3;
     END;
     ELSE IF H&YR.060=. THEN DO;
        IF H&YR.061 NE . THEN DO;
           H&YR.060=2;
           N20=4;
        END;
        ELSE IF H&YR.061=.  THEN DO;
           IF AGE<40 THEN DO;
              H&YR.060 = 1;
              H&YR.061=.N;
              N20=5;
           END;
           ELSE IF AGE >= 40 THEN DO;
              H&YR.060=2;
              N20=6;
           END;
           ELSE IF AGE=. THEN N20=7;
        END;
     END;
  END;
  ELSE IF XSEXA=. THEN N20=8;



/* Note 21 - gender vs Pregnancy */


  IF XSEXA=1 THEN N21=1;          /* male     */
  ELSE IF XSEXA=2 THEN DO;        /* female   */
     IF H&YR.062=1 THEN DO;         /* pregnant */
        IF H&YR.063=1 THEN DO;
           N21=2;
           IF H&YR.064=. THEN H&YR.064 = .N;
```

```
            ELSE H&YR.064=.C;
         END;
         ELSE IF H&YR.063=2 AND H&YR.064 IN (2) THEN DO;
            N21=3;
            H&YR.064=.;
         END;
         ELSE IF H&YR.063=2 AND H&YR.064 IN (4,3,1,.) THEN DO;
            N21=4;
         END;
         ELSE IF H&YR.063 IN (3,.) THEN N21=5;
      END;
      ELSE IF H&YR.062=2 THEN DO;
         IF H&YR.063=. THEN H&YR.063 = .N;
         ELSE H&YR.063=.C;
         N21=6;
      END;
      ELSE IF H&YR.062=3 THEN DO;
         N21=7;
         IF H&YR.063=. THEN H&YR.063 = .N;
         ELSE H&YR.063=.C;
         IF H&YR.064=. THEN H&YR.064=.N;
         ELSE H&YR.064=.C;
      END;
      ELSE IF H&YR.062 IN (.) THEN DO;
         IF H&YR.063=1 THEN DO;
            N21=8;
            H&YR.062=1;
            IF H&YR.064=. THEN H&YR.064 = .N;
            ELSE H&YR.064=.C;
         END;
         ELSE IF H&YR.063=2 AND H&YR.064 IN (2) THEN DO;
            N21=9;
            H&YR.062=1;
            H&YR.064=.;
         END;
         ELSE IF H&YR.063=2 AND H&YR.064 IN (4,3,1,.) THEN DO;
            H&YR.062=1;
            N21=10;
         END;
         ELSE IF H&YR.063=3 THEN DO;
            H&YR.062=1;
            N21=11;
         END;
         ELSE IF H&YR.063=. THEN DO;
            N21=12;
         END;
      END;
   END;
   ELSE IF XSEXA=. AND H&YR.062 IN (.) THEN N21=13;



   DROP AGE SEX;



/** Note 22 -- H&YR.067, H&YR.068:  seen doctor 3 or more times for same condition **/

   IF H&YR.067=1 THEN N22=1;
   ELSE IF H&YR.067 IN (2,.) AND H&YR.068 IN (1,2) THEN DO;
      H&YR.067=1;
      N22=2;
   END;
   ELSE IF H&YR.067=2 AND H&YR.068 IN (.) THEN DO;
      H&YR.068=.N;
      N22=3;
   END;
   ELSE IF H&YR.067=.  AND H&YR.068=.  THEN N22=4;



/** Note 23 -- H&YR.069, H&YR.070:  need or take medicine prescribed by a doctor **/
```

```
  IF H&YR.069=1 THEN N23=1;
  ELSE IF H&YR.069 IN (2,.) AND H&YR.070 IN (1,2) THEN DO;
     H&YR.069=1;
     N23=2;
  END;
  ELSE IF H&YR.069=2 AND H&YR.070 IN (.) THEN DO;
     H&YR.070=.N;
     N23=3;
  END;
  ELSE IF H&YR.069=.  AND H&YR.070=.  THEN N23=4;

/** Note 23_HT -- XSEXA, H&YR.071F, H&YR.071I:  height restrictions                      **/
*AMK 9/25/13
 Set height and weight restriction to conform with NHIS 2006 guidelines
 Men: height between 63-76 inches, weight between 126-299 pounds
 Women: height between 59-70 inches, weight between 100-274 pounds;

 *INCHES;
  IF H&YR.071F NE . AND H&YR.071I = . THEN H&YR.071I=0;
  IF H&YR.071F =  . AND H&YR.071I >11 THEN DO;
     H&YR.071F=FLOOR(H&YR.071I/12);
     H&YR.071I=H&YR.071I-(H&YR.071F*12);
  END;
  IF H&YR.071F NE . THEN INCHES=(H&YR.071F*12+H&YR.071I);
  ELSE INCHES=H&YR.071I;

  IF (XSEXA = 1 AND (63<=INCHES<=76 OR INCHES = .)) OR
     (XSEXA = 2 AND (59<=INCHES<=70 OR INCHES = .)) THEN N23_HT=1;
  ELSE IF XSEXA IN (1,2) THEN DO;
     N23_HT=2;
     H&YR.071F=.O;
     H&YR.071I=.O;
  END;
  ELSE IF XSEXA = . THEN DO; *MISSING GENDER;
     IF 59<=INCHES<=76 OR INCHES = . THEN N23_HT=3;
     ELSE DO;
       N23_HT=4;
       H&YR.071F=.O;
       H&YR.071I=.O;
     END;
  END;

  DROP INCHES;

/** Note 23_WT -- H&YR.072:  weight restrictions                      **/
*AMK 9/25/13
 Set height and weight restriction to conform with NHIS 2006 guidelines
 Men: height between 63-76 inches, weight between 126-299 pounds
 Women: height between 59-70 inches, weight between 100-274 pounds;

  IF (XSEXA = 1 AND (126<=H&YR.072<=299 OR H&YR.072 = .)) OR
     (XSEXA = 2 AND (100<=H&YR.072<=274 OR H&YR.072 = .)) THEN N23_WT=1;
  ELSE IF XSEXA IN (1,2) THEN DO;
     N23_WT=2;
     H&YR.072 =.O;
  END;
  ELSE IF XSEXA = . THEN DO; *MISSING GENDER;
     IF 100<=H&YR.072<=299 OR H&YR.072 = . THEN N23_WT=3;
     ELSE DO;
       N23_WT=4;
       H&YR.072=.O;
     END;
  END;





/** Note 24 -- H&YR.073, H&YR.073A-H&YR.073E: Hispanic or Latino origin or descent **/

  /* JMA
  ****Multiple responses were given to this question so H&YR.073 is being created
  ****from the multiple responses.;
```

```
  */


  IF H&YR.073B=1 THEN DO;
     N24=1;
     H&YR.073=2;
  END;
  ELSE IF H&YR.073E=1 THEN DO;
     N24=2;
     H&YR.073=5;
  END;
  ELSE IF H&YR.073C=1 THEN DO;
     N24=3;
     H&YR.073=3;
  END;
  ELSE IF H&YR.073D=1 THEN DO;
     N24=4;
     H&YR.073=4;
  END;
  ELSE IF H&YR.073A=1 THEN DO;
     N24=5;
     H&YR.073=1;
  END;
  ELSE IF H&YR.073A IN (2,.) AND H&YR.073B IN (2,.) AND H&YR.073C IN (2,.) AND
          H&YR.073D IN (2,.) AND H&YR.073E IN (2,.) THEN DO;
     N24=6;
     H&YR.073=.;

  END;


/** Note 25 -- currently covered by Medicare:  H&YR.074, H&YR.075-H&YR.079 **/

  ARRAY NOTE25 H&YR.075-H&YR.079;

  N25MARK = 0;

  DO OVER NOTE25;
     IF NOTE25 NOT IN (2,.D,.) THEN N25MARK+1;
  END;

  IF H&YR.074 = 1 THEN N25=1;
  ELSE IF H&YR.074 IN (2,.D) AND N25MARK = 0 THEN DO;
     N25=2;
     DO OVER NOTE25;
        IF NOTE25=. THEN NOTE25=.N;
        ELSE NOTE25=.C;
     END;
  END;
  ELSE IF H&YR.074 IN (2,.D,.) AND N25MARK > 0 THEN DO;
     N25=3;
     H&YR.074=1;
  END;
  ELSE IF H&YR.074 = . AND N25MARK = 0 THEN N25=4;

  DROP N25MARK;


NOSURVEY:

/* missing values */

  ARRAY MISS MISS_9 MISS_7 MISS_6 MISS_5 MISS_4 MISS_1 ;
  MISS_TOT=0;
  DO OVER MISS;
     MISS = 0;
  END;
  ARRAY MISSARAY &VARLIST2.;

  DO OVER MISSARAY;
     IF (MISSARAY EQ -9 ) THEN MISS_9 = MISS_9 + 1;
     ELSE IF (MISSARAY EQ -7) THEN MISS_7 = MISS_7 + 1;
     ELSE IF (MISSARAY EQ -6) THEN MISS_6 = MISS_6 + 1;
     ELSE IF (MISSARAY EQ -5) THEN MISS_5 = MISS_5 + 1;
```

```
     ELSE IF (MISSARAY EQ -4) THEN MISS_4 = MISS_4 + 1;
     ELSE IF (MISSARAY EQ -1) THEN MISS_1 = MISS_1 + 1;
  END;
  DO OVER MISS;
     MISS_TOT=MISS_TOT + MISS;
  END;

*****************************************;

 OUTPUT;

RUN;


proc contents data=out.&outdata.;
run;
%MEND;
%CSCHM;
```

F.2.D Q2FY2015\PROGRAMS\CODINGSCHEME\CSCHM15Q.FMT - Include file for Coding Scheme for Quarter 2 FY2015

```
/*  Formats for original answers to survey questions,
     after variables have been recoded */

        FORMAT H&YR.001   O_H&YR.001 YN.

/*             H&YR.002 has no format.*/

               H&YR.003   O_H&YR.003 HPLAN1_.
               H&YR.004   O_H&YR.004 HPTIME.



                          S&YR.J01  O_S&YR.J01  YN.

                          /*S&YR.J02  is marked*/

                          S&YR.J03  O_S&YR.J03  S&YR.J03_.
                          S&YR.J04  O_S&YR.J04  S&YR.J04_.
                          S&YR.J05  O_S&YR.J05  S&YR.J05_.
                          S&YR.J06  O_S&YR.J06  YN.

                          /*S&YR.J07  IS MARKED*/

                          S&YR.J08  O_S&YR.J08  YN.

                          /*S&YR.J09 is marked*/

                          S&YR.J10  O_S&YR.J10  YN.

                          /*S&YR.J11 is marked*/

                          S&YR.J12  O_S&YR.J12  S&YR.J12_.



               H&YR.005   O_H&YR.005 PLACE.

               H&YR.006   O_H&YR.006
               H&YR.009   O_H&YR.009
               H&YR.019   O_H&YR.019
                 YN.

               H&YR.007   O_H&YR.007 OFTEN2_.
               H&YR.008   O_H&YR.008 TIME1_.

               H&YR.010   O_H&YR.010 OFTEN3_.
               H&YR.011   O_H&YR.011 TIME2_.



               H&YR.012   O_H&YR.012 OFTEN4_.
               H&YR.013   O_H&YR.013 OFTEN4_.
               H&YR.014   O_H&YR.014 OFTEN8_.
               H&YR.015   O_H&YR.015 YN.
               H&YR.016   O_H&YR.016 YNDEF.
               H&YR.017   O_H&YR.017 YNDEF.
               H&YR.018   O_H&YR.018 RATE3_.

/*             H&YR.019 has no format.*/

               H&YR.020   O_H&YR.020 OFTEN10_.

               H&YR.021-H&YR.024   O_H&YR.021--O_H&YR.024 OFTEN5_.

               H&YR.025   O_H&YR.025 YN.
               H&YR.026   O_H&YR.026 OFTEN8_.
               H&YR.027   O_H&YR.027 RATE6_.

               S&YR.009   O_S&YR.009 YN.
               S&YR.010   O_S&YR.010 PROB1_.
```

```
            H&YR.028   O_H&YR.028 YN.
            H&YR.029   O_H&YR.029 OFTEN9_.
            H&YR.030   O_H&YR.030 SPCLST.
            H&YR.031   O_H&YR.031 RATE2_.

            S&YR.B01   O_S&YR.B01 MNTLHLTH.
            S&YR.B02   O_S&YR.B02 YN.
            S&YR.B03   O_S&YR.B03 PROB1_.
            S&YR.B04   O_S&YR.B04 RATE5_.


            H&YR.032   O_H&YR.032 YN.
            H&YR.033   O_H&YR.033 OFTEN11_.
            H&YR.034   O_H&YR.034 YN.
            H&YR.035   O_H&YR.035 OFTEN12_.
            H&YR.036   O_H&YR.036 YN.
            H&YR.037   O_H&YR.037 OFTEN13_.
            H&YR.038   O_H&YR.038 YN.
            H&YR.039   O_H&YR.039 OFTEN14_.
            H&YR.040   O_H&YR.040 YN.
            H&YR.041   O_H&YR.041 OFTEN15_.
            H&YR.042   O_H&YR.042 OFTEN15_.
            H&YR.043   O_H&YR.043 YN.
            H&YR.044   O_H&YR.044 OFTEN16_.
            H&YR.045   O_H&YR.045 YNDNK.
            H&YR.046   O_H&YR.046 OFTEN6_.
            H&YR.047   O_H&YR.047 OFTEN6_.
            H&YR.048   O_H&YR.048 RATE4_.


            H&YR.049   O_H&YR.049 TIME5_.
            H&YR.050   O_H&YR.050 YNBP_.
            H&YR.051   O_H&YR.051 TIME7_.
            H&YR.052   O_H&YR.052 YNDNK.
            H&YR.053   O_H&YR.053 TIME8_.
            H&YR.054   O_H&YR.054 OFTEN8_.
            H&YR.055   O_H&YR.055 OFTEN8_.
            H&YR.056   O_H&YR.056 OFTEN8_.


/*          H&YR.057 has no format.*/

            H&YR.058   O_H&YR.058 SEX.

            H&YR.059B  O_H&YR.059B TIME16_.

            H&YR.060   O_H&YR.060 H&YR.066   O_H&YR.066 YN.

            H&YR.061   O_H&YR.061 TIME12_.
            H&YR.062   O_H&YR.062 YNPREG.
            H&YR.063   O_H&YR.063 PREG1_.
            H&YR.064   O_H&YR.064 PREG2_.

/*          S15BE01 is marked  */

            H&YR.065   O_H&YR.065 HEALTH.

            H&YR.067   O_H&YR.067 YN.
            H&YR.068   O_H&YR.068 YN.
            H&YR.069   O_H&YR.069 YN.

            H&YR.070   O_H&YR.070 YN.

            H&YR.071F O_H&YR.071F
            H&YR.071I O_H&YR.071I
            H&YR.072  O_H&YR.072
              TIME14_.

            SREDA    O_SREDA  EDUC.

            H&YR.073            HISP.

            SRAGE    SRAGE  AGEGRP.
```

```
      H&YR.074   O_H&YR.074 YNDNK.
      H&YR.075   O_H&YR.075 MEDA.
      H&YR.076   O_H&YR.076 MEDB.
      H&YR.077   O_H&YR.077 YNDNK.
      H&YR.078   O_H&YR.078 MEDSUPP.
      H&YR.079   O_H&YR.079 YNDNK.

      S&YR.011   O_S&YR.011 AGREE2_.
      S&YR.014   O_S&YR.014 SATISFY.



      MISS_1   MISS_4-MISS_7 MISS_9 MISS_TOT 4.
     ;


LABEL O_H&YR.001='Are you the person listed on envelope'
      H&YR.001  ='Are you the person listed on envelope'
      O_H&YR.002A='Health plan(s) covered: TRICARE Prime'
      H&YR.002A ='Health plan(s) covered: TRICARE Prime'
      O_H&YR.002C='Health plan(s) covered: TRICARE Ext/Stnd'
      H&YR.002C ='Health plan(s) covered: TRICARE Ext/Stnd'
      O_H&YR.002N='Health plan(s) covered: TRICARE Plus'
      H&YR.002N ='Health plan(s) covered: TRICARE Plus'
      O_H&YR.002O='Health plan(s) covered: TRICARE For Life'
      H&YR.002O ='Health plan(s) covered: TRICARE For Life'
      O_H&YR.002P='Health plan(s) covered: TRICARE Supplmntl Ins'
      H&YR.002P ='Health plan(s) covered: TRICARE Supplmntl Ins'
      O_H&YR.002Q='Health plan(s) covered: TRICARE Reserve Select'
      H&YR.002Q ='Health plan(s) covered: TRICARE Reserve Select'
      O_H&YR.002S='Health plan(s) covered: TRICARE Retired Reserve'
      H&YR.002S ='Health plan(s) covered: TRICARE Retired Reserve'
      O_H&YR.002T='Health plan(s) covered: TRICARE Young Adult Prime'
      H&YR.002T ='Health plan(s) covered: TRICARE Young Adult Prime'
      O_H&YR.002V='Health plan(s) covered: TRICARE Young Adult Ex or Standard'
      H&YR.002V ='Health plan(s) covered: TRICARE Young Adult Ex or Standard'
      O_H&YR.002U='Health plan(s) covered: CHCBP'
      H&YR.002U ='Health plan(s) covered: CHCBP'
      O_H&YR.002F='Health plan(s) covered: Medicare'
      H&YR.002F ='Health plan(s) covered: Medicare'
      O_H&YR.002G='Health plan(s) covered: FEHBP'
      H&YR.002G ='Health plan(s) covered: FEHBP'
      O_H&YR.002H='Health plan(s) covered: Medicaid'
      H&YR.002H ='Health plan(s) covered: Medicaid'
      O_H&YR.002I='Health plan(s) covered: civilian HMO'
      H&YR.002I ='Health plan(s) covered: civilian HMO'
      O_H&YR.002J='Health plan(s) covered: other civilian'
      H&YR.002J ='Health plan(s) covered: other civilian'
      O_H&YR.002K='Health plan(s) covered: USFHP'
      H&YR.002K ='Health plan(s) covered: USFHP'
      O_H&YR.002M='Health plan(s) covered: veterans'
      H&YR.002M ='Health plan(s) covered: veterans'
      O_H&YR.002R='Health plan(s) covered: gov hlth ins-other cntry'
      H&YR.002R ='Health plan(s) covered: gov hlth ins-other cntry'
      O_H&YR.002L='Health plan(s) covered: not sure'
      H&YR.002L ='Health plan(s) covered: not sure'
      O_H&YR.003='Which health plan did you use most'
      H&YR.003  ='Which health plan did you use most'
      O_H&YR.004='Yrs in a row with health plan'
      H&YR.004  ='Yrs in a row with health plan'

      O_S&YR.J01 = 'Can obtain civilian hlth ins for self'
      S&YR.J01   = 'Can obtain civilian hlth ins for self'
      O_S&YR.J02A = 'Obtain civ cvrg: my current employer'
      S&YR.J02A  = 'Obtain civ cvrg: my current employer'
      O_S&YR.J02B = 'Obtain civ cvrg: prev-emplyr COBRA '
      S&YR.J02B  = 'Obtain civ cvrg: prev-emplyr COBRA '
      O_S&YR.J02C = 'Obtain civ cvrg: prev-emplyr retirement'
      S&YR.J02C  = 'Obtain civ cvrg: prev-emplyr retirement'
      O_S&YR.J02D = 'Obtain civ cvrg: family mem employer'
      S&YR.J02D  = 'Obtain civ cvrg: family mem employer'
      O_S&YR.J02E = 'Obtain civ cvrg: fam mem prv-employer COBRA'
      S&YR.J02E  = 'Obtain civ cvrg: fam mem prv-employer COBRA'
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O_S&YR.J02F = 'Obtain civ cvrg: fam mem retirement'
S&YR.J02F  = 'Obtain civ cvrg: fam mem retirement'
O_S&YR.J02G = 'Obtain civ cvrg: another organization'
S&YR.J02G  = 'Obtain civ cvrg: another organization'
O_S&YR.J02H = 'Obtain civ cvrg: government program'
S&YR.J02H  = 'Obtain civ cvrg: government program'
O_S&YR.J02I = 'Obtain civ cvrg: don't know'
S&YR.J02I  = 'Obtain civ cvrg: don't know'
O_S&YR.J03 = 'Are you/fam covered by a civilian policy'
S&YR.J03   = 'Are you/fam covered by a civilian policy'
O_S&YR.J04 = 'Pay all or part of civilian insrnc premimum'
S&YR.J04   = 'Pay all or part of civilian insrnc premimum'
O_S&YR.J05 = 'How much per mnth you/fam pay for coverage'
S&YR.J05   = 'How much per mnth you/fam pay for coverage'
O_S&YR.J06 = 'Used civilian coverage in past year'
S&YR.J06   = 'Used civilian coverage in past year'
O_S&YR.J07A = 'Not used civ cvrg: not available'
S&YR.J07A  = 'Not used civ cvrg: not available'
O_S&YR.J07B = 'Not used civ cvrg: better choice of drs with TRICARE'
S&YR.J07B  = 'Not used civ cvrg: better choice of drs with TRICARE'
O_S&YR.J07C = 'Not used civ cvrg: don't want to pay premium'
S&YR.J07C  = 'Not used civ cvrg: don't want to pay premium'
O_S&YR.J07D = 'Not used civ cvrg: TRICARE better customer service'
S&YR.J07D  = 'Not used civ cvrg: TRICARE better customer service'
O_S&YR.J07E = 'Not used civ cvrg: benefits are poor'
S&YR.J07E  = 'Not used civ cvrg: benefits are poor'
O_S&YR.J07F = 'Not used civ cvrg: personal Dr not available'
S&YR.J07F  = 'Not used civ cvrg: personal Dr not available'
O_S&YR.J07G = 'Not used civ cvrg: always want military hlth care'
S&YR.J07G  = 'Not used civ cvrg: always want military hlth care'
O_S&YR.J07H = 'Not used civ cvrg: TRICARE costs less'
S&YR.J07H  = 'Not used civ cvrg: TRICARE costs less'
O_S&YR.J07I = 'Not used civ cvrg: prefer military drs'
S&YR.J07I  = 'Not used civ cvrg: prefer military drs'
O_S&YR.J07J = 'Not used civ cvrg: prefer military hospitals'
S&YR.J07J  = 'Not used civ cvrg: prefer military hospitals'
O_S&YR.J07K = 'Not used civ cvrg: have not needed health care'
S&YR.J07K  = 'Not used civ cvrg: have not needed health care'
O_S&YR.J07L = 'Not used civ cvrg: another reason'
S&YR.J07L  = 'Not used civ cvrg: another reason'
O_S&YR.J07M = 'Not used civ cvrg: employer bonus'
S&YR.J07M  = 'Not used civ cvrg: employer bonus'
O_S&YR.J07N = 'Not used civ cvrg: family member employer bonus'
S&YR.J07N  = 'Not used civ cvrg: family member employer bonus'
O_S&YR.J07O = 'Not used civ cvrg: better qlty care thru TRICARE'
S&YR.J07O  = 'Not used civ cvrg: better qlty care thru TRICARE'
O_S&YR.J08 = 'Used TRICARE for non-prscrp drug hlth care'
S&YR.J08   = 'Used TRICARE for non-prscrp drug hlth care'
O_S&YR.J09A = 'Not used TRICARE: better choice of civ drs'
S&YR.J09A  = 'Not used TRICARE: better choice of civ drs'
O_S&YR.J09B = 'Not used TRICARE: don't want to pay premium'
S&YR.J09B  = 'Not used TRICARE: don't want to pay premium'
O_S&YR.J09C = 'Not used TRICARE: better civ customer service'
S&YR.J09C  = 'Not used TRICARE: better civ customer service'
O_S&YR.J09D = 'Not used TRICARE: personal Dr not available'
S&YR.J09D  = 'Not used TRICARE: personal Dr not available'
O_S&YR.J09E = 'Not used TRICARE: benefits are poor'
S&YR.J09E  = 'Not used TRICARE: benefits are poor'
O_S&YR.J09F = 'Not used TRICARE: easier to get civ care'
S&YR.J09F  = 'Not used TRICARE: easier to get civ care'
O_S&YR.J09G = 'Not used TRICARE: civ plan costs less'
S&YR.J09G  = 'Not used TRICARE: civ plan costs less'
O_S&YR.J09H = 'Not used TRICARE: no mil fclty near me'
S&YR.J09H  = 'Not used TRICARE: no mil fclty near me'
O_S&YR.J09I = 'Not used TRICARE: prefer civilian drs'
S&YR.J09I  = 'Not used TRICARE: prefer civilian drs'
O_S&YR.J09J = 'Not used TRICARE: prefer civilian hospitals'
S&YR.J09J  = 'Not used TRICARE: prefer civilian hospitals'
O_S&YR.J09K = 'Not used TRICARE: have not needed health care'
S&YR.J09K  = 'Not used TRICARE: have not needed health care'
O_S&YR.J09L = 'Not used TRICARE: another reason'
S&YR.J09L  = 'Not used TRICARE: another reason'
O_S&YR.J10 = 'Dropped civ coverage in past year'
S&YR.J10   = 'Dropped civ coverage in past year'
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O_S&YR.J11A = 'Dropped civ cvrg: lost job'
S&YR.J11A  = 'Dropped civ cvrg: lost job'
O_S&YR.J11B = 'Dropped civ cvrg: spouse or parent lost job'
S&YR.J11B  = 'Dropped civ cvrg: spouse or parent lost job'
O_S&YR.J11C = 'Dropped civ cvrg: changed jobs'
S&YR.J11C  = 'Dropped civ cvrg: changed jobs'
O_S&YR.J11D = 'Dropped civ cvrg: spouse or parent changed jobs'
S&YR.J11D  = 'Dropped civ cvrg: spouse or parent changed jobs'
O_S&YR.J11E = 'Dropped civ cvrg: retired from job'
S&YR.J11E  = 'Dropped civ cvrg: retired from job'
O_S&YR.J11F = 'Dropped civ cvrg: spouse or parent retired'
S&YR.J11F  = 'Dropped civ cvrg: spouse or parent retired'
O_S&YR.J11G = 'Dropped civ cvrg: moved to new location'
S&YR.J11G  = 'Dropped civ cvrg: moved to new location'
O_S&YR.J11H = 'Dropped civ cvrg: you/spouse/parent became active rsrvst'
S&YR.J11H  = 'Dropped civ cvrg: you/spouse/parent became active rsrvst'
O_S&YR.J11I = 'Dropped civ cvrg: you/spouse/parent returned to select rsrv'
S&YR.J11I  = 'Dropped civ cvrg: you/spouse/parent returned to select rsrv'
O_S&YR.J11J = 'Dropped civ cvrg: employer changed plans'
S&YR.J11J  = 'Dropped civ cvrg: employer changed plans'
O_S&YR.J11K = 'Dropped civ cvrg: found less expensive plan'
S&YR.J11K  = 'Dropped civ cvrg: found less expensive plan'
O_S&YR.J11L = 'Dropped civ cvrg: married, divorced, or widowed'
S&YR.J11L  = 'Dropped civ cvrg: married, divorced, or widowed'
O_S&YR.J11M = 'Dropped civ cvrg: went on Medicare'
S&YR.J11M  = 'Dropped civ cvrg: went on Medicare'
O_S&YR.J11N = 'Dropped civ cvrg: problems with health plan'
S&YR.J11N  = 'Dropped civ cvrg: problems with health plan'
O_S&YR.J12 = 'Main reason dropped civ cvrg'
S&YR.J12   = 'Main reason dropped civ cvrg'



O_H&YR.005='In lst yr:fclty use most for health care'
H&YR.005  ='In lst yr:fclty use most for health care'
O_H&YR.006='In lst yr:ill/injry/cond care right away'
H&YR.006  ='In lst yr:ill/injry/cond care right away'
O_H&YR.007='In lst yr:get urgnt care as soon as wntd'
H&YR.007  ='In lst yr:get urgnt care as soon as wntd'
O_H&YR.008='In lst yr:wait btwn try get care,see prv'
H&YR.008  ='In lst yr:wait btwn try get care,see prv'
O_H&YR.009='In lst yr:make appts non-urgnt hlth care'
H&YR.009  ='In lst yr:make appts non-urgnt hlth care'
O_H&YR.010='In lst yr:non-urg hlth cre appt whn wntd'
H&YR.010  ='In lst yr:non-urg hlth cre appt whn wntd'
O_H&YR.011='In lst yr:days btwn appt & see prvder'
H&YR.011  ='In lst yr:days btwn appt & see prvder'
O_H&YR.012='In lst yr:go to emrgncy rm for own care'
H&YR.012  ='In lst yr:go to emrgncy rm for own care'
O_H&YR.013='In lst yr:go to Dr office/clinic for care'
H&YR.013  ='In lst yr:go to Dr office/clinic for care'
O_H&YR.014  ='Lst yr: how often talk to doctor about illness prvntn'
H&YR.014='Lst yr: how often talk to doctor about illness prvntn'
O_H&YR.015  ='Lst yr: did doctor tell you more than 1 choice for trtmnt'
H&YR.015='Lst yr: did doctor tell you more than 1 choice for trtmnt'
O_H&YR.016  ='Lst yr: did talk to doctor about pros/cons of trtmnt'
H&YR.016='Lst yr: did talk to doctor about pros/cons of trtmnt'
O_H&YR.017  ='Lst yr: did doctor ask which trtmnt option best for you'
H&YR.017='Lst yr: did doctor ask which trtmnt option best for you'
O_H&YR.018='Rating of all health care in lst yr'
H&YR.018  ='Rating of all health care in lst yr'
O_H&YR.019='Have one person think of as personal Dr'
H&YR.019  ='Have one person think of as personal Dr'
O_H&YR.020  ='Lst yr: how often visit prsnl doctor for care for yourself'
H&YR.020='Lst yr: how often visit prsnl doctor for care for yourself'
O_H&YR.021='Lst yr: how oftn Drs listen to you'
H&YR.021  ='Lst yr: how oftn Drs listen to you'
O_H&YR.022='Lst yr: how oftn Drs explain things'
H&YR.022  ='Lst yr: how oftn Drs explain things'
O_H&YR.023='Lst yr: how oftn Drs show respect'
H&YR.023  ='Lst yr: how oftn Drs show respect'
O_H&YR.024='Lst yr: how oftn Drs spend enough time'
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                H&YR.024  ='Lst yr: how oftn Drs spend enough time'
                O_H&YR.025  ='Lst yr: did get care from doctor other than prsnl doctor'
                H&YR.025='Lst yr: did get care from doctor other than prsnl doctor'
                O_H&YR.026  ='Lst yr: how often prsnl doctor seemed infrmd of care from other
doctors'
                H&YR.026='Lst yr: how often prsnl doctor seemed infrmd of care from other
doctors'
                O_H&YR.027='Rating of your personal Dr'
                H&YR.027  ='Rating of your personal Dr'
                O_H&YR.028  ='Lst yr: did make any appointments to see spclst'
                H&YR.028='Lst yr: did make any appointments to see spclst'
                O_H&YR.029  ='Lst yr: how often easy to get appointments with spclsts'
                H&YR.029='Lst yr: how often easy to get appointments with spclsts'
                O_H&YR.030  ='Lst yr: how many spclsts seen'
                H&YR.030='Lst yr: how many spclsts seen'
                O_H&YR.031='Rating of specialist seen in lst yr'
                H&YR.031  ='Rating of specialist seen in lst yr'
                O_H&YR.032  ='Lst yr: did try to get care, test, or trtmnt through health plan'
                H&YR.032='Lst yr: did try to get care, test, or trtmnt through health plan'
                O_H&YR.033  ='Lst yr: how often easy to get care, test, or trtmnt'
                H&YR.033='Lst yr: how often easy to get care, test, or trtmnt'
                O_H&YR.034  ='Lst yr: did look for info from written material/Internet'
                H&YR.034='Lst yr: did look for info from written material/Internet'
                O_H&YR.035  ='Lst yr: how often written material/Internet provide needed info'
                H&YR.035='Lst yr: how often written material/Internet provide needed info'
                O_H&YR.036  ='Lst yr: did look for info from health plan on cost of
service/equipment'
                H&YR.036='Lst yr: did look for info from health plan on cost of
service/equipment'
                O_H&YR.037  ='Lst yr: how often able to find out cost of service/equipment'
                H&YR.037='Lst yr: how often able to find out cost of service/equipment'
                O_H&YR.038  ='Lst yr: did look for info from health plan on cost of prescription
meds'
                H&YR.038='Lst yr: did look for info from health plan on cost of prescription
meds'
                O_H&YR.039  ='Lst yr: how often able to find out cost of prescription meds'
                H&YR.039='Lst yr: how often able to find out cost of prescription meds'
                O_H&YR.040  ="Lst yr: did try to get info/help from health plan's cstmr service"
                H&YR.040="Lst yr: did try to get info/help from health plan's cstmr service"
                O_H&YR.041  ='Lst yr: how often did cstmr service give needed info/help'
                H&YR.041='Lst yr: how often did cstmr service give needed info/help'
                O_H&YR.042  ='Lst yr: how often did cstmr service treat with courtesy/respect'
                H&YR.042='Lst yr: how often did cstmr service treat with courtesy/respect'
                O_H&YR.043  ='Lst yr: did health plan give any forms to fill out'
                H&YR.043='Lst yr: did health plan give any forms to fill out'
                O_H&YR.044  ='Lst yr: how often were forms easy to fill out'
                H&YR.044='Lst yr: how often were forms easy to fill out'
                O_H&YR.045  ='Lst yr: send in any claims'
                H&YR.045='Lst yr: send in any claims'
                O_H&YR.046  ='Lst yr: how often did health plan handle claims quickly'
                H&YR.046='Lst yr: how often did health plan handle claims quickly'
                O_H&YR.047='Lst yr: how oftn handle claims correctly'
                H&YR.047  ='Lst yr: how oftn handle claims correctly'
                O_H&YR.048  ='Rating of all experience with hlth plan'
                H&YR.048='Rating of all experience with hlth plan'
                O_H&YR.049='Blood pressure: when lst reading'
                H&YR.049  ='Blood pressure: when lst reading'
                O_H&YR.050='Blood pressure: know if too high or not'
                H&YR.050  ='Blood pressure: know if too high or not'
                O_H&YR.051='When did you lst have a flu shot'
                H&YR.051  ='When did you lst have a flu shot'
                O_H&YR.052  ='Smoked at least 100 cigarettes in life'
                H&YR.052='Smoked at least 100 cigarettes in life'
                O_H&YR.053  ='Smoke or use tobacco everyday, some days or not at all'
                H&YR.053='Smoke or use tobacco everyday, some days or not at all'
                O_H&YR.054='Lst yr: how often advised to quit smoking or use tobacco'
                H&YR.054  ='Lst yr: how often advised to quit smoking or use tobacco'
                O_H&YR.055  ='Lst yr: how often recom medic assist quit smoking or using tobacco'
                H&YR.055='Lst yr: how often recom medic assist quit smoking or using tobacco'
                O_H&YR.056  ='Lst yr: how often discu meth/strag asst quit smoking or using
tobacco'
                H&YR.056='Lst yr: how often discu meth/strag asst quit smoking or using tobacco'
                O_H&YR.057A ='Do you smoke or use: cigarettes'
                H&YR.057A='Do you smoke or use: cigarettes'
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O_H&YR.057B ='Do you smoke or use: dip, chewing tobacco, snuff, or snus'
H&YR.057B='Do you smoke or use: dip, chewing tobacco, snuff, or snus'
O_H&YR.057C ='Do you smoke or use: cigars'
H&YR.057C='Do you smoke or use: cigars'
O_H&YR.057D ='Do you smoke or use: pipes, bidis, or kreteks'
H&YR.057D='Do you smoke or use: pipes, bidis, or kreteks'
O_H&YR.058='Are you male or female'
H&YR.058  ='Are you male or female'
O_H&YR.059B='Lst have a Pap smear test'
H&YR.059B ='Lst have a Pap smear test'
O_H&YR.060='Are you under age 40'
H&YR.060  ='Are you under age 40'
O_H&YR.061='Lst time: breasts checked mammography'
H&YR.061  ='Lst time: breasts checked mammography'
O_H&YR.062='Been pregnant in lst yr or pregnant now'
H&YR.062  ='Been pregnant in lst yr or pregnant now'
O_H&YR.063='In what trimester is your pregnancy'
H&YR.063  ='In what trimester is your pregnancy'
O_H&YR.064='Trimester first received prenatal care'
H&YR.064  ='Trimester first received prenatal care'
O_H&YR.065='In gnrl, how would you rate ovrall hlth'
H&YR.065  ='In gnrl, how would you rate ovrall hlth'
O_H&YR.066='Impairment/Hlth prblm limit activities'
H&YR.066  ='Impairment/Hlth prblm limit activities'
O_H&YR.067  ='Lst yr: have seen doctor 3 or more times for same condition'
H&YR.067='Lst yr: have seen doctor 3 or more times for same condition'
O_H&YR.068  ='Has condition lasted for at least 3 months'
H&YR.068='Has condition lasted for at least 3 months'
O_H&YR.069  ='Need to take medicine prescribed by a doctor'
H&YR.069='Need to take medicine prescribed by a doctor'
O_H&YR.070  ='Medicine to treat condition that has lasted for at least 3 months'
H&YR.070='Medicine to treat condition that has lasted for at least 3 months'
O_H&YR.071F='Height without shoes (feet)'
H&YR.071F ='Height without shoes (feet)'
O_H&YR.071I='Height without shoes (inches)'
H&YR.071I ='Height without shoes (inches)'
O_H&YR.072='Weight without shoes'
H&YR.072  ='Weight without shoes'
O_SREDA ='Highest grade completed'
SREDA   ='Highest grade completed'
H&YR.073  ='Are you Spanish/Hispanic/Latino'
O_H&YR.073A='Not Spanish/Hispanic/Latino'
H&YR.073A ='Not Spanish/Hispanic/Latino'
O_H&YR.073B='Mexican, Mexican American, Chicano'
H&YR.073B ='Mexican, Mexican American, Chicano'
O_H&YR.073C='Puerto Rican'
H&YR.073C ='Puerto Rican'
O_H&YR.073D='Cuban'
H&YR.073D ='Cuban'
O_H&YR.073E='Other Spanish, Hispanic, or Latino'
H&YR.073E ='Other Spanish, Hispanic, or Latino'
O_SRRACEA='Race: White'
SRRACEA ='Race: White'
O_SRRACEB='Race: Black or African American'
SRRACEB ='Race: Black or African American'
O_SRRACEC='Race: American Indian or Alaska Native'
SRRACEC ='Race: American Indian or Alaska Native'
O_SRRACED='Race: Asian'
SRRACED ='Race: Asian'
O_SRRACEE='Race: Native Hawaiian/other Pacific Isl.'
SRRACEE ='Race: Native Hawaiian/other Pacific Isl.'
O_SRAGE ='What is your age now'
SRAGE   ='What is your age now'
O_H&YR.074  ='Currently Covered Medicare'
H&YR.074='Currently Covered Medicare'
O_H&YR.075  ='Currently Covered Medicare Part A'
H&YR.075='Currently Covered Medicare Part A'
O_H&YR.076  ='Currently Covered Medicare Part B'
H&YR.076='Currently Covered Medicare Part B'
O_H&YR.077  ='Enrolled Medicare Advantage'
H&YR.077='Enrolled Medicare Advantage'
O_H&YR.078  ='Currently Covered Medicare Supplemental'
H&YR.078='Currently Covered Medicare Supplemental'
O_H&YR.079  ='Enrolled Medicare Part D'
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H&YR.079='Enrolled Medicare Part D'


O_S&YR.009='Same prsnl doctor/nurse before this hlth plan'
S&YR.009  ='Same prsnl doctor/nurse before this hlth plan'
O_S&YR.010='Prblm getting prsnl doctor/nurse you are happy with'
S&YR.010  ='Prblm getting prsnl doctor/nurse you are happy with'

O_S&YR.B01='Self rate of overall mental/emotional health'
S&YR.B01  ='Self rate of overall mental/emotional health'
O_S&YR.B02='Lst yr: needed treatmnt/cnslng-prsnl prob'
S&YR.B02  ='Lst yr: needed treatmnt/cnslng-prsnl prob'
O_S&YR.B03='Lst yr: prblm gttng needed treatmnt/cnslng'
S&YR.B03  ='Lst yr: prblm gttng needed treatmnt/cnslng'
O_S&YR.B04='Lst yr: rate of treatmnt/cnslng received'
S&YR.B04  ='Lst yr: rate of treatmnt/cnslng received'


O_S&YR.BE01A='Has a doctor told you you have conditions: Heart attack'
S&YR.BE01A  ='Has a doctor told you you have conditions: Heart attack'
O_S&YR.BE01B='Has a doctor told you you have conditions: Angina or coronary heart
disease'
S&YR.BE01B  ='Has a doctor told you you have conditions: Angina or coronary heart
disease'
O_S&YR.BE01C='Has a doctor told you you have conditions: Stroke'
S&YR.BE01C  ='Has a doctor told you you have conditions: Stroke'
O_S&YR.BE01D='Has a doctor told you you have conditions: Diabetes'
S&YR.BE01D  ='Has a doctor told you you have conditions: Diabetes'



O_S&YR.011  ='Agree/disagree: able to see provider when needed'
S&YR.011='Agree/disagree: able to see provider when needed'
O_S&YR.014  ='How satisfied with health care during last visit'
S&YR.014='How satisfied with health care during last visit'


N1 = "Coding Scheme Note 1"
N1_J1 = "Coding Scheme Note 1_J1"
N1_J2 = "Coding Scheme Note 1_J2"
N1_J3 = "Coding Scheme Note 1_J3"
N1_J4 = "Coding Scheme Note 1_J4"
N1_J5 = "Coding Scheme Note 1_J5"
N1_J6 = "Coding Scheme Note 1_J6"
N2    = "Coding Scheme Note 2"
N3    = "Coding Scheme Note 3"
N4    = "Coding Scheme Note 4"
N5    = "Coding Scheme Note 5"
N6    = "Coding Scheme Note 6"
N7    = "Coding Scheme Note 7"
N8    = "Coding Scheme Note 8"
N8_01 = "Coding Scheme Note 8_01"
N9    = "Coding Scheme Note 9"
N10   = "Coding Scheme Note 10"
N10_B1= "Coding Scheme Note 10_B1"
N11   = "Coding Scheme Note 11"
N12   = "Coding Scheme Note 12"
N13   = "Coding Scheme Note 13"
N14   = "Coding Scheme Note 14"
N15   = "Coding Scheme Note 15"
N16   = "Coding Scheme Note 16"
N17   = "Coding Scheme Note 17"
N18   = "Coding Scheme Note 18"
N19A  = "Coding Scheme Note 19A"
N19B  = "Coding Scheme Note 19B"
N20   = "Coding Scheme Note 20"
N21   = "Coding Scheme Note 21"
N22   = "Coding Scheme Note 22"
N23   = "Coding Scheme Note 23"
N23_HT= "Coding Scheme Note 23_HT"
N23_WT= "Coding Scheme Note 23_WT"
N24   = "Coding Scheme Note 24"
N25   = "Coding Scheme Note 25"
```

```
               MISS_1 = "Count of original survey responses (pre-cleaning): violates skip
pattern"
               /*MISS_3 = "Count of original survey responses (pre-cleaning): do not use other
tobacco products response"*/
               MISS_4 = "Count of original survey responses (pre-cleaning): incomplete grid
error"
               MISS_5 = "Count of original survey responses (pre-cleaning): scalable reponse of
don't know"
               MISS_6 = "Count of original survey responses (pre-cleaning): not applicable -
valid skip"
               MISS_7 = "Count of original survey responses (pre-cleaning): out-of-range error"
               MISS_9 = "Count of original survey responses (pre-cleaning): no response -
invalid skip"
               MISS_TOT = "Total number of missing responses (pre-cleaning)"
               XSEXA = "Male or Female  - R"
             ;
```

F.2.E Q3FY2015\PROGRAMS\CODINGSCHEME\CSCHM15Q.SAS - Implement Coding Scheme and Coding Tables for Quarter 3 FY2015

```
*************************************************************************;
*  Program:  Cschmyyq.sas
*  Written:  06/04/2001
*   Author:  C. Rankin
*
*    Input:  MERGESYN.sas7bdat - Merged MPR Sampling, DEERS, and Synovate Response Data
*   Output:  CSCHMyyQ.sas7bdat - Coding scheme file
*
* Modified:
*          12/15/2012 - Removed logic for handling check boxes for height and
*                       weight variables. Also no longer have to convert the
*                       weight variable from character to numeric
*          12/21/2012 - Added code on line 146 to correct out of range height (in)
*          12/18/2013 - Updated for Q1 2014 - added ht/wt note
*          09/29/2014 - Added SQL statement to automatically make varlist1, varlist2, and
marked variables
                     07/22/2015 - NOPRINT added to first PROC SQL
*  Purpose:  Apply Coding Scheme Specifications to DoD Health Care Survey
*            Response Data, check for consistency in responses and skip
*            patterns
*  Include
*    files:  Cschmyyq.fmt
*
*************************************************************************;

OPTIONS PS=80 LS=120 NOCENTER COMPRESS=YES SOURCE SOURCE2 VARLENCHK=NOWARN;
title "Coding Scheme for Q&qt. FY&yr."; title2; title3;

%LET INDATA=MERGESYN;
%LET OUTDATA=CSCHM&yr.q;

LIBNAME LIBRARY    "..\..\DATA\AFINAL\FMTLIB";
LIBNAME IN         "..\..\DATA\AFINAL";
LIBNAME OUT        "..\..\DATA\AFINAL";

%MACRO CSCHM;

DATA &INDATA;

  SET IN.&INDATA ;

*RENAME AND CREATE VARIABLES NEEDED FOR CODING SCHEME;

  RENAME SRACEA = SRRACEA;
  RENAME SRACEB = SRRACEB;
  RENAME SRACEC = SRRACEC;
  RENAME SRACED = SRRACED;
  RENAME SRACEE = SRRACEE;





RENAME INTERVIEWTIME = INTTIME;

  SEX=PNSEXCD;
  AGE=INPUT(DAGEQY,8.);


RUN;

*Create list of variables from dataset;
*O_ variables are the original values from the survey response;
*Must remove any variable that ends with an alphabetic letter that
is not a marked/unmarked variable from the 'markedvars' line of code;
PROC SQL NOPRINT;
  CREATE TABLE VARIABLES AS
    SELECT UPCASE(NAME) AS VARS,
              UPCASE(CAT('O_', NAME)) AS OVARS,
           CASE WHEN SUBSTR(NAME,LENGTH(NAME)) NOT IN ('0' '1' '2' '3' '4' '5' '6' '7' '8' '9')
```

```
                AND NAME NOT IN ("H&YR.059B", "H&YR.071F" ,"H&YR.071I", "SREDA", "SRAGE")
                              THEN UPCASE(NAME) END AS MARKEDVARS,
                  CASE WHEN CALCULATED MARKEDVARS NE ''
                THEN UPCASE(CAT('O_', CALCULATED MARKEDVARS)) END AS OMARKEDVARS
         FROM DICTIONARY.COLUMNS
         WHERE LIBNAME = 'WORK' AND MEMNAME = "&INDATA"
           AND (NAME CONTAINS ("H&YR.") OR NAME CONTAINS ("S&YR.") OR NAME CONTAINS ("SR")) ;
        SELECT COMPRESS(VARS), COMPRESS(OVARS), COMPRESS(MARKEDVARS), COMPRESS(OMARKEDVARS)
    INTO :VARLIST1 SEPARATED BY " ",
             :VARLIST2 SEPARATED BY " ",
                :MARKEDVARS SEPARATED BY " ",
                :OMARKEDVARS SEPARATED BY " "
         FROM VARIABLES;
QUIT;

proc print data=variables; run;

%PUT &VARLIST1;
%PUT &VARLIST2;
%PUT &MARKEDVARS;
%PUT &OMARKEDVARS;


TITLE  "DoD 20&YR Survey";
TITLE2 "Apply Coding Scheme";


DATA OUT.&outdata.;
/* label and format statements for original variables */
  LENGTH &VARLIST1. &VARLIST2. 4. MPRID $8.;
  INFORMAT &VARLIST2. 4.;
  %INCLUDE "CSCHM&YR.q.FMT";

   SET &INDATA;


*************************************************************;
**** Recodes for invalid responses:***************************;
*************************************************************;


/* This is a version of the coding scheme and coding tables for the
   FY 20&YR. HCSDB Form A.
   The following tables outline the coding of screening questions (skip),
   and subsequent items to be answered (or not answered in a series
   following a skip question.) */

/* First set up new variables that capture the original values */
/* recode the initial numeric values to the SAS numeric values */
/* specified in the coding scheme                              */


  ARRAY RECODE(*) &VARLIST1;
  ARRAY   ORIG(*) &VARLIST2;

  DO I = 1 to DIM(ORIG);
      ORIG(I) = RECODE(I);
      IF ORIG(I) < 0 THEN DO;
              IF ORIG(I)= -9 THEN RECODE(I)=.;
         ELSE IF ORIG(I)= -7 THEN RECODE(I)=.O;
         ELSE IF ORIG(I)= -6 THEN RECODE(I)=.N;
         ELSE IF ORIG(I)= -5 THEN RECODE(I)=.D;
         ELSE IF ORIG(I)= -4 THEN RECODE(I)=.I;
         ELSE IF ORIG(I)= -1 THEN RECODE(I)=.C;
      END;
  END;
  DROP I;



/* recode selected responses to be 1=marked, 2=unmarked */

  ARRAY   MARKED(*) &MARKEDVARS. ;
  ARRAY INFORMAT(*) &OMARKEDVARS. ;
```

```
  DO J=1 TO DIM(INFORMAT);
     IF INFORMAT(J) = 1 THEN MARKED(J)=1;
     ELSE MARKED(J)=2;
  END;
  DROP J;

  FORMAT &MARKEDVARS.  MARKED.;


*********************************************************************;


/*  skip coding scheme for all surveys not returned  **/

 IF FLAG_FIN NE 1 THEN GOTO NOSURVEY;


/** Note 1 -- H&YR.003, H&YR.004 health plan usage  **/

  IF H&YR.003 > 0 THEN N1=1;
  ELSE IF H&YR.003=.N  OR H&YR.003 =.D THEN DO;
     IF H&YR.004 NOT=. THEN DO;
        N1=2;
        H&YR.004=.C;
     END;
     ELSE DO;
        N1=3;
        H&YR.004=.N;
     END;
  END;
  ELSE IF H&YR.003=.   THEN N1=4;



  /** Note 2 -- H&YR.006,H&YR.007,H&YR.008:  illness or injury **/

  ARRAY NOTE2 H&YR.007 H&YR.008;
  N2MARK=0;
  N2NMISS=0;
  N2NN=0;

  DO OVER NOTE2;
     IF NOTE2 NE . THEN N2NMISS+1;
     IF NOTE2 NOT IN (.N,.) THEN N2MARK+1;
     IF NOTE2 EQ .N THEN N2NN+1;
  END;


  IF H&YR.006=1 AND N2NMISS=0 THEN DO;
       N2=1;
  END;
  ELSE IF H&YR.006 IN (1,.) AND N2NMISS>0 AND N2MARK=0 THEN DO;
     H&YR.006=2;
     N2=2;
     DO OVER NOTE2;
        IF NOTE2=. THEN NOTE2=.N;
        ELSE NOTE2=.C;
     END;
  END;
  ELSE IF H&YR.006=1 AND N2MARK=1 AND N2NN=1 THEN  DO;
     DO OVER NOTE2;
        IF NOTE2=.N THEN NOTE2=.;
     END;
     N2=3;
  END;
  ELSE IF H&YR.006=1 AND N2MARK>0 THEN DO;
     N2=4;
  END;
  ELSE IF H&YR.006=2 AND N2MARK=1 AND N2NN=1  THEN  DO;
     H&YR.007=.C;
     H&YR.008=.C;
     N2=5;
```

```
  END;
  ELSE IF H&YR.006 IN (2,.) AND N2MARK>0 THEN DO;
     H&YR.006=1;
     N2=6;
     DO OVER NOTE2;
        IF NOTE2=.N THEN NOTE2=.;
     END;
  END;
  ELSE IF H&YR.006=2 AND (N2NMISS=0 OR (N2NMISS>0 AND N2MARK=0)) THEN DO;
     N2=7;
     DO OVER NOTE2;
        IF NOTE2=. THEN NOTE2=.N;
        ELSE NOTE2=.C;
     END;
  END;
  ELSE IF H&YR.006=.  AND N2NMISS=0 THEN N2=8;


  DROP N2NMISS N2MARK N2NN;


/** Note 3 -- H&YR.009,H&YR.010,H&YR.011:  regular or routine healthcare **/

  ARRAY Note3 H&YR.010 H&YR.011;
  N3MARK=0;
  N3NMISS=0;
  N3NN=0;

  DO OVER Note3;
     IF Note3 NE . THEN N3NMISS+1;
     IF Note3 NOT IN (.N,.) THEN N3MARK+1;
     IF Note3 EQ .N THEN N3NN+1;
  END;

  IF H&YR.009=1 AND N3NMISS=0 THEN DO;
       N3=1;
  END;
  ELSE IF H&YR.009 IN (1,.) AND N3NMISS>0 AND N3MARK=0 THEN DO;
     H&YR.009=2;
     N3=2;
     DO OVER Note3;
        IF Note3=. THEN Note3=.N;
        ELSE Note3=.C;
     END;
  END;
  ELSE IF H&YR.009=1 AND N3MARK=1 AND N3NN=1 THEN  DO;
     DO OVER Note3;
        IF Note3=.N THEN Note3=.;
     END;
     N3=3;
  END;
  ELSE IF H&YR.009=1 AND N3MARK>0 THEN DO;
     N3=4;
  END;
  ELSE IF H&YR.009=2 AND N3MARK=1 AND N3NN=1  THEN  DO;
     H&YR.010=.C;
     H&YR.011=.C;
     N3=5;
  END;
  ELSE IF H&YR.009 IN (2,.) AND N3MARK>0 THEN DO;
     H&YR.009=1;
     N3=6;
     DO OVER Note3;
        IF Note3=.N THEN Note3=.;
     END;
  END;
  ELSE IF H&YR.009=2 AND (N3NMISS=0 OR (N3NMISS>0 AND N3MARK=0)) THEN DO;
     N3=7;
     DO OVER Note3;
        IF Note3=. THEN Note3=.N;
        ELSE Note3=.C;
     END;
  END;
  ELSE IF H&YR.009=.  AND N3NMISS=0 THEN N3=8;
```

```
  DROP N3NMISS N3MARK N3NN;



/** Note 4 -- H&YR.013, H&YR.014-H&YR.018: doctor's office or clinic **/

  ARRAY NOTE4  H&YR.014-H&YR.018;

  N4MARK=0;
  N4NMISS=0;

  DO OVER NOTE4;
     IF NOTE4 NE . THEN N4NMISS+1;
     IF NOTE4 NOT IN  (., .N) THEN N4MARK+1;
  END;


  IF H&YR.013=1 THEN DO;
     N4=1;
     DO OVER NOTE4;
        IF NOTE4=. THEN NOTE4=.N;
        ELSE NOTE4=.C;
     END;
  END;
  ELSE IF H&YR.013 IN (2,3,4,5,6,7,.) AND N4NMISS>0 AND N4MARK=0 THEN DO;
     H&YR.013=1;
     N4=2;
     DO OVER NOTE4;
        IF NOTE4=. THEN NOTE4=.N;
        ELSE NOTE4=.C;
     END;
  END;
  ELSE IF H&YR.013 IN (2,3,4,5,6,7) AND (N4NMISS=0 OR N4MARK>0) THEN DO;
     DO OVER NOTE4;
        IF NOTE4=.N THEN NOTE4=.;
     END;
     N4=3;
  END;
  ELSE IF H&YR.013=.  AND N4NMISS=0 THEN N4=4;
  ELSE IF H&YR.013 IN (.) AND N4MARK>0 THEN DO;
     N4=5;
     DO OVER NOTE4;
        IF NOTE4=.N THEN NOTE4=.;
     END;
  END;

  DROP N4NMISS N4MARK;


/** Note 5 -- H&YR.015, H&YR.016-H&YR.017: doctor's office or clinic- treatment **/

 IF H&YR.015 IN (.N,.C) THEN N5=1;
 ELSE IF H&YR.015= 1  THEN N5=2;
 ELSE IF H&YR.015 IN (2,.) AND H&YR.016 IN (1,2) THEN  DO;
     N5=3;
     H&YR.015=1;
 END;
 ELSE IF H&YR.015 IN (2,.) AND (H&YR.016 IN (3,4,.) AND H&YR.017 IN (1,2)) THEN  DO;
     N5=4;
     H&YR.015=1;
 END;
 ELSE IF H&YR.015 IN (2) AND (H&YR.016 IN (3,4,.) AND H&YR.017 IN (3,4,.)) THEN  DO;
     N5=5;
     IF H&YR.016 = . THEN H&YR.016 = .N;
     ELSE H&YR.016 = .C;
     IF H&YR.017 = . THEN H&YR.017 = .N;
     ELSE H&YR.017 = .C;
 END;
 ELSE IF H&YR.015 IN (.) AND (H&YR.016 IN (3,4,.) AND H&YR.017 IN (3,4,.)) THEN  DO;
     N5=6;
 END;
```

```
/** Note 5_C1 -- S&YR.C09, S&YR.C10: special medical equipment **/

  IF S&YR.C09 = 1 AND S&YR.C10 IN (1,2,3,.) THEN N5_C1=1;
  ELSE IF S&YR.C09 IN (1,.) AND S&YR.C10 = .N THEN DO;
     N5_C1=2;
     S&YR.C09=2;
     S&YR.C10=.C;
  END;
  ELSE IF S&YR.C09 IN (2,.) AND S&YR.C10 IN (1,2,3) THEN DO;
     N5_C1=3;
     S&YR.C09=1;
  END;
  ELSE IF S&YR.C09 = 2 AND S&YR.C10 IN (.N,.) THEN DO;
     N5_C1=4;
     IF S&YR.C10 = . THEN S&YR.C10 = .N;
     ELSE S&YR.C10 = .C;
  END;
  ELSE IF S&YR.C09 = . AND S&YR.C10 = . THEN N5_C1=5;



/** Note 5_C2 -- S&YR.C11, S&YR.C12: special therapy **/

  IF S&YR.C11 = 1 AND S&YR.C12 IN (1,2,3,.) THEN N5_C2=1;
  ELSE IF S&YR.C11 IN (1,.) AND S&YR.C12 = .N THEN DO;
     N5_C2=2;
     S&YR.C11=2;
     S&YR.C12=.C;
  END;
  ELSE IF S&YR.C11 IN (2,.) AND S&YR.C12 IN (1,2,3) THEN DO;
     N5_C2=3;
     S&YR.C11=1;
  END;
  ELSE IF S&YR.C11 = 2 AND S&YR.C12 IN (.N,.) THEN DO;
     N5_C2=4;
     IF S&YR.C12 = . THEN S&YR.C12 = .N;
     ELSE S&YR.C12 = .C;
  END;
  ELSE IF S&YR.C11 = . AND S&YR.C12 = . THEN N5_C2=5;



/** Note 5_C3 -- S&YR.C13, S&YR.C14: home health care **/

  IF S&YR.C13 = 1 AND S&YR.C14 IN (1,2,3,.) THEN N5_C3=1;
  ELSE IF S&YR.C13 IN (1,.) AND S&YR.C14 = .N THEN DO;
     N5_C3=2;
     S&YR.C13=2;
     S&YR.C14=.C;
  END;
  ELSE IF S&YR.C13 IN (2,.) AND S&YR.C14 IN (1,2,3) THEN DO;
     N5_C3=3;
     S&YR.C13=1;
  END;
  ELSE IF S&YR.C13 = 2 AND S&YR.C14 IN (.N,.) THEN DO;
     N5_C3=4;
     IF S&YR.C14 = . THEN S&YR.C14 = .N;
     ELSE S&YR.C14 = .C;
  END;
  ELSE IF S&YR.C13 = . AND S&YR.C14 = . THEN N5_C3=5;





/** Note 6 -- H&YR.019, H&YR.020-H&YR.027, S&YR.009: personal doctor **/
/* MER 07/01/09 */
```

```
ARRAY NOTE6  H&YR.021-H&YR.024;

N6MARK=0;

DO OVER NOTE6;
   IF NOTE6 NOT IN  (., .N) THEN N6MARK+1;
END;

IF H&YR.020 NOT IN (0,.) THEN N6MARK+1;


IF H&YR.019 = 1  THEN DO;
   N6=1;
   IF H&YR.027=.N THEN H&YR.027=.;
END;
ELSE IF H&YR.019 in (2,.) AND H&YR.027 in (0,1,2,3,4,5,6,7,8,9,10) THEN DO;
   N6=2;
   H&YR.019=1;
END;
ELSE IF H&YR.019 in (2,.) AND N6MARK>0 AND H&YR.027 = . THEN DO;
   N6=3;
   H&YR.019=1;
END;
ELSE IF H&YR.019 = 2 AND N6MARK>0 AND H&YR.027 = .N THEN DO;
   N6=4;
   IF H&YR.020=. THEN H&YR.020=.N;
   ELSE H&YR.020=.C;
   DO OVER NOTE6;
      IF NOTE6=. THEN NOTE6=.N;
      ELSE NOTE6=.C;
   END;
   IF H&YR.025=. THEN H&YR.025=.N;
   ELSE H&YR.025=.C;
   IF H&YR.026=. THEN H&YR.026=.N;
   ELSE H&YR.026=.C;
   IF S&YR.009=. THEN S&YR.009=.N;
   ELSE S&YR.009=.C;
   H&YR.027=.C;
END;
ELSE IF H&YR.019 = 2 AND N6MARK=0 AND H&YR.027 in (.N,.) THEN DO;
   N6=5;
   IF H&YR.020=. THEN H&YR.020=.N;
   ELSE H&YR.020=.C;
   DO OVER NOTE6;
      IF NOTE6=. THEN NOTE6=.N;
      ELSE NOTE6=.C;
   END;
   IF H&YR.025=. THEN H&YR.025=.N;
   ELSE H&YR.025=.C;
   IF H&YR.026=. THEN H&YR.026=.N;
   ELSE H&YR.026=.C;
   IF S&YR.009=. THEN S&YR.009=.N;
   ELSE S&YR.009=.C;
   IF H&YR.027=. THEN H&YR.027=.N;
   ELSE H&YR.027=.C;
END;
ELSE IF H&YR.019 = . AND H&YR.027 = .N THEN DO; /* MER 07/31/09 combined rows 6 and 7 */
   N6=6;
   H&YR.019=2;
   IF H&YR.020=. THEN H&YR.020=.N;
   ELSE H&YR.020=.C;
   DO OVER NOTE6;
      IF NOTE6=. THEN NOTE6=.N;
      ELSE NOTE6=.C;
   END;
   IF H&YR.025=. THEN H&YR.025=.N;
   ELSE H&YR.025=.C;
   IF H&YR.026=. THEN H&YR.026=.N;
   ELSE H&YR.026=.C;
   IF S&YR.009=. THEN S&YR.009=.N;
   ELSE S&YR.009=.C;
   H&YR.027=.C;
END;
ELSE IF H&YR.019 = . AND N6MARK=0 AND H&YR.027 = . THEN N6=7;
```

```
  DROP N6MARK;


/** Note 7 -- H&YR.020, H&YR.021-H&YR.026: personal doctor visit **/

  ARRAY NOTE7  H&YR.021-H&YR.024;

  N7MARK=0;
  N7NMISS=0;

  DO OVER NOTE7;
     IF NOTE7 NE . THEN N7NMISS+1;
     IF NOTE7 NOT IN  (., .N) THEN N7MARK+1;
  END;


  IF H&YR.020 IN (.N, .C) THEN N7=1;
  ELSE IF H&YR.020=0 THEN DO;
     N7=2;
     DO OVER NOTE7;
        IF NOTE7=. THEN NOTE7=.N;
        ELSE NOTE7=.C;
     END;
     IF H&YR.025=. THEN H&YR.025=.N;
     ELSE H&YR.025=.C;
     IF H&YR.026=. THEN H&YR.026=.N;
     ELSE H&YR.026=.C;
  END;
  ELSE IF H&YR.020 IN (1,2,3,4,5,6,.) AND N7NMISS>0 AND N7MARK=0 THEN DO;
     H&YR.020=0;
     N7=3;
     DO OVER NOTE7;
        IF NOTE7=. THEN NOTE7=.N;
        ELSE NOTE7=.C;
     END;
     IF H&YR.025=. THEN H&YR.025=.N;
     ELSE H&YR.025=.C;
     IF H&YR.026=. THEN H&YR.026=.N;
     ELSE H&YR.026=.C;
  END;
  ELSE IF H&YR.020 IN (1,2,3,4,5,6,.) AND (N7NMISS=0 OR N7MARK>0) THEN DO;
     DO OVER NOTE7;
        IF NOTE7=.N THEN NOTE7=.;
     END;
     N7=4;
  END;

  DROP N7NMISS N7MARK;


/** Note 8 -- H&YR.025, H&YR.026:  care from another doctor or healthcare provider **/

  IF H&YR.025 IN (.N, .C) THEN N8=1;
  ELSE IF H&YR.025=1 THEN N8=2;
  ELSE IF H&YR.025 IN (2,.) AND H&YR.026 IN (1,2,3,4) THEN DO;
     H&YR.025=1;
     N8=3;
  END;
  ELSE IF H&YR.025=2 AND H&YR.026 IN (.) THEN DO;
     H&YR.026=.N;
     N8=4;
  END;
  ELSE IF H&YR.025=.  AND H&YR.026=.  THEN N8=5;


/** Note 8_01 -- S&YR.009, S&YR.010:  problem getting new personal doctor or nurse **/

  IF S&YR.009 IN (.N,.C) THEN N8_01=1; /* MER 07/31/09 gave each S&YR.009 value its own row for
analysis purposes */
  ELSE IF S&YR.009=1 THEN DO;
     N8_01=2;
     IF S&YR.010=. THEN S&YR.010=.N;
     ELSE S&YR.010=.C;
```

```
  END;
  ELSE IF S&YR.009=2 THEN N8_01=3;
  ELSE IF S&YR.009=. THEN N8_01=4;  /* MER 07/31/09 eliminated backward coding for missing
S&YR.009 */


/** Note 9 -- H&YR.028, H&YR.029-H&YR.031:  needed to see a specialist in last 12 months **/

  ARRAY NOTE9  H&YR.029 H&YR.031;

  N9MARK=0;
  N9NMISS=0;

  DO OVER NOTE9;
     IF NOTE9 NE . THEN N9NMISS+1;
     IF NOTE9 NOT IN  (., .N) THEN N9MARK+1;
  END;

  IF H&YR.030 NE . THEN N9NMISS+1;
  IF H&YR.030 NOT IN (.,0) THEN N9MARK+1;


  IF H&YR.028 IN (1)  THEN DO;
     N9=1;
     IF H&YR.029=.N THEN H&YR.029=.;
  END;
  ELSE IF H&YR.028 in (2,.) AND N9MARK>0 THEN DO;
     N9=2;
     H&YR.028=1;
     IF H&YR.029=.N THEN H&YR.029=.;
  END;
  ELSE IF H&YR.028 in (2) THEN DO;
     N9=3;
     DO OVER NOTE9;
        IF NOTE9=. THEN NOTE9=.N;
        ELSE NOTE9=.C;
     END;
     IF H&YR.030=. THEN H&YR.030=.N;
     ELSE H&YR.030=.C;
  END;
  ELSE IF H&YR.028=.  AND N9NMISS>0 AND N9MARK=0 THEN DO;
     N9=4;
     H&YR.028=2;
     DO OVER NOTE9;
        IF NOTE9=. THEN NOTE9=.N;
        ELSE NOTE9=.C;
     END;
     IF H&YR.030=. THEN H&YR.030=.N;
     ELSE H&YR.030=.C;
  END;
  ELSE IF H&YR.028=.  AND N9NMISS=0 THEN N9=5;

  DROP N9NMISS N9MARK;


/** Note 10 -- H&YR.030, H&YR.031: saw a specialist in last 12 months **/

  IF H&YR.030 IN (.N,.C) AND H&YR.031 IN (.N,.C) THEN N10=1;
  ELSE IF H&YR.030 IN (1,2,3,4,5) AND H&YR.031 IN (0,1,2,3,4,5,6,7,8,9,10,.) THEN N10=2;
  ELSE IF H&YR.030 IN (1,2,3,4,5,.) AND H&YR.031 = .N THEN DO;
     N10=3;
     H&YR.030=0;
     H&YR.031=.C;
  END;
  ELSE IF H&YR.030 = 0 THEN DO;
     N10=4;
     IF H&YR.031 = . THEN H&YR.031 = .N;
     ELSE H&YR.031 = .C;
  END;
  ELSE IF H&YR.030 = . AND H&YR.031 IN (0,1,2,3,4,5,6,7,8,9,10,.) THEN N10=5;


/** Note 10_B1 -- S&YR.B02, S&YR.B03-S&YR.B04: overall mental health **/
```

```
  ARRAY NOTE10B1  S&YR.B03-S&YR.B04;

  N10B1MARK=0;
  N10B1NMISS=0;

  DO OVER NOTE10B1;
     IF NOTE10B1 NE . THEN N10B1NMISS+1;
     IF NOTE10B1 NOT IN  (., .N) THEN N10B1MARK+1;
  END;

  IF S&YR.B02 = 1 THEN DO;
     N10_B1=1;
     DO OVER NOTE10B1;
        IF NOTE10B1=.N THEN NOTE10B1=.;
     END;
  END;
  ELSE IF S&YR.B02 IN (2,.) AND (N10B1MARK>0) THEN DO;
     N10_B1=2;
     S&YR.B02=1;
     DO OVER NOTE10B1;
        IF NOTE10B1=.N THEN NOTE10B1=.;
     END;
  END;
  ELSE IF S&YR.B02=2  AND (N10B1NMISS=0 OR (N10B1NMISS > 0 AND N10B1MARK = 0)) THEN DO;
     N10_B1=3;
     DO OVER NOTE10B1;
        IF NOTE10B1 = . THEN NOTE10B1=.N;
        ELSE NOTE10B1 = .C;
     END;
  END;
  ELSE IF S&YR.B02 IN (.) AND (N10B1NMISS > 0 AND N10B1MARK = 0) THEN DO;
     N10_B1=4;
     S&YR.B02=2;
     DO OVER NOTE10B1;
        IF NOTE10B1 = . THEN NOTE10B1=.N;
        ELSE NOTE10B1 = .C;
     END;
  END;
  ELSE IF S&YR.B02 IN (.) AND N10B1NMISS=0 THEN N10_B1=5;

  DROP N10B1NMISS N10B1MARK;


/** Note 11 -- H&YR.032, H&YR.033:  tried to get care, tests, or treatment from health plan**/

  IF H&YR.032=1 AND H&YR.033 IN (1,2,3,4,.) THEN N11=1;
  ELSE IF H&YR.032 IN (1,.) AND H&YR.033=.N THEN DO;
     H&YR.032=2;
     H&YR.033=.C;
     N11=2;
  END;
  ELSE IF H&YR.032 IN (2,.) AND H&YR.033 IN (1,2,3,4) THEN DO;
     H&YR.032=1;
     N11=3;
  END;
  ELSE IF H&YR.032=2 AND H&YR.033 IN (.,.N) THEN DO;
     IF H&YR.033=. THEN H&YR.033=.N;
     ELSE H&YR.033=.C;
     N11=4;
  END;
  ELSE IF H&YR.032=.  AND H&YR.033=.  THEN N11=5;


/** Note 12 -- H&YR.034, H&YR.035:  look for info in written materials or on internet**/
  IF H&YR.034=1 AND H&YR.035 IN (1,2,3,4,.) THEN N12=1;
  ELSE IF H&YR.034 IN (1,.) AND H&YR.035=.N THEN DO;
     N12=2;
     H&YR.034=2;
     H&YR.035=.C;
  END;
  ELSE IF H&YR.034 IN (2,.) AND H&YR.035 IN (1,2,3,4) THEN DO;
     N12=3;
     H&YR.034=1;
  END;
```

```
  ELSE IF H&YR.034=2 AND H&YR.035 IN (.N,.) THEN DO;
     N12=4;
     IF H&YR.035=. THEN H&YR.035=.N;
     ELSE H&YR.035=.C;
  END;
  ELSE IF H&YR.034=. AND H&YR.035=. THEN N12=5;


/** Note 13 -- H&YR.036, H&YR.037:  tried to get cost of service/equipment from health plan**/

  IF H&YR.036=1 AND H&YR.037 IN (1,2,3,4,.) THEN N13=1;
  ELSE IF H&YR.036 IN (1,.) AND H&YR.037=.N THEN DO;
     H&YR.036=2;
     H&YR.037=.C;
     N13=2;
  END;
  ELSE IF H&YR.036 IN (2,.) AND H&YR.037 IN (1,2,3,4) THEN DO;
     H&YR.036=1;
     N13=3;
  END;
  ELSE IF H&YR.036=2 AND H&YR.037 IN (.,.N) THEN DO;
     IF H&YR.037=. THEN H&YR.037=.N;
     ELSE H&YR.037=.C;
     N13=4;
  END;
  ELSE IF H&YR.036=.  AND H&YR.037=.  THEN N13=5;


/** Note 14 -- H&YR.038, H&YR.039:  tried to get cost of prescription meds from health plan**/

  IF H&YR.038=1 AND H&YR.039 IN (1,2,3,4,.) THEN N14=1;
  ELSE IF H&YR.038 IN (1,.) AND H&YR.039=.N THEN DO;
     H&YR.038=2;
     H&YR.039=.C;
     N14=2;
  END;
  ELSE IF H&YR.038 IN (2,.) AND H&YR.039 IN (1,2,3,4) THEN DO;
     H&YR.038=1;
     N14=3;
  END;
  ELSE IF H&YR.038=2 AND H&YR.039 IN (.,.N) THEN DO;
     IF H&YR.039=. THEN H&YR.039=.N;
     ELSE H&YR.039=.C;
     N14=4;
  END;
  ELSE IF H&YR.038=.  AND H&YR.039=.  THEN N14=5;


/** Note 15 -- H&YR.040, H&YR.041-H&YR.042: tried to use health plan's customer service  **/

  ARRAY NOTE15  H&YR.041-H&YR.042;

  N15MARK=0;
  N15NMISS=0;

  DO OVER NOTE15;
     IF NOTE15 NE . THEN N15NMISS+1;
     IF NOTE15 NOT IN  (., .N) THEN N15MARK+1;
  END;

  IF H&YR.040 = 1 AND (N15MARK>0 OR N15NMISS=0) THEN DO;
     DO OVER NOTE15;
        IF NOTE15=.N THEN NOTE15=.;
     END;
     N15=1;
  END;
  ELSE IF H&YR.040 IN (1,.) AND (N15NMISS > 0 AND N15MARK = 0) THEN DO;
     N15=2;
     H&YR.040=2;
     DO OVER NOTE15;
        IF NOTE15 = . THEN NOTE15=.N;
        ELSE NOTE15 = .C;
     END;
  END;
```

```
  ELSE IF H&YR.040 IN (2,.) AND (N15MARK>0) THEN DO;
     N15=3;
     H&YR.040=1;
     DO OVER NOTE15;
        IF NOTE15=.N THEN NOTE15=.;
     END;
  END;
  ELSE IF H&YR.040=2  AND (N15NMISS=0 OR (N15NMISS > 0 AND N15MARK = 0)) THEN DO;
     N15=4;
     DO OVER NOTE15;
        IF NOTE15 = . THEN NOTE15=.N;
        ELSE NOTE15 = .C;
     END;
  END;
  ELSE IF H&YR.040 IN (.) AND N15NMISS=0 THEN N15=5;

  DROP N15NMISS N15MARK;


/** Note 16 -- H&YR.043, H&YR.044:  received forms to fill out from health plan **/

  IF H&YR.043=1 AND H&YR.044 IN (1,2,3,4,.) THEN N16=1;
  ELSE IF H&YR.043 IN (1,.) AND H&YR.044=.N THEN DO;
     H&YR.043=2;
     H&YR.044=.C;
     N16=2;
  END;
  ELSE IF H&YR.043 IN (2,.) AND H&YR.044 IN (1,2,3,4) THEN DO;
     H&YR.043=1;
     N16=3;
  END;
  ELSE IF H&YR.043=2 AND H&YR.044 IN (.,.N) THEN DO;
     IF H&YR.044=. THEN H&YR.044=.N;
     ELSE H&YR.044=.C;
     N16=4;
  END;
  ELSE IF H&YR.043=.  AND H&YR.044=.  THEN N16=5;


/** Note 17 -- H&YR.045, H&YR.046-H&YR.047: claims to health plan **/

  ARRAY NOTE17 H&YR.046-H&YR.047;
  N17MARK=0;
  N17NDK=0;

  DO OVER NOTE17;
     IF NOTE17 NOT IN (.N,.D,.) THEN N17MARK+1; /* At least one is marked */
     IF NOTE17 NOT IN (.,.D) THEN N17NDK+1; /* All are missing or blank or dnk */
  END;

  IF H&YR.045=1 AND (N17MARK>0 OR N17NDK=0) THEN DO;
     N17=1;
     DO OVER NOTE17;
        IF NOTE17=.N THEN NOTE17=.;
     END;
  END;
  ELSE IF H&YR.045 IN (1,.,.D) AND N17MARK=0 AND N17NDK>0 THEN DO;
     N17=2;
     H&YR.045=2;
     DO OVER NOTE17;
        IF NOTE17=. THEN NOTE17=.N;
        ELSE NOTE17=.C;
     END;
  END;
  ELSE IF H&YR.045 IN (2,.,.D) AND N17MARK>0
       THEN DO;
     H&YR.045=1;
     N17=3;
     DO OVER NOTE17;
        IF NOTE17=.N THEN NOTE17=.;
     END;
  END;
  ELSE IF H&YR.045 IN (2) AND N17MARK=0 THEN DO;
     N17=4;
```

```
      DO OVER NOTE17;
         IF NOTE17=. THEN NOTE17=.N;
         ELSE NOTE17=.C;
      END;
   END;
   ELSE IF H&YR.045 IN (.D) AND N17NDK=0 THEN DO;
      N17=5;
      DO OVER NOTE17;
         IF NOTE17=. THEN NOTE17=.N;
         ELSE NOTE17=.C;
      END;
   END;
   ELSE IF H&YR.045 IN (.) AND N17NDK=0 THEN N17=6;

   DROP N17MARK N17NDK;



/** Note 17_R1  -- S&YR.R01, S&YR.R02: Does health plan require referral to see specialist  **/

   IF S&YR.R01 IN (1,.) THEN N17_R1=1;
   ELSE IF S&YR.R01 = 2 THEN DO;
      N17_R1=2;
      IF S&YR.R02=. THEN S&YR.R02=.N;
      ELSE S&YR.R02=.C;
   END;


/** Note 17_R2  -- S&YR.R03A-S&YR.R03E,S&YR.R04A-S&YR.R04G,S&YR.R05-S&YR.R15: How did you select
specialist  **/

   ARRAY NOTE17R2a S&YR.R03B--S&YR.R03E S&YR.R04A--S&YR.R04G;
   ARRAY NOTE17R2b S&YR.R05-S&YR.R15;

   N17R2NMISS=0;

   DO OVER NOTE17R2a;
      IF NOTE17R2a NOT IN (2) THEN N17R2NMISS+1;
   END;

   DO OVER NOTE17R2b;
      IF NOTE17R2b NOT IN (.) THEN N17R2NMISS+1;
   END;

   IF S&YR.R03A = 1 AND N17R2NMISS > 0 THEN DO;
      N17_R2=1;
      S&YR.R03A=2;
   END;
   ELSE IF S&YR.R03A = 1 AND N17R2NMISS = 0 THEN DO;
      N17_R2=2;
      DO OVER NOTE17R2a;
         NOTE17R2a=.N;
      END;
      DO OVER NOTE17R2b;
         NOTE17R2b=.N;
      END;
   END;
   ELSE IF S&YR.R03A = 2 THEN N17_R2=3;

   DROP N17R2NMISS;


/** Note 17_R3 --  S&YR.R06, S&YR.R07-S&YR.R10:  Civilian specialists  **/
/* EDITED 7/14/2015 by Matt Turbyfill.  Added backcoding possibility.*/

   ARRAY NOTE17R3 S&YR.R07-S&YR.R10;
   DO OVER NOTE17R3;
      IF NOTE17R3 = 1 THEN N17R3NMARK+1;
   END;

   IF S&YR.R06 = .N THEN N17_R3=1;
   ELSE IF S&YR.R06 IN (1,.) AND N17R3NMARK > 0 THEN DO;
         N17_R3=2;
         S&YR.R06 = 1;
```

```
  END;
  ELSE IF S&YR.R06 IN (1,.) THEN DO;
        N17_R3=3;
  END;
  ELSE IF S&YR.R06 = 2 THEN DO;
     N17_R3=4;
     DO OVER NOTE17R3;
        IF NOTE17R3=. THEN NOTE17R3=.N;
        ELSE NOTE17R3=.C;
     END;
  END;

  DROP N17R3NMARK;


/** Note 17_R4 --  S&YR.R11, S&YR.R12-S&YR.R15:  Specialists at an MTF  **/
/* EDITED 7/14/2015 by Matt Turbyfill.  Added backcoding possibility.*/

  ARRAY NOTE17R4 S&YR.R12-S&YR.R15;
  DO OVER NOTE17R4;
     IF NOTE17R4 = 1 THEN N17R4NMARK+1;
  END;

  IF S&YR.R11 = .N THEN N17_R4=1;
  ELSE IF S&YR.R06 IN (1,.) AND N17R4NMARK > 0 THEN DO;
        N17_R4=2;
        S&YR.R11 = 1;
  END;
  ELSE IF S&YR.R11 IN (1,.) THEN DO;
        N17_R4=3;
  END;
  ELSE IF S&YR.R11 = 2 THEN DO;
     N17_R4=4;
     DO OVER NOTE17R4;
        IF NOTE17R4=. THEN NOTE17R4=.N;
        ELSE NOTE17R4=.C;
     END;
  END;

DROP N17R4NMARK;



/** Note 18 -- smoking:  H&YR.053, H&YR.054-H&YR.056, H&YR.057A-H&YR.057D  **/

  ARRAY NOTE18a H&YR.054 H&YR.055 H&YR.056;
  ARRAY NOTE18b H&YR.057A--H&YR.057D;

  N18MARK = 0;

  DO OVER NOTE18b;
     IF NOTE18b NOT IN (2,.) THEN N18MARK+1;
  END;

  IF H&YR.053 IN (3,4,.) THEN N18=1;
  ELSE IF H&YR.053 IN (2,.D) AND N18MARK = 0 THEN DO;
     N18=2;
     DO OVER NOTE18a;
        IF NOTE18a=. THEN NOTE18a=.N;
        ELSE NOTE18a=.C;
     END;
     DO OVER NOTE18b;
        IF NOTE18b IN (2,.) THEN NOTE18b=.N;
        ELSE NOTE18b=.C;
     END;
  END;
  ELSE IF H&YR.053 = 2 AND N18MARK > 0 THEN DO;
     N18=3;
     H&YR.053=.;
  END;
  ELSE IF H&YR.053 = .D AND N18MARK > 0 THEN DO;
     N18=4;
     DO OVER NOTE18a;
        IF NOTE18a=. THEN NOTE18a=.N;
```

```
        ELSE NOTE18a=.C;
      END;
      DO OVER NOTE18b;
         IF NOTE18b IN (2,.) THEN NOTE18b=.N;
         ELSE NOTE18b=.C;
      END;
  END;

  DROP N18MARK;


/** Note 19a - gender H&YR.058, SEX, H&YR.059B--H&YR.064,
              XSEXA */

/* 1/21/98 use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed FMALE and MALE based on gender specific questions */


  ARRAY fmaleval H&YR.059B H&YR.060 H&YR.061 H&YR.062 H&YR.063 H&YR.064
                 ;

  cntfmale=0;
  DO OVER fmaleval;           /* mammogram/pap smear/PREGNANT*/
     IF fmaleval>0 THEN cntfmale=cntfmale+1;
  END;

  IF cntfmale>0 THEN FMALE=1;
  ELSE FMALE = 0;


  IF H&YR.058=. THEN DO;
     IF (SEX='F' AND FMALE) THEN DO;
        N19a=1;
        XSEXA=2;
     END;
     ELSE IF (SEX='F' AND FMALE=0) THEN DO;
        N19a=2;
        XSEXA=2;
     END;
     ELSE IF (SEX='M' AND FMALE) THEN DO;
        N19a=3;
        XSEXA=1;
     END;
     ELSE IF (SEX='M' AND FMALE=0) THEN DO;
        N19a=4;
        XSEXA=1;
     END;
     ELSE IF ((SEX IN ('Z',' ') AND FMALE)) THEN DO;
        N19a=5;
        XSEXA=2;
     END;
     ELSE IF (SEX='Z' AND FMALE=0) THEN DO;
        N19a=6;
        XSEXA=.;
     END;
     ELSE IF (SEX=' ' AND FMALE=0) THEN DO;
        N19a=7;
        XSEXA=.;
     END;
  END;
  ELSE IF (H&YR.058=1) THEN DO;
     IF FMALE=0 THEN DO;
        N19a=8;
        XSEXA=1;
     END;
     ELSE IF FMALE THEN DO;
        IF SEX='F' THEN DO;
           N19a=9;
           XSEXA=2;
        END;
        ELSE DO;
           N19a=10;
           XSEXA=1;
```

```
        END;
      END;
   END;
   ELSE IF (H&YR.058=2) THEN DO;
      IF FMALE THEN DO;
        N19a=11;
        XSEXA=2;
      END;
      ELSE IF FMALE=0 THEN DO;
         IF SEX='M' THEN DO;
           N19a=12;
           XSEXA=1;
         END;
         ELSE DO;
            N19a=13;
            XSEXA=2;
         END;
      END;
   END;


/* Note 19b - gender vs mammogram/paps/pregnancy */

    ARRAY NOTE19b H&YR.059B H&YR.060 H&YR.061 H&YR.062 H&YR.063 H&YR.064
                  ;
    IF XSEXA=1 THEN DO;   /* male */
      IF FMALE=0 THEN DO;
         N19b=1;
         DO OVER NOTE19b;
            NOTE19b=.N;
         END;
      END;   /* valid skip */
      ELSE IF FMALE=1 THEN DO;
         N19b=2;
         DO OVER NOTE19b;
            IF NOTE19b=. THEN NOTE19b = .N;
            ELSE NOTE19b=.C;
         END;
      END;   /* inconsistent response */
   END;
   ELSE IF XSEXA=2 THEN  N19b=3; /* female */
   ELSE IF XSEXA=. THEN DO;      /*  missing sex  */
      N19b=4;
      DO OVER NOTE19b;
         NOTE19b=.;
      END;
   END;


   DROP FMALE CNTFMALE;



/* Note 20- breast exam for female 40 or over  */

   IF XSEXA=1 THEN DO;  /* male */
      IF  (H&YR.060=.C OR H&YR.060=.N) AND (H&YR.061=.C OR H&YR.061=.N)
      THEN N20 = 1;
   END;
   ELSE IF XSEXA=2 THEN DO;
      IF H&YR.060=2 THEN N20=2;         /* female 40 or over */
      ELSE IF H&YR.060=1 THEN DO;   /* female < 40 */
         IF H&YR.061 NE . THEN H&YR.061=.C;
         ELSE H&YR.061=.N;
         N20=3;
      END;
      ELSE IF H&YR.060=. THEN DO;
         IF H&YR.061 NE . THEN DO;
            H&YR.060=2;
            N20=4;
         END;
         ELSE IF H&YR.061=.  THEN DO;
            IF AGE<40 THEN DO;
               H&YR.060 = 1;
```

```
            H&YR.061=.N;
            N20=5;
         END;
         ELSE IF AGE >= 40 THEN DO;
            H&YR.060=2;
            N20=6;
         END;
         ELSE IF AGE=. THEN N20=7;
      END;
   END;
  END;
  ELSE IF XSEXA=. THEN N20=8;



/* Note 21 - gender vs Pregnancy */


  IF XSEXA=1 THEN N21=1;          /* male     */
  ELSE IF XSEXA=2 THEN DO;        /* female   */
     IF H&YR.062=1 THEN DO;         /* pregnant */
        IF H&YR.063=1 THEN DO;
           N21=2;
           IF H&YR.064=. THEN H&YR.064 = .N;
           ELSE H&YR.064=.C;
        END;
        ELSE IF H&YR.063=2 AND H&YR.064 IN (2) THEN DO;
           N21=3;
           H&YR.064=.;
        END;
        ELSE IF H&YR.063=2 AND H&YR.064 IN (4,3,1,.) THEN DO;
           N21=4;
        END;
        ELSE IF H&YR.063 IN (3,.) THEN N21=5;
     END;
     ELSE IF H&YR.062=2 THEN DO;
        IF H&YR.063=. THEN H&YR.063 = .N;
        ELSE H&YR.063=.C;
        N21=6;
     END;
     ELSE IF H&YR.062=3 THEN DO;
        N21=7;
        IF H&YR.063=. THEN H&YR.063 = .N;
        ELSE H&YR.063=.C;
        IF H&YR.064=. THEN H&YR.064=.N;
        ELSE H&YR.064=.C;
     END;
     ELSE IF H&YR.062 IN (.) THEN DO;
        IF H&YR.063=1 THEN DO;
           N21=8;
           H&YR.062=1;
           IF H&YR.064=. THEN H&YR.064 = .N;
           ELSE H&YR.064=.C;
        END;
        ELSE IF H&YR.063=2 AND H&YR.064 IN (2) THEN DO;
           N21=9;
           H&YR.062=1;
           H&YR.064=.;
        END;
        ELSE IF H&YR.063=2 AND H&YR.064 IN (4,3,1,.) THEN DO;
           H&YR.062=1;
           N21=10;
        END;
        ELSE IF H&YR.063=3 THEN DO;
           H&YR.062=1;
           N21=11;
        END;
        ELSE IF H&YR.063=. THEN DO;
           N21=12;
        END;
     END;
  END;
  ELSE IF XSEXA=. AND H&YR.062 IN (.) THEN N21=13;
```

```
  DROP AGE SEX;


/** Note 22 -- H&YR.067, H&YR.068:  seen doctor 3 or more times for same condition **/

  IF H&YR.067=1 THEN N22=1;
  ELSE IF H&YR.067 IN (2,.) AND H&YR.068 IN (1,2) THEN DO;
     H&YR.067=1;
     N22=2;
  END;
  ELSE IF H&YR.067=2 AND H&YR.068 IN (.) THEN DO;
     H&YR.068=.N;
     N22=3;
  END;
  ELSE IF H&YR.067=.  AND H&YR.068=.  THEN N22=4;



/** Note 23 -- H&YR.069, H&YR.070:  need or take medicine prescribed by a doctor **/

  IF H&YR.069=1 THEN N23=1;
  ELSE IF H&YR.069 IN (2,.) AND H&YR.070 IN (1,2) THEN DO;
     H&YR.069=1;
     N23=2;
  END;
  ELSE IF H&YR.069=2 AND H&YR.070 IN (.) THEN DO;
     H&YR.070=.N;
     N23=3;
  END;
  ELSE IF H&YR.069=.  AND H&YR.070=.  THEN N23=4;

/** Note 23_HT -- XSEXA, H&YR.071F, H&YR.071I:  height restrictions                     **/
*AMK 9/25/13
 Set height and weight restriction to conform with NHIS 2006 guidelines
 Men: height between 63-76 inches, weight between 126-299 pounds
 Women: height between 59-70 inches, weight between 100-274 pounds;

 *INCHES;
  IF H&YR.071F NE . AND H&YR.071I = . THEN H&YR.071I=0;
  IF H&YR.071F =  . AND H&YR.071I >11 THEN DO;
     H&YR.071F=FLOOR(H&YR.071I/12);
     H&YR.071I=H&YR.071I-(H&YR.071F*12);
  END;
  IF H&YR.071F NE . THEN INCHES=(H&YR.071F*12+H&YR.071I);
  ELSE INCHES=H&YR.071I;

  IF (XSEXA = 1 AND (63<=INCHES<=76 OR INCHES = .)) OR
     (XSEXA = 2 AND (59<=INCHES<=70 OR INCHES = .)) THEN N23_HT=1;
  ELSE IF XSEXA IN (1,2) THEN DO;
     N23_HT=2;
     H&YR.071F=.O;
     H&YR.071I=.O;
  END;
  ELSE IF XSEXA = . THEN DO; *MISSING GENDER;
     IF 59<=INCHES<=76 OR INCHES = . THEN N23_HT=3;
     ELSE DO;
       N23_HT=4;
       H&YR.071F=.O;
       H&YR.071I=.O;
     END;
  END;

  DROP INCHES;

/** Note 23_WT -- H&YR.072:  weight restrictions                     **/
*AMK 9/25/13
 Set height and weight restriction to conform with NHIS 2006 guidelines
 Men: height between 63-76 inches, weight between 126-299 pounds
 Women: height between 59-70 inches, weight between 100-274 pounds;
```

```
  IF (XSEXA = 1 AND (126<=H&YR.072<=299 OR H&YR.072 = .)) OR
     (XSEXA = 2 AND (100<=H&YR.072<=274 OR H&YR.072 = .)) THEN N23_WT=1;
  ELSE IF XSEXA IN (1,2) THEN DO;
     N23_WT=2;
     H&YR.072 =.O;
  END;
  ELSE IF XSEXA = . THEN DO; *MISSING GENDER;
     IF 100<=H&YR.072<=299 OR H&YR.072 = . THEN N23_WT=3;
     ELSE DO;
       N23_WT=4;
       H&YR.072=.O;
     END;
  END;





/** Note 24 -- H&YR.073, H&YR.073A-H&YR.073E: Hispanic or Latino origin or descent **/

  /* JMA
  ****Multiple responses were given to this question so H&YR.073 is being created
  ****from the multiple responses.;
  */


  IF H&YR.073B=1 THEN DO;
     N24=1;
     H&YR.073=2;
  END;
  ELSE IF H&YR.073E=1 THEN DO;
     N24=2;
     H&YR.073=5;
  END;
  ELSE IF H&YR.073C=1 THEN DO;
     N24=3;
     H&YR.073=3;
  END;
  ELSE IF H&YR.073D=1 THEN DO;
     N24=4;
     H&YR.073=4;
  END;
  ELSE IF H&YR.073A=1 THEN DO;
     N24=5;
     H&YR.073=1;
  END;
  ELSE IF H&YR.073A IN (2,.) AND H&YR.073B IN (2,.) AND H&YR.073C IN (2,.) AND
          H&YR.073D IN (2,.) AND H&YR.073E IN (2,.) THEN DO;
     N24=6;
     H&YR.073=.;

  END;


/** Note 25 -- currently covered by Medicare:  H&YR.074, H&YR.075-H&YR.079 **/

  ARRAY NOTE25 H&YR.075-H&YR.079;

  N25MARK = 0;

  DO OVER NOTE25;
     IF NOTE25 NOT IN (2,.D,.) THEN N25MARK+1;
  END;

  IF H&YR.074 = 1 THEN N25=1;
  ELSE IF H&YR.074 IN (2,.D) AND N25MARK = 0 THEN DO;
     N25=2;
     DO OVER NOTE25;
        IF NOTE25=. THEN NOTE25=.N;
        ELSE NOTE25=.C;
     END;
  END;
  ELSE IF H&YR.074 IN (2,.D,.) AND N25MARK > 0 THEN DO;
```

```
     N25=3;
     H&YR.074=1;
  END;
  ELSE IF H&YR.074 = . AND N25MARK = 0 THEN N25=4;

  DROP N25MARK;


NOSURVEY:

/* missing values */

  ARRAY MISS MISS_9 MISS_7 MISS_6 MISS_5 MISS_4 MISS_1 ;
  MISS_TOT=0;
  DO OVER MISS;
     MISS = 0;
  END;
  ARRAY MISSARAY &VARLIST2.;

  DO OVER MISSARAY;
     IF (MISSARAY EQ -9 ) THEN MISS_9 = MISS_9 + 1;
     ELSE IF (MISSARAY EQ -7) THEN MISS_7 = MISS_7 + 1;
     ELSE IF (MISSARAY EQ -6) THEN MISS_6 = MISS_6 + 1;
     ELSE IF (MISSARAY EQ -5) THEN MISS_5 = MISS_5 + 1;
     ELSE IF (MISSARAY EQ -4) THEN MISS_4 = MISS_4 + 1;
     ELSE IF (MISSARAY EQ -1) THEN MISS_1 = MISS_1 + 1;
  END;
  DO OVER MISS;
     MISS_TOT=MISS_TOT + MISS;
  END;

*****************************************;

 OUTPUT;

RUN;


proc contents data=out.&outdata.;
run;
%MEND;
%CSCHM;
```

F.2.F Q3FY2015\PROGRAMS\CODINGSCHEME\CSCHM15Q.FMT - Include file for Coding Scheme for Quarter 3 FY2015

```
/*  Formats for original answers to survey questions,
     after variables have been recoded */

        FORMAT H&YR.001   O_H&YR.001 YN.

/*             H&YR.002 has no format.*/

               H&YR.003   O_H&YR.003 HPLAN1_.
               H&YR.004   O_H&YR.004 HPTIME.



               H&YR.005   O_H&YR.005 PLACE.

               H&YR.006   O_H&YR.006
               H&YR.009   O_H&YR.009
               H&YR.019   O_H&YR.019
                 YN.

               H&YR.007   O_H&YR.007 OFTEN2_.
               H&YR.008   O_H&YR.008 TIME1_.

               H&YR.010   O_H&YR.010 OFTEN3_.
               H&YR.011   O_H&YR.011 TIME2_.



               H&YR.012   O_H&YR.012 OFTEN4_.
               H&YR.013   O_H&YR.013 OFTEN4_.
               H&YR.014   O_H&YR.014 OFTEN8_.
               H&YR.015   O_H&YR.015 YN.
               H&YR.016   O_H&YR.016 YNDEF.
               H&YR.017   O_H&YR.017 YNDEF.
               H&YR.018   O_H&YR.018 RATE3_.

               S&YR.C09   O_S&YR.C09 YN.
               S&YR.C10   O_S&YR.C10 S&YR.C10_.
               S&YR.C11   O_S&YR.C11 YN.
               S&YR.C12   O_S&YR.C12 S&YR.C12_.
               S&YR.C13   O_S&YR.C13 YN.
               S&YR.C14   O_S&YR.C14 S&YR.C14_.

/*             H&YR.019 has no format.*/

               H&YR.020   O_H&YR.020 OFTEN10_.

               H&YR.021-H&YR.024   O_H&YR.021--O_H&YR.024 OFTEN5_.

               H&YR.025   O_H&YR.025 YN.
               H&YR.026   O_H&YR.026 OFTEN8_.
               H&YR.027   O_H&YR.027 RATE6_.

               S&YR.009   O_S&YR.009 YN.
               S&YR.010   O_S&YR.010 PROB1_.

               H&YR.028   O_H&YR.028 YN.
               H&YR.029   O_H&YR.029 OFTEN9_.
               H&YR.030   O_H&YR.030 SPCLST.
               H&YR.031   O_H&YR.031 RATE2_.

               S&YR.B01   O_S&YR.B01 MNTLHLTH.
               S&YR.B02   O_S&YR.B02 YN.
               S&YR.B03   O_S&YR.B03 PROB1_.
               S&YR.B04   O_S&YR.B04 RATE5_.


               H&YR.032   O_H&YR.032 YN.
               H&YR.033   O_H&YR.033 OFTEN11_.
               H&YR.034   O_H&YR.034 YN.
               H&YR.035   O_H&YR.035 OFTEN12_.
```

```
            H&YR.036   O_H&YR.036 YN.
            H&YR.037   O_H&YR.037 OFTEN13_.
            H&YR.038   O_H&YR.038 YN.
            H&YR.039   O_H&YR.039 OFTEN14_.
            H&YR.040   O_H&YR.040 YN.
            H&YR.041   O_H&YR.041 OFTEN15_.
            H&YR.042   O_H&YR.042 OFTEN15_.
            H&YR.043   O_H&YR.043 YN.
            H&YR.044   O_H&YR.044 OFTEN16_.
            H&YR.045   O_H&YR.045 YNDNK.
            H&YR.046   O_H&YR.046 OFTEN6_.
            H&YR.047   O_H&YR.047 OFTEN6_.
            H&YR.048   O_H&YR.048 RATE4_.

            S&YR.R01   O_S&YR.R01 YN.
            S&YR.R02   O_S&YR.R02 YN.
            S&YR.R05   O_S&YR.R05 PROB1_.
            S&YR.R06   O_S&YR.R06 YN.
            S&YR.R07   O_S&YR.R07 PROB1_.
            S&YR.R08   O_S&YR.R08 TRVLTIME.
            S&YR.R09   O_S&YR.R09 YN.
            S&YR.R10   O_S&YR.R10 OFTEN8_.
            S&YR.R11   O_S&YR.R11 YN.
            S&YR.R12   O_S&YR.R12 PROB1_.
            S&YR.R13   O_S&YR.R13 TRVLTIME.
            S&YR.R14   O_S&YR.R14 YN.
            S&YR.R15   O_S&YR.R15 OFTEN8_.

            S&YR.015   O_S&YR.015 S15015_.

            H&YR.049   O_H&YR.049 TIME5_.
            H&YR.050   O_H&YR.050 YNBP_.
            H&YR.051   O_H&YR.051 TIME7_.
            H&YR.052   O_H&YR.052 YNDNK.
            H&YR.053   O_H&YR.053 TIME8_.
            H&YR.054   O_H&YR.054 OFTEN8_.
            H&YR.055   O_H&YR.055 OFTEN8_.
            H&YR.056   O_H&YR.056 OFTEN8_.


/*          H&YR.057 has no format.*/

            H&YR.058   O_H&YR.058 SEX.

            H&YR.059B  O_H&YR.059B TIME16_.

            H&YR.060   O_H&YR.060 H&YR.066   O_H&YR.066 YN.

            H&YR.061   O_H&YR.061 TIME12_.
            H&YR.062   O_H&YR.062 YNPREG.
            H&YR.063   O_H&YR.063 PREG1_.
            H&YR.064   O_H&YR.064 PREG2_.

/*          S15BE01 is marked  */

            H&YR.065   O_H&YR.065 HEALTH.

            H&YR.067   O_H&YR.067 YN.
            H&YR.068   O_H&YR.068 YN.
            H&YR.069   O_H&YR.069 YN.

            H&YR.070   O_H&YR.070 YN.

            H&YR.071F O_H&YR.071F
            H&YR.071I O_H&YR.071I
            H&YR.072  O_H&YR.072
              TIME14_.

            SREDA    O_SREDA  EDUC.

            H&YR.073            HISP.

            SRAGE    SRAGE  AGEGRP.
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      H&YR.074   O_H&YR.074 YNDNK.
      H&YR.075   O_H&YR.075 MEDA.
      H&YR.076   O_H&YR.076 MEDB.
      H&YR.077   O_H&YR.077 YNDNK.
      H&YR.078   O_H&YR.078 MEDSUPP.
      H&YR.079   O_H&YR.079 YNDNK.

      S&YR.011   O_S&YR.011 AGREE2_.
      S&YR.014   O_S&YR.014 SATISFY.



      MISS_1   MISS_4-MISS_7 MISS_9 MISS_TOT 4.
     ;


LABEL O_H&YR.001='Are you the person listed on envelope'
      H&YR.001  ='Are you the person listed on envelope'
      O_H&YR.002A='Health plan(s) covered: TRICARE Prime'
      H&YR.002A ='Health plan(s) covered: TRICARE Prime'
      O_H&YR.002C='Health plan(s) covered: TRICARE Ext/Stnd'
      H&YR.002C ='Health plan(s) covered: TRICARE Ext/Stnd'
      O_H&YR.002N='Health plan(s) covered: TRICARE Plus'
      H&YR.002N ='Health plan(s) covered: TRICARE Plus'
      O_H&YR.002O='Health plan(s) covered: TRICARE For Life'
      H&YR.002O ='Health plan(s) covered: TRICARE For Life'
      O_H&YR.002P='Health plan(s) covered: TRICARE Supplmntl Ins'
      H&YR.002P ='Health plan(s) covered: TRICARE Supplmntl Ins'
      O_H&YR.002Q='Health plan(s) covered: TRICARE Reserve Select'
      H&YR.002Q ='Health plan(s) covered: TRICARE Reserve Select'
      O_H&YR.002S='Health plan(s) covered: TRICARE Retired Reserve'
      H&YR.002S ='Health plan(s) covered: TRICARE Retired Reserve'
      O_H&YR.002T='Health plan(s) covered: TRICARE Young Adult Prime'
      H&YR.002T ='Health plan(s) covered: TRICARE Young Adult Prime'
      O_H&YR.002V='Health plan(s) covered: TRICARE Young Adult Ex or Standard'
      H&YR.002V ='Health plan(s) covered: TRICARE Young Adult Ex or Standard'
      O_H&YR.002U='Health plan(s) covered: CHCBP'
      H&YR.002U ='Health plan(s) covered: CHCBP'
      O_H&YR.002F='Health plan(s) covered: Medicare'
      H&YR.002F ='Health plan(s) covered: Medicare'
      O_H&YR.002G='Health plan(s) covered: FEHBP'
      H&YR.002G ='Health plan(s) covered: FEHBP'
      O_H&YR.002H='Health plan(s) covered: Medicaid'
      H&YR.002H ='Health plan(s) covered: Medicaid'
      O_H&YR.002I='Health plan(s) covered: civilian HMO'
      H&YR.002I ='Health plan(s) covered: civilian HMO'
      O_H&YR.002J='Health plan(s) covered: other civilian'
      H&YR.002J ='Health plan(s) covered: other civilian'
      O_H&YR.002K='Health plan(s) covered: USFHP'
      H&YR.002K ='Health plan(s) covered: USFHP'
      O_H&YR.002M='Health plan(s) covered: veterans'
      H&YR.002M ='Health plan(s) covered: veterans'
      O_H&YR.002R='Health plan(s) covered: gov hlth ins-other cntry'
      H&YR.002R ='Health plan(s) covered: gov hlth ins-other cntry'
      O_H&YR.002L='Health plan(s) covered: not sure'
      H&YR.002L ='Health plan(s) covered: not sure'
      O_H&YR.003='Which health plan did you use most'
      H&YR.003  ='Which health plan did you use most'
      O_H&YR.004='Yrs in a row with health plan'
      H&YR.004  ='Yrs in a row with health plan'




      O_H&YR.005='In lst yr:fclty use most for health care'
      H&YR.005  ='In lst yr:fclty use most for health care'
      O_H&YR.006='In lst yr:ill/injry/cond care right away'
      H&YR.006  ='In lst yr:ill/injry/cond care right away'
      O_H&YR.007='In lst yr:get urgnt care as soon as wntd'
      H&YR.007  ='In lst yr:get urgnt care as soon as wntd'
      O_H&YR.008='In lst yr:wait btwn try get care,see prv'
      H&YR.008  ='In lst yr:wait btwn try get care,see prv'
      O_H&YR.009='In lst yr:make appts non-urgnt hlth care'
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                H&YR.009  ='In lst yr:make appts non-urgnt hlth care'
                O_H&YR.010='In lst yr:non-urg hlth cre appt whn wntd'
                H&YR.010  ='In lst yr:non-urg hlth cre appt whn wntd'
                O_H&YR.011='In lst yr:days btwn appt & see prvder'
                H&YR.011  ='In lst yr:days btwn appt & see prvder'
                O_H&YR.012='In lst yr:go to emrgncy rm for own care'
                H&YR.012  ='In lst yr:go to emrgncy rm for own care'
                O_H&YR.013='In lst yr:go to Dr office/clinic for care'
                H&YR.013  ='In lst yr:go to Dr office/clinic for care'
                O_H&YR.014  ='Lst yr: how often talk to doctor about illness prvntn'
                H&YR.014='Lst yr: how often talk to doctor about illness prvntn'
                O_H&YR.015  ='Lst yr: did doctor tell you more than 1 choice for trtmnt'
                H&YR.015='Lst yr: did doctor tell you more than 1 choice for trtmnt'
                O_H&YR.016  ='Lst yr: did talk to doctor about pros/cons of trtmnt'
                H&YR.016='Lst yr: did talk to doctor about pros/cons of trtmnt'
                O_H&YR.017  ='Lst yr: did doctor ask which trtmnt option best for you'
                H&YR.017='Lst yr: did doctor ask which trtmnt option best for you'
                O_H&YR.018='Rating of all health care in lst yr'
                H&YR.018  ='Rating of all health care in lst yr'
                O_H&YR.019='Have one person think of as personal Dr'
                H&YR.019  ='Have one person think of as personal Dr'
                O_H&YR.020  ='Lst yr: how often visit prsnl doctor for care for yourself'
                H&YR.020='Lst yr: how often visit prsnl doctor for care for yourself'
                O_H&YR.021='Lst yr: how oftn Drs listen to you'
                H&YR.021  ='Lst yr: how oftn Drs listen to you'
                O_H&YR.022='Lst yr: how oftn Drs explain things'
                H&YR.022  ='Lst yr: how oftn Drs explain things'
                O_H&YR.023='Lst yr: how oftn Drs show respect'
                H&YR.023  ='Lst yr: how oftn Drs show respect'
                O_H&YR.024='Lst yr: how oftn Drs spend enough time'
                H&YR.024  ='Lst yr: how oftn Drs spend enough time'
                O_H&YR.025  ='Lst yr: did get care from doctor other than prsnl doctor'
                H&YR.025='Lst yr: did get care from doctor other than prsnl doctor'
                O_H&YR.026  ='Lst yr: how often prsnl doctor seemed infrmd of care from other
doctors'
                H&YR.026='Lst yr: how often prsnl doctor seemed infrmd of care from other
doctors'
                O_H&YR.027='Rating of your personal Dr'
                H&YR.027  ='Rating of your personal Dr'
                O_H&YR.028  ='Lst yr: did make any appointments to see spclst'
                H&YR.028='Lst yr: did make any appointments to see spclst'
                O_H&YR.029  ='Lst yr: how often easy to get appointments with spclsts'
                H&YR.029='Lst yr: how often easy to get appointments with spclsts'
                O_H&YR.030  ='Lst yr: how many spclsts seen'
                H&YR.030='Lst yr: how many spclsts seen'
                O_H&YR.031='Rating of specialist seen in lst yr'
                H&YR.031  ='Rating of specialist seen in lst yr'
                O_H&YR.032  ='Lst yr: did try to get care, test, or trtmnt through health plan'
                H&YR.032='Lst yr: did try to get care, test, or trtmnt through health plan'
                O_H&YR.033  ='Lst yr: how often easy to get care, test, or trtmnt'
                H&YR.033='Lst yr: how often easy to get care, test, or trtmnt'
                O_H&YR.034  ='Lst yr: did look for info from written material/Internet'
                H&YR.034='Lst yr: did look for info from written material/Internet'
                O_H&YR.035  ='Lst yr: how often written material/Internet provide needed info'
                H&YR.035='Lst yr: how often written material/Internet provide needed info'
                O_H&YR.036  ='Lst yr: did look for info from health plan on cost of
service/equipment'
                H&YR.036='Lst yr: did look for info from health plan on cost of
service/equipment'
                O_H&YR.037  ='Lst yr: how often able to find out cost of service/equipment'
                H&YR.037='Lst yr: how often able to find out cost of service/equipment'
                O_H&YR.038  ='Lst yr: did look for info from health plan on cost of prescription
meds'
                H&YR.038='Lst yr: did look for info from health plan on cost of prescription
meds'
                O_H&YR.039  ='Lst yr: how often able to find out cost of prescription meds'
                H&YR.039='Lst yr: how often able to find out cost of prescription meds'
                O_H&YR.040  ="Lst yr: did try to get info/help from health plan's cstmr service"
                H&YR.040="Lst yr: did try to get info/help from health plan's cstmr service"
                O_H&YR.041  ='Lst yr: how often did cstmr service give needed info/help'
                H&YR.041='Lst yr: how often did cstmr service give needed info/help'
                O_H&YR.042  ='Lst yr: how often did cstmr service treat with courtesy/respect'
                H&YR.042='Lst yr: how often did cstmr service treat with courtesy/respect'
                O_H&YR.043  ='Lst yr: did health plan give any forms to fill out'
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H&YR.043='Lst yr: did health plan give any forms to fill out'
O_H&YR.044  ='Lst yr: how often were forms easy to fill out'
H&YR.044='Lst yr: how often were forms easy to fill out'
O_H&YR.045  ='Lst yr: send in any claims'
H&YR.045='Lst yr: send in any claims'
O_H&YR.046  ='Lst yr: how often did health plan handle claims quickly'
H&YR.046='Lst yr: how often did health plan handle claims quickly'
O_H&YR.047='Lst yr: how oftn handle claims correctly'
H&YR.047  ='Lst yr: how oftn handle claims correctly'
O_H&YR.048  ='Rating of all experience with hlth plan'
H&YR.048='Rating of all experience with hlth plan'
O_H&YR.049='Blood pressure: when lst reading'
H&YR.049  ='Blood pressure: when lst reading'
O_H&YR.050='Blood pressure: know if too high or not'
H&YR.050  ='Blood pressure: know if too high or not'
O_H&YR.051='When did you lst have a flu shot'
H&YR.051  ='When did you lst have a flu shot'
O_H&YR.052  ='Smoked at least 100 cigarettes in life'
H&YR.052='Smoked at least 100 cigarettes in life'
O_H&YR.053  ='Smoke or use tobacco everyday, some days or not at all'
H&YR.053='Smoke or use tobacco everyday, some days or not at all'
O_H&YR.054='Lst yr: how often advised to quit smoking or use tobacco'
H&YR.054  ='Lst yr: how often advised to quit smoking or use tobacco'
O_H&YR.055  ='Lst yr: how often recom medic assist quit smoking or using tobacco'
H&YR.055='Lst yr: how often recom medic assist quit smoking or using tobacco'
O_H&YR.056  ='Lst yr: how often discu meth/strag asst quit smoking or using
tobacco'
H&YR.056='Lst yr: how often discu meth/strag asst quit smoking or using tobacco'
O_H&YR.057A ='Do you smoke or use: cigarettes'
H&YR.057A='Do you smoke or use: cigarettes'
O_H&YR.057B ='Do you smoke or use: dip, chewing tobacco, snuff, or snus'
H&YR.057B='Do you smoke or use: dip, chewing tobacco, snuff, or snus'
O_H&YR.057C ='Do you smoke or use: cigars'
H&YR.057C='Do you smoke or use: cigars'
O_H&YR.057D ='Do you smoke or use: pipes, bidis, or kreteks'
H&YR.057D='Do you smoke or use: pipes, bidis, or kreteks'
O_H&YR.058='Are you male or female'
H&YR.058  ='Are you male or female'
O_H&YR.059B='Lst have a Pap smear test'
H&YR.059B ='Lst have a Pap smear test'
O_H&YR.060='Are you under age 40'
H&YR.060  ='Are you under age 40'
O_H&YR.061='Lst time: breasts checked mammography'
H&YR.061  ='Lst time: breasts checked mammography'
O_H&YR.062='Been pregnant in lst yr or pregnant now'
H&YR.062  ='Been pregnant in lst yr or pregnant now'
O_H&YR.063='In what trimester is your pregnancy'
H&YR.063  ='In what trimester is your pregnancy'
O_H&YR.064='Trimester first received prenatal care'
H&YR.064  ='Trimester first received prenatal care'
O_H&YR.065='In gnrl, how would you rate ovrall hlth'
H&YR.065  ='In gnrl, how would you rate ovrall hlth'
O_H&YR.066='Impairment/Hlth prblm limit activities'
H&YR.066  ='Impairment/Hlth prblm limit activities'
O_H&YR.067  ='Lst yr: have seen doctor 3 or more times for same condition'
H&YR.067='Lst yr: have seen doctor 3 or more times for same condition'
O_H&YR.068  ='Has condition lasted for at least 3 months'
H&YR.068='Has condition lasted for at least 3 months'
O_H&YR.069  ='Need to take medicine prescribed by a doctor'
H&YR.069='Need to take medicine prescribed by a doctor'
O_H&YR.070  ='Medicine to treat condition that has lasted for at least 3 months'
H&YR.070='Medicine to treat condition that has lasted for at least 3 months'
O_H&YR.071F='Height without shoes (feet)'
H&YR.071F ='Height without shoes (feet)'
O_H&YR.071I='Height without shoes (inches)'
H&YR.071I ='Height without shoes (inches)'
O_H&YR.072='Weight without shoes'
H&YR.072  ='Weight without shoes'
O_SREDA ='Highest grade completed'
SREDA   ='Highest grade completed'
H&YR.073  ='Are you Spanish/Hispanic/Latino'
O_H&YR.073A='Not Spanish/Hispanic/Latino'
H&YR.073A ='Not Spanish/Hispanic/Latino'
O_H&YR.073B='Mexican, Mexican American, Chicano'
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H&YR.073B ='Mexican, Mexican American, Chicano'
O_H&YR.073C='Puerto Rican'
H&YR.073C ='Puerto Rican'
O_H&YR.073D='Cuban'
H&YR.073D ='Cuban'
O_H&YR.073E='Other Spanish, Hispanic, or Latino'
H&YR.073E ='Other Spanish, Hispanic, or Latino'
O_SRRACEA='Race: White'
SRRACEA ='Race: White'
O_SRRACEB='Race: Black or African American'
SRRACEB ='Race: Black or African American'
O_SRRACEC='Race: American Indian or Alaska Native'
SRRACEC ='Race: American Indian or Alaska Native'
O_SRRACED='Race: Asian'
SRRACED ='Race: Asian'
O_SRRACEE='Race: Native Hawaiian/other Pacific Isl.'
SRRACEE ='Race: Native Hawaiian/other Pacific Isl.'
O_SRAGE ='What is your age now'
SRAGE   ='What is your age now'
O_H&YR.074  ='Currently Covered Medicare'
H&YR.074='Currently Covered Medicare'
O_H&YR.075  ='Currently Covered Medicare Part A'
H&YR.075='Currently Covered Medicare Part A'
O_H&YR.076  ='Currently Covered Medicare Part B'
H&YR.076='Currently Covered Medicare Part B'
O_H&YR.077  ='Enrolled Medicare Advantage'
H&YR.077='Enrolled Medicare Advantage'
O_H&YR.078  ='Currently Covered Medicare Supplemental'
H&YR.078='Currently Covered Medicare Supplemental'
O_H&YR.079  ='Enrolled Medicare Part D'
H&YR.079='Enrolled Medicare Part D'


O_S&YR.009='Same prsnl doctor/nurse before this hlth plan'
S&YR.009  ='Same prsnl doctor/nurse before this hlth plan'
O_S&YR.010='Prblm getting prsnl doctor/nurse you are happy with'
S&YR.010  ='Prblm getting prsnl doctor/nurse you are happy with'

O_S&YR.B01='Self rate of overall mental/emotional health'
S&YR.B01  ='Self rate of overall mental/emotional health'
O_S&YR.B02='Lst yr: needed treatmnt/cnslng for prsnl/fam prob'
S&YR.B02  ='Lst yr: needed treatmnt/cnslng for prsnl/fam prob'
O_S&YR.B03='Lst yr: prblm gttng needed treatmnt/cnslng'
S&YR.B03  ='Lst yr: prblm gttng needed treatmnt/cnslng'
O_S&YR.B04='Lst yr: rate of treatmnt/cnslng received'
S&YR.B04  ='Lst yr: rate of treatmnt/cnslng received'


O_S&YR.C09='Lst yr: did you need special medical equipment'
S&YR.C09  ='Lst yr: did you need special medical equipment'
O_S&YR.C10='Lst yr: how much of a problem was it to get special medical
equipment'
S&YR.C10  ='Lst yr: how much of a problem was it to get special medical
equipment'
O_S&YR.C11='Lst yr: did you need special therapy'
S&YR.C11  ='Lst yr: did you need special therapy'
O_S&YR.C12='Lst yr: how much of a problem was it to get special therapy'
S&YR.C12  ='Lst yr: how much of a problem was it to get special therapy'
O_S&YR.C13='Lst yr: did you need home health care or assistance'
S&YR.C13  ='Lst yr: did you need home health care or assistance'
O_S&YR.C14='Lst yr: how much of a problem was it to get home health care'
S&YR.C14  ='Lst yr: how much of a problem was it to get home health care'


O_S&YR.R01='Does hlth plan require referral from dr to see spclst'
S&YR.R01  ='Does hlth plan require referral from dr to see spclst'
O_S&YR.R02='Lst yr: did dr refer you to spclst'
S&YR.R02  ='Lst yr: did dr refer you to spclst'
OS&YR.R03A='How spclst selected in lst yr: did not see spclst'
S&YR.R03A ='How spclst selected in lst yr: did not see spclst'
OS&YR.R03B='How spclst selected in lst yr: dr told me what spclst to see'
S&YR.R03B ='How spclst selected in lst yr: dr told me what spclst to see'
OS&YR.R03C='How spclst selected in lst yr: suggestion from friend/relative'
S&YR.R03C ='How spclst selected in lst yr: suggestion from friend/relative'
```

```
               OS&YR.R03D='How spclst selected in lst yr: picked from list supplied by TRICARE
or hlth plan'
               S&YR.R03D ='How spclst selected in lst yr: picked from list supplied by TRICARE
or hlth plan'
               OS&YR.R03E='How spclst selected in lst yr: picked on my own'
               S&YR.R03E ='How spclst selected in lst yr: picked on my own'
               OS&YR.R04A='How spclst appntmnt made in lst yr: contacted appntmnt line or
referral desk'
               S&YR.R04A ='How spclst appntmnt made in lst yr: contacted appntmnt line or
referral desk'
               OS&YR.R04B='How spclst appntmnt made in lst yr: called an MTF'
               S&YR.R04B ='How spclst appntmnt made in lst yr: called an MTF'
               OS&YR.R04C='How spclst appntmnt made in lst yr: called personal dr'
               S&YR.R04C ='How spclst appntmnt made in lst yr: called personal dr'
               OS&YR.R04D='How spclst appntmnt made in lst yr: called spclst'
               S&YR.R04D ='How spclst appntmnt made in lst yr: called spclst'
               OS&YR.R04E='How spclst appntmnt made in lst yr: asked prsnl dr to make appntmnt'
               S&YR.R04E ='How spclst appntmnt made in lst yr: asked prsnl dr to make appntmnt'
               OS&YR.R04F='How spclst appntmnt made in lst yr: prsnl dr made appntmnt'
               S&YR.R04F ='How spclst appntmnt made in lst yr: prsnl dr made appntmnt'
               OS&YR.R04G='How spclst appntmnt made in lst yr: other'
               S&YR.R04G ='How spclst appntmnt made in lst yr: other'
               O_S&YR.R05='Last yr: how much prblm understanding process needed to see spclst'
               S&YR.R05  ='Last yr: how much prblm understanding process needed to see spclst'
               O_S&YR.R06='Last yr: referred to any civilian spclsts'
               S&YR.R06  ='Last yr: referred to any civilian spclsts'
               O_S&YR.R07='How much prblm was wait time to see civilian spclst'
               S&YR.R07  ='How much prblm was wait time to see civilian spclst'
               O_S&YR.R08='Last yr: longest time spent traveling (round-trip) to see civilian
spclst'
               S&YR.R08  ='Last yr: longest time spent traveling (round-trip) to see civilian
spclst'
               O_S&YR.R09='Last yr: travel more than 100 miles(one-way) to see civilian spclst'
               S&YR.R09  ='Last yr: travel more than 100 miles(one-way) to see civilian spclst'
               O_S&YR.R10='Last yr: how often did dr seem informed about care from civilian
spclsts'
               S&YR.R10  ='Last yr: how often did dr seem informed about care from civilian
spclsts'
               O_S&YR.R11='Last yr: referred to spclst at MTF'
               S&YR.R11  ='Last yr: referred to spclst at MTF'
               O_S&YR.R12='How much prblm was wait time to see spclst at MTF'
               S&YR.R12  ='How much prblm was wait time to see spclst at MTF'
               O_S&YR.R13='Last yr: longest time spent traveling to see spclst at MTF'
               S&YR.R13  ='Last yr: longest time spent traveling to see spclst at MTF'
               O_S&YR.R14='Last yr: travel more than 100 miles to see spclst at MTF'
               S&YR.R14  ='Last yr: travel more than 100 miles to see spclst at MTF'
               O_S&YR.R15='Last yr: how often did dr seem informed about care from spclsts at
MTF'
               S&YR.R15  ='Last yr: how often did dr seem informed about care from spclsts at
MTF'

               O_S&YR.015='When did you last have cholesterol screening'
               S&YR.015  ='When did you last have cholesterol screening'

               O_S&YR.BE01='Has a doctor told you you have conditions'
               S&YR.BE01  ='Has a doctor told you you have conditions'



                          O_S&YR.011  ='Agree/disagree: able to see provider when needed'
               S&YR.011='Agree/disagree: able to see provider when needed'
               O_S&YR.014  ='How satisfied with health care during last visit'
               S&YR.014='How satisfied with health care during last visit'


               N1 = "Coding Scheme Note 1"
               N2    = "Coding Scheme Note 2"
               N3    = "Coding Scheme Note 3"
               N4    = "Coding Scheme Note 4"
               N5    = "Coding Scheme Note 5"
               N5_C1  = "Coding Scheme Note 5_C1"
               N5_C2  = "Coding Scheme Note 5_C2"
               N5_C3  = "Coding Scheme Note 5_C3"
               N6    = "Coding Scheme Note 6"
```

```
              N7    = "Coding Scheme Note 7"
              N8    = "Coding Scheme Note 8"
              N8_01 = "Coding Scheme Note 8_01"
              N9    = "Coding Scheme Note 9"
              N10   = "Coding Scheme Note 10"
              N10_B1= "Coding Scheme Note 10_B1"
              N11   = "Coding Scheme Note 11"
              N12   = "Coding Scheme Note 12"
              N13   = "Coding Scheme Note 13"
              N14   = "Coding Scheme Note 14"
              N15   = "Coding Scheme Note 15"
              N16   = "Coding Scheme Note 16"
              N17   = "Coding Scheme Note 17"
              N17_R1= "Coding Scheme Note 17_R1"
              N17_R2= "Coding Scheme Note 17_R2"
              N17_R3= "Coding Scheme Note 17_R3"
              N17_R4= "Coding Scheme Note 17_R4"
              N18   = "Coding Scheme Note 18"
              N19A  = "Coding Scheme Note 19A"
              N19B  = "Coding Scheme Note 19B"
              N20   = "Coding Scheme Note 20"
              N21   = "Coding Scheme Note 21"
              N22   = "Coding Scheme Note 22"
              N23   = "Coding Scheme Note 23"
              N23_HT= "Coding Scheme Note 23_HT"
              N23_WT= "Coding Scheme Note 23_WT"
              N24   = "Coding Scheme Note 24"
              N25   = "Coding Scheme Note 25"



              MISS_1 = "Count of original survey responses (pre-cleaning): violates skip
pattern"
              /*MISS_3 = "Count of original survey responses (pre-cleaning): do not use other
tobacco products response"*/
              MISS_4 = "Count of original survey responses (pre-cleaning): incomplete grid
error"
              MISS_5 = "Count of original survey responses (pre-cleaning): scalable reponse of
don't know"
              MISS_6 = "Count of original survey responses (pre-cleaning): not applicable -
valid skip"
              MISS_7 = "Count of original survey responses (pre-cleaning): out-of-range error"
              MISS_9 = "Count of original survey responses (pre-cleaning): no response -
invalid skip"
              MISS_TOT = "Total number of missing responses (pre-cleaning)"
              XSEXA = "Male or Female  - R"
            ;
```

F.3.A Q3FY2015\PROGRAMS\WEIGHTING\SELECTQ.SAS - Create Flag for Record Selection - Run Quarterly

```
*************************************************************************
*
* PROGRAM:  SELECTQ.SAS
* TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (6244-300)
* PURPOSE:  ASSIGN FINAL STATUS FOR RECORD SELECTION PURPOSES.
* WRITTEN:  12/14/2000 BY KEITH RATHBUN
*
* MODIFIED: 01/24/2014 BY AMANDA KUDIS, new code when no tss selectq avialble
*              and new evaluation logic with web data
*
*
* INPUTS:   1) CSCHM&YR.Q.sas7bdat - 20&YR. Quarterly DOD Health Survey Data
*
* OUTPUTS:  1) SELECTQ.sas7bdat - 20&YR. Quarterly DOD Health Survey Data w/FNSTATUS
*
*************************************************************************;

LIBNAME IN         "..\..\DATA\AFINAL";
%macro sqlserver(dbname,svr);
                init_string="Provider=SQLNCLI10;
                             Integrated Security=SSPI;
                             Persist Security Info=True;
                             Initial Catalog=&dbname.;
                             Data Source=&svr."
%mend sqlserver;
libname INDB oledb %sqlserver(40309_SEC__HCSDB, sql_isprod01.mathematica.net);

LIBNAME OUT        "..\..\DATA\AFINAL";
LIBNAME LIBRARY    "..\..\DATA\AFINAL\FMTLIB";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER MPRINT ;
TITLE "Assign final status for record selection purposes. ";

%LET OVERLAPCASE=N;


%MACRO SELECTQ;

*----------------------------------------
  Web Data
----------------------------------------;
DATA EMAILDATABASE (DROP=CATEGORY MPRIDo);
LENGTH EMAILRES $25 MPRID $8;
SET INDB.AccessDB_Q&QT._20&YR. (KEEP=MPRID CATEGORY RENAME=(MPRID=MPRIDo));
EMAILRES=CATEGORY;
MPRID=MPRIDo;
RUN;


PROC FREQ; TABLE EMAILRES/LIST; RUN;

PROC SORT DATA=EMAILDATABASE nodupkey; BY MPRID; RUN;

PROC SORT DATA=IN.CSCHM&YR.Q OUT=TEMPA1; BY MPRID; RUN;

proc freq data=tempa1; table flag_fin/list; run;

DATA TEMPA2 OUT.DUPSA OVERLAP;
   MERGE TEMPA1 (IN=A) EMAILDATABASE (IN=B);
   BY MPRID;
   IF A;
   /*********************************************************************/
   /** KEY VARIABLES (Total=20)                                        **/
   /*********************************************************************/
   ARRAY KEYVAR H&YR.003 H&YR.005 H&YR.006 H&YR.009 H&YR.013 H&YR.018 H&YR.019 H&YR.027
                H&YR.028 H&YR.031 H&YR.033 H&YR.040 H&YR.043 H&YR.048 H&YR.051 H&YR.052
                H&YR.065 H&YR.073 SREDA
                 ;

   ARRAY RACE(5) SRRACEA SRRACEB SRRACEC SRRACED SRRACEE;
```

```
   FLAGRACE = 0; DROP FLAGRACE;
   DO I = 1 TO DIM(RACE);
      IF RACE(I) IN (1) THEN FLAGRACE = 1;
   END;

   KEYCOUNT = 0;
   DO I = 1 TO DIM(KEYVAR); DROP I;
      IF KEYVAR(I) NOT IN (.,.A,.O,.I,.B) THEN KEYCOUNT = KEYCOUNT + 1;
   END;
   KEYCOUNT = KEYCOUNT + FLAGRACE;

   /*********************************************************************/
   /** SET FLAG FOR DUPLICATES                                         **/
   /*********************************************************************/
   LENGTH DUPFLAG $3;
   DUPFLAG = 'NO';
   IF NOT (FIRST.MPRID AND LAST.MPRID) THEN DUPFLAG = 'YES';

   /*********************************************************************/
   /** DETERMINE FNSTATUS                                              **/
   /*********************************************************************/
   FNSTATUS = 0;
   IF FLAG_FIN = 1 THEN DO;
      ************************************************************
      **** APPLY THE COMPLETE QUESTIONNAIRE RULE (50% OF KEY   ****
      **** VARIABLES).                                         ****
      ************************************************************;
      IF KEYCOUNT GT 9 THEN FNSTATUS = 11;
      ELSE FNSTATUS = 12;
   END;
   ELSE IF FLAG_FIN IN(3,6,8,10,11,14,16,21,23,24) OR EMAILRES = 'Refusal' THEN DO;
      FNSTATUS = 20;
   END;
   ELSE IF FLAG_FIN IN(2,4,5,7,12,13,15) THEN DO;
      FNSTATUS = 31;
   END;
   ELSE IF FLAG_FIN IN (25,26) THEN DO;
      FNSTATUS = 32;
   END;
   ELSE IF FLAG_FIN IN(9,17,18,19,20,22) OR EMAILRES IN ('Bad email', 'Wrong Respondent') THEN
DO;
      IF FLAG_FIN IN (18,19,20) OR EMAILRES IN ('Bad email', 'Wrong Respondent') THEN DO;
         FNSTATUS = 42;
      END;
      ELSE DO;
         FNSTATUS = 41;
      END;
   END;
   ELSE IF FLAG_FIN IN(99) THEN DO;
      CALL SYMPUT("OVERLAPCASE","Y");
      OUTPUT OVERLAP; **cases that overlap with another survey;
   END;


   IF DUPFLAG = 'YES' THEN OUTPUT OUT.DUPSA ;
   ELSE IF FLAG_FIN NE 99 THEN OUTPUT TEMPA2;

RUN;




*********************************************************************
* Select the "most complete" questionaire from duplicates and
* SET it back into the non-duplicates file. For now assume the lowest
* FNSTATUS Value is the "most complete".
*********************************************************************
;
PROC SORT DATA=OUT.DUPSA ;
BY MPRID FNSTATUS;
RUN;

DATA DEDUPED;
```

```
   SET OUT.DUPSA ;
   BY MPRID FNSTATUS;
   IF FIRST.MPRID; *KEEP only the first - most complete questionaire;
RUN;
%MEND;
%SELECTQ;
*********************************************************************
* Assign FNSTATUS for the overlap cases if they are some this quarter
*********************************************************************;

%MACRO OVERLAP;
   %IF "&OVERLAPCASE"="Y" %THEN %DO;
       %IF "&NOSELECTQ"="Y" %THEN %DO; *WHEN THERE IS NO SELECTQ TO COMPARE TO;
         DATA OVERLAP_FNSTATUS;
         SET OVERLAP;
         FNSTATUS=41;
         RUN;
       %END;
       %ELSE %DO;
         %INCLUDE "overlap_fnstatus.inc"/SOURCE2;
       %END;
   %END;


   DATA OUT.SELECTQ;
      SET TEMPA2 DEDUPED
         %IF "&OVERLAPCASE"="Y" %THEN %DO;
            overlap_fnstatus
         %END;
         ;
      LABEL FNSTATUS = "Final Status"
            DUPFLAG  = "Multiple Response Indicator"
            STRATUM  = "Sampling STRATUM"
            KEYCOUNT = "# Key Questions Answered"
            EMAILRES = "Email response"
            ;
         FORMAT EMAILRES EMAILR.;

   %if &trickle=1 %then %do;
   /** UPDATE DUPLICATE FLAG FOR TRICKLE RESPONSES **/
   IF DRP_RND1 EQ 'YES' THEN DUPFLAG = 'NO';
   %end;

   RUN;
%MEND;

%OVERLAP;

TITLE1 "Quarterly DOD Health Survey FNSTATUS assignment (6663-500)";
TITLE2 "Program Name: SELECTQ.SAS By Keith Rathbun";
TITLE3 "Program Output: SELECTQ.sas7bdat";

PROC CONTENTS DATA=OUT.SELECTQ ; RUN;

PROC FREQ DATA=OUT.SELECTQ ;
TABLES FNSTATUS KEYCOUNT FLAG_FIN
       FNSTATUS*KEYCOUNT*FLAG_FIN*EMAILRES
   /MISSING LIST;
RUN;
```

F.3.B Q3FY2015\PROGRAMS\WEIGHTING\OVERLAP_FNSTATUS.INC - Include file for SELECTQ.SAS

```
*************************************************************************
* PROGRAM:   OVERLAP_FNSTATUS.INC
* TASK:      DOD HEALTH CARE SURVEY ANALYSIS (6663-300)
* PURPOSE:   Update Fnstatus for the Overlap cases using the selectq.sas7bdat
*            of the survey that overlapped with this HCSDB survey
*
* WRITTEN:   07/09/2012 BY JACQUELINE AGUFA-MALOBA
*
* MODIFIED:
*
*
* INPUTS:   1) OthrSrvy.selectq - The selectq.sas7bdat of the sample that overlaps
*                                 with this sample
*           2) overlap - The cases is this sample that overlap with the other survey.
*
* OUTPUT:   1) overlap_fnstatus  - Temporary SAS dataset with fnstatus
*
* NOTES:    1) This code is called from selectq and is only necessary when there
*              are some cases in this sample that overlap with another sample
*           2) SIS will update this code at time of sampling for the source of
*              the overlap.
*           3) SIS will either provide us with the necessary code or update
*              the code that assigns the fnstatus for the overlap cases
*
*
*************************************************************************;

*-------------------------------------------------------------
****SIS will need to indicate the sample that overlaps with this
****hcsdb sample
*-------------------------------------------------------------;

LIBNAME OthrSrvy "N:\Project\40309_TSS\DC1\Beneficiary\2014\Data";

PROC SORT DATA=OthrSrvy.SelectQ OUT=Oselectq(KEEP=MPRID PRN FNSTATUS);
   BY PRN;
RUN;

PROC SORT DATA=overlap;
   BY PRN;
RUN;

DATA overlap_fnstatus(DROP=oFNSTATUS oMPRID) ovlp_nomatch(KEEP=MPRID PRN FNSTATUS);
   MERGE overlap(IN=ovlp)
         Oselectq(IN=slct RENAME=(FNSTATUS=oFNSTATUS MPRID=oMPRID))
     ;
   BY PRN;

   IF slct AND ovlp THEN DO;
      *-------------------------------------------------------------
      ****SIS will need to provide us specifications of how to update
      ****fnstatus;
      *-------------------------------------------------------------;
      IF oFNSTATUS IN (11,12,20) THEN FNSTATUS=20;
      ELSE FNSTATUS=oFNSTATUS;

      OUTPUT overlap_fnstatus;
   END;
   ELSE IF ovlp THEN OUTPUT ovlp_nomatch;
RUN;

PROC PRINT DATA=ovlp_nomatch;
   TITLE "Cases in the  file that are not found in the overlap selectq file";
RUN;
```

F.4.A Q3FY2015\PROGRAMS\CONSTRUCT\CONVARQ.SAS - Construct Variables for Analysis - Run Quarterly

```
*******************************************************************************
* PROGRAM:   CONVARQ.SAS
* WRITTEN:   2/3/99 BY KELLY WHITE
*
*
* UPDATED:    12/23/2013 BY AKUDIS  for Q1FY2014
*
* PURPOSE:   TO CREATE INDEPENDENT VARIABLES: XENRLLMT, XENR_PCM, XINS_COV,
*            XBNFGRP, XBENCAT, XINS_RSV, XENR_RSV
*            TO CREATE DEPENDENT VARIABLES: KDISENRL, KBGPRB1,
*            KBGPRB2, KMILOFFC, KCIVOFFC, KMILOPQY, KCIVOPQY, HP_PRNTL, HP_MAMOG,
*            HP_MAM50, HP_PAP, HP_BP, HP_FLU, HP_PROS, KCIVINS, KPRSCPTN, HP_GP,
*            HP_CHOL, HP_BRST, HP_SMOKE, HP_SMOKH, HP_CESS, HP_OBESE,
*
*            TO CREATE OUTCATCH
* INPUT:     ..\..\DATA\AFINAL\SELECTQ.sas7bdat
* OUTPUT:    ..\..\DATA\AFINAL\CONVARQ.sas7bdat
*
* INCLUDES: 1) CONSVAR0.SAS - Construct XREGION, XTNEXREG and USA based on CACSMPL.
*           2) Construct_cacsmpl.SAS
*******************************************************************************;

LIBNAME IN         '..\..\DATA\AFINAL';
LIBNAME LIBRARY    '..\..\DATA\AFINAL\FMTLIB';


OPTIONS PS=78 LS=256 ERRORS=2 NOCENTER ;

***Create cacsmpl;
%MACRO CONVARQ;


TITLE1 "FY 20&YR. Quarter &QT. Health Care Survey of DoD Beneficiaries Study";
TITLE2 'CREATE CONSTRUCTED & OUTCOME MEASURE VARIABLES';

PROC SORT DATA=IN.SELECTQ OUT=SELECTQ; BY MPRID; RUN;
%INCLUDE "Construct_cacsmpl.SAS"/SOURCE2; /* Move construct_cacsmpl here to use selectq sort */

/* Reset titles after construct_cacsmpl is finished */
TITLE1 "FY 20&YR. Quarter &QT. Health Care Survey of DoD Beneficiaries Study";
TITLE2 'CREATE CONSTRUCTED & OUTCOME MEASURE VARIABLES';

PROC SORT DATA=IN.CONSTRUCT_CACSMPL OUT=CACSMPL; BY MPRID; RUN;

DATA IN.CONVARQ(KEEP=XENRLLMT XENR_PCM XINS_COV
                     XREGION XTNEXREG USA
                     ENBGSMPL XBNFGRP XOCONUS SERVAREA
                     KMILOPQY KCIVOPQY HP_PRNTL HP_MAMOG HP_MAM50 HP_PAP HP_BP HP_FLU
                     MPRID KCIVINS HP_SMOKE
                     OUTCATCH HP_SMKH3 HP_CESH3 HP_OBESE
                     XBMI XBMICAT CACSMPL XBENCAT XENR_RSV XINS_RSV
                     RDAGEQY RFLDAGE JSFLAG)
        CONVARQ;
   MERGE SELECTQ(IN=in1)
         CACSMPL(IN=in2 RENAME=(CACSMPL=XCACSMPL));
   BY MPRID;

   IF IN1;


   ************************************************************************
   * Construct XREGION, XTNEXREG and USA.
   ************************************************************************;

/*CHANGE CACSMPL TO BE NUMERIC*/
   CACSMPL = INPUT(XCACSMPL,8.);
   DROP XCACSMPL;

   %INCLUDE "CONSVAR0.SAS"/SOURCE2;
```

```
   LENGTH JSFLAG   3.
          XREGION  3.
          XTNEXREG 3.
          USA      3.
          XBMI     8.
          XBMICAT  3.
          XOCONUS  3.
          XBENCAT  3.
          XINS_RSV 3.
          XENR_RSV 3.
          RDAGEQY  3.
          RFLDAGE  3.
             ;


LABEL
   JSFLAG      =  "Joint Service Flag"
   XENRLLMT    =  "Enrollment in TRICARE Prime"
   XENR_PCM    =  "Enrollment by PCM type"
   XINS_COV    =  "Insurance Coverage"
   XBNFGRP     =  "Beneficiary Group"
   KMILOPQY    =  "Outpat. visits-use Military fclty most"
   KCIVOPQY    =  "Outpat. visits-use Civilian fclty most"
   HP_PRNTL    =  "Prgnt in lst yr, receivd cre 1st trimstr"
   HP_MAMOG    =  "Women 40>=, mammography in pst 2 yrs"
   HP_MAM50    =  "Women 50>=, mammography in pst 2 yrs"
   HP_PAP      =  "All women, Pap smear in last 3 yrs"
   HP_BP       =  "Bld prsre chck in last 2 yrs,know rslts"
   HP_FLU      =  "65 and older, flu shot in last 12 mnths"
   HP_SMOKE    =  "Advised to quit smoking in last 12 mnths"
   KCIVINS     =  "Beneficiary coverd by civilian insurance"
   OUTCATCH    =  "Out of catchment area indicator"
   HP_SMKH3    =  "Smoker under HEDIS definition (modified)"
   HP_CESH3    =  "Had smoking cessation counseling - HEDIS (modified)"
   XREGION     =  "XREGION - Region"
   XTNEXREG    =  "TNEX Region - Based on Location of Health Services"
   USA         =  "USA - USA/OCONUS Indicator"
   XBMI        =  "Body Mass Index"
   XBMICAT     =  "Body Mass Index Category"
   HP_OBESE    =  "Obese/Morbidly obese"
   XOCONUS     =  "Overseas Europe/Pacific/Latin Indicator"
   XBENCAT     =  "Beneficiary Category"
   XINS_RSV    =  "Insurance Coverage - Reservist"
   XENR_RSV    =  "Enrollment by PCM type - Reservist"
   CACSMPL     =  "Catchment Area"
   SERVAREA    =  "Service Area"
   RDAGEQY     =  "Age at sampling-Capped(18 and below, 86 and above)"
   RFLDAGE     =  "Age at fielding-Capped(18 and below, 86 and above)"
   ;


FORMAT
   JSFLAG         JSFLAG.
   XENRLLMT       ENROLL.
   XENR_PCM       PCM.
   XINS_COV       INSURE.
   XBNFGRP        XBGC_S.
   KMILOPQY       HAGRID.
   KCIVOPQY       HAGRID.
   HP_PRNTL       PRNTL.
   HP_MAMOG       HAYNN.
   HP_MAM50       HAYNN.
   HP_OBESE       HAYNN.
   HP_PAP         HAYNN.
   HP_BP          HAYNN2_.
   HP_FLU         HAYNN.
   HP_SMOKE       HAYNN.
   KCIVINS        HAYNN2_.
   OUTCATCH       OCATCH.
   HP_SMKH3       SMOKE.
   HP_CESH3       SMOKE.
   ENBGSMPL       $ENBGS.
```

```
   XREGION        CREG.
   XTNEXREG       TNEX.
   USA            USAMHS.
   XBMICAT        XBMICAT.
   XOCONUS        XOCONUS.
   XBENCAT        XBENCAT.
   XINS_RSV       XINSRSV.
   XENR_RSV       XENRRSV.
   CACSMPL        CAC.
   SERVAREA       $SRVAREA.
   RDAGEQY        AGE_r.
   RFLDAGE        AGE_r.
   ;


/* Create Joint Service flag */
   IF PUT(CACSMPL, JOINTSRV.)='1' THEN JSFLAG=1;
   ELSE JSFLAG=0;


/* CREATE INDEPENDENT VARIABLES */

/* XENRLLMT--ENROLLMENT STATUS */
IF ENBGSMPL ^= "b" THEN DO;
IF 17 <= INPUT(FIELDAGE,8.) < 65 THEN DO;
   IF INPUT(ENBGSMPL,8.) = 1 THEN XENRLLMT = 1;                    /*   Active duty (<65) */
   ELSE IF INPUT(ENBGSMPL,8.) IN (2, 3, 5, 6) THEN XENRLLMT = 2;   /*   Non-active duty enrolled
(<65)*/
   ELSE IF INPUT(ENBGSMPL,8.) IN (4, 7,11) THEN XENRLLMT = 3;      /*   Not Enrolled (<65)*/
END;
ELSE IF INPUT(FIELDAGE,8.)  > = 65 THEN DO;
   IF INPUT(ENBGSMPL,8.) = 10 THEN XENRLLMT = 4;                   /*   Not Enrolled (65+)*/
   ELSE IF INPUT(ENBGSMPL,8.) IN (8,9) THEN XENRLLMT = 5;          /*   Enrolled (65+)    */
END;

/* XENR_PCM--ENROLLMENT BY PCM TYPE */
IF 17 <= INPUT(FIELDAGE,8.) < 65 THEN DO;
   IF INPUT(ENBGSMPL,8.) = 1 THEN XENR_PCM = 1;                 /*   Active duty (<65)        */
   ELSE IF INPUT(ENBGSMPL,8.) IN (3, 6) THEN XENR_PCM = 2;      /*   Enrolled (<65) - mil PCM */
   ELSE IF INPUT(ENBGSMPL,8.) IN (2, 5) THEN XENR_PCM = 3;      /*   Enrolled (<65) - civ PCM */
   ELSE IF INPUT(ENBGSMPL,8.) IN (4, 7,11) THEN XENR_PCM = 4;   /*   Not Enrolled (<65)       */
END;
 ELSE IF INPUT(FIELDAGE,8.) > = 65 THEN DO;
    IF INPUT(ENBGSMPL,8.) = 10 THEN XENR_PCM = 5;            /*  Not Enrolled (65+)       */
    IF INPUT(ENBGSMPL,8.) = 9 THEN XENR_PCM = 6;             /*  Enrolled (65+)-mil PCM   */
    IF INPUT(ENBGSMPL,8.) = 8 THEN XENR_PCM = 7;             /*  Enrolled (65+)-civ PCM   */
/*NJ_Q2*/
 END;
END;

/* XINS_COV--INSURANCE COVERAGE */
IF XENRLLMT = 1 THEN XINS_COV =1;                                   /* Prime <65-Active Duty */
  ELSE IF 17 <= INPUT(FIELDAGE,8.)  < 65 AND H&YR.003 IN (1) THEN XINS_COV = 2; /* Prime <65-
Non-active Duty */
  ELSE IF H&YR.003 = 3 THEN XINS_COV = 3;                            /* Standard/Extra */
  ELSE IF H&YR.003 = 11 THEN XINS_COV = 7;                             /* Plus and Medicare */
  ELSE IF H&YR.003 = 4 THEN XINS_COV = 4;                              /* Medicare*/
  ELSE IF H&YR.003 IN (5,6, 7, 8, 9, 13) THEN XINS_COV = 5;            /* Other civilian health
insurance*/
  ELSE IF H&YR.003 = 10 THEN XINS_COV = 8;                             /* Veterans
Administration (VA) */
  ELSE IF H&YR.003 = 12 THEN XINS_COV = 9;                             /* TRICARE Reserve Select
*/
  ELSE IF H&YR.003 = 14 THEN XINS_COV = 10;                            /* TRICARE Retired
Reserve - MER 06/21/11 */
  ELSE IF 21 <= INPUT(FIELDAGE,8.) <= 26
     AND H&YR.003 = 15 THEN XINS_COV = 13;                             /* TRICARE Young Adult
Prime - AMK 2/10/14 new categor since now specific for prime */
  ELSE IF H&YR.003 = 16 THEN XINS_COV = 12;                            /* CHCBP - MER 06/21/11
*/
  ELSE IF 21 <= INPUT(FIELDAGE,8.) <= 26
     AND H&YR.003 = 17 THEN XINS_COV = 14;                             /* TRICARE Young Adult
Standard/Extra - AMK 02/06/14 */
```

```
  ELSE IF (INPUT(FIELDAGE,8.)>= 65 AND XENRLLMT = 5 and H&YR.003 = 1) THEN XINS_COV = 6;   /*
Prime, >= 65 */
  ELSE IF H&YR.075=1 AND H&YR.076=1 AND H&YR.003 NE .N THEN XINS_COV = 4;                   /*
NEW Q2 Medicare/Medicaid */


/* XBNFGRP-Beneficiary Group that excludes those 65 and over-Active Duty
           and Family Members of Active Duty */
IF ENBGSMPL ^="b" THEN DO;
IF INPUT(FIELDAGE,8.)  >= 65 AND INPUT(ENBGSMPL,8.) IN (1, 2, 3, 4) THEN XBNFGRP = .;
   ELSE IF INPUT(ENBGSMPL,8.) = 1 THEN XBNFGRP = 1;                                  /* Active
Duty <65 */
   ELSE IF INPUT(ENBGSMPL,8.) IN (2, 3, 4) THEN XBNFGRP = 2;                         /* Family
of Active <65 */
   ELSE IF INPUT(ENBGSMPL,8.) IN (5, 6, 7) THEN XBNFGRP = 3;                         /*
Ret/Surv/Fam <65 */
   ELSE IF INPUT(ENBGSMPL,8.) IN (8, 9, 10) THEN XBNFGRP = 4;                        /*
Ret/Surv/Fam 65+ */
   ELSE IF INPUT(ENBGSMPL,8.) IN (11)       THEN XBNFGRP = .;
END;

/* CREATE DEPENDENT VARIABLES */


/* KMILOPQY--OUTPATIENT VISITS TO MILITARY FACILITY
   KCIVOPQY--OUTPATIENT VISITS TO CIVILIAN FACILITY */
IF H&YR.005 = 1 THEN DO;
   KMILOPQY=H&YR.013;
   KCIVOPQY=1;
END;
ELSE IF H&YR.005 IN  (2, 3, 4) THEN DO;
   KCIVOPQY=H&YR.013;
   KMILOPQY=1;
END;
ELSE IF H&YR.005 = 5 THEN DO;
   KMILOPQY=1;
   KCIVOPQY=1;
END;

/* HP_PRNTL--IF PREGNANT LAST YEAR, RECEIVED PRENATAL CARE IN 1ST TRIMESTER */
IF H&YR.062 IN (1,2) THEN DO;                                        /*   Pregnant in last 12
months   */
   IF H&YR.064 = 4 THEN HP_PRNTL = 1;                               /*   Yes   */
      ELSE IF (H&YR.063 = 1 AND H&YR.064 = 1) THEN HP_PRNTL = .;    /* <3 months pregnant now */
      ELSE IF H&YR.064 IN (1,2,3) THEN HP_PRNTL = 2;                /*   No */
END;
ELSE IF H&YR.062 IN (.C,.N) THEN HP_PRNTL = .N; /* Male */

/* HP_MAMOG--FOR WOMEN AGE 40 AND OVER, HAD MAMMOGRAM W/IN PAST 2 YEARS */
IF XSEXA = 2 AND INPUT(FIELDAGE,8.)  >= 40 THEN DO;
   IF H&YR.061 IN (5, 4) THEN HP_MAMOG = 1;            /* Yes */
   ELSE IF H&YR.061 IN (1, 2, 3) THEN HP_MAMOG = 2;    /* No */
END;

/* HP_MAM50--FOR WOMEN AGE 50 AND OVER, HAD MAMMOGRAM W/IN PAST 2 YEARS */
IF XSEXA = 2 AND INPUT(FIELDAGE,8.)  >= 50 THEN DO;
   IF H&YR.061 IN (5, 4) THEN HP_MAM50 = 1;            /* Yes */
   ELSE IF H&YR.061 IN (1, 2, 3) THEN HP_MAM50 = 2;    /* No */
END;

/* HP_PAP--FOR ALL WOMEN, HAD PAP SMEAR IN LAST 3 YEARS */
IF XSEXA = 2 THEN DO;
   IF H&YR.059B IN (4, 5, 6) THEN HP_PAP = 1;            /* Yes */
   ELSE IF H&YR.059B IN (1, 2, 3) THEN HP_PAP = 2;       /* No  */
END;

/* HP_BP--HAD BLOOD PRESSURE SCREENING IN LAST 2 YEARS AND KNOW RESULT */
IF H&YR.049 IN (2,3) AND H&YR.050 IN (1,2) THEN HP_BP = 1;   /* Yes     */
   ELSE IF H&YR.049 = 1 THEN HP_BP = 2;                    /* No      */
   ELSE IF H&YR.049 < 0 OR H&YR.050 < 0 THEN HP_BP = .;      /* Unknown */
   ELSE HP_BP = 2;                                       /* No      */

/* HP_FLU--FOR PERSON AGE 65 OR OVER, HAD FLU SHOT IN LAST 12 MONTHS */
IF INPUT(FIELDAGE,8.) >= 65 THEN DO;
```

```
   IF H&YR.051 = 4 THEN HP_FLU = 1;                      /*   Yes */
   ELSE IF H&YR.051 IN (1, 2, 3) THEN HP_FLU = 2;        /*   No  */
END;

/* HP_SMOKE--ADVISED TO QUIT SMOKING IN PAST 12 MONTHS */
IF H&YR.054 IN (2, 3, 4) THEN HP_SMOKE = 1;          /*   Yes   */
   ELSE IF H&YR.054 = 1 THEN HP_SMOKE = 2;             /*   No    */

/* KCIVINS--IS BENEFICIARY COVERED BY PRIVATE CIVILIAN INSURANCE */
IF H&YR.002G=1 OR H&YR.002I=1 OR H&YR.002J=1 THEN KCIVINS=1;           /* YES  */
   ELSE KCIVINS=2;                                              /* NO   */

/* Add code for smoking and smoking cessation counseling according to the HEDIS */
IF H&YR.052 IN (1,2) THEN DO;
   IF H&YR.052=1 AND (H&YR.053=3 OR H&YR.053=4) AND H&YR.057A=1 THEN HP_SMKH3=1; /* Yes */
   ELSE IF H&YR.052=2 OR H&YR.053=2 OR H&YR.057A NE 1 THEN HP_SMKH3=2;         /* No  */
END;

IF (H&YR.053=3 OR H&YR.053=4) AND H&YR.054>0 THEN DO;
   IF H&YR.054>1 THEN HP_CESH3=1;  /* Yes */
   ELSE HP_CESH3=2;              /* No */
END;

/* OUTCATCH -- OUT OF CATCHMENT AREA */
IF 9900 < CACSMPL < 9999 THEN OUTCATCH=1;     /* Out of catchment area */
   ELSE IF CACSMPL = 9999 THEN OUTCATCH=.;
   ELSE OUTCATCH=0;                           /* Catchment area        */

*******************************************************************************
* Calculate XBMI- Body Mass Index and XBMICAT- Body Mass Index Category
* BMI=Weight(in pounds)*703 divide by Height(in inch)*Height(in inch)
*******************************************************************************;


 IF H&YR.071F IN (.A,.O,.I,.B) THEN TSRHGTF=.; ELSE TSRHGTF=H&YR.071F;
 IF H&YR.071I IN (.A,.O,.I,.B) THEN TSRHGTI=.; ELSE TSRHGTI=H&YR.071I;
 IF H&YR.072  IN (.A,.O,.I,.B) THEN TSRWGT =.; ELSE TSRWGT =H&YR.072;

 IF TSRHGTF IN (.) OR
    TSRWGT  IN (.) THEN XBMI=.;
 ELSE DO;
    XBMI = ROUND((TSRWGT*703)/
                 (SUM(TSRHGTF*12,TSRHGTI)*SUM(TSRHGTF*12,TSRHGTI)), .1);
 END;

IF XBMI < 12 OR XBMI > 70 THEN XBMI=.;

 DROP TSRHGTF TSRHGTI TSRWGT;


/* Same category as Healthy People 2010 where there is no sex distinction */
    IF XBMI = .         THEN XBMICAT=.;
    ELSE IF XBMI < 18.5 THEN XBMICAT=1;  *Underweight;
    ELSE IF XBMI < 25   THEN XBMICAT=2;  *Normal Weight;
    ELSE IF XBMI < 30   THEN XBMICAT=3;  *Overweight;
    ELSE IF XBMI < 40   THEN XBMICAT=4;  *Obese;
    ELSE                     XBMICAT=5;  *Morbidly Obese;

IF XBMICAT=. THEN HP_OBESE=.;
ELSE IF XBMICAT IN (4,5) THEN HP_OBESE=1;    *OBESE ;
ELSE HP_OBESE=2;                             *NOT OBESE;


/*
Tricare Reserve Select and the increasing presence of inactive reservists and their dependents
in our data.
In order to accomodate them, we will need to create additional variables.
*/

IF DBENCAT='ACT' THEN XBENCAT=1;      *Active duty;
ELSE IF DBENCAT='DA'  THEN XBENCAT=2; *Active Duty family member;
ELSE IF DBENCAT='GRD' THEN XBENCAT=3; *Active reservist;
ELSE IF DBENCAT='DGR' THEN XBENCAT=4; *Dependent of Reservist;
ELSE IF DBENCAT='IGR' THEN XBENCAT=5; *Inactive Reservist";
```

```
ELSE IF DBENCAT='IDG' THEN XBENCAT=6; *Dependent of Inactive Guard";
ELSE IF DBENCAT IN ('RET','DR','DS') THEN DO;
    IF 17 <= INPUT(FIELDAGE,8.) < 65 THEN XBENCAT=7;   *Retired or Dependent of Retiree <65;
    ELSE IF INPUT(FIELDAGE,8.)  > = 65 THEN XBENCAT=8; *Retired or Dependent of Retiree >=65;
END;


/*We also need to redefine xins_cov, call it xins_rsv,
which is the same as xins_cov but where
reservists are separated from other active duty - xins_cov will =1 if active duty,
but not active reservist or inactive reservist.

Similarly we need xenr_rsv which is xenr_pcm but reservists will not be treated as active duty
ie xenr_pcm=1 if active duty but not reservist.  We also need to define another category
for xins_rsv, xins_rsv=9 for tricare reserve select -we also need to account for the value
covered by insurance of another country - that should be classified as civilian insurance.
Use H&YR.003 for this.*/

/* XINS_RSV--INSURANCE COVERAGE DISTINGUISHING RESERVISTS FROM ACTIVE DUTY*/
  IF XENRLLMT = 1 THEN DO;
     IF XBENCAT IN (1) THEN XINS_RSV =1;                            /* Prime <65-Active Duty
(Non reservists) */
     ELSE IF XBENCAT IN (3,5) THEN XINS_RSV=10;                      /* Prime <65-Active Duty
(Reservists) */
  END;
  ELSE IF 17 <= INPUT(FIELDAGE,8.)  < 65 AND H&YR.003 IN (1) THEN XINS_RSV = 2; /* Prime <65-
Non-active Duty */
  ELSE IF H&YR.003 =3 THEN XINS_RSV = 3;                             /* Standard/Extra */
  ELSE IF H&YR.003 = 11 THEN XINS_RSV = 7;                           /* Plus and Medicare */
  ELSE IF H&YR.003 = 4 THEN XINS_RSV = 4;                            /* Medicare*/
  ELSE IF H&YR.003 IN (5,6, 7, 8, 9, 13) THEN XINS_RSV = 5;          /* Other civilian health
insurance*/
  ELSE IF H&YR.003 = 10 THEN XINS_RSV = 8;                           /* Veterans
Administration (VA) */
  ELSE IF H&YR.003 = 12 THEN XINS_RSV = 9;                          /* TRICARE Reserve Select
*/
  ELSE IF H&YR.003 = 14 THEN XINS_RSV = 11;                          /* TRICARE Retired
Reserve - MER 06/21/11 */
  ELSE IF 21 <= INPUT(FIELDAGE,8.) <= 26
     AND H&YR.003 = 15 THEN XINS_RSV = 14;                           /* TRICARE Young Adult
Prime - MER 06/21/11 */
  ELSE IF H&YR.003 = 16 THEN XINS_RSV = 13;                          /* CHCBP - MER 06/21/11
*/
  ELSE IF 21 <= INPUT(FIELDAGE,8.) <= 26
     AND H&YR.003 = 17 THEN XINS_RSV = 15;                           /* TRICARE Young Adult
Standard/Extra- AMK 02/06/14 */
  ELSE IF (INPUT(FIELDAGE,8.)>= 65 AND XENRLLMT = 5 and H&YR.003 = 1) THEN XINS_RSV = 6;   /*
Prime, >= 65 */
  ELSE IF H&YR.075=1 AND H&YR.076=1 AND H&YR.003 NE .N THEN XINS_RSV = 4;
/* Medicare/Medicaid */

/* XENR_RSV--ENROLLMENT DISTINGUISHING RESERVISTS FROM ACTIVE DUTY */
IF 17 <= INPUT(FIELDAGE,8.) < 65 THEN DO;
   IF INPUT(ENBGSMPL,8.) = 1 THEN DO;
      IF XBENCAT IN (1) THEN XENR_RSV = 1;                      /*   Active duty (<65) Non
reservists */
      ELSE IF XBENCAT IN (3,5) THEN XENR_RSV = 8;               /*   Active duty (<65)
Reservists */
   END;
   ELSE IF INPUT(ENBGSMPL,8.) IN (3, 6) THEN XENR_RSV = 2;      /*   Enrolled (<65) - mil PCM */
   ELSE IF INPUT(ENBGSMPL,8.) IN (2, 5) THEN XENR_RSV = 3;      /*   Enrolled (<65) - civ PCM */
   ELSE IF INPUT(ENBGSMPL,8.) IN (4, 7,11) THEN XENR_RSV = 4;   /*   Not Enrolled (<65)       */
END;
ELSE IF INPUT(FIELDAGE,8.) > = 65 THEN DO;
    IF INPUT(ENBGSMPL,8.) = 10 THEN XENR_RSV = 5;               /*  Not Enrolled (65+)       */
    IF INPUT(ENBGSMPL,8.) = 9 THEN XENR_RSV = 6;                /*  Enrolled (65+)-mil PCM   */
    IF INPUT(ENBGSMPL,8.) = 8 THEN XENR_RSV = 7;                /*  Enrolled (65+)-civ PCM   */
END;

   /*Capping/Recode dageqy and fieldage by combining 18 and below and 86 and above. */

   IF INPUT(DAGEQY,8.)=.           THEN RDAGEQY=.;
   ELSE IF INPUT(DAGEQY,8.) LT 18  THEN RDAGEQY=18;
   ELSE IF INPUT(DAGEQY,8.) GT 86  THEN RDAGEQY=86;
```

```
   ELSE RDAGEQY=INPUT(DAGEQY,8.);

   IF INPUT(FIELDAGE,8.)=.          THEN RFLDAGE=.;
   ELSE IF INPUT(FIELDAGE,8.) LT 18 THEN RFLDAGE=18;
   ELSE IF INPUT(FIELDAGE,8.) GT 86 THEN RFLDAGE=86;
   ELSE RFLDAGE=INPUT(FIELDAGE,8.);


RUN;

PROC FREQ DATA=CONVARQ;
   TABLES JSFLAG*CACSMPL/LIST MISSING;
   TITLE3 'Comparison of Joint Service flag vs. CACSMPL';
RUN;

DATA CONVARQ2;
   SET CONVARQ;
   WHERE FNSTATUS=11;
RUN;


/* CHECK RECONSTRUCTED VARIABLES */
PROC FREQ DATA=CONVARQ2;
 TABLES XENRLLMT XENR_PCM XINS_COV XBENCAT XENR_RSV XINS_RSV XREGION XTNEXREG
        XBMICAT ENBGSMPL XBNFGRP
        KMILOPQY KCIVOPQY HP_PRNTL HP_MAMOG HP_MAM50 HP_PAP HP_BP HP_FLU
        HP_SMOKE KCIVINS OUTCATCH
        HP_SMKH3 HP_CESH3 XBMI HP_OBESE XOCONUS SERVAREA
        / MISSING LIST;
 TITLE3 "ONE WAY FREQUENCIES ON 20&YR. RECONSTRUCTED VARIABLES";
 RUN;

/* CROSSTABS TO CHECK RECONSTRUCTION VARIABLES */
/* COLLAPSE AGE FOR CROSSTABS */
   PROC FORMAT;
     VALUE $AGE
             "017" -< "065" = "LESS THAN 65"
             "065" -< "120" = "65 OR OLDER"
             "O"      = "Out of range err"
             " "      = "Missing/unknown" ;
   RUN;



   PROC FREQ DATA=CONVARQ2;
    TABLES
           FIELDAGE*ENBGSMPL*XENRLLMT
           FIELDAGE*ENBGSMPL*XENR_PCM
           FIELDAGE*XENRLLMT*H&YR.003*H&YR.075*H&YR.076*XINS_COV
           DBENCAT*XBENCAT
           FIELDAGE*ENBGSMPL*XENR_RSV*XENR_PCM
           FIELDAGE*XENRLLMT*H&YR.003*H&YR.075*H&YR.076*XINS_COV*XINS_RSV
           XTNEXREG*XREGION*CACSMPL
           XREGION*USA
           FIELDAGE*ENBGSMPL*XBNFGRP
           H&YR.005*H&YR.013*KMILOPQY
           H&YR.005*H&YR.013*KCIVOPQY
           H&YR.062*H&YR.063*H&YR.064*HP_PRNTL
           XSEXA*H&YR.059B*HP_PAP
           H&YR.049*H&YR.050*HP_BP
           FIELDAGE*H&YR.051*HP_FLU
           H&YR.054*HP_SMOKE
           H&YR.002I*H&YR.002J*H&YR.002G*KCIVINS
           OUTCATCH*CACSMPL
           H&YR.052*H&YR.053*HP_SMKH3
           HP_SMKH3*H&YR.054*HP_CESH3
           H&YR.071F*H&YR.071I*H&YR.072*XBMI
           XBMICAT*HP_OBESE
           XREGION*XOCONUS*USA

           / MISSING LIST;
           FORMAT XSEXA HASEX. FIELDAGE $AGE.
                  XBMICAT XBMICAT.
                      ;
```

```
     TITLE3 'CROSSTABS ON NEW VARIABLES';
            RUN;

   PROC FREQ DATA=CONVARQ2;
      tables XTNEXREG*XREGION*CACSMPL
             XTNEXREG*XREGION*CACSMPL*D_HEALTH*DCATCH
             ENBGSMPL*CACSMPL*SERVAREA

             RDAGEQY*DAGEQY
             RFLDAGE*FIELDAGE

          / MISSING LIST;
   run;

/* COLLAPSE FOR MAMMOGRAPHY, BREAST CANCER, AND PROSTATE XTABS*/
   PROC FORMAT;
     VALUE $AGE2_
             "017" - "049" = "LESS THAN 50"
             "050" -< "120" = "50 OR OLDER"
             "O"      = "Out of range err"
             " "      = "Missing/unknown" ;

     VALUE $AGE3_
             "017" - "039" = "LESS THAN 40"
             "040" -< "120" = "40 OR OLDER"
             "O"      = "Out of range err"
             " "      = "Missing/unknown" ;
             RUN ;


         PROC FREQ DATA=CONVARQ2;
             TABLES XSEXA*FIELDAGE*H&YR.061*HP_MAM50
                    /MISSING LIST;
                    FORMAT FIELDAGE $AGE2_. XSEXA HASEX.;
         RUN;

         PROC FREQ DATA=CONVARQ2;
             TABLES XSEXA*FIELDAGE*H&YR.061*HP_MAMOG
                    /MISSING LIST;
                    FORMAT FIELDAGE $AGE3_. XSEXA HASEX.;
         RUN;

   PROC FORMAT;
     VALUE $AGE4_
             "017" - "020" = "LESS THAN 21"
             "021" - "026" = "21 TO 26"
             "027" -< "120" = "27 OR OLDER"
             "O"      = "Out of range err"
             " "      = "Missing/unknown" ;
             RUN ;


         PROC FREQ DATA=CONVARQ2;
             TABLES FIELDAGE*H&YR.003*XINS_COV*XINS_RSV
                    /MISSING LIST;
                    FORMAT FIELDAGE $AGE4_.;
         RUN;

   PROC FREQ DATA=CONVARQ2(WHERE=(XINS_COV=10));
      TABLES DBENCAT DBENCAT*FIELDAGE/list missing;
      TITLE3 "DBENCAT frequencies for TRICARE Retired Reserve";
   RUN;
TITLE3;


   PROC CONTENTS DATA=OUT.CONVARQ;
   RUN;

%MEND;
%CONVARQ;
```

F.4.B Q3FY2015\PROGRAMS\CONSTRUCT\CONSTRUCT_CACSMPL.SAS - Include file for Convarq.sas

```
************************************************************************
*** Project: Health Care Survey of DoD Beneficiaries - Adult
*** Purpose: Create cacsmpl for the reporting purpose for adult survey
***
*** Program: construct_cacsmpl.sas
***
*** Inputs:  extract.sas7bdat: Extracted DoD data set
***          TMA.sas7bdat:     DMIS information
***          frame_cacsmpl.inc:   Include file
***
*** Outputs: construct_cacsmpl.sas7bdat - the adult frame with cacsmpl in
***
*** Note: 01/03/2007 by Haixia Xu
***       This program is copied from q4fy2006 sampling,
***       and modified for Q2FY2007 to create the cacampl to be used for reporting, not for
sampling purpose
***
************************************************************************;

*** Set up options. ***;
options ls=132 ps=79 compress=yes nocenter;* mprint mlogic symbolgen;

*** Set up the input and output paths. ***;
libname ext      "&EXPATH."; /* extract.sas7bdat */
libname inTMA    "..\..\Data\AFinal"; /* TMA.sas7bdat */
libname out      "..\..\Data\AFinal"; /* construct_cacsmpl.sas7bdat */

*** Set up the titles. ***;
title1 'Program: Construct_cacsmpl.SAS';
title2 'Construct cacsmpl for reporting';

data frame;
set ext.extract;
run;

title4 'Freq of PRRECFLG in the frame';
proc freq data=frame;
tables PRRECFLG/ missing list;
run;

/* MER 06/22/09 Added the following blocks to */
/* facilitate merge of selectq with the frame.*/
/* Resulting dataset renamed sample instead of*/
/* frame. */
proc sort data=frame;
   by mprid;
run;

data sample;
   merge frame(in=a) selectq(in=b keep = mprid);
   by mprid;
   if b=1;
run;

*****************************************************************************
* Added q2 2003, Don and Keith created a template to be used each quarter;
* The code below and the include file construct cacsmpl
* and collapse historically small catchment areas;
*****************************************************************************;
data TMA (keep = geocell d_par d_fac d_instal d_health d_dmis servaff);
   set inTMA.TMA;
   ***Extract the facility service code variable(servaff) starting with the November 2004TMA
spreadsheet in Q1,2005;
   rename facility_Type_Code=d_fac
          installation_Name=d_instal
          dmis_facility_Name=d_dmis
          facility_Service_Code=servaff ;
   length d_par $4.;
   d_par = DMIS_PARENT_ID;
   length geocell $4.;
```

```
   geocell = DMIS_ID;
   length d_health $2.;
   d_health = HEALTH_Service_region;
run;

title4 "Freq of servaff, d_fac in TMA spreadsheet";
proc freq data=TMA;
tables servaff d_fac/missing list;
run;

%include "construct_cacsmpl.inc" ;

data out.construct_cacsmpl;
  set t_sample(keep=mprid cacsmpl); /* MER 06/22/09 renamed from t_framea */
run;

title4 'Freq of cacsmpl';
proc freq data=out.construct_cacsmpl;
tables cacsmpl/missing list;
run;

title4 'Information for the Sample';
proc contents data = out.construct_cacsmpl;
run;

*************** The End *****************;
```

F.4.C Q3FY2015\PROGRAMS\CONSTRUCT\CONSTRUCT_CACSMPL.INC - Include file for Construct_Cacsmpl.SAS

```
*****************************************************************************************
******
*** Project:         Health Care Survey of DoD Beneficiaries - Quarterly/Annual Adult Dataset
*** Program:         Construct_cacsmpl.inc -- include file used in construct_cacsmpl.sas
***
*** Note: 01/04/2007 by Haixia Xu
***       This program is copied from q4fy2006 sampling,
***       and modified for q1fy2007 to create the cacampl to be used for reporting, not for
sampling purpose
***
*****************************************************************************************
*********;

DATA SAMPLE; /* MER 06/22/09 renamed from FRAME to SAMPLE */
   SET SAMPLE;
   if pcm='MTF' then do;

      /* Use the list produced by sampling program for the current quarter */

      %include "..\sampling\assigngeocell.inc" /source2;

      /* all the old assignments from frame.inc for q2, 2005 */

      else if ('1976' <= enrid <= '1980' ) or ( '6301' <= enrid <= '6323' ) or
         ('6991' <= enrid <= '6994')   or ('6501' <=enrid <='6512') or
         ('7166' <= enrid <= '7195') or ( '6700' <= enrid <= '6881' ) or enrid='0000'
         then geocell=dcatch; *administrative assignment 1976-1980 added q4 2002, 6700-6881
added q1 2004,
                              0000 added q1,2005;
       else if ('8001' <= enrid <= '8036') or ('6901' <= enrid <= '6919')
         then geocell = dcatch; *Managed care contractor assignment, added in q1 2005; *8001-
8036 added q2 2005;
      else if ('3031' <= enrid <= '3057')
         then geocell = dcatch; ***On board ship***;
      else if enrid in ('0002', '0041', '0044', '0082', '0111', '0213', '0235', '0585', '5208',
'0250',
                        '0449', '0626', '0012')
         then geocell = dcatch; ***Inactive***;  *0626 added q2 2003, 0012 added q4 2003,
                                                  0041, 0044, 0082, 0111, 0213, 0235, 0585 added
q2 2005;
      else if enrid = ' ' then geocell = dcatch; ***enrolled, but missing ENRID, added q2
2005***;
      ****************************************************************;
      else if ('0190' <= enrid <='0199') then geocell = dcatch;**BYDON;
      ****************************************************************;

      else geocell = enrid;
   end;
   else geocell=dcatch;

RUN;

title4 "Check the correctness of the assignments of geocell";
proc freq data=sample;
tables enrid*geocell*dcatch/missing list;
where pcm='MTF';
run;

proc sort nodupkey data=TMA;
   by geocell;
run;

proc sort data=sample;
   by geocell;
run;

data sample2 sa_only fy_only; /* MER 06/22/09 renamed from frame2 and fr_only */
   merge sample (in=insa) TMA (in=infy);
   by geocell;
if insa=1 and infy=1 then output sample2;
```

```
else if insa=1 and infy=0 then output sa_only;
else if insa=0 and infy=1 then output fy_only;
run;

title4 "The records in the sample but not in TMA spreadsheet";
proc print data=sa_only;
run;

/*AMK 7/10/13 - OUTPUT RECORDS IN SA_ONLY*/
DATA OUT.sa_only;
SET sa_only;
RUN;


title4 "Freq of PCM*d_fac in the sample";
proc freq data=sample2;
tables pcm*d_fac/missing list;
run;


data t_sample; /* MER 06/22/09 renamed from t_framea */
   set sample2;
   ***************************;
   com_geo=geocell;
   ***************************;

   if pcm='MTF' then do;

      /* Use the list produced by the sampling program for the current quarter */

      %include "..\Sampling\assigncom_geo.inc" / source2;

      /* all the old assignments from frame.inc for q2, 2005 */

      else if ('1976' <= enrid <= '1980') or ('6301' <= enrid <= '6323') or
         ('6991' <= enrid <= '6994') or ('6501' <= enrid <= '6512') or
         ('7166' <= enrid <= '7195') or ('6700' <= enrid <= '6881') or enrid='0000'
         then com_geo = geocell; *Administrative assignment--1976-1980 added q4 2002. 0000 added
q1,2005;
       else if ('8001' <= enrid <= '8036') or ('6901' <= enrid <= '6919')
         then com_geo = geocell; *Managed care contractor assignment, added in q1, 2005;*8001-
8036 added q2 2005;
      else if ('3031' <= enrid <= '3057')
         then com_geo = geocell; ***On board ship***;
      else if enrid in ('0002', '0041', '0044', '0082', '0111', '0213', '0235', '0585', '5208',
'0250',
                        '0449', '0626', '0012')
      then com_geo = geocell; ***Inactive***;  *'0626' added q2 2003, 0012 added q4 2003,
                                                0041, 0044, 0082, 0111, 0213, 0235, 0585 added
q2 2005;


      else com_geo = d_par;
   end;
   else if patcat='ACTDTY' then com_geo=d_par;

   ******************************************************************;
   ***Made the following 9 Navy sites stand alone in q1,2005:       ***;
   ***'0026','0068','0231','0378','0387','0405','0407','0508','6215'***;
   ******************************************************************;

   if geocell in ('0026','0068','0231','0378','0387','0405','0407','0508','6215') then
com_geo=geocell;

   ****************************************************;
   *** Collapsing small areas with nearest facility ***;
   ****************************************************;

   ********************************************************************;
   *** Collapsed the following 9 Air force sites to achieve the sample ***;
   *** size of 50000 due to making 9 Navy sites stand alone in q1,2005:***;
   *** '0013','0036','0059','0090','0287','0326','0638','0805','7139'. ***;
   ********************************************************************;
```

```
   if      com_geo in ('0074','0416')        then com_geo='0001';
   else if com_geo in ('0203','0130','0417',
                       '7044','7047')        then com_geo='0005';
   else if com_geo in ('0418','0419','7083',
                       '0015','0287')        then com_geo='0014'; *0287 added in q1,2005 by
Haixia;
   else if com_geo in ('0018','0248')        then com_geo='0019';
   else if com_geo in ('7046')               then com_geo='0029'; *By emf added q4 2003;
   else if com_geo in ('0420')               then com_geo='0037';
   else if com_geo in ('0422')               then com_geo='0038';
   else if com_geo in ('0421','7048','0050') then com_geo='0039';
   else if com_geo in ('7139')               then com_geo='0043'; /*changed from 0045 to 0043 in
q1fy2007 reporting due to different xregion*/
   else if com_geo in ('7043')               then com_geo='0052';
   else if com_geo in ('0427')               then com_geo='0056'; *By emf added q3 2003;
   else if com_geo in ('0076')               then com_geo='0058';
   else if com_geo in ('0423')               then com_geo='0064';
   else if com_geo in ('0413','0428','0326',
                       '0036')               then com_geo='0066'; *Taken out 0068, added 0036,
0326 in q1,2005 by Haixia;
   else if com_geo in ('0424')               then com_geo='0067';
   else if com_geo in ('0306')               then com_geo='0069';
   else if com_geo in ('0059')       then com_geo='0078'; *changed in q1,2005;
   else if com_geo in ('0085')               then com_geo='0083';
   else if com_geo in ('0081','5196')        then com_geo='0086'; *By emf added q1 2003;
   else if com_geo in ('0430','0335','7143') then com_geo='0089';
   else if com_geo in ('0013')               then com_geo='0096'; *0013 added in q1,2005 by
Haixia;
   else if com_geo in ('0338', '0097')               then com_geo='0098'; /*moved 0338 from 0078
to here due to different xregion*/
   else if com_geo in ('0356')               then com_geo='0103';
   else if com_geo in ('0084')               then com_geo='0108';
   else if com_geo in ('0363','7082','1587') then com_geo='0109';
   else if com_geo in ('0364')               then com_geo='0112';
   else if com_geo in ('0114')               then com_geo='0117';
   else if com_geo in ('0077')               then com_geo='0119';
   else if com_geo in ('0432','0433','0090') then com_geo='0120'; *Added 0090 in q1,2005 by
Haixia;
  *else if com_geo in ('0122')               then com_geo='0121'; *Uncollapse 0122(KENNER AHC-
FT. LEE)
                                                                    to make it a seperate cacsmpl
in q1,2005 by Haixia;
   else if com_geo in ('0431','0434','0395',
                       '1646')               then com_geo='0125';
   else if com_geo in ('0435')               then com_geo='0126';
   else if com_geo in ('7045')               then com_geo='0128';
   else if com_geo in ('0106','7200','0093',
                       '0094')               then com_geo='0129'; *Changed in q1,2005 by Haixia;
  *Collapse 0093,0094 with an Air Force site in the west TNEX region, 0129, instead of the south
TNEX region, 0096;
   else if com_geo in ('0310','0425','0426') then com_geo='0321';
   else if com_geo in ('0808')               then com_geo='0609';
   else if com_geo in ('0618','0623','0629',
                       '0624','0635','0825') then com_geo='0617';
/* comment it out in q1fy2007 for reporting
   else if com_geo in ('0802', '0616','0615',
                       '7042','5197')        then com_geo='0620'; *0616 added in q3,2004 by
Haixia;
*/
   else if com_geo in ('0802')        then com_geo='0620'; /*xregion=14*/
   else if com_geo in ('0616','7042','5197') then com_geo='0615'; /*xregion=15*/
   else if com_geo in ('8931')               then com_geo='0633';
   else if com_geo in ('0610','0639','0637',
                       '0638')               then com_geo='0640'; *changed in q1,2005;
   else if com_geo in ('0805','8982')        then com_geo='0806'; *0805 added in q1,2005 by
Haixia;
   else if com_geo in ('0034','0035','0100') then com_geo='6223'; *changed emf q1 2004;

   *** added on 01/27/2004 by Haixia Xu to collapse small cells
       for the facility type of TGRO into out of catchment area;

       if d_fac='NONCAT' or d_fac='TGRO' or d_fac="TPR" then do;
          if d_health in ('01','02','05','17') then com_geo='9901';
             else if d_health in ('03','04','06','18') then com_geo='9902';
```

```
            else if d_health in ('07','08','09','10','11','12','19') then com_geo='9903';
            else if d_health in ('00','13','14','15') then com_geo='9904';
      end;
    ******************************************************************************;
    ***d_fac="TPR" and d_health = '17', '18', '19' were added above for Q4, 2004,  ***;
    ***since we got the new regions 17(North T_NEX),18(South T_NEX),19(West T_NEX).***;
    ******************************************************************************;

   if com_geo in ('9900', '0999', '0998',' ') then com_geo='9904';

   rename com_geo = cacsmpl;

RUN;

************** The end ***************;
```

F.4.D Q3FY2015\PROGRAMS\CONSTRUCT\CONSVAR0.SAS - Include file for Convarq.sas

```
*************************************************************************
*  PROGRAM:  CONSVAR0.SAS
*  TASK:     1999 DOD HEALTH CARE SURVEY ANALYSIS (8676-100)
*  PURPOSE:  Create XREGION and CONUS
*
*  WRITTEN:  February 11, 2000
*  MODIFIED:
*
*    NOTES:  1) This file needs to be included in the CONVARQ.SAS program.
*
*************************************************************************
* Assign XREGION using CACSMPL
*************************************************************************;
IF      CACSMPL IN (0035, 0036, 0037, 0066, 0067,
                    0068, 0069, 0081, 0086, 0100,
                    0123, 0306, 0310, 0321, 0326,
                    0330, 0385, 0413, 6201, 6223) THEN XREGION= 1;
ELSE IF CACSMPL IN (0089, 0090, 0091, 0092, 0120,
                    0121, 0122, 0124, 0335, 0378, 0387, 0432,
                    0433, 0508, 7143, 7286, 7294) THEN XREGION= 2;
ELSE IF CACSMPL IN (0039, 0041, 0045, 0046, 0047,
                    0048, 0049, 0050, 0051, 0101,
                    0103, 0104, 0105, 0337, 0356,
                    0405, 0422, 0511, 5191  ) THEN XREGION= 3;
ELSE IF CACSMPL IN (0001, 0002, 0003, 0004, 0038,
                    0042, 0043, 0073, 0074, 0107,
                    0297, 7139            ) THEN XREGION= 4;
ELSE IF CACSMPL IN (0055, 0056, 0060, 0061, 0095,
                    5195, 9905            ) THEN XREGION= 5;
ELSE IF CACSMPL IN (0013, 0062, 0064, 0096, 0097,
                    0098, 0109, 0110, 0112, 0113,
                    0114, 0117, 0118, 0338, 0363,
                    0364, 0365, 0366, 1350, 1587, 1592, 7236, 9906       ) THEN XREGION= 6;
ELSE IF CACSMPL IN (0008, 0009, 0010, 0079, 0083,
                    0084, 0085, 0108, 9907       ) THEN XREGION= 7;
ELSE IF CACSMPL IN (0031, 0032, 0033, 0053, 0057,
                    0058, 0059, 0075, 0076, 0077,
                    0078, 0093, 0094, 0106, 0119,
                    0129, 0252, 7200, 7293, 9908             ) THEN XREGION= 8;
ELSE IF CACSMPL IN (0018, 0019, 0024, 0026, 0029, 0030,
                    0131, 0213, 0231, 0248, 0407, 5205,
                    6215, 9909  ) THEN XREGION= 9;
ELSE IF CACSMPL IN (0014, 0015, 0028, 0235, 0250,
                    9910                         ) THEN XREGION=10;
ELSE IF CACSMPL IN (0125, 0126, 0127, 0128, 0395, 1646,
                    9911                         ) THEN XREGION=11;
ELSE IF CACSMPL IN (0052, 0280, 0287, 0534, 7043, 9912 ) THEN XREGION=12;
ELSE IF CACSMPL IN (0606, 0607, 0609, 0617, 0618,
                    0623, 0624, 0629, 0633, 0635,
                    0653, 0805, 0806, 0808, 0814,
                    8931, 8982, 9913             ) THEN XREGION=13;
ELSE IF CACSMPL IN (0610, 0612, 0620, 0621, 0622,
                    0637, 0638, 0639, 0640, 0802,
                    0804, 0853, 0862, 9914       ) THEN XREGION=14;
ELSE IF CACSMPL IN (0449, 0613, 0615, 0616, 9915 ) THEN XREGION=15;
ELSE IF CACSMPL IN (0005, 0006, 0203, 9916       ) THEN XREGION=16;
ELSE IF CACSMPL = 9999                              THEN XREGION= .;

IF CACSMPL IN (9901,9902,9903,9904) THEN DO;
   IF D_HEALTH NOT IN ('00','17','18','19') THEN DO;
      XREGION=INPUT(D_HEALTH,8.)+0;
   END;
   ELSE DO;
      IF  DCATCH IN ('0037', '0067', '0123', '0781', '0907',
                     '0908', '0920', '0921', '0922', '0930',
                     '0931', '0933', '0939', '0940', '0946',
                     '0995')
      THEN XREGION=1;
      ELSE IF DCATCH IN ('0124', '0934', '0996')
           THEN XREGION=2;
      ELSE IF DCATCH IN ('0039', '0048', '0105', '0911', '0941',
```

```
                        '0987')
           THEN XREGION=3;
      ELSE IF DCATCH IN ('0003', '0787', '0901', '0925', '0943',
                        '0988', '0989')
           THEN XREGION=4;
      ELSE IF DCATCH IN ('0055', '0056', '0061', '0782', '0783',
                        '0789', '0914', '0915', '0918', '0923',
                        '0936', '0950')
           THEN XREGION=5;
      ELSE IF DCATCH IN ('0113', '0904', '0937', '0990', '0993')
           THEN XREGION=6;
      ELSE IF DCATCH IN ('0785', '0929', '0932')
           THEN XREGION=7;
      ELSE IF DCATCH IN ('0078', '0784', '0788', '0906', '0917',
                        '0924', '0927', '0928', '0935', '0942',
                        '0945', '0951', '0974')
           THEN XREGION=8;
      ELSE IF DCATCH IN ('0029', '0786', '0986')
           THEN XREGION=9;
      ELSE IF DCATCH IN ('0014', '0985')
           THEN XREGION=10;
      ELSE IF DCATCH IN ('0125', '0938', '0948', '0973')
           THEN XREGION=11;
      ELSE IF DCATCH IN ('0912')
           THEN XREGION=12;
      ELSE IF DCATCH IN ('0957', '0958', '0960', '0964', '0966',
                        '0967', '0976', '0977', '0979',
                        '0982')
           THEN XREGION=13;
      ELSE IF DCATCH IN ('0006', '0052', '0640', '0961', '0963',
                        '0965', '0978', '0983')
           THEN XREGION=14;
      ELSE IF DCATCH IN ('0075', '0120', '0615', '0622','0953',
                        '0970', '0971', '0972', '0975')
           THEN XREGION=15;
      ELSE IF DCATCH IN ('0902')
           THEN XREGION=16;
   END;
END;


IF D_PAR = '0902' THEN XREGION=16;
IF XREGION = 0 THEN XREGION = .;

*************************************************************************
* Assign indicator of CONUS based on XREGION.  CONUS stands for
* Continental United States it but includes both Alaska and Hawaii.
*************************************************************************;
IF      XREGION IN (1,2,3,4,5,6,7,8,9,10,11,12,16) THEN USA=1;
ELSE IF XREGION IN (13,14,15)                      THEN USA=0;
ELSE IF XREGION = .                                THEN USA=.;

************************************************************************
* Assign XTNEXREG using XREGION
************************************************************************;
IF XREGION IN (1,2,5) THEN XTNEXREG=1;
ELSE IF XREGION IN (3,4,6) THEN XTNEXREG=2;
ELSE IF XREGION IN (7,8,9,10,11,12,16) THEN XTNEXREG=3;
ELSE IF XREGION IN (13,14,15) THEN XTNEXREG=4;
ELSE IF XREGION = . THEN DO;
   IF TNEXREG = 'N' THEN XTNEXREG=1;
   ELSE IF TNEXREG = 'S' THEN XTNEXREG=2;
   ELSE IF TNEXREG = 'W' THEN XTNEXREG=3;
   ELSE IF TNEXREG = 'O' THEN XTNEXREG=4;
   ELSE XTNEXREG=.;
END;

***********************************************************************
* CREATE XOCONUS FOR  europe, pacific, latin america
***********************************************************************;

IF      XREGION=13 THEN XOCONUS=1;
ELSE IF XREGION=14 THEN XOCONUS=2;
ELSE IF XREGION=15 THEN XOCONUS=3;
```

```
*********************************************************************
* Construct SERVAREA.
*********************************************************************;
IF ENBGSMPL IN ('04','07','10') THEN DO;
   SELECT(CACSMPL);
      WHEN (0024,0029)               SERVAREA='01';
      WHEN (0032,0033)               SERVAREA='02';
      WHEN (0037,0066,0067,0123)     SERVAREA='03';
      WHEN (0038,0042)               SERVAREA='04';
      WHEN (0049,0103,0104)          SERVAREA='05';
      WHEN (0091,0092)               SERVAREA='06';
      WHEN (0098,0113)               SERVAREA='07';
      WHEN (0101,0105)               SERVAREA='08';
      WHEN (0109,0117)               SERVAREA='09';
      WHEN (0120,0121,0124)          SERVAREA='10';
      WHEN (0125,0126,0127)          SERVAREA='11';
      OTHERWISE SERVAREA=' ';
   END;
END;
```

F.5.A Q3FY2015\PROGRAMS\CONSTRUCT\MERGEQ.SAS - Merge Constructed Variables onto Data File - Run Quarterly

```
*******************************************************************************
* PROGRAM:   MERGEQ.SAS
* WRITTEN:   1/28/00 BY KELLY WHITE
*
* MODIFIED: 12/23/14 BY A KUDIS FOR q1 FY 2014
                      04/07/15 BY M TURBYFILL TO REMOVE ELAPSED_SEC FROM THE DROP STATEMENT
*
* PURPOSE:   TO MERGE FINAL FILES TOGETHER AND REORDER BY VARIABLE TYPE
*            To reorder variables within the record use a
*             LENGTH statement before the SET statement.
*             Make sure that MPRID is the first variable in the
*             record followed by:
*                            1)  other sampling variables
*                            2)  DEERS variables
*                            3)  Post-stratification vars
*                            4)  questionnaire responses
*                            5)  DRC variables
*                            6)  recoded questionnaire responses
*                            3)  coding scheme flags
*                            8)  constructed variables
*                            9)  weights  (NOT AVAILABLE FOR PRELIMINARY DATA)
* INPUT:     ..\..\DATA\AFINAL\SELECTQ.sas7bdat
* INPUT:     ..\..\DATA\AFINAL\CONVARQ.sas7bdat
* OUTPUT:    ..\..\DATA\AFINAL\MERGEQ.sas7bdat
* INCLUDE:   SERVAFF.SAS
             TO MERGE ON VARIABLE SERVAFF
*******************************************************************************
*;
LIBNAME IN1          '..\..\DATA\AFINAL';
LIBNAME OUT          '..\..\DATA\AFINAL';
LIBNAME LIBRARY      '..\..\DATA\AFINAL\FMTLIB';

OPTIONS PS=78 LS=124 ERRORS=2 COMPRESS=YES VARLENCHK=NOWARN;

%MACRO MERGEQ;

%INCLUDE SERVAFF/SOURCE2;

PROC SORT DATA=IN1.SELECTQ OUT=SELECTQ;
   BY MPRID;
RUN;


PROC SORT DATA=IN1.CONVARQ OUT=CONVARQ;
   BY MPRID;
RUN;


PROC SORT DATA=IN1.SERVAFF OUT=SERVAFF;
   BY MPRID;
RUN;

PROC FREQ DATA=SERVAFF;
   TABLES SERVAFF;
RUN;

DATA MERGEQ (DROP =

O_:

PRRECFLG

D_DMIS
DMIS
R_MTF
GROUP
GRP_GEO
DELGIND
);
```

```
   MERGE SELECTQ(in=hcsdb rename=(flag_fin=dummy)
                 DROP=PCM SERVAFF enbgsmpl)
         CONVARQ
         SERVAFF(DROP=DCATCH ENRID);

   BY MPRID;
   if hcsdb;

/*MAKE FLAG_FIN IN Q4 CHARACTER*/
   FLAG_FIN=PUT(DUMMY,5.);
   DROP DUMMY;


FORMAT
   SERVAFF  $SERVAFF.
   CACSMPL  CAC.
   DBENCAT  $BENCAT.
   DMEDELG  $MEDELG.
   DSPONSVC $SPONSVC.
   FLAG_FIN $FINAL.
   FNSTATUS FNSTATS.
   MBRRELCD $MBRREL.
   MEDTYPE  $MEDTYP.
   MRTLSTAT $MSTATUS.
   PATCAT   $AGGBCAT.
   MISS_1   HAMISS.
   MISS_4   HAMISS.
   MISS_5   HAMISS.
   MISS_6   HAMISS.
   MISS_7   HAMISS.
   MISS_9   HAMISS.
   MISS_TOT HAMISS.
   PCM      $PCM.
   PNLCATCD $PNLCAT.
   PNSEXCD  $SEXCD.
   RACEETHN $RACECD.
   SEXSMPL  SEX.
   SVCSMPL  SVCSMPL.
   XSEXA    HASEX.
   SERVAREA $SRVAREA.
   MPCSMPL  MPCSMPL.
   D_HEALTH $DHEALTH.
   TNEXREG  $TNEXREG.
   D_FAC    $DFAC.
   MSM      $MSM.
   XBMICAT  XBMICAT.
   ENRID    $ENRID.
   WEB       WEB.
   XOCONUS  XOCONUS.
   ACV      $ACV2_.

   XSERVAFF XSERVAFF.

   PNTYPCD  $PNTYPCD.

   MPRID    $8.
;

LABEL
   ENBGSMPL = "Enrollment by beneficiary category"
   SERVAFF  = "Service Affiliation"
   MPCSMPL  = "MPCSMPL - Military Personnel Category"
   FLAG_FIN = "Final Disposition"
   CACSMPL  = "Catchment Area"
   WEB      = "Web survey indicator"
   D_PAR    = "DMIS Parent ID"
   D_Health = "Health Service Region"
   TNEXREG  = "TNEX Region - Based on Address"
   MSM      = 'Multiple Service Market Areas'
   MIQCNTL  = 'Synovate ID'
   XSERVAFF = "Service Affiliation"
   SERVAREA = 'Service Area'
   COM_GEO  = "Catchment Area"
```

```
   ;

RUN;

PROC CONTENTS DATA=MERGEQ;
RUN;


DATA OUT.MERGEQ;

    LENGTH

       MPRID       $ 8         /* ID                */
       SVCSMPL       8         /* sampling variable */
       SEXSMPL       8         /* sampling variable */
       STRATUM     $ 7         /* sampling variable */
       CACSMPL       8         /* sampling variable */
       JSFLAG        3         /* sampling variable */
       ENBGSMPL    $ 2         /* sampling variable */
       MPCSMPL       8         /* sampling variable */
       NHFF          8         /* sampling variable */
       SERVAREA    $ 2         /* sampling variable */
       QUARTER     $ 8         /* sampling variable */
       PRN           8         /* sampling variable */
       DCATCH      $ 4         /* sampling variable */
       ENRID       $ 4         /* sampling variable */
       DMIS_ID     $ 9         /* sampling variable */
       MSM         $ 2         /* sampling variable */
       D_FAC       $ 9         /* sampling variable */
       D_PAR       $ 4         /* sampling variable */
       D_HEALTH    $ 2         /* sampling variable */
       TNEXREG     $ 1         /* sampling variable */
       SERVAFF     $ 1         /* sampling variable */
       BWT           8         /* sampling variable */
       COM_GEO     $ 4         /* sampling variable */

       MRTLSTAT    $ 1         /* DEERS variable    */
       RACEETHN    $ 1         /* DEERS variable    */
       PNSEXCD     $ 1         /* DEERS variable    */
       DAGEQY      $ 3         /* DEERS variable    */
       RDAGEQY       3         /* DEERS variable    */
       FIELDAGE    $ 3         /* DEERS variable    */
       RFLDAGE       3         /* DEERS variable    */
       PCM         $ 3         /* DEERS variable    */
       ACV         $ 1         /* DEERS variable    */
       DBENCAT     $ 3         /* DEERS variable    */
       DMEDELG     $ 1         /* DEERS variable    */
       DSPONSVC    $ 1         /* DEERS variable    */
       MBRRELCD    $ 1         /* DEERS variable    */
       MEDTYPE     $ 1         /* DEERS variable    */
       PATCAT      $ 7         /* DEERS variable    */
       PNTYPCD     $ 1         /* DEERS variable    */
       PNLCATCD    $ 1         /* DEERS variable    */


       H&YR.001        4         /* questionnaire     */
       H&YR.002A       4         /* questionnaire     */
       H&YR.002C       4         /* questionnaire     */
       H&YR.002N       4         /* questionnaire     */
       H&YR.002O       4         /* questionnaire     */
       H&YR.002P       4         /* questionnaire     */
       H&YR.002Q       4         /* questionnaire     */
       H&YR.002S       4         /* questionnaire     */
       H&YR.002T       4         /* questionnaire     */
       H&YR.002V       4         /* questionnaire     */
       H&YR.002K       4         /* questionnaire     */
       H&YR.002U       4         /* questionnaire     */
       H&YR.002F       4         /* questionnaire     */
       H&YR.002G       4         /* questionnaire     */
       H&YR.002H       4         /* questionnaire     */
       H&YR.002I       4         /* questionnaire     */
       H&YR.002J       4         /* questionnaire     */
       H&YR.002M       4         /* questionnaire     */
       H&YR.002R       4         /* questionnaire     */
```

```
H&YR.002L       4         /* questionnaire     */
H&YR.003        4         /* questionnaire     */
H&YR.004        4         /* questionnaire     */
H&YR.005        4         /* questionnaire     */
H&YR.006        4         /* questionnaire     */
H&YR.007        4         /* questionnaire     */
H&YR.008        4         /* questionnaire     */
H&YR.009        4         /* questionnaire     */
H&YR.010        4         /* questionnaire     */
H&YR.011        4         /* questionnaire     */
H&YR.012        4         /* questionnaire     */
H&YR.013        4         /* questionnaire     */
H&YR.014        4         /* questionnaire     */
H&YR.015        4         /* questionnaire     */
H&YR.016        4         /* questionnaire     */
H&YR.017        4         /* questionnaire     */
H&YR.018        4         /* questionnaire     */
H&YR.019        4         /* questionnaire     */
H&YR.020        4         /* questionnaire     */
H&YR.021        4         /* questionnaire     */
H&YR.022        4         /* questionnaire     */
H&YR.023        4         /* questionnaire     */
H&YR.024        4         /* questionnaire     */
H&YR.025        4         /* questionnaire     */
H&YR.026        4         /* questionnaire     */
H&YR.027        4         /* questionnaire     */
H&YR.028        4         /* questionnaire     */
H&YR.029        4         /* questionnaire     */
H&YR.030        4         /* questionnaire     */
H&YR.031        4         /* questionnaire     */
H&YR.032        4         /* questionnaire     */
H&YR.033        4         /* questionnaire     */
H&YR.034        4         /* questionnaire     */
H&YR.035        4         /* questionnaire     */
H&YR.036        4         /* questionnaire     */
H&YR.037        4         /* questionnaire     */
H&YR.038        4         /* questionnaire     */
H&YR.039        4         /* questionnaire     */
H&YR.040        4         /* questionnaire     */
H&YR.041        4         /* questionnaire     */
H&YR.042        4         /* questionnaire     */
H&YR.043        4         /* questionnaire     */
H&YR.044        4         /* questionnaire     */
H&YR.045        4         /* questionnaire     */
H&YR.046        4         /* questionnaire     */
H&YR.047        4         /* questionnaire     */
H&YR.048        4         /* questionnaire     */
H&YR.049        4         /* questionnaire     */
H&YR.050        4         /* questionnaire     */
H&YR.051        4         /* questionnaire     */
H&YR.052        4         /* questionnaire     */
H&YR.053        4         /* questionnaire     */
H&YR.054        4         /* questionnaire     */
H&YR.055        4         /* questionnaire     */
H&YR.056        4         /* questionnaire     */
H&YR.057A       4         /* questionnaire     */
H&YR.057B       4         /* questionnaire     */
H&YR.057C       4         /* questionnaire     */
H&YR.057D       4         /* questionnaire     */
H&YR.058        4         /* questionnaire     */
H&YR.059B       4         /* questionnaire     */
H&YR.060        4         /* questionnaire     */
H&YR.061        4         /* questionnaire     */
H&YR.062        4         /* questionnaire     */
H&YR.063        4         /* questionnaire     */
H&YR.064        4         /* questionnaire     */
H&YR.065        4         /* questionnaire     */
H&YR.066        4         /* questionnaire     */
H&YR.067        4         /* questionnaire     */
H&YR.068        4         /* questionnaire     */
H&YR.069        4         /* questionnaire     */
H&YR.070        4         /* questionnaire     */
H&YR.071F       4         /* questionnaire     */
H&YR.071I       4         /* questionnaire     */
```

```
H&YR.072        4         /* questionnaire     */
SREDA           4         /* questionnaire     */
H&YR.073        4         /* questionnaire     */
H&YR.073A       4         /* questionnaire     */
H&YR.073B       4         /* questionnaire     */
H&YR.073C       4         /* questionnaire     */
H&YR.073D       4         /* questionnaire     */
H&YR.073E       4         /* questionnaire     */
SRRACEA       4         /* questionnaire     */
SRRACEB       4         /* questionnaire     */
SRRACEC       4         /* questionnaire     */
SRRACED       4         /* questionnaire     */
SRRACEE       4         /* questionnaire     */
SRAGE         4         /* questionnaire     */
H&YR.074        4         /* questionnaire     */
H&YR.075        4         /* questionnaire     */
H&YR.076        4         /* questionnaire     */
H&YR.077        4         /* questionnaire     */
H&YR.078        4         /* questionnaire     */
H&YR.079        4         /* questionnaire     */

S&YR.009        4         /* supplemental      */
S&YR.010        4         /* supplemental      */
S&YR.011        4         /* supplemental      */
S&YR.014        4         /* supplemental      */
S&YR.015        4         /* supplemental      */
S&YR.B01        4         /* supplemental      */
S&YR.B02        4         /* supplemental      */
S&YR.B03        4         /* supplemental      */
S&YR.B04        4         /* supplemental      */

   S&YR.C09        4          /* supplemental      */
S&YR.C10        4         /* supplemental      */
S&YR.C11        4         /* supplemental      */
S&YR.C12        4         /* supplemental      */
S&YR.C13        4         /* supplemental      */
S&YR.C14        4         /* supplemental      */

S&YR.R01        4         /* supplemental      */
S&YR.R02        4         /* supplemental      */
S&YR.R03A       4         /* supplemental      */
S&YR.R03B       4         /* supplemental      */
S&YR.R03C       4         /* supplemental      */
S&YR.R03D       4         /* supplemental      */
S&YR.R03E       4         /* supplemental      */
S&YR.R04A       4         /* supplemental      */
S&YR.R04B       4         /* supplemental      */
S&YR.R04C       4         /* supplemental      */
S&YR.R04D       4         /* supplemental      */
S&YR.R04E       4         /* supplemental      */
S&YR.R04F       4         /* supplemental      */
S&YR.R04G       4         /* supplemental      */
S&YR.R05        4         /* supplemental      */
S&YR.R06        4         /* supplemental      */
S&YR.R07        4         /* supplemental      */
S&YR.R08        4         /* supplemental      */
S&YR.R09        4         /* supplemental      */
S&YR.R10        4         /* supplemental      */
S&YR.R11        4         /* supplemental      */
S&YR.R12        4         /* supplemental      */
S&YR.R13        4         /* supplemental      */
S&YR.R14        4         /* supplemental      */
S&YR.R15        4         /* supplemental      */

ONTIME      $ 3         /* Survey fielding variable */
FLAG_FIN    $ 5         /* Survey fielding variable */
DUPFLAG     $ 3         /* Survey fielding variable */
FNSTATUS      8         /* Survey fielding variable */
KEYCOUNT      8         /* Survey fielding variable */
WEB           8         /* Survey fielding variable */
MIQCNTL    $ 12         /* Survey fielding variable */
EMAILRES   $ 25         /* Survey fielding variable */
INTTIME 8         /* Survey fielding variable */
```

```
N1            8         /* CS flag variable     */
N2            8         /* CS flag variable     */
N3            8         /* CS flag variable     */
N4            8         /* CS flag variable     */
N5            8         /* CS flag variable     */
N5_C1         8         /* CS flag variable     */
N5_C2         8         /* CS flag variable     */
N5_C3         8         /* CS flag variable     */
N6            8         /* CS flag variable     */
N7            8         /* CS flag variable     */
N8            8         /* CS flag variable     */
N8_01         8         /* CS flag variable     */
N9            8         /* CS flag variable     */
N10           8         /* CS flag variable     */
N10_B1        8         /* CS flag variable     */
N11           8         /* CS flag variable     */
N12           8         /* CS flag variable     */
N13           8         /* CS flag variable     */
N14           8         /* CS flag variable     */
N15           8         /* CS flag variable     */
N16           8         /* CS flag variable     */
N17           8         /* CS flag variable     */
N17_R1        8         /* CS flag variable     */
N17_R2        8         /* CS flag variable     */
N17_R3        8         /* CS flag variable     */
N17_R4        8         /* CS flag variable     */
N18           8         /* CS flag variable     */
N19A          8         /* CS flag variable     */
N19B          8         /* CS flag variable     */
N20           8         /* CS flag variable     */
N21           8         /* CS flag variable     */
N22           8         /* CS flag variable     */
N23           8         /* CS flag variable     */
N23_HT        8         /* CS flag variable     */
N23_WT        8         /* CS flag variable     */
N24           8         /* CS flag variable     */
N25           8         /* CS flag variable     */


MISS_1        8         /* CS Count             */
MISS_4        8         /* CS Count             */
MISS_5        8         /* CS Count             */
MISS_6        8         /* CS Count             */
MISS_7        8         /* CS Count             */
MISS_9        8         /* CS Count             */
MISS_TOT      8         /* CS Count             */

XENRLLMT      8         /* constructed       */
XENR_PCM      8         /* constructed       */
XINS_COV      8         /* constructed       */
XBENCAT       8         /* constructed       */
XENR_RSV      8         /* constructed       */
XINS_RSV      8         /* constructed       */
XREGION       3         /* constructed       */
XTNEXREG      3         /* constructed       */
USA           3         /* constructed       */
XOCONUS       3         /* constructed       */
OUTCATCH      8         /* constructed       */
XSEXA         8         /* constructed       */
XBMI          8         /* constructed       */
XBMICAT       3         /* constructed       */
XBNFGRP       8         /* constructed       */
XSERVAFF      3         /* constructed       */
KMILOPQY      8         /* constructed       */
KCIVOPQY      8         /* constructed       */
KCIVINS       8         /* constructed       */
HP_PRNTL      8         /* constructed       */
HP_MAMOG      8         /* constructed       */
HP_MAM50      8         /* constructed       */
HP_PAP        8         /* constructed       */
HP_BP         8         /* constructed       */
HP_FLU        8         /* constructed       */
HP_OBESE      8         /* constructed       */
HP_SMOKE      8         /* constructed       */
```

```
       HP_SMKH3      8         /* constructed       */
       HP_CESH3      8         /* constructed       */
      ;

     SET MERGEQ;

     RUN;

PROC CONTENTS DATA=OUT.MERGEQ POSITION;
   title1  "HCSDB for Q&QT. FY 20&YR., ordered by variable type";
   RUN;

PROC FREQ DATA=OUT.MERGEQ;
TABLE PCM ACV CACSMPL /MISSPRINT;
RUN;


%MEND;

%MERGEQ;
```

F.5.B Q3FY2015\PROGRAMS\CONSTRUCT\SERVAFF.SAS - Include File for merging SERVAFF variable to quarterly Data File

```
/*****************************************************************************/
/* PROJECT: 8687-100 (DOD QUARTERLY 2001)                                    */
/* AUTHOR:  NATALIE JUSTH                                                    */
/* DATE:    APRIL 24, 2001                                                   */
/*                                                                           */
/* PURPOSE: INCLUDE PROGRAM FOR MERGEQ.SAS                                   */
/*          MERGES VARIABLE SERVAFF TO QUARTERLY DATASET                     */
/* INPUT:   ...\DATA\AFINAL\S200204.sas7bdat                                 */
/*          ...\DATA\AFINAL\SAMPLA02.sas7bdat                                */
/* OUTPUT:  ...\DATA\AFINAL\SERVAFF.sas7bdat                                 */
/*****************************************************************************/

LIBNAME  INr  "N:\Project\40309_HCS\Restricted\DC1\Q&QT.FY20&YR.\"; /*Restricted folder*/
LIBNAME TMA   '..\..\DATA\AFINAL';
LIBNAME serv  '..\..\DATA\AFINAL';


/* Create new DMIS merge variable              */
/* First use ENRID, then ULOCDMIS, then DCATCH */

DATA SAMPLA02(KEEP=DMIS_ID ENRID MSM MPRID PCM DCATCH);
   SET INr.SAMPLA02;
   LENGTH DMIS_ID $9;
   DMIS_ID=ENRID;
   IF DMIS_ID=' ' THEN DO;
      IF ULOCDMIS NE ' ' THEN DMIS_ID=ULOCDMIS;
      ELSE DMIS_ID=DCATCH;
   END;


   ***********************************************************************
   * Construct MSM.
   ***********************************************************************;


   IF PCM = 'MTF' THEN DO;
      SELECT(DMIS_ID);
         WHEN ('0037', '0066', '0067', '0068', '0069',
               '0123', '0256', '0306', '0309', '0385', '0413') MSM='01';
         WHEN ('0120', '0121', '0124')                          MSM='02';
         WHEN ('0089', '0335')                                  MSM='03';
         WHEN ('0103', '0356')                                  MSM='04';
         WHEN ('0101', '0105')                                  MSM='05';
         WHEN ('0297', '0316', '0436', '0654', '1990', '0073') MSM='06';
         WHEN ('0109', '0117', '0363', '0366')                  MSM='07';
         WHEN ('0032', '0033', '0252', '7200')                  MSM='08';
         WHEN ('0024', '0029')                                  MSM='09';
         WHEN ('0125', '0126', '0127', '0395', '7138')          MSM='10';
         WHEN ('0052', '0280', '0287')                          MSM='11';
         WHEN ('0204', '0006')                                  MSM='12';
         WHEN ('0005', '0203')                                  MSM='13';
         OTHERWISE MSM='  ';
      END;
   END;
   ELSE DO;
      SELECT(DCATCH);
         WHEN ('0037', '0066', '0067', '0068', '0069',
               '0123', '0256', '0306', '0309', '0385', '0413') MSM='01';
         WHEN ('0120', '0121', '0124')                          MSM='02';
         WHEN ('0089', '0335')                                  MSM='03';
         WHEN ('0103', '0356')                                  MSM='04';
         WHEN ('0101', '0105')                                  MSM='05';
         WHEN ('0297', '0316', '0436', '0654', '1990', '0073') MSM='06';
         WHEN ('0109', '0117', '0363', '0366')                  MSM='07';
         WHEN ('0032', '0033', '0252', '7200')                  MSM='08';
         WHEN ('0024', '0029')                                  MSM='09';
         WHEN ('0125', '0126', '0127', '0395', '7138')          MSM='10';
         WHEN ('0052', '0280', '0287')                          MSM='11';
         WHEN ('0204', '0006')                                  MSM='12';
         WHEN ('0005', '0203')                                  MSM='13';
```

```
         OTHERWISE MSM='  ';
      END;
   END;

RUN;

PROC PRINT DATA=SAMPLA02(OBS=50);
RUN;

PROC SORT DATA=SAMPLA02;
   BY DMIS_ID;
RUN;

PROC SORT DATA=TMA.TMA(KEEP=DMIS_ID FACILITY_SERVICE_CODE) OUT=TMA;
   BY DMIS_ID;
RUN;

DATA SERV.SERVAFF;
   MERGE SAMPLA02(IN=IN1)
         TMA(RENAME=(FACILITY_SERVICE_CODE=SERVAFF));
   BY DMIS_ID;

   LENGTH  XSERVAFF 3;

   IF SERVAFF='A' THEN XSERVAFF=1; *Army;
   IF SERVAFF='F' THEN XSERVAFF=2; *Air Force;
   IF SERVAFF='N' THEN XSERVAFF=3; *Navy;

   /***Coast Guard, Administrative, Support Contractor, USTF, Noncatchment,
    Other, Not available, Missing/unknown will collapsed to other per Eric Shone ***/

   IF SERVAFF IN ('C' 'J' 'M' 'T' 'S' 'O' 'X' ' ') THEN XSERVAFF=4; *Other;
   IF SERVAFF ='P' THEN XSERVAFF=5; *AMK 2/27/14 ADDED JOINT SERVICE;

   IF IN1;
RUN;

PROC PRINT DATA=SERV.SERVAFF(OBS=200);
RUN;

PROC CONTENTS DATA=SERV.SERVAFF; RUN;
```

F.6 Q3FY2015\Programs\Weighting\NewWeights\smplA1A2.SAS - Define the data sets and create the variables

```
*****************************************************************************************
*** Program: smplA1A2.sas
*** Task   : (40309.H21)
*** Purpose: Define the data sets and construct the variables to be used in the propensity model
***
*** Written: Haixia Xu 12/18/2006 for q1fy2007 weighting
***
*** Inputs:  extract.sas7bdat  : Extract file
***          selectq.sas7bdat  : Survey file with CAHPS4.0 questionnaires
***          deers001-004.sas7bat
***
*** Outputs: smplA1A2.sas7bdat
***          smplA1.sas7bdat: Dataset to be used to calculate the unknown eligibility factor A1
***          smplA2.sas7bdat: Dataset to be used to calculate the nonresponse adjustment A2
***          conusA1.sas7bdat, oconusA1.sas7bdat, conusA2.sas7bdat, oconusA2.sas7bdat
***
*** Note:    1)Modified for Q1FY2007 weighting:
***            a) Two more variables are added in CHAID tree analysis to capture the new
***               sample design in q1fy2007
***            b) Uncollapse PCM to differentiate CIV and MTF.
***          2)Modified for Q1FY2009 weighting:
***            a) Email notification sent to all Active duty whose email address is available
***               Looks like the variable name in Answer Tree has to be no longer than 8.
***            b) Define patc_grp based on patcat & Has_email, it has 4 categories instead of 3.
***          3)Q1fy2012 had 42 overlap with TSS 2011. We droped 42 cases from sample.
***            For weigthing purpose, we need to make there status as Non-Respondense.
***          4)Q2FY2012 We do not create data 'sampla03_2' and  'Has-Email' variable any more.
***          5)Q1FY2014: Starting from Q1FY2014, Sample Size increased to 100,000 and it's
WebOnly
*****************************************************************************************
**;

options ls=132 ps=79 nocenter formdlim='~' obs=max WORKTERM mprint;
ods _ALL_ Close;
ODS Listing;

%let quarter=Q3FY2015;

libname inr "N:\Project\40309_HCS\Restricted\DC1\&quarter.";         * extract.sas7bdat,
deers001-004.sas7bdat;
libname in  "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal";  * selectq.sas7bdat;
libname out "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal";  * smpla1a1, smpla1, smpla2,
conusa1,
                                                                      conusa2, oconusa1,
oconusa2;

libname library v9 "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal\FMTLIB";


*Location for Answer Tree Files;
%let outpath =N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Programs\Weighting\NewWeights\AnswerTree;


title1 "Program: smplA1A2.SAS (&quarter.)";
title2 "Purpose: Define the data sets and construct the variables";


*************************************************************************
Put the data together;
*************************************************************************;
data selectq;
   set in.selectq(keep=BWT COM_GEO D_HEALTH D_FAC dageqy ENBGSMPL FNSTATUS MPCSMPL MPRID
                  PATCAT PCM PNLCATCD PNSEXCD SERVAFF SEXSMPL STRATUM SVCSMPL WEB TNEXREG
                  GROUP DBENCAT);
run;


*************************************************************************
Get the variables PGCD, PTNT_ID from extract data
*************************************************************************;
```

```
proc sort data=selectq; by mprid;
run;

proc sort data=inr.extract(keep=mprid pgcd ptnt_id PAYPLNCD) out=extract;
by mprid;
run;

data selectq;
   merge selectq(in=a)   extract(in=b);
   by mprid;
   if a and b;
run;


*****************************************************************************
Merge the selectq with DEERS to get the address variable c_addr1
*****************************************************************************;
data deers;
set inr.DEERS(keep=ptnt_id c_addr1);
if c_addr1=' ' then CHCSAddr=0;
if c_addr1~=' ' then CHCSAddr=1;
run;

proc sort data=selectq; by ptnt_id; run;
proc sort data=deers; by ptnt_id; run;

data selectq;
merge selectq (in=A) deers;
by ptnt_id;
if A=1;
run;


*****************************************************************************
Construct the new variables
*****************************************************************************;
data smpl;
set selectq;

***age***;
age=input(dageqy, 3.);

*Define the age group with 5 categories, which will be used in CHAID;
length AGE_grp5 $1;
if age <= 24 then AGE_grp5 = '1';
else if 24 < age <= 34 then AGE_grp5 = '2';
else if 34 < age <= 44 then AGE_grp5 = '3';
else if 44 < age <= 64 then AGE_grp5 = '4';
else if age > 64 then AGE_grp5 = '5';
if age=. then AGE_grp5='5';

***PATCAT***;
***Define PATCAT this way so it won't be associated with the age ***;
length PATC_grp $15;
if PATCAT ='UNKNOWN' then do;
  if ENBGSMPL in ('01') then PATC_grp='ACTDTY';
  else if ENBGSMPL in ('02', '03', '04') then PATC_grp='DEPACT';
  else if ENBGSMPL in ('05', '06', '07', '10') then PATC_grp='NADD';
end;
else if PATCAT in ('NADD<65','NADD65+') then PATC_grp = 'NADD';
else PATC_grp = PATCAT;

***PCM***;
length PCM_grp $3;
if PCM =' ' then PCM_grp='NON';
else if PCM in ('CIV', 'MTF') then PCM_grp = PCM;

***PNLCATCD***;
length PNLC_grp $8;
if PNLCATCD in ('N','V') then PNLC_grp='Grd/Resv';
else PNLC_grp= 'Other';

***RANKPAY***;
length RankPay $3;
```

```
if MPCSMPL=1 then do;
  if PGCD in (' ', '00', '99','WW','NS') then RankPay = 'E01';
  else  RankPay = 'E'||PGCD;
  end;
else if MPCSMPL=2 then do;
  if PGCD in (' ', '00', '99' ) then RankPay = 'O01';
  else  RankPay = 'O'||PGCD;
  end;
else if MPCSMPL=3 then do;
  if PGCD in (' ', '00', '99') then RankPay = 'W01';
  else  RankPay = 'W'||PGCD;
  end;

length RANK_grp $15;
if RankPay in ('E01', 'E02', 'E03', 'E04') then RANK_grp = 'E1234';
else if RankPay in ('E05', 'E06', 'E07', 'E08', 'E09', 'E10', 'E11','E12','E13','E14','E15')
then RANK_grp = 'E56789101112';
else if RankPay in ('EZZ') then Rank_grp = 'E56789101112'; *In Q2FY15, 1 person is in RankPay
EZZ. Per Nancy and Eric's recomendation, we assign EZZ to largest Rank_grp;
else if Rankpay in ('W01', 'W02', 'W03', 'O01', 'O02', 'O03') then RANK_grp = 'W123O123';
else if RankPay in ('W04', 'W05', 'O04', 'O05', 'O06', 'O07', 'O08', 'O09', 'O10') then RANK_grp
= 'W45O45678910';

***sex***;
*Put the missing sex with male;
length SEX_grp $1;
if SEXSMPL in (1, 3) then SEX_grp ='1';
else if SEXSMPL=2 then SEX_grp='2';

***service***;
length SVC_grp $16;
if SVCSMPL = 1 then SVC_grp='Army';
else if SVCSMPL in (2,3,5,6) then SVC_grp='N/M/C/O/U';
else if SVCSMPL = 4 then SVC_grp='Air Force';

***facility TNEX region***;
length TNEX_grp $1;
if d_health in ('00', '13', '14', '15') then TNEX_grp='O';
else if d_health in ('17', '01','05') then TNEX_grp='N';
else if d_health in ('18','04') then TNEX_grp='S';
else if d_health in ('19','08','11') then TNEX_grp='W';
*Correct the TNEX regions for com_geo 0047, 9001, 9002, 9003, 9004:
All the cases in the same com_geo should be in the same TNEX region, which is the region of the
com_geo;
if COM_GEO = '0047' then TNEX_grp='S';
else if COM_GEO = '9001' then TNEX_grp='N';
else if COM_GEO = '9002' then TNEX_grp='S';
else if COM_GEO = '9003' then TNEX_grp='W';
else if COM_GEO = '9004' then TNEX_grp='O';

***CONUS region***;
length conus $1;
if TNEX_grp ='O' then conus='0';
else if TNEX_grp in ('N', 'S', 'W') then conus='1';

***Catchment areaindicator***;
length in_catch $1;
if d_fac='NONCAT' or d_fac='TGRO' or d_fac="TPR"  then in_catch='0';
else in_catch ='1';

if group='0' then TRS=1;
else TRS=2;

label in_catch='In-catchment area indicator'
          TRS='TRICARE Reserve Select indicator';
run;


title3 'Checking the Coding after Constructing New Variables';
proc freq data=smpl;
tables CHCSAddr  AGE_grp5  AGE_grp5*AGE*dageqy
       PATC_grp PATC_grp*PATCAT*ENBGSMPL
       PCM_grp  PCM_grp*PCM
       PNLC_grp PNLC_grp*PNLCATCD
```

```
       RANKPAY*MPCSMPL*PGCD
       RANK_grp RANK_grp*RANKPAY
       SEX_grp  SEX_grp*SEXSMPL*PNSEXCD
           SVC_grp  SVC_grp*SVCSMPL
       TNEX_grp TNEX_grp*d_health
       CONUS CONUS*TNEX_grp
       in_catch in_catch*d_fac
       TRS*group
           com_geo*TNEX_grp
/missing list;
run;


*****************************************************************************
Output the data sets
*****************************************************************************;
data OUT.smplA1A2 OUT.smplA1 OUT.smplA2 OUT.conusA1 OUT.oconusA1 OUT.conusA2 OUT.oconusA2;
set smpl(drop=DAGEQY PNSEXCD MPCSMPL PGCD PTNT_ID);
*Rename has_email=HasEmail;
if fnstatus in (11, 12, 20, 31, 32, 41, 42) then output OUT.smplA1A2;

if fnstatus in (11, 12, 20, 31, 41, 42) then do;
  if fnstatus in (11, 12, 20, 31) then eligkwn=1; else eligkwn=0;
  label eligkwn = 'Eligibility known indicator';
  output OUT.smplA1;

  if conus='1' then output OUT.conusA1;
  else if conus='0' then output OUT.oconusA1;
end;

if fnstatus in (11, 12, 20) then do;
  if fnstatus = 11 then complete = 1; else complete =0;
  label complete = 'Eligible respondent/complete indicator';
  output OUT.smplA2;

  if conus='1' then output OUT.conusA2;
  else if conus='0' then output OUT.oconusA2;
end;
run;

options compress=no;
title3 'Freq of conus*fnstatus for 100,000 beneficiaries';
proc freq data=OUT.smplA1A2;
tables conus*fnstatus / missing list;
run;

title3 'Freq of fnstatus*eligkwn for 100,000 benes except fnstatus=32';
proc freq data=OUT.smplA1;
tables conus*fnstatus*eligkwn/ missing list;
run;

title3 'Freq of fnstatus*complete for fnstatus=11,12,20';
proc freq data=OUT.smplA2;
tables conus*fnstatus*complete/ missing list;
run;
/*Q2FY15: Check composition of FNSTATUS 11*/
title3 'Freq of conus*Dbencat for fnstatus=11';
proc freq data=out.smplA1A2;
       where fnstatus=11;
       tables conus*dbencat/missing list;
run;

/*********************************************************************/
/*  Proc Export to convert SAS dataset to SPSS file for the Answer Tree*/
/*********************************************************************/

%MACRO SAStoSAV(FNAME);
  PROC EXPORT DATA=OUT.&FNAME.
       OUTFILE= "&outpath.\&FNAME..sav" REPLACE;
  RUN;
%MEND SAStoSAV;

%SAStoSAV(conusA1);
%SAStoSAV(oconusA1);
```

```
%SAStoSAV(conusA2);
%SAStoSAV(oconusA2);

****************** The End *********************;
```

F.7.A Q3FY2015\Programs\Weighting\NewWeights\logmdA1.SAS - Predict the response propensity score for the unknown eligibility adjustment

```
*****************************************************************************************
***
*** Program: logmdA1.sas (40309.H21)
*** Purpose: Use the SUDAAN model to predict the response propensity
***          score for the unknown eligibility adjustment step
*** Inputs:  conusA1.sas7bdat, oconusA1.sas7bdat, smplA1A2.sas7bdat
*** Outputs: logmdA1.sas7bdat
***
*** Written: Haixia Xu 12/27/2006 Q4fy2007 weighting
*** Note   : 1) We have 2 Warnings in Log. ZERO CELL Warning is a Sudaan Bug. There is NO true
ZERO CELL.
***             We have only ONE catagory for (AgeGp=5 and Patc),which gives us Singularity
Warning.
***            That one strara is: (Age_Grp5='5' and patc_grp=NADD)
***            (L:\Q4FY2010\Programs\Weighting\NewWeights\SUDAAN Warning_Proc RLOGIST.msg)
***                     2) A. Borgen for Q3FY2011 and beyond:
***             a) Active duty with email and without email has been collapsed, since these
cases are
***                involved in so many zero cell.
***             b) has_email is no longer used in the model since most of the time it is not
included
***                in the final model.
***                (see note
L:\Q3FY2011\Programs\Weighting\NewWeights\ImportantNote_PleaseCheck)
***          3) Starting from Q1FY2015, instead of 3-level, we are Dept=2 option for Chaid
AnswerTree.
***             That is, we will be using 2-levels instead of 3-levels interactions.
***
***          4) Starting from Q3FY2015, using /NORM option in SAS Stepwise.
***             Otherwise standard errors will be way too small.
***
***          5) Starting from Q3FY2015, we selected a sample from Non-Respondent for a paper
***             followup. We only included CONUS, non-AD cases for paper instrument. So we
created
***             two new flag variables combining 'received followup' and 'PatCat' information
and
***             used them in models (updated SAS Stepwise and SUDAAN code accordingly). Two new
***             variables are: (flag_NADD, flag_ADFM)
***
***          6) Q3FY2015: Steps we considered this Quarter to find good SUDAAN H-L fit are:
***               a) For Conus: We collapsed Age group 5 with Age Group 4 and created a 4-level
***                  AgeGroup variable. After collapsing the zero cell for
age_grp5=5*patcat=DEPACT,
***                  the interaction AGE_grp5*PATCAT causes the singularity warning, and one
cell
***                  only has a few cases, so we decided to collapse age_grp5=5 with age_grp5=4,
***                  so that we can have AGE_grp5*PATCAT in the model, since it is important
***
***               b) For Oconus: we ignored final model from SAS Stepwise.
***                  We used all main effects and two way interactions from Answer Tree in
SUDAAN
***                  for initial model. Since the final model from the SAS stepwise only have a
***                  few main effects, and this model does not give us a model fit in SUDAAN.
***                  We decided to start with the full model in SUDAAN.
*****************************************************************************************
***;
options ls=132 ps=79 compress=yes nocenter formdlim='~';
ods _ALL_ Close;
ODS Listing;

%let quarter=Q3FY2015;

%include
"N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Programs\Weighting\NewWeights\Zero_One_Cells.sas";


libname in   "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; /* conusA1.sas7bdat,
oconusA1.sas7bdat, smplA1A2.sas7bat */
libname out  "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; /* logmdA1.sas7bdat */
```

```
libname in2  "N:\Project\40309_HCS\Restricted\DC1\Q3FY2015\paper_fy15q3"; *Sample non-
respondents selected for paper ques;


proc format;
value FMT_TNEX 1 = '1-North'
               2 = '2-South'
               3 = '3-West'
               4 = '4-Other';
value FMT_AGE  1 = '<=24'
               2 = '(24,34]'
               3 = '(34,44]'
               4 = '(44,64]'
               5 = ' >=65';
value FMT_PAT  1 = '1-ACTDTY'
               2 = '2-DEPACT'
               3 = '3-NADD';
value FMT_PCM  1 = '1-Nonenrollee'
               2 = '2-CIV Enrollee'
               3 = '3-MTF Enrollee';
value FMT_PNLC 1 = '1-Other'
               2 = '2-Grd/Resv';
value FMT_RANK 1 = '1-E1234'
               2 = '2-E56789101112'
               3 = '3-W123O123'
               4 = '4-W45O45678910';
value FMT_RK   1 = '1-E1_12'
               2 = '2-W1_5O1_10';
value FMT_SEX  1 = '1-Male'
               2 = '2-Female';
value FMT_SVC  1 = '1-Army'
               2 = '2-Air Force'
               3 = '3-N/M/C/O/U';
value FMT_INCT 1 = '1-Not in Catch'
               2 = '2-In catch';
value FMT_PLUS 1 = '1- TRICARE PLUS'
               2 = '2- Not TRICARE PLUS';
value FMT_TRS  1 = '1- TRICARE Reserve Select'
               2 = '2- Not TRICARE Reserve Select';
value FMT_addr 0 = '0- CHCS mailling address unavailable'
               1 = '1- CHCS mailling address available';
value FMT_chcs 1 = '1- CHCS mailling address unavailable'
               2 = '2- CHCS mailling address available';
value FMT_emai 1 = 'AD with Email Address available'
               2 = 'AD with Email Address unavailable'
               3 = 'Non Active Duty(AD)';
run;



title1 "Program: logmdA1.sas (&quarter.)";
title2 "Purpose: Predict the Response Probability for the unknown Eligibility Adjustment";


*==========================================================================================
===
Create the dummy variables to be used in the SUDAAN model
==========================================================================================
==;
data logmdA1;
set in.conusA1 in.oconusA1;

*Convert MPRID and stratum into numerical values since SUDAAN takes only numerical values;
length MPRID_c9 $9 stratum1 $8 ;
MPRID_c9='1'||MPRID;
MPRID_nm = input (MPRID_c9, 9.);

stratum1='1'||stratum;
STRAT_nm = input (stratum1, 8.);

****************************
Convert all the categorical variables into numeric variables
****************************;
if TNEX_grp='N' then TNEX_num=1;
```

```
else if TNEX_grp='S' then TNEX_num=2;
else if TNEX_grp='W' then TNEX_num=3;
else if TNEX_grp='O' then TNEX_num=4;

AGE_num5=input(AGE_grp5, 1.);

/*Collapse Active Duty with Email/NO-Email, since they are involved in so many zero cell
  If PATC_grp in ('ACTDTY_EMAIL','ACTDTY_NOEMAIL') then PATC_grp= 'ACTDTY'*/
if PATC_grp='ACTDTY'  then PATC_num=1;
else if PATC_grp= 'DEPACT' then PATC_num=2;
else if PATC_grp = 'NADD'  then PATC_num=3;

if PCM_grp='NON' then PCM_num=1;
else if PCM_grp='CIV' then PCM_num=2;
else if PCM_grp='MTF' then PCM_num=3;

if PNLC_grp ='Other' then PNLC_num=1;
else if PNLC_grp= 'Grd/Resv' then PNLC_num=2;

if RANK_grp='E1234' then RANK_num=1;
else if RANK_grp= 'E56789101112' then RANK_num=2 ;
else if RANK_grp = 'W123O123' then RANK_num= 3;
else if RANK_grp = 'W45O45678910' then RANK_num=4;

if SEX_grp='1' then SEX_num=1;
else if SEX_grp= '2' then SEX_num = 2;

if SVC_grp='Army' then SVC_num=1;
else if SVC_grp='Air Force' then SVC_num=2;
else if SVC_grp='N/M/C/O/U' then SVC_num=3;

if IN_CATCH='0' then INCAT_num=1;
else if IN_CATCH='1' then INCAT_num=2;

if CHCSAddr='0' then CHCS_num=1;
else if CHCSAddr='1' then CHCS_num=2;
run;



*******************************************************************************************
*Starting from Q3FY2015, to increase RR, we selected a sample from non-respondents
 to send a paper follow-up middle of the survey period. Nancy suggested to create
 a Flag variable using paper mailing information. We will use the flag in SAS Stepwise
 as a main effect (Ref=1). Also, will include a flag*Patc interaction term in SAS modelling.
 Merging data to create Flag flag_smplNR.
 Program for followup survey 'Select_Sample_for_Paper_Instrument.sas' is in Q3 folder
*******************************************************************************************;
data EligNR (keep=flag_smplNR mprid);
set in2.sampla02pq;
flag_smplNR=1;
run;

proc sort data=EligNR;  by MPRID; run;
proc sort data=logmdA1; by MPRID; run;

data logmdA1;
merge logmdA1(In=A) EligNR(in=B);
by MPRID;
If A;
if (flag_smplNR=. and PATC_grp~='ACTDTY') then flag_smplNR=0;
Run;


*Nancy: Flag variable flag_smplNR may have a interaction with PATC. As we know, none of the AD
 were offered a paper instrument ie., all AD have a flag_smplNR=0. So to include in model,
 we need to create new variables flag_NADD and flag_ADFM;
data logmdA1;
set logmdA1;

*creating a main effect for modelling;
if flag_smplNR=1 then flag_NR=1;
else flag_NR=2;
```

```
*creating a crosstab (NR flag and PATC);
if PATC_grp='DEPACT' then do;
   if flag_smplNR=1 then flag_ADFM=1;
   else flag_ADFM=2;
end;

if PATC_grp='NADD' then do;
   if flag_smplNR=1 then flag_NADD=1;
   else flag_NADD=2;
end;

if flag_ADFM=. then flag_ADFM=2;
if flag_NADD=. then flag_NADD=2;
run;


proc sort data=logmdA1;
       by conus;
run;


/*
title3 'Freq of MPRID_nm*mprid strat_nm*stratum';
proc freq data=logmdA1(obs=10);
tables MPRID_nm*mprid strat_nm*stratum/ missing list;
run;
*/

title3 'Check the construction of the numeric variables';
proc freq data=logmdA1;
tables TNEX_num*TNEX_grp
       AGE_num5*AGE_grp5
       PATC_num*PATC_grp
       PCM_num*PCM_grp
       PNLC_num*PNLC_grp
       RANK_num*RANK_grp
       SEX_num*SEX_grp
       SVC_num*SVC_grp
           INCAT_num*IN_CATCH
       CHCS_num*CHCSAddr
/missing list;
run;

title3 "Checking Crosstab/Freq";
proc freq data=logmdA1;
tables fnstatus
       conus*fnstatus/list missing;
run;


*New to Q3Fy2015;
title3 "Checking the Construction of Two flag variables";
proc freq data=logmdA1;
tables flag_smplNR*patc_grp*flag_NR*flag_ADFM*flag_nadd
       conus*flag_ADFM*flag_NADD/list missing;
run;


*Creating Conus and Oconus Data sets;
data conus oconus;
set logmdA1;
if conus='1' then output conus;
else if conus='0' then output oconus;
run;



************************************************
Check the zero cell before the modeling for CONUS
************************************************;

*******************************************************
Interaction terms obtained from answer tree output
*******************************************************;
```

```
*We can keep all variables as macro variable Vars_in_interactions_conus below;
%Let Vars_in_interactions_conus = age_grp5 tnex_grp patc_grp pnlc_grp pcm_grp rank_grp chcsaddr
in_catch pnlc_grp svc_grp sex_grp;

 /*Interactions from chaid */
%let Interactions_from_chaid_conus =


/*Q3FY2015: Two way interaction from the 2-level chaid answer tree ran*/
age_grp5*PCM_grp
age_grp5*patc_grp
;

title3 "Check the zero cells for Conus";
%ZERO_ONE_CELLS(conus, &Vars_in_interactions_conus., eligkwn, &Interactions_from_chaid_conus.);

/*
Q3FY2015:

                                          eligkwn_    eligkwn_
Obs    AGE_grp5    PATC_grp    PCM_grp      Mean          N

 1        5         DEPACT                    0           2
                                                        ========
                                                            2
*/


/*Q3FY2015*/
title3 "Check to see how to collapse (Conus)";
proc freq data=conus;
tables
age_grp5*patc_grp*eligkwn /missing list SPARSE;
run;

/*NOTE:
    We will collapse using the following criteria:
        -can't combine genders
        -service group=can combine Army with Air Force, not usual to combine them with the other
category
        -rank=two groups of E and W, we collapse similar ranking letters
        -patc=can't combine active duty, only dependent of active duty with nadd
        -age=small number of age group 5 respondents usually, so we can collapse with age group
4
    -we can collapse pnlc_grp='Grd/Resv' with other
*/


*Q3FY2015;
data conus;
set conus;
age_grp5_old=age_grp5;

*Q3FY2015: Talking care of Zero Cell and Small Cell same time.
 Note: After collapsing the zero cell for age_grp5=5*patcat=DEPACT, the interaction
AGE_grp5*PATCAT
       causes the singularity warning, and one cell only has a few cases, so we decided to
collapse
       age_grp5=5 with age_grp5=4, so that we can have AGE_grp5*PATCAT in the model, since it is
important;
  if age_grp5='5' then do;
  age_grp5='4';
  age_num5=4;
  flag1=1;
end;
run;


*Q3FY2015;
title3 "Check the zero cell collapsements (Conus)";
proc freq data=conus;
tables
age_grp5*patc_grp*age_grp5_old*flag1
```

```
age_grp5
/missing list;
run;

title3 "Checks the zero cells for Conus  ";
%ZERO_ONE_CELLS(conus, &Vars_in_interactions_conus., eligkwn, &Interactions_from_chaid_conus.);

*Q3FY2015: Deletes unnecessary variables:;
data conus;
   set conus(drop=age_grp5_old flag1);
run;



**************************
Run the SAS stepwise model
**************************;
%macro modelselect_conus(method= );
title3 "SAS Logistic for CONUS - &method.";
proc logistic data=conus descending;
CLASS
TNEX_grp (ref='N')
AGE_grp5 (ref='1')
PATC_grp (ref='NADD')
PCM_grp  (ref='NON')
PNLC_grp (ref='Other')
RANK_grp (ref='E1234')
SEX_grp  (ref='1')
SVC_grp  (ref='Army')
IN_CATCH (ref='0')
TRS      (ref='2')
CHCSAddr (ref='0')
flag_NR  (ref='2')
flag_ADFM (ref='2')
flag_NADD (ref='2')

/*HASEmail(ref='YES')*/
/param=ref descending;
MODEL  eligkwn =
TNEX_grp
AGE_grp5
PATC_grp
PCM_grp
PNLC_grp
RANK_grp
SEX_grp
SVC_grp
IN_CATCH
TRS
CHCSAddr
flag_NR

/*Q3FY2015: Two way interaction from the 2-level chaid answer tree ran*/
age_grp5*PCM_grp
age_grp5*patc_grp
flag_ADFM    /*new flag variable*/
flag_NADD    /*new flag variable*/

/Lackfit rsquare details hierarchy=single selection=&method. slentry=0.15 slstay=0.20;
OUTPUT OUT=out_conus PREDICTED=predicted;
WEIGHT bwt /norm ; /*Weighted SAS Model*/
run;
%mend modelselect_conus;

%modelselect_conus(method=stepwise);


*Note: We treat flag_NR as main effect and flag_ADFM and flag_NADD are
       interaction of NR selected for survey flag and PATC. ;

*******************************************************************************
                            : Summary of Stepwise Selection :
*******************************************************************************;
```

```
/*
Summary of Stepwise Selection

                         Effect                           Number      Score       Wald
Variable
    Step Entered              Removed                DF       In Chi-Square Chi-Square Pr >
ChiSq Label

       1 AGE_grp5                                      3        1  7059.2303
<.0001
       2 flag_NR                                       1        2  3401.0671
<.0001
       3 PATC_grp                                      2        3   490.1385
<.0001
       4 RANK_grp                                      3        4   308.5932
<.0001
       5 AGE_grp5*PATC_grp                             6        5   235.6358
<.0001
       6 PCM_grp                                       2        6   177.8233
<.0001
       7 AGE_grp5*PCM_grp                              6        7   118.2124
<.0001
       8 SVC_grp                                       2        8    60.9682
<.0001
       9 CHCSAddr                                      1        9    52.0030
<.0001
      10 in_catch                                      1       10    11.4901
0.0007 In-catchment area indicator
      11 TNEX_grp                                      2       11    10.9708
0.0041
      12 TRS                                           1       12     5.7651
0.0163 TRICARE Reserve Select indicator
      13 PNLC_grp                                      1       13     2.5673
0.1091
      14 SEX_grp                                       1       14     2.0752
0.1497
*/


****************************************************************
Macro to Check the SUDAAN fit for the the SAS Final Model above
****************************************************************;
*Proc Sort before Proc Rlogist;
proc sort data=conus;
by STRAT_nm;
run;

%macro sudaan_conus(ttl, vars);
Title3 " The Final Model from SAS Stepwise - CONUS ";
Title4 " &ttl.";
proc rlogist data=conus design=STRWR filetype=SAS;
NEST STRAT_nm/missunit;
weight bwt;
CLASS    AGE_num5     PATC_num     PCM_num     RANK_num    sex_num    PNLC_num
         SVC_num      incat_num    TRS         chcs_num    tnex_num
         flag_NR      flag_NADD    flag_ADFM;

REFLEVEL AGE_num5=1   PATC_num=3   PCM_num=1   RANK_num=1  SEX_num=1  PNLC_num=1
         SVC_num=1    INCAT_num=1  TRS=2       chcs_num=1  tnex_num=1
         flag_NR=2    flag_NADD=2  flag_ADFM=2;
MODEL  eligkwn = &vars.;
idvar MPRID_nm;
print beta sebeta t_beta p_beta
HLCHISQ HLCHIDF HLCHIP HLWALDF HLWALDDF HLWALDP HLSATF HLSATDF HLSATP DF WALDCHI WALDCHP
/betafmt=f7.3 sebetafmt=f7.3 WALDCHIFMT=F8.2 waldchpfmt=f8.6;
output expected observed nest idvar /filename =pred_c filetype=sas replace;
rformat AGE_num5 FMT_AGE.;
rformat PATC_num FMT_PAT.;
rformat PCM_num  FMT_PCM.;
rformat RANK_num FMT_RANK.;
rformat sex_num FMT_SEX.;
rformat PNLC_num FMT_PNLC.;
rformat SVC_num  FMT_SVC.;
rformat INCAT_num FMT_INCT.;
```

```
rformat trs FMT_TRS.;
rformat tnex_num FMT_tnex.;
rformat chcs_num FMT_CHCS.;
run;
%mend sudaan_conus;


*******************************************************************
  Macro to Check AIC and Concordant/Discordant) for Sudaan Models:
*******************************************************************;
%macro Check_AIC_and_rates(InFile=, RunNo=, VariableList=);
title3 "Check  AIC and Concordant/Discordant for Run=&RunNo.)";
proc logistic data=&InFile. descending;
class
TNEX_grp (ref='N')
AGE_grp5 (ref='1')
PATC_grp (ref='NADD')
PCM_grp  (ref='NON')
PNLC_grp (ref='Other')
RANK_grp (ref='E1234')
SEX_grp  (ref='1')
SVC_grp  (ref='Army')
IN_CATCH (ref='0')
TRS      (ref='2')
CHCSAddr (ref='0')
flag_ADFM (ref='2')
flag_NADD (ref='2')
/*HASEmail(ref='YES')*/
/param=ref descending;
MODEL  eligkwn =
&variablelist.;
ods select FitStatistics Association;
run;
%mend Check_AIC_and_rates;



/*******************************************/
/* SUDAAN MODELLING:                       */
/*******************************************/
*Running Initial Model from SAS Stepwuise;
%sudaan_conus(
%str(Run0: Initial Model),
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
SVC_num
CHCS_num
INCAT_num
TNEX_num
TRS
PNLC_num
SEX_num
);

*HL = 0.1011,
 Variable-to-drop/Largest Pvalue = SEX_NUM/0.579595;


%sudaan_conus(
%str(Run1: Drop SEX),
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
SVC_num
CHCS_num
```

```
INCAT_num
TNEX_num
TRS
PNLC_num
/*SEX_num  1st */
);

*HL =0.0259
 Variable-to-drop/Largest Pvalue =TNEX_NUM/0.387271;


%sudaan_conus(
%str(Run2: Drop SEX, TNEX),
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
SVC_num
CHCS_num
INCAT_num
/*TNEX_num 2nd */
TRS
PNLC_num
/*SEX_num  1st */
);
*HL = 0.0113
 Variable-to-drop/Largest Pvalue = INCAT_NUM /0.205005;


%sudaan_conus(
%str(Run3: Drop SEX, TNEX, INCAT),
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
SVC_num
CHCS_num
/*INCAT_num   3rd */
/*TNEX_num    2nd */
TRS
PNLC_num
/*SEX_num     1st */
);
*HL = 0.1010
 Variable-to-drop/Largest Pvalue = PNLC_NUM /0.201378;


%sudaan_conus(
%str(Run4: Drop SEX, TNEX, INCAT, PNLC),
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
SVC_num
CHCS_num
/*INCAT_num   3rd */
/*TNEX_num    2nd */
TRS
/*PNLC_num    4th */
/*SEX_num     1st */
);
*HL =  0.0495
 Variable-to-drop/Largest Pvalue =TRS/0.130237;
```

```
%sudaan_conus(
%str(Run5: Drop SEX, TNEX, INCAT, PNLC, TRS),
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
SVC_num
CHCS_num
/*INCAT_num   3rd */
/*TNEX_num    2nd */
/*TRS         5th */
/*PNLC_num    4th */
/*SEX_num     1st */
);
*HL =  .0310
 Variable-to-drop/Largest Pvalue = SVC_NUM/0.009927;

%sudaan_conus(
%str(Run6: Drop SEX, TNEX, INCAT, PNLC, TRS, SVC),
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
/*SVC_num     6th */
CHCS_num
/*INCAT_num   3rd */
/*TNEX_num    2nd */
/*TRS         5th */
/*PNLC_num    4th */
/*SEX_num     1st */
);
*HL =  .3868
 Variable-to-drop/Largest Pvalue = CHCS_NUM/ 0.005528;


*%sudaan_conus(
%str(Run7: Drop SEX, TNEX, INCAT, PNLC, TRS, SVC,CHCS),
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
/*SVC_num     6th */
/*CHCS_num    7th */
/*INCAT_num   3rd */
/*TNEX_num    2nd */
/*TRS         5th */
/*PNLC_num    4th */
/*SEX_num     1st */
);
*HL =  .0000
 Variable-to-drop/Largest Pvalue = NOTE/0.0000;




*************************************
CHECKING AIC and Rates:
************************************;

%Let Var0 =
AGE_num5
flag_NR
PATC_num
RANK_num
```

```
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
SVC_num
CHCS_num
INCAT_num
TNEX_num
TRS
PNLC_num
SEX_num
;
*HL = 0.1011,
 Variable-to-drop/Largest Pvalue = SEX_NUM/0.579595;
%Check_AIC_and_rates(InFile=conus, RunNo=Run0, VariableList=&Var0.);


%Let Var0 =
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
SVC_num
CHCS_num
INCAT_num
TNEX_num
TRS
PNLC_num
/*SEX_num  1st */
;
*HL =
 Variable-to-drop/Largest Pvalue =TNEX_NUM/0.387271;
%Check_AIC_and_rates(InFile=conus, RunNo=Run1, VariableList=&Var0.);


%Let Var0 =
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
SVC_num
CHCS_num
INCAT_num
/*TNEX_num 2nd */
TRS
PNLC_num
/*SEX_num  1st */
;
*HL = 0.0113
 Variable-to-drop/Largest Pvalue = INCAT_NUM /0.205005;
%Check_AIC_and_rates(InFile=conus, RunNo=Run2, VariableList=&Var0.);

%Let Var0 =
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
SVC_num
CHCS_num
/*INCAT_num   3rd */
/*TNEX_num    2nd */
TRS
PNLC_num
/*SEX_num     1st */
;
*HL = 0.1010
```

```
 Variable-to-drop/Largest Pvalue = PNLC_NUM /0.201378;
%Check_AIC_and_rates(InFile=conus, RunNo=Run3, VariableList=&Var0.);


%Let Var0 =
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
SVC_num
CHCS_num
/*INCAT_num   3rd */
/*TNEX_num    2nd */
TRS
/*PNLC_num    4th */
/*SEX_num     1st */
;
*HL =  0.0495
 Variable-to-drop/Largest Pvalue =TRS/0.130237;
%Check_AIC_and_rates(InFile=conus, RunNo=Run4, VariableList=&Var0.);


%Let Var0 =
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
SVC_num
CHCS_num
/*INCAT_num   3rd */
/*TNEX_num    2nd */
/*TRS         5th */
/*PNLC_num    4th */
/*SEX_num     1st */
;
*HL =  .0310
 Variable-to-drop/Largest Pvalue = SVC_NUM/0.009927;
%Check_AIC_and_rates(InFile=conus, RunNo=Run5, VariableList=&Var0.);


%Let Var0 =
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
/*SVC_num     6th */
CHCS_num
/*INCAT_num   3rd */
/*TNEX_num    2nd */
/*TRS         5th */
/*PNLC_num    4th */
/*SEX_num     1st */
;
*HL =  .3868
 Variable-to-drop/Largest Pvalue = CHCS_NUM/ 0.005528;
%Check_AIC_and_rates(InFile=conus, RunNo=Run6, VariableList=&Var0.);


/*                                    SUMMARY TABLE :
#  Sudaan Fit  Largest Ind.Pvalue  Intercept Only  Intercept & Covariates  Concordant
       Discordant
0     0.1011      0.579595            62121.453      53983.332                  75.2
24.0
1     0.0259      0.387271            62121.453      53985.836                  75.1
23.9
```

```
2     0.0113      0.205005            62121.453      53984.750                  75.0
23.8
3     0.1010      0.201378            62121.453      53990.833                  74.9
23.7
4     0.0495      0.130237            62121.453      54019.513                  74.9
23.8
5     0.0310      0.009927            62121.453      54020.079                  74.9
23.8
6     0.3868      0.005528            62121.453      54035.112                  74.2
23.2

Final Model:
6     0.3868      0.005528            62121.453      54035.112                  74.2
23.2

** Note: Smallest is better for AIC and Discordant. Largest is better for Concordant.
*/


****************************************
**final suddan model here, for Conus;
****************************************;
%sudaan_conus(
%str(Run6: Drop SEX, TNEX, INCAT, PNLC, TRS, SVC),
AGE_num5
flag_NR
PATC_num
RANK_num
AGE_num5*PATC_num
PCM_num
AGE_num5*PCM_num
/*SVC_num     6th */
CHCS_num
/*INCAT_num   3rd */
/*TNEX_num    2nd */
/*TRS         5th */
/*PNLC_num    4th */
/*SEX_num     1st */
);
*HL =  0.3868
 Variable-to-drop/Largest Pvalue = NONE;



*==========================================================================================
===
Start the modeling for OCONUS
In the full model, all the variables put in the answer tree are used as main effects, and
the interactions are picked based on the tree for Oconus A1 for the current quarter
==========================================================================================
==;

/*The interactions below are determined based on the oconus A1 tree for the current quarter*/

/*need to collapse age groups 4 with 5 since low counts in group 5*/

/*Collapse AGE Group if Needed: Q3FY2015*/
data oconus;
set oconus;
age_grp5_old=age_grp5;
if age_grp5='5' then do;
age_grp5='4';
age_num5=4;
end;
run;

title3 'Check the collapsements (Oconus)';
proc freq data=oconus;
tables age_grp5*age_grp5_old eligkwn  /missing list;
run;
```

```
%let Vars_in_interactions_oconus = AGE_grp5 PATC_grp PCM_grp PNLC_grp RANK_grp SEX_grp SVC_grp
CHCSAddr TNEX_grp in_catch TRS ;

%let Interactions_from_chaid_oconus =

/*Q3FY2015: Two way interaction from Answer Tree using 2-ways interaction*/
patc_grp*age_grp5
patc_grp*rank_grp
;

title3 "Check the zero cells for Oconus";
%ZERO_ONE_CELLS(oconus, &Vars_in_interactions_oconus., eligkwn,
&Interactions_from_chaid_oconus.);


/* Q3FY2015: No Zero Cells.
   For code to collapse zero cells, see Q3FY2014. */



********************************
/* SAS modeling*/
********************************;
%macro modelselect_oconus(method= );
title3 "SAS Logistic for OCONUS - &method.";
proc logistic data=oconus descending;
WEIGHT BWT; /*Weighted SAS Model*/
CLASS
AGE_grp5 (ref='1')
PATC_grp (ref='NADD')
PCM_grp  (ref='NON')
PNLC_grp (ref='Other')
RANK_grp (ref='E1234')
SEX_grp  (ref='1')
SVC_grp  (ref='Army')
IN_CATCH (ref='0')
TRS      (ref='2')
CHCSAddr (ref='0')

/*HASEmail(ref='YES')*/
/param=ref descending;
MODEL  eligkwn =
AGE_grp5
PATC_grp
PCM_grp
PNLC_grp
RANK_grp
SEX_grp
SVC_grp
IN_CATCH
TRS
CHCSAddr

/*Q3FY2015: Two way interaction from Answer Tree*/
patc_grp*age_grp5
patc_grp*rank_grp


/Lackfit rsquare details hierarchy=single selection=&method. slentry=0.15 slstay=0.20;
OUTPUT OUT=out_oconus PREDICTED=predicted;
WEIGHT bwt /norm ; /*Weighted SAS Model*/
run;
%mend modelselect_oconus;

%modelselect_oconus(method=stepwise);



/* Q3FY2015:
                                                Summary of Stepwise Selection

                          Effect                           Number      Score       Wald
Variable
```

```
    Step Entered              Removed                DF       In Chi-Square Chi-Square Pr >
ChiSq Label

       1 PATC_grp                                     2        1   147.8075
<.0001
       2 AGE_grp5                                     3        2   186.9955
<.0001
       3 SVC_grp                                      2        3    90.9169
<.0001
       4 PCM_grp                                      2        4    48.7409
<.0001
       5 TRS                                          1        5    10.1978
0.0014 TRICARE Reserve Select indicator
       6                         TRS                  1        4                0.0049
0.9441 TRICARE Reserve Select indicator

*/



/*Q3FY2015: Check correlations of main effect*/
/*
title3 "Q3FY2015: Checking CORR of OCONUS initial model Variables";
proc corr data=oconus;
       var  age_num5  patc_num  svc_num pcm_num ;
run;

title3 "Q3FY2015: Checking CrossTab of Eligknwn and OCONUS initial model Variables";
proc freq data=oconus;
       tables eligkwn*patc_num
           eligkwn*age_num5
           eligkwn*svc_num
           eligkwn*pcm_grp*pcm_num
           /missing list;
run;
*/



************************************************************
Checks the SUDAAN fit for the the SAS Final Model above
************************************************************;
*Proc Sort before Proc Rlogist;
proc sort data=oconus;
by STRAT_nm;
run;


%macro sudaan_oconus(ttl,vars);
title3 "The Final Model from SAS stepwise -OCONUS";
title4 " &ttl.";
proc rlogist data=oconus design=STRWR filetype=SAS;
NEST STRAT_nm  / missunit;
weight bwt;
CLASS    AGE_num5     PATC_num     PCM_num     PNLC_num    RANK_num    sex_num
         SVC_num      TRS         incat_num   /*tnex_num*/    chcs_num;
REFLEVEL AGE_num5=1   PATC_num=3   PCM_num=1   pnlc_num=1  RANK_num=1  SEX_num=1
         SVC_num=1    TRS=2       incat_num=1 /*tnex_num=1*/  chcs_num=1;
MODEL  eligkwn = &vars.;
idvar MPRID_nm;
print beta sebeta t_beta p_beta
HLCHISQ HLCHIDF HLCHIP HLWALDF HLWALDDF HLWALDP HLSATF HLSATDF HLSATP DF WALDCHI WALDCHP
/betafmt=f7.3 sebetafmt=f7.3 WALDCHIFMT=F8.2 waldchpfmt=f8.6;;
output expected observed nest idvar /filename =pred_o filetype=sas replace;
rformat AGE_num5 FMT_AGE.;
rformat PATC_num FMT_PAT.;
rformat PCM_num  FMT_PCM.;
rformat PNLC_num  FMT_PNLC.;
rformat RANK_num FMT_RanK.;
rformat sex_num FMT_sex.;
rformat SVC_num  FMT_SVC.;
rformat INCAT_num FMT_INCT.;
rformat trs FMT_TRS.;
*rformat tnex_num FMT_tnex.;
```

```
rformat chcs_num fmt_chcs.;
run;
%mend sudaan_oconus;


%macro Oconus_check_AIC_and_rates(InFile=, RunNo=, VariableList=);
title3 "Check  AIC and Concordant/Discordant for Run=&RunNo.)";
proc logistic data=&InFile. descending;
WEIGHT BWT; /*Weighted SAS Model*/
CLASS
AGE_grp5 (ref='1')
PATC_grp (ref='NADD')
PCM_grp  (ref='NON')
PNLC_grp (ref='Other')
RANK_grp (ref='E1234')
SEX_grp  (ref='1')
SVC_grp  (ref='Army')
IN_CATCH (ref='0')
TRS      (ref='2')
CHCSAddr (ref='0')
flag_ADFM (ref='2')
flag_NADD (ref='2')
/*HASEmail(ref='YES')*/
/param=ref descending;
MODEL  eligkwn =
&variablelist.;
ods select FitStatistics Association;
run;
%mend Oconus_check_AIC_and_rates;



/****************************/
/* 1st Approach (usual way) */
/****************************/
%sudaan_oconus(
%str(Run0: Final model from SAS stepwise),
AGE_num5
PATC_num
SVC_num
PCM_num
);
*HL =  0.0721
*Variable-to-drop/Largest Pvalue = PCM_NUM/0.011077;


%sudaan_oconus(
%str(Run1: Final model from SAS stepwise),
AGE_num5
PATC_num
SVC_num
/*PCM_num  1st*/
);
*HL= 0.0496
*Variable-to-drop/Largest Pvalue = .0000;


*********************************************************************
                  **** Q3FY2015: Alternate Approach *****

We didn't get a good model starting with SAS Stepwise Final Model.
We are going to ignore final model from SAS Stepwise instead and using
all main effects and two way interactions from Answer Tree in SUDAAN
for initial model. Since the final model from the SAS stepwise only have a
few main effects, and this model does not give us a model fit in SUDAAN.
We decided to start with the full model in SUDAAN.

Note: We don't inlcude TRS in OCONUS model
*=================================================================================;

%sudaan_oconus(
%str(RunA0: Full Model),
AGE_num5
PATC_num
```

```
PCM_num
PNLC_num
RANK_num
SEX_num
SVC_num
INCAT_num
CHCS_num
patc_num*age_num5
patc_num*rank_num
);
* HL = 0.5457
 Variable-to-drop/Largest Pvalue : INCAT_NUM/0.696711;


%sudaan_oconus(
%str(RunA1: Drop INCAT),
AGE_num5
PATC_num
PCM_num
PNLC_num
RANK_num
SEX_num
SVC_num
/*INCAT_num    1st */
CHCS_num
patc_num*age_num5
patc_num*rank_num
);
* HL =   .4884
 Variable-to-drop/Largest Pvalue: CHCS_NUM/0.640681;

%sudaan_oconus(
%str(RunA2:  Drop  INCAT, CHCS),
AGE_num5
PATC_num
PCM_num
PNLC_num
RANK_num
SEX_num
SVC_num
/*INCAT_num    1st */
/*CHCS_num     2nd */
patc_num*age_num5
patc_num*rank_num
);
* HL = .3553
 Variable-to-drop/Largest Pvalue:SEX_NUM/ 0.397768 ;


%sudaan_oconus(
%str(RunA3:  Drop INCAT, CHCS. SEX),
AGE_num5
PATC_num
PCM_num
PNLC_num
RANK_num
/*SEX_num      3rd */
SVC_num
/*INCAT_num    1st */
/*CHCS_num     2nd */
patc_num*age_num5
patc_num*rank_num
);
* HL = .2729
 Variable-to-drop/Largest Pvalue:PNLC_NUM/0.346716 ;

%sudaan_oconus(
%str(RunA4:  Drop INCAT, CHCS. SEX, PNLC),
AGE_num5
PATC_num
PCM_num
/*PNLC_num     4th */
RANK_num
/*SEX_num      3rd */
```

```
SVC_num
/*INCAT_num    1st */
/*CHCS_num     2nd */
patc_num*age_num5
patc_num*rank_num
);
* HL = .2124
 Variable-to-drop/Largest Pvalue: PATC_NUM * AGE_NUM5 /0.211174  ;


%sudaan_oconus(
%str(RunA5:  Drop  INCAT, CHCS. SEX, PNLC, PATC*AGE),
AGE_num5
PATC_num
PCM_num
/*PNLC_num     4th */
RANK_num
/*SEX_num      3rd */
SVC_num
/*INCAT_num    1st */
/*CHCS_num     2nd */
/*patc_num*age_num5 5th */
patc_num*rank_num
);
* HL = .4294
 Variable-to-drop/Largest Pvalue:  PATC_NUM * RANK_NUM /0.025456 ;


%sudaan_oconus(
%str(RunA6:  Drop  INCAT, CHCS. SEX, PNLC, PATC*AGE, PATC*RANK),
AGE_num5
PATC_num
PCM_num
/*PNLC_num     4th */
RANK_num
/*SEX_num      3rd */
SVC_num
/*INCAT_num    1st */
/*CHCS_num     2nd */
/*patc_num*age_num5 5th */
/*patc_num*rank_num 6th */
);
* HL =  .4816
 Variable-to-drop/Largest Pvalue: RANK_NUM/0.339301 ;


%sudaan_oconus(
%str(RunA7:  Drop  INCAT, CHCS. SEX, PNLC, PATC*AGE, PATC*RANK, RANK),
AGE_num5
PATC_num
PCM_num
/*PNLC_num     4th */
/*RANK_num      7th */
/*SEX_num      3rd */
SVC_num
/*INCAT_num    1st */
/*CHCS_num     2nd */
/*patc_num*age_num5 5th */
/*patc_num*rank_num 6th */
);
* HL =  .0721
 Variable-to-drop/Largest Pvalue:PCM_NUM /0.011077 ;


%sudaan_oconus(
%str(RunA8:  Drop  INCAT, CHCS. SEX, PNLC, PATC*AGE, PATC*RANK, RANK, PCM),
AGE_num5
PATC_num
/*PCM_num      8th */
/*PNLC_num     4th */
/*RANK_num      7th */
/*SEX_num      3rd */
SVC_num
/*INCAT_num    1st */
```

```
/*CHCS_num     2nd */
/*patc_num*age_num5 5th */
/*patc_num*rank_num 6th */
);
* HL =  .0496
 Variable-to-drop/Largest Pvalue: 0.0000 ;



*************************************************************
  Checking AIC and Concordant/Discordant) for Sudaan Models:
*************************************************************;
%Oconus_check_AIC_and_rates(InFile=oconus, RunNo=0, VariableList=
AGE_num5
PATC_num
SVC_num
PCM_num
);
*HL =  0.0721
*Variable-to-drop/Largest Pvalue = PCM_NUM/0.011077;


%Oconus_check_AIC_and_rates(InFile=oconus, RunNo=1, VariableList=
AGE_num5
PATC_num
SVC_num
/*PCM_num  1st*/
);
*HL= 0.0496
*Variable-to-drop/Largest Pvalue = .0000;



*Alternative Way;
*========================;

%Oconus_check_AIC_and_rates(InFile=oconus, RunNo=A0, VariableList=
AGE_num5
PATC_num
PCM_num
PNLC_num
RANK_num
SEX_num
SVC_num
INCAT_num
CHCS_num
patc_num*age_num5
patc_num*rank_num
);
* HL = 0.5457
 Variable-to-drop/Largest Pvalue : INCAT_NUM/0.696711;


%Oconus_check_AIC_and_rates(InFile=oconus, RunNo=A1, VariableList=
AGE_num5
PATC_num
PCM_num
PNLC_num
RANK_num
SEX_num
SVC_num
/*INCAT_num    1st */
CHCS_num
patc_num*age_num5
patc_num*rank_num
);
* HL =   .4884
 Variable-to-drop/Largest Pvalue: CHCS_NUM/0.640681;

%Oconus_check_AIC_and_rates(InFile=oconus, RunNo=A2, VariableList=
AGE_num5
PATC_num
PCM_num
```

```
PNLC_num
RANK_num
SEX_num
SVC_num
/*INCAT_num    1st */
/*CHCS_num     2nd */
patc_num*age_num5
patc_num*rank_num
);
* HL = .3553
 Variable-to-drop/Largest Pvalue:SEX_NUM/ 0.397768 ;


%Oconus_check_AIC_and_rates(InFile=oconus, RunNo=A3, VariableList=
AGE_num5
PATC_num
PCM_num
PNLC_num
RANK_num
/*SEX_num      3rd */
SVC_num
/*INCAT_num    1st */
/*CHCS_num     2nd */
patc_num*age_num5
patc_num*rank_num
);
* HL = .2729
 Variable-to-drop/Largest Pvalue:PNLC_NUM/0.346716 ;


%Oconus_check_AIC_and_rates(InFile=oconus, RunNo=A4, VariableList=
AGE_num5
PATC_num
PCM_num
/*PNLC_num     4th */
RANK_num
/*SEX_num      3rd */
SVC_num
/*INCAT_num    1st */
/*CHCS_num     2nd */
patc_num*age_num5
patc_num*rank_num
);
* HL = .2124
 Variable-to-drop/Largest Pvalue: PATC_NUM * AGE_NUM5 /0.211174  ;



%Oconus_check_AIC_and_rates(InFile=oconus, RunNo=A5, VariableList=
AGE_num5
PATC_num
PCM_num
/*PNLC_num     4th */
RANK_num
/*SEX_num      3rd */
SVC_num
/*INCAT_num    1st */
/*CHCS_num     2nd */
/*patc_num*age_num5 5th */
patc_num*rank_num
);
* HL = .4294
 Variable-to-drop/Largest Pvalue:  PATC_NUM * RANK_NUM /0.025456 ;


%Oconus_check_AIC_and_rates(InFile=oconus, RunNo=A6, VariableList=
AGE_num5
PATC_num
PCM_num
/*PNLC_num     4th */
RANK_num
/*SEX_num      3rd */
SVC_num
/*INCAT_num    1st */
```

```
/*CHCS_num     2nd */
/*patc_num*age_num5 5th */
/*patc_num*rank_num 6th */
);
* HL =  .4816
 Variable-to-drop/Largest Pvalue: RANK_NUM/0.339301 ;


%Oconus_check_AIC_and_rates(InFile=oconus, RunNo=A7, VariableList=
AGE_num5
PATC_num
PCM_num
/*PNLC_num     4th */
/*RANK_num      7th */
/*SEX_num      3rd */
SVC_num
/*INCAT_num    1st */
/*CHCS_num     2nd */
/*patc_num*age_num5 5th */
/*patc_num*rank_num 6th */
);
* HL =  .0721
 Variable-to-drop/Largest Pvalue:PCM_NUM /0.011077 ;


%Oconus_check_AIC_and_rates(InFile=oconus, RunNo=A8, VariableList=
AGE_num5
PATC_num
/*PCM_num      8th */
/*PNLC_num     4th */
/*RANK_num      7th */
/*SEX_num      3rd */
SVC_num
/*INCAT_num    1st */
/*CHCS_num     2nd */
/*patc_num*age_num5 5th */
/*patc_num*rank_num 6th */
);
* HL =  .0496
 Variable-to-drop/Largest Pvalue: 0.0000 ;


/*                                   SUMMARY TABLE :

Run#  Sudaan Fit  Largest Ind.Pvalue  Intercept Only  Intercept & Covariates      Concordant
        Discordant
0     0.0721      0.011077            216864.40      208283.84                  60.3
34.4
1     0.0496      0.0000              216864.40      209041.51                  60.2
31.8
A0    0.5457      0.696711            216864.40      206798.47                  64.0
33.8
A1    0.4884      0.640681            216864.40      206824.77                  64.0
33.9
A2    0.3553      0.397768            216864.40      206834.41                  63.9
33.6
A3    0.2729      0.346716            216864.40      207592.37                  62.4
34.0
A4    0.2124      0.211174            216864.40      207783.98                  62.3
34.1
A5    0.4294      0.025456            216864.40      208272.86                  60.8
35.3
A6    0.4816      0.339301            216864.40      208271.18                  60.9
35.6
A7    0.0721      0.011077            216864.40      208283.84                  60.3
34.4
A8    0.0496      0.0000              216864.40      209041.51                  60.2
31.8

Final Model:
A5    0.4294      0.025456            216864.40      208272.86                  60.8
35.3

** Note: Smallest is better for AIC and Discordant. Largest is better for Concordant.
```

```
*/


***************************************
**final suddan model here, for OConus;
***************************************;

%sudaan_oconus(
%str(RunA5:  Drop TRS, INCAT, CHCS. SEX, PNLC, PATC*AGE),
AGE_num5
PATC_num
PCM_num
/*PNLC_num     5th */
RANK_num
/*SEX_num      4th */
SVC_num
/*INCAT_num    2nd */
/*CHCS_num     3rd */
/*patc_num*age_num5 6th */
patc_num*rank_num
);
* HL = .4294
 Variable-to-drop/Largest Pvalue: NONE ;





*=============================================================================================
===
Compute the unknown eligibility adjustment factor A1
=============================================================================================
==;
data pred (Drop=STRAT_nm);
set pred_c pred_o;
run;

proc sort data=pred;
by mprid_nm;
run;

proc sort data=logmdA1;
by mprid_nm;
run;

data logmdA1 only1 only2 problem;
merge logmdA1(in=A) pred(in=B);
by mprid_nm;
if A and B then output logmdA1;
else if A and NOT B then output only1;
else if B and NOT A then output only2;
else output problem;
run;

data out.logmdA1;
set logmdA1(rename=(expected=PscoreA1) drop=MPRID_c9 stratum1);
label TNEX_grp="Facility's TNEX region"
      PscoreA1="Propensity score for unknown eligibility adjustment";
run;

Title3 "Proc Print if PscoreA1 is Missing (Problem):";
proc freq data=out.logmdA1;
tables pscoreA1/list missing;
where pscoreA1=.;
run;

title3 "Univariate of expected";
title4;
proc univariate data=out.logmdA1;
var PscoreA1;
run;

title3 "Contents of OUT.logmdA1";
```

```
title4;
proc contents data=OUT.logmdA1;
run;

******************** The End ************************;
```

F.7.B Q3FY2015\Programs\Weighting\NewWeights\Zero_One_Cells.SAS - Include file for logmdA1.sas

```
*****************************************************************************************
***
*** MACRO
*** Project: Charter School (6043-100)
*** Program: H:\SCRATCH\HXu\CommonProgramsData\Zero_One_Cells.sas
*** Purpose: Check the zero cells
***
*** Inputs:
*** Outputs:
***
*** Note: This macro is originally written by Fan Zhang from NSF
*****************************************************************************************
***;

%MACRO ZERO_ONE_CELLS(INPUT_DATA, CLASS_VARS, INPUT_VARS, BY_VARS);

PROC TABULATE DATA=&INPUT_DATA OUT=TABLE_TEMP1 (DROP=_TYPE_ _PAGE_ _TABLE_);
   CLASS &CLASS_VARS.;
   VAR &INPUT_VARS.;
   TABLES &BY_VARS.,
          &INPUT_VARS.*(MEAN N);
RUN;

DATA TABLE_TEMP2;
   SET TABLE_TEMP1;
   IF &INPUT_VARS._MEAN IN (0, 1);
RUN;

PROC PRINT DATA=TABLE_TEMP2;
   SUM &INPUT_VARS._N;
RUN;

%MEND ZERO_ONE_CELLS;
```

F.8 Q3FY2015\Programs\Weighting\NewWeights\adjwt1.SAS - Calculate the unknown eligibility adjusted weight

```
dm 'clear output;clear log';
*****************************************************************************************
***
*** Program : Adjwt1.sas
*** Task    : 40309.H21
*** Purpose : Create the weighting class cells based on the propensity from
***           the unknown eligibility modeling
***           Calculate the unknown eligibility adjusted weight
***
*** Inputs  : logmdA1.sas7bdat, framea.sas7bat
*** Outputs : adjwt1.sas7bdat
***
*** Modified: Sabrina R. for Q3FY2015
***
*** From Q1Fy2014, our sample size increatese from 50k to 100k. It is now web only and RR
dropped.
*** For low RR, A1 is too large using the usual 10 cells and 5 cells. So now we are trying
following
*** three different approaches:
***
***  - Create 5 CONUS and 4 OCONUS weighting class
***  - Create 5 CONUS and 4 OCONUS then collapsing if necessary (usually combine first 2 CONUS
and
***    OCONUS to create 4 CONUS and 3 OCONUS).
***  - Create fewer Strata (4 CONUS and 3 OCONUS) instead of collapsing
***
***    After looking at the A1 for each of the 3 scenarios, we take the final collapsing
decision
*****************************************************************************************
***;

options ls=132 ps=79 compress=yes nocenter FORMCHAR='|-++++++++++' formdlim='~' obs=max;

%let quarter=Q3FY2015;

libname in     "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal";  /* logmdA1.sas7bdat */
libname in_f   "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal";  /* framea.sas7bdat */
libname out    "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal";  /* adjwt1.sas7bdat */

title1 "Program: Adjwt1.sas (&quarter.)";
title2 "Purpose: Calculate the unknown Eligibility Adjusted Weight";



***Calculate the 20th percentiles within conus region;
%macro univ_conus(inputdata=, step=, region=, var=, cellvar=, outputdata=);

proc univariate data=&inputdata. noprint;
var &var.;
where conus="&region.";
output out=out pctlpts =20 40 60 80 pctlpre=cutoff;
run;

title3 "Cutoff points for conus=&region.";
proc print data=out;
var cutoff20 cutoff40 cutoff60 cutoff80;
run;

data temp;
set &inputdata.;
M=1;
where conus="&region.";
run;

data out;
set out;
M=1;
run;

data &outputdata.;
```

```
merge temp out;
by M;
run;

data &outputdata.;
set &outputdata.;
length &cellvar. $4;

if &var.<=cutoff20 then &cellvar. = "&step.&region.01";
else if &var.<=cutoff40 then &cellvar.  = "&step.&region.02";
else if &var.<=cutoff60  then &cellvar. = "&step.&region.03";
else if &var.<=cutoff80  then &cellvar. = "&step.&region.04";
else if &var. >cutoff80  then &cellvar. = "&step.&region.05";
run;

data &outputdata.;
set &outputdata.;
drop cutoff20 cutoff40 cutoff60 cutoff80 M;
run;

title3 "Freq of &cellvar.*&var. for conus=&region.";
proc freq data=&outputdata.;
tables &cellvar. &cellvar.*&var. /missing list;
run;
%mend univ_conus;


***Calculate the 25th percentiles within oconus region;
%macro univ_oconus(inputdata=, step=, region=, var=, cellvar=, outputdata=);

proc univariate data=&inputdata. noprint;
var &var.;
where conus="&region.";
output out=out pctlpts =25 50 75 pctlpre=cutoff;
run;

title3 "Cutoff points for conus=&region.";
proc print data=out;
var cutoff25 cutoff50 cutoff75;
run;

data temp;
set &inputdata.;
M=1;
where conus="&region.";
run;

data out;
set out;
M=1;
run;

data &outputdata.;
merge temp out;
by M;
run;

data &outputdata.;
set &outputdata.;
length &cellvar. $4;

if &var.<=cutoff25 then &cellvar. = "&step.&region.01";
else if &var.<=cutoff50 then &cellvar.  = "&step.&region.02";
else if &var.<=cutoff75  then &cellvar. = "&step.&region.03";
else if &var. >cutoff75  then &cellvar. = "&step.&region.04";
run;

data &outputdata.;
set &outputdata.;
drop cutoff25 cutoff50 cutoff75 M;
run;

title3 "Freq of &cellvar.*&var. for conus=&region.";
proc freq data=&outputdata.;
```

```
tables &cellvar. &cellvar.*&var. /missing list;
run;
%mend univ_oconus;


*****************************************************************************
Compute the dencile of PscoreA1 within conus/oconus region
*****************************************************************************;
%univ_conus(inputdata=in.logmdA1, step=1, region=1,  var=PscoreA1, cellvar=Pcell_A1,
outputdata=A1conus);
%univ_oconus(inputdata=in.logmdA1, step=1, region=0, var=PscoreA1, cellvar=Pcell_A1,
outputdata=A1oconus);


/*
**Q3FY2015:

After creating 5 CONUS and 4 OCONUS strata:

Obs    Pcell_A1    cntg1    cntg2    cntg3    CELLCNT       SUMG1         SUMG2       SUMG3
SUMBWT         A1

 1       1001         84       3      3017      3104        1242.00       33.12      46771.37
48046.49    37.6799
 2       1002        219       6      2769      2994        3943.76       76.71      77819.51
81839.99    20.3558
 3       1003        330       4      2708      3042        8441.20       44.17      85656.92
94142.29    11.0947
 4       1004        474       4      2506      2984       19671.50       32.07      87139.35
106842.91     5.4225
 5       1101        635      15     18896     19546       30598.97      803.86     856793.70
888196.54    28.2840
 6       1102        646       7     14896     15549       18078.25      222.60     447991.74
466292.60    25.4793
 7       1103       1563      22     18174     19759       77288.10     1085.89     919139.91
997513.90    12.7276
 8       1104       3132      33     16451     19616      274850.70     4883.77    1236273.35
1516007.82     5.4195
 9       1105       3866      78      8838     12782     1087582.79    38368.27    2103154.32
3229105.38     2.8679
                   =====    =====    =====    =======    ==========    ========    ==========
==========
                   10949     172     88255     99376     1521697.27    45550.46    5860740.18
7427987.91


After creating 5 CONUS and 4 OCONUS strata and collapsing 1001/1002 and 1101/1102:
Obs    Pcell_A1    cntg1    cntg2    cntg3    CELLCNT       SUMG1         SUMG2       SUMG3
SUMBWT         A1

 1       1002        303       9      5786      6098        5185.76      109.84     124590.88
129886.48    24.5273
 2       1003        330       4      2708      3042        8441.20       44.17      85656.92
94142.29    11.0947
 3       1004        474       4      2506      2984       19671.50       32.07      87139.35
106842.91     5.4225
 4       1102       1281      22     33792     35095       48677.22     1026.47    1304785.44
1354489.13    27.2513
 5       1103       1563      22     18174     19759       77288.10     1085.89     919139.91
997513.90    12.7276
 6       1104       3132      33     16451     19616      274850.70     4883.77    1236273.35
1516007.82     5.4195
 7       1105       3866      78      8838     12782     1087582.79    38368.27    2103154.32
3229105.38     2.8679
                   =====    =====    =====    =======    ==========    ========    ==========
==========
                   10949     172     88255     99376     1521697.27    45550.46    5860740.18
7427987.91

After creating fewer strata:
```

```
Obs    Pcell_A1    cntg1    cntg2    cntg3    CELLCNT       SUMG1         SUMG2       SUMG3
SUMBWT         A1

1       1001        127       4      3920      4051        2331.65       44.17      78781.89
81157.71    34.1599
2       1002        412       8      3773      4193        7230.41       98.80      94879.41
102208.62    13.9454
3       1003        568       5      3307      3880       23736.39       43.11     123725.86
147505.35     6.2030
4       1101        854      17     24526     25397       34782.12      823.64     967611.18
1003216.94    28.1757
5       1102        980      14     18125     19119       43288.40      789.68     799359.11
843437.18    19.1351
6       1103       2647      35     18312     20994      207425.67     3199.58    1283549.70
1494174.95     7.0940
7       1104       5361      89     16292     21742     1202902.63    40551.50    2512833.04
3756287.17     3.0208
                   =====    =====    =====    =======    ==========    ========    ==========
==========
                   10949     172     88255     99376     1521697.27    45550.46    5860740.18
7427987.91

Q3FY2015 Final Decision :
After creating 5 CONUS and 4 OCONUS strata and collapsing 1001/1002 for OCONUS ONLY:
*/


***combine conus/oconus together;
data merged;
set A1conus A1oconus;
/*******************************************************\
 Comment Out the next 2 lines next quarter if not needed:
\*******************************************************/
*Q3FY2015: After creating 5 CONUS and 4 OCONUS strata and collapsing 1001/1002 for OCONUS ONLY:;
if Pcell_A1='1001' then Pcell_A1='1002';
*else if Pcell_A1='1101' then Pcell_A1='1102';
run;

*** Ratio is still little large but we will keep it as is to differentiate between propensity
scores.



*****************************************************************************
* Start to calculate the adjusted weight using the weighting class method
*****************************************************************************;

%MACRO PROCESS(DOMAIN1, INPT);

  *** Initial Information. ***;

   title3 "Frame (FRAMEA) Count";
   proc freq data=in_f.framea;
   table enbgsmpl  / list missing;
   run;

   title3 "Weighted Counts Using BWT as the Weight - excluding fnstatus=32";
   proc freq data=&inpt.;
   table enbgsmpl fnstatus / list missing;
   weight bwt;
   run;

   title3 "Sample Counts - excluding fnstatus=32";
   proc freq data=&inpt.;
   table enbgsmpl fnstatus web*fnstatus/ list missing;
   run;

   PROC SORT DATA=&inpt.;
   BY &DOMAIN1.;
   RUN;

*****************************************************************************
* Calculate adjustment factor A1 for each cell.
* This is the Eligibility Determination adjustment.
```

```
*************************************************************************;
Data  cellsa1 (keep=sumbwt sumg1-sumg3 A1 cellcnt cntg1-cntg3 &domain1. )
      mpridsa1 (keep=mprid fnstatus bwt &domain1. com_geo enbgsmpl)
    ;
   SET &INPT.;
   BY &DOMAIN1.;

   IF FIRST.&DOMAIN1. THEN DO;
      CELLCNT = 0;
      cntg1   = 0;
      cntg2   = 0;
      cntg3   = 0;
      SUMBWT  = 0.0;
      SUMG1   = 0.0;
      SUMG2   = 0.0;
      SUMG3   = 0.0;
      A1 = 0.0;
   END;
   CELLCNT + 1;

   ****************************************************
   * Accumulate total weight sum
   ****************************************************;

   SUMBWT + BWT;

   ****************************************************
   * Accumulate group 1 weight sum
   ****************************************************;
   IF FNSTATUS IN (11,12) THEN
      do;
         SUMG1 + BWT;
         cntg1 + 1;
      end;

   ****************************************************
   * Accumulate group 2 weight sum
   ****************************************************;
   ELSE IF FNSTATUS in (20,31) THEN
      do;
         SUMG2 + BWT;
         cntg2 + 1;
      end;

   ****************************************************
   * Accumulate group 3 weight sum
   ****************************************************;
   ELSE IF FNSTATUS in (41,42) THEN
      do;
         SUMG3 + BWT;
         cntg3 + 1;
      end;

   RETAIN SUMBWT SUMG1-SUMG3 A1 CELLCNT cntg1-cntg3 MPRID;

   IF LAST.&DOMAIN1. THEN DO;
      A1 = SUMBWT/(SUMG1 + SUMG2);
      OUTPUT CELLSA1;
   END;

   OUTPUT MPRIDSA1;

RUN;

title3 "Check for CELLSA1 Data Set";
proc print data=cellsa1;
var &domain1. cntg1-cntg3 cellcnt sumg1-sumg3 sumbwt a1;
sum cellcnt cntg1 cntg2 cntg3 sumbwt sumg1 sumg2 sumg3;
run;

title3 "Checks the Adjustment ratio";
title4 "Print if: ( a1> 7 ) or ( cntg1 + cntg2 < 100 )";
proc print data=cellsa1;
where ( a1> 7 ) or ( cntg1 + cntg2 < 100 );
```

```
var &domain1. cntg1-cntg3 cellcnt sumg1-sumg3 sumbwt a1;
sum cellcnt cntg1 cntg2 cntg3 sumbwt sumg1 sumg2 sumg3;
run;

title3 "Univariate of Adjustment ratio (A1)";
proc univariate data=cellsa1 normal ;
var a1;
run;

proc sort data=mpridsa1;
by &domain1.;
run;

proc sort data=cellsa1;
by &domain1.;
run;

data adj_one;
merge mpridsa1 cellsa1;
by &domain1.;
if fnstatus in (11,12,20,31) then adj1 = a1;
   else adj1 = 0;
adjwt1 = adj1 * bwt;
run;

title3 "Checks for ADJ_ONE Data Set";
title4 "Cross Freq of fnstatus and Adjustment Factor by various Domains";
proc freq data=adj_one;
table &domain1.*fnstatus*adj1/ list missing;
run;

title3 "Checks for ADJ_ONE Data Set";
title4 "Cross Freq of Adjusted Weight (Adjwt1) and BWT by variaous Domains";
proc freq data=adj_one;
tables adjwt1*&domain1.*bwt/missing list;
where adjwt1 ~=0;
run;

/*
proc freq data=adj_one;
tables &domain1.*stratum*bwt/missing list;
where adjwt1 ~=0;
run;
*/

title3 " Checking the individuals with the largest adjwt";
proc sort data=adj_one out=sorted;
by descending adjwt1;
run;

title3 " Checking the individuals with the largest adjwt";
title4 " sorting adjwt1 descending order (obs=200)";
proc print data=sorted (obs=200);
var &domain1. fnstatus BWT a1 adj1 adjwt1 ;
run;

proc means data=adj_one n sum NOPRINT;
class enbgsmpl;
var adjwt1;
output out=print sum=sum;
run;

Title3 "Print the Proc Means of Adjwt1 by enbgsmpl";
Proc print data=print;
sum _freq_ sum;
where _type_=1;
run;

***************************************************************************
* Sort the original data
***************************************************************************;
PROC SORT DATA=&INPT.;
BY MPRID;
RUN;
```

```
*************************************************************************
* Sort the ADJ_ONE data set
*************************************************************************;
PROC SORT DATA=adj_one;
BY MPRID;
RUN;

*************************************************************************
* Append the adjusted weight variable (adjwt1)
*************************************************************************;
Data adj_one(Drop=bwt com_geo enbgsmpl FNSTATUS Pcell_A1);
    Set Adj_one;
run;

DATA out.adjwt1;
   MERGE adj_one(in=A) &INPT.(in=B);
   BY MPRID;
   if A and B;
RUN;

title3 "Sum of Adjusted Weight (Adjwt1) by Final Status";
proc means data=out.adjwt1 n sum NOPRINT;
class fnstatus;
var adjwt1;
output out=print sum=sum;
run;

Proc print data=print noobs;
sum _freq_ sum;
where _type_=1;
run;

title3 "Proc Univariate of Adjusted Weight";
title4 "Propensity Score Weighting Method - Individual Level Adjwt";
title5 " where fnstatus=11";
proc univariate data=out.adjwt1 normal ;
where fnstatus=11;
var adjwt1;
run;

/*Beneficiary's tnexreg*/
proc sort data=out.adjwt1;
by tnexreg;
run;

title3 "Distribution of weights by tnexreg";
title4 " where fnstatus=11";
proc means data=out.adjwt1 noprint ;
where fnstatus=11;
var adjwt1;
by tnexreg;
output out=out_tnex(drop=_type_ _freq_) n=n mean=mean std=stddev min=min max=max ;
run;

proc print data=out_tnex;
sum  n;
run;

/*Facility's tnexreg*/
proc sort data=out.adjwt1;
by TNEX_grp;
run;

title3 "Distribution of weights by Facility's TNEX region: TNEX_grp";
title4 " where fnstatus=11";
proc means data=out.adjwt1 noprint ;
where fnstatus=11;
var adjwt1;
by TNEX_grp;
output out=out_tnex(drop=_type_ _freq_) n=n mean=mean std=stddev min=min max=max ;
run;

proc print data=out_tnex;
```

```
sum  n;
run;


*************************************************************************
* Calculate final weight based on user-specified parameters.
*************************************************************************;
%MEND PROCESS;
%PROCESS(Pcell_A1, merged);
RUN;

/*Added in Q1FY2013*/
title "Checks ADJWT1>9000:";
data max1;
set out.adjwt1;
if adjwt1>9000;
run;

proc freq data=max1;
tables
stratum*AGE_num5*SVC_num*RANK_num*PATC_num*PCM_num*SEX_num*CHCS_num*PNLC_num*incat_num*TNEX_num*
TRS*adjwt1/list missing nocum nopercent;
run;

proc freq data=max1;
tables
stratum*AGE_grp5*SVC_grp*RANK_grp*PATC_grp*PCM_grp*SEX_grp*CHCSAddr*PNLC_grp*in_catch*TNEX_grp*T
RS*adjwt1/list missing nocum nopercent;
run;

title "Proc Contents of ADJWT1:";
proc contents data=out.adjwt1;
run;

********** The end ***********;
```

F.9 Q3FY2015\Programs\Weighting\NewWeights\adjwt2.SAS - Calculate the nonresponse adjusted weight

```
*****************************************************************************************
***
*** Program: Adjwt2.sas
*** Task   : 40309.H21
*** Purpose: Calculate the nonresponse adjusted weight
*** Inputs:  smplA2.sas7bdat,
***          adjwt1.sas7bdat
*** Outputs: adjwt2.sas7bdat
*****************************************************************************************
***;

options ls=132 ps=79 compress=yes nocenter FORMCHAR='|-++++++++++' formdlim='~';
ods _ALL_ Close;
ODS Listing;

%let quarter=Q3FY2015;

libname in   "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; /* smplA2.sas7bdat,
adjwt1.sas7bdat */
libname out  "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; /* adjwt2.sas7bdat */

title1 "Program: adjwt2.sas (&quarter.)";
title2 "Purpose: Calculate the nonresponse adjusted weight";

*****************************************************************************
Merge smplA2 with adjwt1 to get the variable adjwt1
*****************************************************************************;
proc sort data=in.smplA2 out=smplA2;
by MPRID;
run;

proc sort data=in.adjwt1(keep=MPRID adj1 adjwt1)
out=adjwt1;
by MPRID;
run;

data merged only1 only2 problem;
merge smplA2(in=A) adjwt1(in=B);
by MPRID;
if A and B then output merged;
else if A and NOT B then output only1;
else if B and NOT A then output only2;
else output problem;
run;


*****************************************************************************
Since there is not much going on in 2nd stage, we decided not to do the modeling,
and instead to create the weight cells based on the A2 tree for the current quarter.
Pcell_A2=adjustment stage||region||cell index.
adjustment stage: 1-unknown eligbility adjustment stage, 2 - nonresponse adjustment stage
region: 1 - conus, 0-oconus
cell index: 01- #of terminal nodes
*****************************************************************************;
data merged;
set merged;
length Pcell_A2 $4;

/*Based on conus_A2_level2_ageGRP5_tree.htm*/
/*Q3FY2015*/

if conus='1' then do;
  if PATC_GRP in ('NADD') then do;
    if CHCSADDR in ('0') then pcell_a2='2101';
        else if CHCSADDR in ('1') then pcell_a2='2102';
  end;

  else if PATC_GRP in ('ACTDTY') then do;
    if AGE_GRP5 in ('5','3','4','2') then pcell_a2='2103';
    else if AGE_GRP5 in ('1') then pcell_a2='2104';
```

```
  end;

  else if PATC_GRP in ('DEPACT') then do;
    if PCM_GRP in ('NON') then pcell_a2='2105';
    else if pcm_grp in ('MTF', 'CIV') then pcell_a2='2106';
  end;
end;


/*Based on oconus_A2_level2_ageGRP5_tree.htm*/
/*Q3FY2015*/
else if conus='0' then do;
   if CHCSADDR in ('1') then do;
        if rank_grp in ('E56789101112','W45O45678910','W123O123') then pcell_a2='2001';
        else if rank_grp in ('E1234') then pcell_a2='2002';
   end;
   else if CHCSADDR in ('0') then do;
     if SEX_GRP in ('2') then pcell_a2='2003';
        else if SEX_GRP in ('1') then pcell_a2='2004';
   end;
end;
run;

title3 'Check the construction of weighting classes';
proc freq data=merged;
tables conus*Pcell_A2/missing list;
run;

/*Q3FY2015*/
title3 'Check the Construction of Weighting Classes (CONUS)';
proc freq data=merged;
where conus='1';
tables pcell_a2*conus*PATC_GRP*CHCSADDR*AGE_GRP5*Pcm_grp/missing list;
run;


/*Q3FY2015*/
title3 'Check the Construction of Weighting Classes (OCONUS)';
proc freq data=merged;
where conus='0';
tables pcell_a2*conus*CHCSADDR*rank_grp*SEX_GRP /missing list;
run;


* Calculate nonresponse adjusted weight based on user-specified domains.
*************************************************************************;
%MACRO PROCESS(DOMAIN2, INPT);

title3 "Freq of fnstatus";
proc freq data=&inpt.;
tables fnstatus/missing list;
run;

proc sort data=&inpt.;
BY &domain2.;
run;

DATA CELLSA2 (KEEP= &domain2. NUMER DENOM numercnt denomcnt A2);
   set &inpt. ;
   BY &domain2.;

   IF FIRST.&domain2. THEN DO;
      A2 = 0.0;
      NUMER = 0.0;
      DENOM = 0.0;
      numercnt = 0;
      denomcnt = 0;
   END;


   RETAIN NUMER DENOM A2 numercnt denomcnt;

   IF FNSTATUS IN (11,12,20) THEN
      do;
```

```
         NUMER + adjwt1;
         numercnt + 1;
      end;

   IF FNSTATUS = 11 THEN
      do;
         DENOM + adjwt1;
         denomcnt + 1;
      end;

   IF LAST.&domain2. THEN DO;
      A2 = NUMER/DENOM;
      OUTPUT CELLSA2;
   END;
RUN;

title3 "Check for CELLSA2 Data Set";
title4 "Checks the Adjustment Ratio";
proc print data=cellsa2;
var &domain2. numercnt denomcnt numer denom a2;
sum numer denom numercnt denomcnt;
run;

title3 "Checks the Adjustment Ratio";
title4 "Print if ( a2 > 7 ) or ( denomcnt < 100 )";
proc print data=cellsa2;
where ( a2 > 7 ) or ( denomcnt < 100 );
var &domain2. numercnt denomcnt numer denom a2;
sum numer denom numercnt denomcnt;
run;

title3 "Proc Univarate of Adjustment Ratio (A2)";
proc univariate data=cellsa2 normal ;
var a2;
run;

proc sort data=cellsa2;
by &domain2.;
run;

data adjwt2;
merge &inpt. cellsa2;
by &domain2.;
if fnstatus = 11 then adj2 = a2;
   else adj2 = 0;
adjwt2 = adj2 * adjwt1;
label adjwt2 = "Nonrsponse adjusted weight";
KEEP MPRID fnstatus enbgsmpl adj1 adj2 adjwt1 &domain2. a2 adjwt2 ;
run;

title3 "Check for ADJWT2 Data Set";
title4 "Cross Freq of fnstatus and Adjustment Factor (adj2) with variaous Domains";
proc freq data=adjwt2;
table &domain2.*fnstatus*adj2 / list missing;
run;

proc means data=adjwt2 n sum NOPRINT;
class fnstatus;
var adjwt2;
output out=print sum=sum;
run;

title3 "Printing proc means of Adjust2 by fnstatus";
Proc print data=print noobs;
sum _freq_ sum;
where _type_=1;
run;

proc means data=adjwt2 n sum NOPRINT;
class enbgsmpl;
var adjwt2;
output out=print sum=sum;
run;
```

```
title3 "Printing proc means of Adjust2 by enbgsmpl";
Proc print data=print noobs;
sum _freq_ sum;
where _type_=1;
run;

data out.adjwt2;
set adjwt2;
run;
%MEND PROCESS;

%PROCESS(Pcell_A2, merged);

title3 "Proc Contents of Nonresponse Adjusted Weight (Adjwt2)";
proc contents data=out.adjwt2;
run;

********* The End ************;
```

F.10 Q3FY2015\Programs\Weighting\NewWeights\adjwtp.SAS - Calculate the final adjusted weight

```
*****************************************************************************
*** Program: adjwtp.sas
*** Task   : 40309.H21
*** Purpose: Assign the final adjusted weight for all sample cases
*** Inputs:  Adjwt1.sas7bdat adjwt2.sas7bdat, selectq.sas7bdat, framea.sas7bdat
*** Outputs: Adjwtp.sas7bdat
***
*****************************************************************************;

options ls=132 ps=79 compress=yes nocenter FORMCHAR='|-++++++++++' formdlim='~';
ods _ALL_ Close;
ODS Listing;

%let quarter=Q3FY2015;

libname inr    "N:\Project\40309_HCS\Restricted\DC1\&quarter.";        * Extract.sas7bdat;
libname in     "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; * adjwt1.sas7bdat,
adjwt2.sas7bdat;
libname inv9   "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; * selectq.sas7bdat;
libname in_f   "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; * framea.sas7bdat;
libname out    "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; * adjwtp.sas7bdat;

title1 "Program: Adjwtp.sas (&quarter.)";
title2 "Purpose: Assign the final adjusted weight";


***************************************************************************
* Sort the original data selectq.sd2
***************************************************************************;
proc sort data=inv9.selectq
     (keep=BWT COM_GEO D_HEALTH dageqy ENBGSMPL FNSTATUS MPCSMPL MPRID
           PATCAT PCM PNLCATCD PNSEXCD SERVAFF SEXSMPL STRATUM SVCSMPL WEB TNEXREG)
   out=selectq;
   format _all_;
   by mprid;
run;


***************************************************************************
* Sort the ADJWT1, ADJWT2, data set
***************************************************************************;
proc sort data=selectq;
by MPRID;
run;

PROC SORT DATA=in.adjwt1(keep=mprid pcell_a1 a1 adj1 adjwt1) out=adjwt1;
BY MPRID;
RUN;

PROC SORT DATA=in.adjwt2(keep=mprid pcell_a2 a2 adj2 adjwt2) out=adjwt2;
BY MPRID;
RUN;

PROC SORT DATA=in.smplA1A2(keep=mprid conus tnex_grp chcsaddr /*fnstatus*/) out=smplA1A2;
BY MPRID;
RUN;

***************************************************************************
* Append final weight variable (adjwt)
***************************************************************************;
DATA out.adjwtp;
   MERGE selectq adjwt1 adjwt2 smplA1A2;
   BY MPRID;

   encounter=chcsaddr;
   drop chcsaddr;

*Assign a1, adj1, adjwt1 for fnstatus=32;
   if fnstatus = 32 then do;
     a1=1;
     adj1=1;
```

```
        adjwt1 = bwt*adj1;
       end;
*Assign a2, adj2, adjwt2 for fnstatus in (31, 32, 41, 42);
   if fnstatus in (31, 32, 41, 42) then do;
     if fnstatus in (31, 32) then do;
          a2=1;
          adj2=1;
        end;
        else if fnstatus in (41, 42) then do;
          a2=0;
          adj2=0;
        end;
        adjwt2=adj2*adjwt1;
   end;

adjwt = adjwt2;

RUN;

title3 'Sum of Adjwt By Final Status';
proc means data=out.adjwtp n sum NOPRINT;
class fnstatus;
var adjwt;
output out=print sum=sum;
run;

Proc print data=print noobs;
sum _freq_ sum;
where _type_=1;
run;

title3 'Frame counts By enbgsmpl';
proc freq data=in_f.framea;
tables enbgsmpl/missing list;
run;

title3 'Sum of Adjwt By enbgsmpl';
proc means data=out.adjwtp n sum NOPRINT;
class enbgsmpl;
var adjwt;
output out=print sum=sum;
run;

Proc print data=print noobs;
sum _freq_ sum;
where _type_=1;
run;

title3 'Selectq using BWT as the weight';
title4 'Sum of BWT by Final Status';
proc means data=selectq n sum NOPRINT;
class fnstatus;
var bwt;
output out=print sum=sum;
run;

Proc print data=print noobs;
sum _freq_ sum;
where _type_=1;
run;

title3 'Sum of BWT by enbgsmpl';
proc means data=selectq  n sum NOPRINT;
class enbgsmpl;
var bwt;
output out=print sum=sum;
run;

Proc print data=print noobs;
sum _freq_ sum;
where _type_=1;
run;
```

```
title3 'Checks for Adjwt Dataset';
proc sort data=out.adjwtp out=chk;
by pcell_a1 pcell_a2 fnstatus;
run;

data sub_chk;
set chk(keep = com_geo stratum pcell_a1 pcell_a2 fnstatus bwt adj1 adj2 adjwt);
by pcell_a1 pcell_a2 fnstatus;
prodadjs = adj1 * adj2;
retain cellcnt sumadjwt;
if first.fnstatus then
   do;
      cellcnt = 1;
      sumadjwt = adjwt;
   end;
   else
      do;
         cellcnt = cellcnt +1;
         sumadjwt = sumadjwt + adjwt;
      end;
if last.fnstatus then output sub_chk;
run;

proc print data=sub_chk noobs;
var pcell_a1 pcell_a2 fnstatus bwt adj1 adj2 prodadjs adjwt cellcnt sumadjwt;
sum cellcnt sumadjwt;
run;

proc freq data=sub_chk noprint;
tables prodadjs/missing list out=prodadjs;
run;

title3 "Univariate of Prodadjs = adj1 * adj2";
proc univariate data=prodadjs normal ;
var prodadjs;
run;

title3 "Univariate of Adjwt (fnstatus=11)";
proc univariate data=out.adjwtp normal ;
where fnstatus=11;
var adjwt;
run;

title3 " Checking the individuals with the largest adjwt";
proc sort data=out.adjwtp out=sorted;
by descending adjwt;
run;

data sorted;
set sorted;
prodadjs=a1*a2;
run;

title3 "Proc Print: Checking the individuals with the largest adjwt (obs=200 descending)";
proc print data=sorted (obs=200);
var stratum pcell_a1 pcell_a2 BWT fnstatus a1 adj1 adjwt1 a2 adj2 adjwt prodadjs;
run;

data OUT.adjwtp;
set OUT.adjwtp;
drop a1 a2 ;
run;

*tnexreg;
proc sort data=out.adjwtp;
by tnexreg;
run;

title3 "Distribution of weights by tnexreg";
proc means data=out.adjwtp noprint ;
where fnstatus=11;
var adjwt;
by tnexreg;
output out=out_tnex(drop=_type_ _freq_) n=n mean=mean std=stddev min=min max=max ;
```

```
run;

proc print data=out_tnex;
sum  n;
run;

title3 "Contents of OUT.adjwtp";
proc contents data=out.adjwtp;
run;


************ The End **************;
```

F.11.A Q3FY2015\Programs\Weighting\NewWeights\postwt.SAS - Do the poststratification

```
*****************************************************************************************
*******
*** Program: postwt.sas
*** Task   : 40309.H21
*** Purpose: Do the poststratification to force weighted counts to population counts in certain
domain.
*** Inputs : framea.sas7bdat: the frame file
***          adjwtp.sas7bdat: weighted survey data
***
*** Outputs: postwt.sas7bdat: final weight data after poststratification
*** Written: Haixia Xu on 12/27/2006
*** Note:    1) From Q1FY2011, we will create POSTCELL from Sampling 'Stratum'instead of
(Group||Comgeo)
***          ie., Postcell=substr(Stratum,1,5)
***          2) Starting from Q1Fy2014, SampleSize Increased to 100,000 and it's WebOnly for all
*****************************************************************************************
********;

*** Set up options. ***;
options ls=132 ps=79 compress=no nocenter obs=max;* obs=10;* mprint mlogic symbolgen;
ods _ALL_ Close;
ODS Listing;


%let quarter = Q3FY2015;

Title1 "Program: postwt.sas (&quarter.)";
Title2 "Purpose:  Do the poststratification";

*** Set up the input and output paths. ***;
libname in   "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; /* adjwtp.sas7bdat */
libname inv9 "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; /* framea.sas7bdat */
libname out  "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; /* postwt.sas7bdat */

%include
"N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Programs\Weighting\NewWeights\calpoststr.sas";
%include
"N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Programs\Weighting\NewWeights\design_effects_unequal_w
eights.sas";

***Sample***;
data framea;
set inv9.framea;
length postcell $5;
postcell=substr(stratum,1,5);  *Creating Postcell from Sampling Stratum;

*****************************************************************
*Construct Necessary Variables:
*****************************************************************;
***facility TNEX region***;
length TNEX_grp $1;
if d_health in ('00', '13', '14', '15') then TNEX_grp='O';
else if d_health in ('17', '01','05') then TNEX_grp='N';
else if d_health in ('18','04') then TNEX_grp='S';
else if d_health in ('19','08','11') then TNEX_grp='W';
*Correct the TNEX regions for com_geo 0047, 9001, 9002, 9003, 9004:
All the cases in the same com_geo should be in the same TNEX region, which is the region of the
com_geo;
if COM_GEO = '0047' then TNEX_grp='S';
else if COM_GEO = '9001' then TNEX_grp='N';
else if COM_GEO = '9002' then TNEX_grp='S';
else if COM_GEO = '9003' then TNEX_grp='W';
else if COM_GEO = '9004' then TNEX_grp='O';

***CONUS region***;
length conus $1;
if TNEX_grp ='O' then conus='0';
else if TNEX_grp in ('N', 'S', 'W') then conus='1';
run;

Title3 "Checking the Construction of PostCell";
```

```
Title4 " Postcell=substr(stratum,1,5)";
proc freq data=framea;
tables stratum*Postcell/list missing;
run;

proc sort data=framea;
by MPRID;
run;

proc sort data=in.adjwtp out=adjwt;
by MPRID;
run;

data adjwt;
merge adjwt(in=A) framea(in=B keep=mprid postcell group) ;
by MPRID;
if A and B;
run;

*****************************************************************************
*** Do the Poststratification
*****************************************************************************;
options compress=yes;
%calpoststr(smpldata=adjwt, frmedata=framea, domain=postcell, preadjwt=adjwt, psratio=ps,
postwt=postwt, outdata=OUT.postwt);

*****************************************************************************
*** Compare the weighted counts and the population counts by the domains
*****************************************************************************;
options compress=no;
%macro comparecnt(smpldata=, frmedata=, domain=, weight=);

proc freq data=&smpldata. NOPRINT;
tables &domain./missing list out=weight_s(rename=(count=wtcnt) drop=percent);
weight &weight.;
run;

proc freq data=&frmedata. NOPRINT;
tables &domain./missing list out=unweight_f(rename=(count=popcnt) drop=percent);
run;

data cnt_sf;
merge weight_s(in=A) unweight_f(in=B);
by &domain.;
if a and not b and popcnt=.  then popcnt=0;
if b and not a and wtcnt=.  then wtcnt=0;
diff = wtcnt - popcnt;
*reldiff=diff/popcnt;
run;

proc print data=cnt_sf;
sum wtcnt popcnt diff;
run;

proc univariate data=cnt_sf;
var diff;
run;

%mend comparecnt;

title3 'Check to see if the poststratification is done correctly';
title4 'Compare the weighted count and the frame count by the different domains';
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=postcell, weight=postwt);
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=group, weight=postwt);
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=TNEX_grp, weight=postwt);
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=PCM, weight=postwt);
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=enbgsmpl,weight=postwt);
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=patcat, weight=postwt);
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=stratum, weight=postwt);
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=com_geo, weight=postwt);
*%comparecnt(smpldata=in.postwt, frmedata=framea, domain=servaff, weight=postwt);

*_____________________
*Domain=(TNEX_grp*PCM)
```

```
*_______________________;
title3 'Check to see if the poststratification is done correctly';
title4 'Compare the weighted count and the frame count by (TNEX*PCM)';
proc freq data=in.postwt NOPRINT;
tables TNEX_grp*PCM/missing list out=weight_s(rename=(count=wtcnt) drop=percent);
weight postwt;
run;

proc freq data=framea NOPRINT;
tables TNEX_grp*PCM/missing list out=unweight_f(rename=(count=popcnt) drop=percent);
run;

data cnt_sf;
merge weight_s(in=A) unweight_f(in=B);
by TNEX_grp PCM;
diff = wtcnt - popcnt;
*reldiff=diff/popcnt;
if A and B;
run;

proc print data=cnt_sf;
sum wtcnt popcnt diff ;
run;

proc univariate data=cnt_sf;
var diff ;
run;

*_______________________
*Domain=(TNEX_grp*PCM)
where Group=(1,2,3)
*_______________________;
title3 'Check to see if the poststratification is done correctly';
title4 'Compare the weighted count and the frame count by (TNEX*PCM)';
title5 " where, Group = (1,2,3)";
proc freq data=in.postwt NOPRINT;
tables TNEX_grp*PCM/missing list out=weight_s(rename=(count=wtcnt) drop=percent);
weight postwt;
where group IN ('1','2','3');
run;

proc freq data=framea NOPRINT;
tables TNEX_grp*PCM/missing list out=unweight_f(rename=(count=popcnt) drop=percent);
where group IN ('1','2','3');
run;

data cnt_sf;
merge weight_s(in=A) unweight_f(in=B);
by TNEX_grp PCM;
diff = wtcnt - popcnt;
*reldiff=diff/popcnt;
if A and B;
run;

proc print data=cnt_sf;
sum wtcnt popcnt diff;
run;

proc univariate data=cnt_sf;
var diff ;
run;

*___________________________
*Domain=(TNEX_grp*servaff)
*___________________________;
*title3 'Check to see if the poststratification is done correctly';
*title4 'Compare the weighted count and the frame count by (TNEX*servaff)';
*proc freq data=in.postwt NOPRINT;
*tables TNEX_grp*servaff/missing list out=weight_s(rename=(count=wtcnt) drop=percent);
*weight postwt;
*where group IN ('1','2','3');
*run;

*proc freq data=framea NOPRINT;
```

```
*tables TNEX_grp*servaff/missing list out=unweight_f(rename=(count=popcnt) drop=percent);
*run;

*data cnt_sf;
*merge weight_s(in=A) unweight_f(in=B);
*by TNEX_grp servaff;
*diff = wtcnt - popcnt;
*reldiff=diff/popcnt;
*if A and B;
*run;

*proc print data=cnt_sf;
*sum wtcnt popcnt diff ;
*run;

*proc univariate data=cnt_sf;
*var diff ;
*run;


******************************************************************************
*** Compare the weighted sum before and after the poststratification
******************************************************************************;

%macro procmeans(weightvar=, classvar=);
proc means data=OUT.postwt noprint;
class &classvar.;
var &weightvar.;
output out=out sum=/autoname;
run;

data print;
set out;
where _type_=1;
run;

title3 "weighted info by &classvar. using &weightvar. as weight";
proc print data=print;
sum _freq_  bwt_sum adjwt1_sum adjwt2_sum adjwt_sum postwt_sum;
run;
%mend procmeans;

%procmeans(weightvar= bwt adjwt1 adjwt2 adjwt postwt, classvar=fnstatus);
*%procmeans(weightvar= bwt adjwt1 adjwt2 adjwt postwt, classvar=stratum);

******************************************************************************
*** Output the datasets
******************************************************************************;

options compress=yes;

data out.postwt;
set out.postwt(drop=adjwt );
label  ENBGSMPL ='ENBGSMPL - Beneficiary/Enrollment Status'
       PCM = 'Primary care Manager Code';
run;

******************************************************************************
*** Calculate the Design Effects
******************************************************************************;

**create dataset of completes only;
data postwt_fnl;
set out.postwt;
where fnstatus=11;
run;

%design_effects_unequal_weights ( postwt_fnl, postcell,  postwt, deff_overall, deff_postcell );
%design_effects_unequal_weights ( postwt_fnl, com_geo,  postwt, deff_overall, deff_cac );
%design_effects_unequal_weights ( postwt_fnl, enbgsmpl, postwt, deff_overall, deff_enb );
%design_effects_unequal_weights ( postwt_fnl, tnexreg,  postwt, deff_overall, deff_tnexreg );
%design_effects_unequal_weights ( postwt_fnl, TNEX_grp, postwt, deff_overall, deff_tnexgrp );
%design_effects_unequal_weights ( postwt_fnl, conus,    postwt, deff_overall, deff_conus );
*%design_effects_unequal_weights ( postwt_fnl, servaff,  postwt, deff_overall, deff_servaff );
```

```
*%design_effects_unequal_weights ( postwt_fnl, TNEX_grp servaff,  postwt, deff_overall,
deff_TNEXservaff );

title3 'Design Effects Overall';
proc print data = deff_overall;
run;

*** For postcell ***;
title3 "Design Effects for postcell";
proc print data= deff_postcell;
sum _freq_;
run;

*** For geographic Area ***;
title3 "Design Effects for com_geo";
proc print data= deff_cac;
sum _freq_;
run;

*** For ENBGSMPL Groups ***;
title3 'Design Effects for ENBGSMPL';
proc print data= deff_enb;
sum _freq_;
run;

*** For Beneficiary TNEX Region ***;
title3 'Design Effects for TNEXREG';
proc print data= deff_tnexreg;
sum _freq_;
run;

*** For Facility TNEX region ***;
title3 "Design Effects for Facility's TNEX region";
proc print data= deff_tnexgrp;
sum _freq_;
run;

*** For conus region ***;
title3 "Design Effects for conus";
proc print data= deff_conus;
sum _freq_;
run;

*** For Service Affiliation for the facility  ***;
*title3 "Design Effects for Facility's Service Affiliation";
*proc print data= deff_servaff;
*sum _freq_;
*run;

*** For TNEX_grp*Servaff ***;
*title3 "Design Effects for TNEX_grp by Servaff";
*proc print data= deff_TNEXservaff;
*sum _freq_;
*run;

title3 "Contents of OUT.postwt";
proc contents data=OUT.postwt;
run;

********** The end ***********;
```

F.11.B Q3FY2015\Programs\Weighting\NewWeights\calpoststr.SAS - Include file for postwt.sas, trim.sas, postwt_trimmed.sas

```
************************************************************
* Macro to do the poststrification
************************************************************;
%macro calpoststr(smpldata=, frmedata=, domain=, preadjwt=, psratio=, postwt=, outdata=);

proc freq data=&smpldata. NOPRINT;
where fnstatus in (11, 31, 32);
tables &domain./missing list out=unweight_s(rename=(count=unwtcnt) drop=percent);
run;

proc freq data=&smpldata. NOPRINT;
tables &domain./missing list out=weight_s(rename=(count=wtcnt) drop=percent);
weight &preadjwt.;
run;

proc freq data=&frmedata. NOPRINT;
tables &domain./missing list out=unweight_f(rename=(count=popcnt) drop=percent);
run;

data cnt_sf out.only_f_calpoststr;
merge unweight_s(in=A)  weight_s(in=B) unweight_f(in=C);
by &domain.;
if A and B and C then do;
  &psratio.=popcnt/wtcnt;
  label &psratio.="poststratification ratio";
  output cnt_sf;
end;
else if C and NOT A then output out.only_f_calpoststr;
run;

*Sorting data with Poststratification Ratio by PS;
proc sort data=cnt_sf out=test;
by &psratio.;
run;

title3 "Check the calculation of poststratification ratio";
title4 "(sorted by PS)";
proc print data=test;
sum unwtcnt wtcnt popcnt;
run;

title3 "Univariate of poststratification ratio";
proc univariate data=cnt_sf;
var &psratio.;
run;

title3 "Check the small cells or too small/large ratios - or (unwtcnt<15) or (&psratio. < 0.75)
or (&psratio. > 2)";
proc print data=cnt_sf;
where (&psratio. > 2) or (&psratio. < 0.75) or (unwtcnt <15);
run;

*Append cnt_sf back to the adjusted weight data;
proc sort data=&smpldata.;
by &domain.;
run;

data &outdata.;
merge &smpldata. cnt_sf(keep=&psratio. &domain.);
by &domain.;
run;

data &outdata.;
set &outdata.;
if fnstatus in (11, 31, 32) then &psratio.=&psratio.;
else if fnstatus in (12, 20, 41, 42) then &psratio.=0;
&postwt. = &preadjwt.*&psratio.;
run;

title3 "check the calculation of final weight";
```

```
proc print data=&outdata.(obs=200);
var &domain. fnstatus &preadjwt. &psratio. &postwt.;
run;

title3 "Univariate of final weight";
proc univariate data=&outdata.;
var &postwt.;
where fnstatus=11;
run;
%mend calpoststr;
```

F.11.C Q3FY2015\Programs\Weighting\NewWeights\design_effects_unequal_weights.sas - Include file for postwt.sas, trim.sas, postwt_trimmed.sas

```
***************************************************************************


Name:
design_effects_unequal_weights


Purpose:
Calculate the design effects due to unequal weights.  Creates two data sets.
One data set contains the overall design effect and the information used to
calculate the design effect.  The other data set contains the design effects
for each category of the analysis variable and the information used to
calculate these design effects.  In the two data sets, the additional
information refers to the number of observations, the sum of the squared
weights, and the sum of the weights squared.


Programmer:
Darryl V. Creel


Parameters:
There are five:

   (1) in_data_set - The input data set.

   (2) analysis_variable - The analysis variable contains the categories
                           by which the design effects are calculated.

   (3) weight_variable - The weight variable.

   (4) out_overall_data_set - Name of the data set that contains the
                              overall design effect.

   (5) out_data_set - Name of the output data set that contains the
                      design effects for each category of the analysis
                      variable.


Output:
There are two data sets:

   (1) A data set that contains the overall design effect and the
       information used to calculte the overall design effect.  It
       includes observations that have a missing value for the analysis
       variable.  This data set is named by the out_overall_data_set
       parameter.

   (2) A data set that contains the design effects for each category
       of the analysis variable and the information used to calculate
       these design effects.  There is one observation for each category
       of the analysis variable, including a missing category, if there
       are missing values for the analysis variable. This data set is
       named by the out_data_set parameter.


Side Effects:
None


Notes:

   (1) Use with SAS V8.

   (2) Do NOT use the following variable names as parameters:
       (a) _weight_variables
       (b) _overall_design_effect
       (c) _design_effect.
```

```
*************************************************************************;


%macro design_effects_unequal_weights
   ( in_data_set,
     analysis_variable,
     weight_variable,
     out_overall_data_set,
     out_data_set );

   data _weight_variables;
      set &in_data_set. ( keep = &analysis_variable. &weight_variable. );
      &weight_variable._sq = &weight_variable. * &weight_variable.;
   run;

   proc means data = _weight_variables missing noprint;
      var &weight_variable. &weight_variable._sq;
      output out = _overall_design_effect
             sum ( &weight_variable. &weight_variable._sq ) =
             sum_&weight_variable. sum_&weight_variable._sq;
   run;

   data &out_overall_data_set.;
      set _overall_design_effect ( drop = _type_ );
      design_effect = ( _freq_ * sum_&weight_variable._sq ) / ( sum_&weight_variable. *
sum_&weight_variable. );
   run;

   proc sort data = _weight_variables;
      by &analysis_variable.;
   run;

   proc means data = _weight_variables missing noprint;
      var &weight_variable. &weight_variable._sq;
      by &analysis_variable;
      output out = _design_effect
             sum ( &weight_variable. &weight_variable._sq ) =
             sum_&weight_variable. sum_&weight_variable._sq;
   run;

   data &out_data_set.;
      set _design_effect ( drop = _type_ );
      design_effect = ( _freq_ * sum_&weight_variable._sq ) / ( sum_&weight_variable. *
sum_&weight_variable. );
   run;

   proc datasets;
      delete _weight_variables _overall_design_effect _design_effect;
   run;

%mend design_effects_unequal_weights;
```

F.12 Q3FY2015\Programs\Weighting\NewWeights\trim.sas - Trim the large adjusted weights by one or more of 6 domains

```
*********************************************************************
*** Project: Health Care Survey of DoD Beneficiaries - Adult
***
*** Purpose: Trim the Large Adjusted Weights by One or More of Domains  :
***          Postcell,Enbgsmpl,Patcat,Tnexreg, PCM and Servaff,
***
*** Program: Trim.sas
***
*** Inputs:  postwt.sas7bdat - post weight data
*** Outputs: trimmed.sas7bdat
***
*** Written: 1)Sky Andrecheck 6/07
*** Updated: 1)H. Xu on 03/29/2007 for q3fy2007 weighitng
***          2)Sabrina Rahman on 06/25/2008 for q3fy2008 weighting
***           (last macro minmax is new for q3fy2008 to produce
***           some tables we need to take trimmin decision)
***          3)Sabrina Rahman on 09/26/2008 for q4fy2008 weighting
***          4)S.Rahman on 09/21/2011 for Q4Fy2011 Adult Weighting
***            Trimmed 2 times with postcell and then patcat, this is
***            a different order then the original trim.sas program
***            See "trimming decision" note in folder
***            L:\Q4FY2011\Programs\Weighting\NewWeights\checking
***          5)Sabrina R. 06/26/2012: Similar to Q1FY2012 and Q4FY2011
***            we are trimming ONCE in Q3FY2012 using PATCAT. Trimming
***            by Postcell do not do much, using enbgsmpl have max weight
***            over 10,000. Trimming once by PATCAT seems our best option.
*********************************************************************;

*** Set up options. ***;
options ls=132 ps=79 compress=no nocenter formdlim='~' MPRINT;* obs=10;* mprint mlogic
symbolgen;

%let quarter = Q3FY2015;

*** Set up the input and output paths. ***;
libname in    "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; /* adjwtp.sas7bdat,
postwt.sas7bdat */
libname inv6  "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; /* framea.sas7bdat */
libname out   "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; /* trimmed.sas7bdat*/

%include
"N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Programs\Weighting\NewWeights\calpoststr.sas";
%include
"N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Programs\Weighting\NewWeights\design_effects_unequal_w
eights.sas";


title1 "Program: Trim.sas (&quarter.)";
title2 "                             ";

data trim;
set in.postwt;
tnexenbgsmpl=tnexreg||enbgsmpl;
groupenbgsmpl=group||enbgsmpl;
run;

Title3 'Freq with group*enbgsmpl:';
proc freq data=trim;
table group*enbgsmpl /list missing;
run;

**create dataset of completes only;
data postwt_fnl;
set in.postwt;
where fnstatus=11;
run;

***Using include macro : Design_effects_unequal_weights***;
%design_effects_unequal_weights ( postwt_fnl, postcell,  postwt, deff_overall, deff_postcell );
%design_effects_unequal_weights ( postwt_fnl, com_geo,  postwt, deff_overall, deff_cac );
```

```
%design_effects_unequal_weights ( postwt_fnl, enbgsmpl, postwt, deff_overall, deff_enb );
%design_effects_unequal_weights ( postwt_fnl, tnexreg,  postwt, deff_overall, deff_tnexreg );
%design_effects_unequal_weights ( postwt_fnl, TNEX_grp, postwt, deff_overall, deff_tnexgrp );
%design_effects_unequal_weights ( postwt_fnl, conus,    postwt, deff_overall, deff_conus );
%design_effects_unequal_weights ( postwt_fnl, servaff,  postwt, deff_overall, deff_servaff );
%design_effects_unequal_weights ( postwt_fnl, TNEX_grp servaff,  postwt, deff_overall,
deff_TNEXservaff );
%design_effects_unequal_weights ( postwt_fnl, patcat,  postwt, deff_overall, deff_patcat );
%design_effects_unequal_weights ( postwt_fnl, pcm,  postwt, deff_overall, deff_pcm );
%design_effects_unequal_weights ( postwt_fnl, TNEX_grp pcm,  postwt, deff_overall, deff_TNEXpcm
);



Title3 "Original Design Effects (Before Trimming)";
Title4 'Design Effects Overall';
proc print data = deff_overall;
run;

*** For postcell ***;
Title4 "Design Effects for postcell";
proc print data= deff_postcell;
sum _freq_;
run;

*** For geographic Area ***;
Title4 "Design Effects for com_geo";
proc print data= deff_cac;
sum _freq_;
run;

*** For ENBGSMPL Groups ***;
Title4 'Design Effects for ENBGSMPL';
proc print data= deff_enb;
sum _freq_;
run;

*** For Beneficiary TNEX Region ***;
Title4 'Design Effects for TNEXREG';
proc print data= deff_tnexreg;
sum _freq_;
run;

*** For Facility TNEX region (TNEX_grp) ***;
Title4 "Design Effects for Facility's TNEX region (TNEX_grp)";
proc print data= deff_tnexgrp;
sum _freq_;
run;

*** For conus region ***;
Title4 "Design Effects for conus";
proc print data= deff_conus;
sum _freq_;
run;

*** For Service Affiliation for the facility  ***;
Title4 "Design Effects for Facility's Service Affiliation";
proc print data= deff_servaff;
sum _freq_;
run;

*** For TNEX_grp*Servaff ***;
Title4 "Design Effects for TNEX_grp by Servaff";
proc print data= deff_TNEXservaff;
sum _freq_;
run;

*** For PATCAT ***;
Title4 "Design Effects for PATCAT";
proc print data= deff_patcat;
sum _freq_;
run;

*** For PCM ***;
```

```
Title4 "Design Effects for PCM";
proc print data= deff_pcm;
sum _freq_;
run;

*** For TNEX_grp*PCM ***;
Title4 "Design Effects for TNEX_grp by PCM";
proc print data= deff_TNEXpcm;
sum _freq_;
run;


****************************************************************
 Creating Data with Original Design Effects (Before Trimming):
****************************************************************;

data overall;
set deff_overall;
original=design_effect;
mergevar=1;
run;

data postcell;
set deff_postcell;
original=design_effect;
run;

data cac;
set deff_cac;
original=design_effect;
run;

data enb;
set deff_enb;
original=design_effect;
run;

data tnexreg;
set deff_tnexreg;
original=design_effect;
run;

data tnexgrp;
set deff_tnexgrp;
original=design_effect;
run;

data conus;
set deff_conus;
original=design_effect;
run;

data servaff;
set deff_servaff;
original=design_effect;
run;

data tnexservaff;
set deff_tnexservaff;
original=design_effect;
run;

data pcm;
set deff_pcm;
original=design_effect;
run;

data patcat;
set deff_patcat;
original=design_effect;
run;

data tnexpcm;
set deff_tnexpcm;
```

```
original=design_effect;
run;



****************************
     * Trimming Macro *
****************************;

%macro trimmer(domain,oldw,neww);
data trim;
set trim;
%if &neww.^= Newtrim1 %then %do;
drop number means stdev sumweight cutoff toobig trimadj sumold sumnew;
%end;
run;

proc sort data=trim;
by &domain;
run;

title4 "   Checks the Calculation of CutOff Point (Cutoff=Means+StDev*6):";
proc means data=trim n mean std sum noprint;
var &oldw;
by &domain;
where fnstatus=11;
output out=meanspostwt n=number mean=means std=stdev
           sum=sumweight max=maxi min=mini;
run;

data trim;
merge trim meanspostwt;
by &domain;
cutoff=means+stdev*6;
toobig=.;
trimadj=.;
if &oldw>cutoff and fnstatus=11 then toobig=1;
if toobig=1 then &neww=cutoff;
if cutoff=. and toobig=1 then &neww=&oldw;
if toobig=. then &neww=&oldw;
run;

data meanspostwt;
set meanspostwt;
cutoff=means+stdev*6;
run;

proc print data=meanspostwt;
var &domain number means stdev mini maxi cutoff;
run;

proc means data=trim sum noprint;
var &oldw &neww;
by &domain;
where fnstatus=11;
output out=meansbig sum=sumold sumnew;
run;

data trim;
merge trim meansbig;
by &domain;
run;

*03/30/2012: A Freq Checking;
proc sort data=trim out=chk; by postwt;run;
title4 "   Checks for NewTrim Weight";
title5 "   If &oldw>CutOff and Fnstatus=11 then TooBig=1 and &neww.=cutoff (Before Adjusting):";
proc freq data=chk;
tables &oldw.*postcell*means*stdev*toobig*CUTOFF*&neww./list missing nocum nopercent;
where toobig=1;
run;
```

```
Title4 "   Checking the Calculation of TrimAdj Factor (first 10 obs, where, TrimAdj~=1):";
title5 "   TrimAdj=(SumOld/SumNew) by &Domain.:";
data trim;
set trim;
/*cutoff~=. filter guards against divide by zero error
  if there is only 1 obs in domain */
if cutoff~=. then trimadj=sumold/sumnew;
if trimadj=. or fnstatus~=11 then trimadj=1;
&neww=trimadj*&neww;
run;

*Checking the Calculation of TrimAdj Factor;
Proc Print data=Trim (Obs=10) Noobs;
Var &domain FNSTATUS &oldw. SumOld SumNew TrimAdj  &neww;
where TrimAdj~=1;
Run;


title4 "   Checks for NewTrim Weight (After Adjustment):";
title5 "   where, &neww.=(TrimAdj*&neww.):";
proc freq data=trim;
tables &oldw.*postcell*CUTOFF*TOOBIG*trimadj*&neww./list missing nocum nopercent;
where toobig=1;
run;

proc means data=trim sum noprint;
var &oldw &neww;
by &domain;
output out=sumcheck2 sum=old new;
run;

data sumcheck2;
set sumcheck2;
diff=new-old;
run;

title4 "   Proc Means of Diff=(New-Old), where, New & Old are Sum of &oldw. & &neww. Weights
resp:";
proc means data=sumcheck2;
var diff;
run;

proc means data=trim sum noprint;
var &oldw &neww;
by &domain;
where fnstatus=11;
output out=sumcheck sum=old new;
run;

data sumcheck;
set sumcheck;
diff=new-old;
run;

title4 "   Proc Means of Diff=(New-Old), where fnstatus=11";
proc means data=sumcheck;
var diff;
run;

title4 "   Print of Old and New Weight by Domain:";
title5 "   where, New/Old is Sum of &oldw. & &neww. Weights:";
proc print data=sumcheck2;
var &domain old new;
run;

title4 "   CrossTab of Variable (where &oldw>5000):";
proc freq data=trim;
table &oldw*&neww*toobig*stratum*&domain/list missing;
where &oldw>5000;
run;

title4 "   More Checking for Trim Weight:";
title5 "   Proc Freq of Variables (where toobig=1):";
proc freq data=trim;
```

```
table toobig*&oldw*&neww*stratum*&domain /list missing;
where toobig=1;
run;

title5 "   Proc Print of Variables (where toobig=1):";
proc print data=trim NOOBS;
var toobig postcell com_geo enbgsmpl tnexreg conus servaff pcm patcat;
where toobig=1;
run;


**Create Dataset of Completes ONLY:;
title4 "   DESIGN EFFECTS USING NEWTRIM WEIGHT (&neww.):";
title5 "                                                 ";
data postwt_fnl;
set trim;
where fnstatus=11;
run;

%design_effects_unequal_weights ( postwt_fnl, postcell, &neww, deff_overall, deff_postcell );
%design_effects_unequal_weights ( postwt_fnl, com_geo,  &neww, deff_overall, deff_cac );
%design_effects_unequal_weights ( postwt_fnl, enbgsmpl, &neww, deff_overall, deff_enb );
%design_effects_unequal_weights ( postwt_fnl, tnexreg,  &neww, deff_overall, deff_tnexreg );
%design_effects_unequal_weights ( postwt_fnl, TNEX_grp, &neww, deff_overall, deff_tnexgrp );
%design_effects_unequal_weights ( postwt_fnl, conus,    &neww, deff_overall, deff_conus );
%design_effects_unequal_weights ( postwt_fnl, servaff,  &neww, deff_overall, deff_servaff );
%design_effects_unequal_weights ( postwt_fnl, TNEX_grp servaff,  &neww, deff_overall,
deff_TNEXservaff );
%design_effects_unequal_weights ( postwt_fnl, pcm,    &neww, deff_overall, deff_pcm );
%design_effects_unequal_weights ( postwt_fnl, patcat,  &neww, deff_overall, deff_patcat );
%design_effects_unequal_weights ( postwt_fnl, TNEX_grp pcm,  &neww, deff_overall, deff_TNEXpcm
);

Title6 '   Design Effects Overall';
proc print data = deff_overall;
run;

*** For postcell ***;
Title6 "   Design Effects for postcell";
proc print data= deff_postcell;
sum _freq_;
run;

*** For geographic Area ***;
Title6 "   Design Effects for com_geo";
proc print data= deff_cac;
sum _freq_;
run;

*** For ENBGSMPL Groups ***;
Title6 '   Design Effects for ENBGSMPL';
proc print data= deff_enb;
sum _freq_;
run;

*** For Beneficiary TNEX Region ***;
Title6 '   Design Effects for TNEXREG';
proc print data= deff_tnexreg;
sum _freq_;
run;

*** For Facility TNEX region ***;
Title6 "   Design Effects for Facility's TNEX region";
proc print data= deff_tnexgrp;
sum _freq_;
run;

*** For conus region ***;
Title6 "   Design Effects for conus";
proc print data= deff_conus;
sum _freq_;
run;

*** For Service Affiliation for the facility  ***;
```

```
Title6 "   Design Effects for Facility's Service Affiliation";
proc print data= deff_servaff;
sum _freq_;
run;

*** For TNEX_grp*Servaff ***;
Title6 "   Design Effects for TNEX_grp by Servaff";
proc print data= deff_TNEXservaff;
sum _freq_;
run;

*** For PCM ***;
Title6 "   Design Effects for PCM";
proc print data= deff_pcm;
sum _freq_;
run;

*** For PATCAT ***;
Title6 "   Design Effects for PATCAT";
proc print data= deff_patcat;
sum _freq_;
run;

*** For TNEX_grp*PCM ***;
Title6 "   Design Effects for TNEX_grp by PCM";
proc print data= deff_TNEXpcm;
sum _freq_;
run;

title6 "   Proc MEANS of &neww:";
proc means data=trim;
var &oldw &neww;
run;
%mend trimmer;



*********************************
  MACRO TO CREATE DESIGN EFFECTS
*********************************;

%macro CreateDE(DE=);
data deff_overall;
set deff_overall;
mergevar=1;
run;
data overall;
merge overall  deff_overall;
&de.=design_effect;
by mergevar;
run;
data postcell;
merge postcell deff_postcell;
by postcell;
&de.=design_effect;
run;
data cac;
merge cac deff_cac;
by com_geo;
&de.=design_effect;
run;
data enb;
merge enb deff_enb;
by enbgsmpl;
&de.=design_effect;
run;
data tnexreg;
merge tnexreg deff_tnexreg;
by tnexreg;
&de.=design_effect;
run;
data tnexgrp;
merge tnexgrp deff_tnexgrp;
by tnex_grp;
```

```
&de.=design_effect;
run;
data conus;
merge conus deff_conus;
by conus;
&de.=design_effect;
run;
data servaff;
merge servaff deff_servaff;
by servaff;
&de.=design_effect;
run;
data tnexservaff;
merge tnexservaff deff_tnexservaff;
by tnex_grp servaff;
&de.=design_effect;
run;
data patcat;
merge patcat deff_patcat;
by patcat;
&de.=design_effect;
run;
data pcm;
merge pcm deff_pcm;
by pcm;
&de.=design_effect;
run;
data tnexpcm;
merge tnexpcm deff_tnexpcm;
by tnex_grp pcm;
&de.=design_effect;
run;
%mend CreateDE;



************************
 CALLS MACRO TRIMMER :
***********************;

Title3 'MACRO TRIMMER:  DOMAIN=POSTCELL, TRIMMING=POSTWT:';
%trimmer(Postcell,Postwt,Newtrim1);
*Creating Design Effects using NEWTRIM1:;
%CreateDE(De=De1);

*____________________
*CALLS MACRO TRIMMER :
*___________________;

Title3 'MACRO TRIMMER:  DOMAIN=ENBGSMPL, TRIMMING=POSTWT:';
%trimmer(Enbgsmpl,Postwt,Newtrim2);
*Creating Design Effects using NEWTRIM2:;
%CreateDE(De=De2);

*____________________
*CALLS MACRO TRIMMER :
*___________________;

Title3 'MACRO TRIMMER:  DOMAIN=PATCAT, TRIMMING=POSTWT:';
%trimmer(Patcat,Postwt,Newtrim3);
*Creating Design Effects using NEWTRIM3:;
%CreateDE(De=De3);

*____________________
*CALLS MACRO TRIMMER :
*___________________;

Title3 'MACRO TRIMMER:  DOMAIN=TNEXREG, TRIMMING=POSTWT:';
%trimmer(Tnexreg,Postwt,Newtrim4);
*Creating Design Effects using NEWTRIM4:;
%CreateDE(De=De4);

*____________________
*CALLS MACRO TRIMMER :
```

```
*___________________;

Title3 'MACRO TRIMMER:  DOMAIN=PCM, TRIMMING=POSTWT:';
%trimmer(Pcm,Postwt,Newtrim5);
*Creating Design Effects using NEWTRIM5:;
%CreateDE(De=De5);

*___________________
*CALLS MACRO TRIMMER :
*___________________;

Title3 'MACRO TRIMMER:  DOMAIN=SERVAFF, TRIMMING=POSTWT:';
%trimmer(Servaff,Postwt,Newtrim6);
*Creating Design Effects using NEWTRIM6:;
%CreateDE(De=De6);



************************************
 *  PROC PRINT OF DESIGN EFFECTS:
************************************;

Title3 "PROC PRINT OF DESIGN EFFECTS (by Different Trimmed Weights):";
Title4 "Postcell,Enbgsmpl,Patcat,Tnexreg, PCM and Servaff";
proc print data=overall;
var original de1 de2 de3 de4 de5 de6;
run;

proc print data=postcell;
var postcell original de1 de2 de3 de4 de5 de6;
run;

proc print data=cac;
var com_geo original de1 de2 de3 de4 de5 de6;
run;

proc print data=enb;
var enbgsmpl original de1 de2 de3 de4 de5 de6;
run;

proc print data=tnexreg;
var tnexreg original de1 de2 de3 de4 de5 de6 ;
run;

proc print data=tnexgrp;
var tnex_grp original de1 de2 de3 de4 de5 de6 ;
run;

proc print data=conus;
var conus original de1 de2 de3 de4 de5 de6;
run;

proc print data=servaff;
var servaff original de1 de2 de3 de4 de5 de6;
run;

proc print data=tnexservaff;
var tnex_grp servaff original de1 de2 de3 de4 de5 de6;
run;

proc print data=patcat;
var patcat original de1 de2 de3 de4 de5 de6;
run;

proc print data=pcm;
var pcm original de1 de2 de3 de4 de5 de6;
run;

proc print data=tnexpcm;
var tnex_grp pcm original de1 de2 de3 de4 de5 de6;
run;


data overall;
```

```
set overall;
diff1=sum_newtrim1/sum_postwt;
diff2=sum_newtrim2/sum_postwt;
diff3=sum_newtrim3/sum_postwt;
diff4=sum_newtrim4/sum_postwt;
diff5=sum_newtrim5/sum_postwt;
diff6=sum_newtrim6/sum_postwt;
run;

data postcell;
set postcell;
diff1=sum_newtrim1/sum_postwt;
diff2=sum_newtrim2/sum_postwt;
diff3=sum_newtrim3/sum_postwt;
diff4=sum_newtrim4/sum_postwt;
diff5=sum_newtrim5/sum_postwt;
diff6=sum_newtrim6/sum_postwt;
run;

data cac;
set cac;
diff1=sum_newtrim1/sum_postwt;
diff2=sum_newtrim2/sum_postwt;
diff3=sum_newtrim3/sum_postwt;
diff4=sum_newtrim4/sum_postwt;
diff5=sum_newtrim5/sum_postwt;
diff6=sum_newtrim6/sum_postwt;
run;

data enb;
set enb;
diff1=sum_newtrim1/sum_postwt;
diff2=sum_newtrim2/sum_postwt;
diff3=sum_newtrim3/sum_postwt;
diff4=sum_newtrim4/sum_postwt;
diff5=sum_newtrim5/sum_postwt;
diff6=sum_newtrim6/sum_postwt;
run;

data tnexreg;
set tnexreg;
diff1=sum_newtrim1/sum_postwt;
diff2=sum_newtrim2/sum_postwt;
diff3=sum_newtrim3/sum_postwt;
diff4=sum_newtrim4/sum_postwt;
diff5=sum_newtrim5/sum_postwt;
diff6=sum_newtrim6/sum_postwt;
run;

data tnexgrp;
set tnexgrp;
diff1=sum_newtrim1/sum_postwt;
diff2=sum_newtrim2/sum_postwt;
diff3=sum_newtrim3/sum_postwt;
diff4=sum_newtrim4/sum_postwt;
diff5=sum_newtrim5/sum_postwt;
diff6=sum_newtrim6/sum_postwt;
run;

data conus;
set conus;
diff1=sum_newtrim1/sum_postwt;
diff2=sum_newtrim2/sum_postwt;
diff3=sum_newtrim3/sum_postwt;
diff4=sum_newtrim4/sum_postwt;
diff5=sum_newtrim5/sum_postwt;
diff6=sum_newtrim6/sum_postwt;
run;

data servaff;
set servaff;
diff1=sum_newtrim1/sum_postwt;
diff2=sum_newtrim2/sum_postwt;
diff3=sum_newtrim3/sum_postwt;
```

```
diff4=sum_newtrim4/sum_postwt;
diff5=sum_newtrim5/sum_postwt;
diff6=sum_newtrim6/sum_postwt;
run;

data tnexservaff;
set tnexservaff;
diff1=sum_newtrim1/sum_postwt;
diff2=sum_newtrim2/sum_postwt;
diff3=sum_newtrim3/sum_postwt;
diff4=sum_newtrim4/sum_postwt;
diff5=sum_newtrim5/sum_postwt;
diff6=sum_newtrim6/sum_postwt;
run;

data patcat;
set patcat;
diff1=sum_newtrim1/sum_postwt;
diff2=sum_newtrim2/sum_postwt;
diff3=sum_newtrim3/sum_postwt;
diff4=sum_newtrim4/sum_postwt;
diff5=sum_newtrim5/sum_postwt;
diff6=sum_newtrim6/sum_postwt;
run;

data pcm;
set pcm;
diff1=sum_newtrim1/sum_postwt;
diff2=sum_newtrim2/sum_postwt;
diff3=sum_newtrim3/sum_postwt;
diff4=sum_newtrim4/sum_postwt;
diff5=sum_newtrim5/sum_postwt;
diff6=sum_newtrim6/sum_postwt;
run;

data tnexpcm;
set tnexpcm;
diff1=sum_newtrim1/sum_postwt;
diff2=sum_newtrim2/sum_postwt;
diff3=sum_newtrim3/sum_postwt;
diff4=sum_newtrim4/sum_postwt;
diff5=sum_newtrim5/sum_postwt;
diff6=sum_newtrim6/sum_postwt;
run;



**************
* Proc Print:
**************;
%macro print(infile=, var=);
proc print data=&infile.;
var &var. sum_postwt sum_newtrim1 sum_newtrim2 sum_newtrim3 sum_newtrim4
    sum_newtrim5 sum_newtrim6 diff1 diff2 diff3 diff4 diff5 diff6;
run;
%mend print;
%print(infile=overall);
%print(infile=postcell, var=postcell);
%print(infile=cac,      var=com_geo);
%print(infile=enb,      var=enbgsmpl);
%print(infile=tnexreg,  var=tnexreg);
%print(infile=tnexgrp,  var=tnex_grp);
%print(infile=conus,    var=conus);
%print(infile=servaff,  var=servaff);

%print(infile=tnexservaff, var=tnex_grp servaff);
%print(infile=patcat,   var=patcat);
%print(infile=pcm,      var=pcm);
%print(infile=tnexpcm,  var=tnex_grp pcm);



Title3 "CrossTab of trim weight variables where Postcell>8500";
```

```
Title4 " here, NewTrim1=Postcell, NewTrim2=Enbgsmpl, NewTrim3=PATCAT, NewTrim4=Tnexreg,
NewTrim5=PCM";
proc freq data=trim;
table postwt*newtrim1*newtrim2*newtrim3*newtrim4*newtrim5*newtrim6*stratum /list missing nocum;
where POSTWT>8500;
run;



************************************************
 Creating data Trimmed with Final Trimmed Weight
************************************************;
data trimmed;
set trim;
trimwt=newtrim3;  *Q3FY2015: trimming postwt by PATCAT;
run;


Title3 "Proc Means (here, Trimwt=newtrim3 -- for Q3FY2015)";
Title4 "   NewTrim1=Postcell,   NewTrim2=Enbgsmpl";
Title5 "   NewTrim3=PATCAT,     NewTrim4=Tnexreg";
Title6 "   NewTrim5=PCM,        NewTrim6=Servaff";
Proc Means data=trimmed;
var postwt newtrim1-newtrim6 Trimwt; *BV 6/2/14 Added newtrim6 to output list;
run;

Title3 "Proc Univariate (Var=Trimwt)";
Proc Univariate Data=Trimmed;
Var Trimwt;
Run;


****************************************
 OUTPUT DATA WITH FINAL TRIMMED WEIGHT
****************************************;
data out.trimmed;
set trimmed;
drop sumnew sumold trimadj toobig cutoff sumweight stdev number means
newtrim1 newtrim2 newtrim3 newtrim4 newtrim5 newtrim6 ;
run;


**********************  End of Main Program  *************************;
```

F.13 Q3FY2015\Programs\Weighting\NewWeights\postwt_trimmed.sas - Do the poststratification again after trimming

```
*****************************************************************************
*** Project: Health Care Survey of DoD Beneficiaries - Adult
*** Purpose: Do the poststratification again after trimming
***          force weighted counts to population counts in certain domain.
***
*** Program: Postwt_trimmed.sas
***
*** Inputs:  framea.sd2: the frame file
***          trimmed.sas7bdat - trimmed survey data
***
*** Outputs: postwt_trimmed.sas7bdat: final weight data after poststratification
*** Written: 1) Haixia Xu on 12/27/2006
*** Update : 2) H. Xu on 03/29/2007 for q3fy2007 weighitng
***          3) S.Rahman on 09/22/2011 for Q4FY2011 Adult Weighting
*****************************************************************************;

*** Set up options. ***;
options ls=132 ps=79 compress=no nocenter;* obs=10;* mprint mlogic symbolgen;
ods _ALL_ Close;
ods Listing;


%let quarter = Q3FY2015;

*** Set up the input and output paths. ***;
libname in   "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; /* adjwtp.sas7bdat */
libname inv6 "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; /* framea.sd2 */
libname out  "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\AFinal"; /* postwt_trimmed.sas7bdat
*/

%include "N:\Project\40309_HCS\DC1\HCSDB\Q1FY2015\Programs\Weighting\NewWeights\calpoststr.sas";
%include
"N:\Project\40309_HCS\DC1\HCSDB\Q1FY2015\Programs\Weighting\NewWeights\design_effects_unequal_we
ights.sas";

title1 "Program: Postwt_trimmed.sas (&quarter.)";
title2 "Purpose: Do the poststratification again after Trimming";


***Sample***;
data framea;
set inv6.framea;
length postcell $5;
postcell=substr(stratum,1,5);  *Creating Postcell from Sampling Stratum;

*************************************************************
*Construct Necessary Variables:
*************************************************************;

***facility TNEX region***;
length TNEX_grp $1;
if d_health in ('00', '13', '14', '15') then TNEX_grp='O';
else if d_health in ('17', '01','05') then TNEX_grp='N';
else if d_health in ('18','04') then TNEX_grp='S';
else if d_health in ('19','08','11') then TNEX_grp='W';
*Correct the TNEX regions for com_geo 0047, 9001, 9002, 9003, 9004:
All the cases in the same com_geo should be in the same TNEX region, which is the region of the
com_geo;
if COM_GEO = '0047' then TNEX_grp='S';
else if COM_GEO = '9001' then TNEX_grp='N';
else if COM_GEO = '9002' then TNEX_grp='S';
else if COM_GEO = '9003' then TNEX_grp='W';
else if COM_GEO = '9004' then TNEX_grp='O';

***CONUS region***;
length conus $1;
if TNEX_grp ='O' then conus='0';
else if TNEX_grp in ('N', 'S', 'W') then conus='1';
run;
```

```
Title3 "Checking the Construction of PostCell";
proc freq data=framea;
tables stratum*postcell*group*com_geo/missing list;
run;

/*trimmed data already has postcell group variables in, so no need to merge it with framea data:
proc sort data=framea;
by MPRID;
run;

proc sort data=in.trimmed out=adjwt;
by MPRID;
run;

data adjwt;
merge adjwt(in=A) framea(in=B) ;
by MPRID;
if A and B;
run;
*/

data adjwt;
   set in.trimmed;
run;


*****************************************************************************
*** Do the Poststratification & OUTPUT Postwt_Trimmed.sas7bdat data :
*****************************************************************************;
options compress=yes;
%calpoststr(smpldata=adjwt, frmedata=framea, domain=postcell, preadjwt=trimwt,
            psratio=ps2, postwt=postwt2, outdata=OUT.postwt_trimmed);

*****************************************************************************
*** Compare the weighted counts and the population counts by the domains
*****************************************************************************;
options compress=no;
%macro comparecnt(smpldata=, frmedata=, domain=, weight=);

proc freq data=&smpldata. NOPRINT;
tables &domain./missing list out=weight_s(rename=(count=wtcnt) drop=percent);
weight &weight.;
run;

proc freq data=&frmedata. NOPRINT;
tables &domain./missing list out=unweight_f(rename=(count=popcnt) drop=percent);
run;

data cnt_sf;
merge weight_s(in=A) unweight_f(in=B);
by &domain.;
if a and not b and popcnt=.  then popcnt=0;
if b and not a and wtcnt=.  then wtcnt=0;
diff = wtcnt - popcnt;
*reldiff=diff/popcnt;
*if A and B;
run;

proc print data=cnt_sf;
sum wtcnt popcnt diff;
run;

proc univariate data=cnt_sf;
var diff ;
run;

%mend comparecnt;

title3 'Check to see if the poststratification is done correctly';
%comparecnt(smpldata=in.postwt_trimmed, frmedata=framea, domain=postcell, weight=postwt2);

title3 'Compare the weighted count and the frame count by the different domains';
%comparecnt(smpldata=in.postwt_trimmed, frmedata=framea, domain=group,    weight=postwt2);
%comparecnt(smpldata=in.postwt_trimmed, frmedata=framea, domain=TNEX_grp, weight=postwt2);
```

```
%comparecnt(smpldata=in.postwt_trimmed, frmedata=framea, domain=PCM,      weight=postwt2);
%comparecnt(smpldata=in.postwt_trimmed, frmedata=framea, domain=enbgsmpl, weight=postwt2);
%comparecnt(smpldata=in.postwt_trimmed, frmedata=framea, domain=patcat,   weight=postwt2);
%comparecnt(smpldata=in.postwt_trimmed, frmedata=framea, domain=stratum,  weight=postwt2);
%comparecnt(smpldata=in.postwt_trimmed, frmedata=framea, domain=com_geo,  weight=postwt2);


title3 'Compare the weighted count and the frame count by TNEX_grp*PCM';
proc freq data=in.postwt_trimmed NOPRINT;
tables TNEX_grp*PCM/missing list out=weight_s(rename=(count=wtcnt) drop=percent);
weight postwt;
run;

proc freq data=framea NOPRINT;
tables TNEX_grp*PCM/missing list out=unweight_f(rename=(count=popcnt) drop=percent);
run;

data cnt_sf;
merge weight_s(in=A) unweight_f(in=B);
by TNEX_grp PCM;
diff = wtcnt - popcnt;
if A and B;
run;

proc print data=cnt_sf;
sum wtcnt popcnt diff;
run;

proc univariate data=cnt_sf;
var diff;
run;


*****************************************************************************
*** Compare the weighted sum before and after the poststratification
*****************************************************************************;

%macro procmeans(weightvar=, classvar=);
proc means data=OUT.postwt_trimmed noprint;
class &classvar.;
var &weightvar.;
output out=out sum=/autoname;
run;

data print;
set out;
where _type_=1;
run;

title3 "weighted info by &classvar. using &weightvar. as weight";
proc print data=print;
sum _freq_  bwt_sum adjwt1_sum adjwt2_sum  postwt_sum trimwt_sum postwt2_sum;
run;
%mend procmeans;

%procmeans(weightvar= bwt adjwt1 adjwt2 postwt trimwt postwt2, classvar=fnstatus);



*************************************************************
*** Output the datasets
*************************************************************;

options compress=yes;

data out.postwt_trimmed;
set out.postwt_trimmed;
label  ENBGSMPL ='ENBGSMPL - Beneficiary/Enrollment Status'
       PCM = 'Primary care Manager Code';
run;

*************************************************************
*** Calculate the Design Effects
*************************************************************;
```

```
**create dataset of completes only;
data postwt_fnl;
set out.postwt_trimmed;
where fnstatus=11;
run;

%design_effects_unequal_weights ( postwt_fnl, postcell, postwt2, deff_overall, deff_postcell );
%design_effects_unequal_weights ( postwt_fnl, com_geo,  postwt2, deff_overall, deff_cac );
%design_effects_unequal_weights ( postwt_fnl, enbgsmpl, postwt2, deff_overall, deff_enb );
%design_effects_unequal_weights ( postwt_fnl, tnexreg,  postwt2, deff_overall, deff_tnexreg );
%design_effects_unequal_weights ( postwt_fnl, TNEX_grp, postwt2, deff_overall, deff_tnexgrp );
%design_effects_unequal_weights ( postwt_fnl, conus,    postwt2, deff_overall, deff_conus );
%design_effects_unequal_weights ( postwt_fnl, servaff,  postwt2, deff_overall, deff_servaff );
%design_effects_unequal_weights ( postwt_fnl, TNEX_grp servaff,  postwt2, deff_overall,
deff_TNEXservaff );

title3 'Design Effects Overall';
proc print data = deff_overall;
run;

*** For postcell ***;
title3 "Design Effects for postcell";
proc print data= deff_postcell;
sum _freq_;
run;

*** For geographic Area ***;
title3 "Design Effects for com_geo";
proc print data= deff_cac;
sum _freq_;
run;

*** For ENBGSMPL Groups ***;
title3 'Design Effects for ENBGSMPL';
proc print data= deff_enb;
sum _freq_;
run;

*** For Beneficiary TNEX Region ***;
title3 'Design Effects for TNEXREG';
proc print data= deff_tnexreg;
sum _freq_;
run;

*** For Facility TNEX region ***;
title3 "Design Effects for Facility's TNEX region";
proc print data= deff_tnexgrp;
sum _freq_;
run;

*** For conus region ***;
title3 "Design Effects for conus";
proc print data= deff_conus;
sum _freq_;
run;

*** For Service Affiliation for the facility  ***;
title3 "Design Effects for Facility's Service Affiliation";
proc print data= deff_servaff;
sum _freq_;
run;

*** For TNEX_grp*Servaff ***;
title3 "Design Effects for TNEX_grp by Servaff";
proc print data= deff_TNEXservaff;
sum _freq_;
run;

title3 "Contents of OUT.postwt_trimmed";
proc contents data=OUT.postwt_trimmed;
run;
```

```
************************* The end *************************;
```

F.14 Q3FY2015\Programs\Weighting\NewWeights\repwtp_trimmed.SAS - Create the replicate weights

```
*********************************************************************
* PROGRAM: Repwtp_Trimmed.sas
* TASK:    DOD QUARTERLY HEALTH CARE SURVEY
* PURPOSE: CALCULATE REPLICATE WEIGHTS FOR DOD SURVEY
*          USING THE NEW WEIGHTING METHOD.
* WRITTEN: 12/30/1999 BY Keith Ranthbun
* Modified 1) Haixia Xu on 12/27/2006
*          2) H. Xu on 03/30/2007 for q3fy2007 weighting
*
* INPUTS : postwt.sas7bdat - Final Weights file
*          framea_postwt.sas7bdat - The q3 frame file with
*          corrected PCM and postcell defined
*
* OUTPUTS: repwtp.sas7bdat - Replicate Weights File
*
* Note   : 1) Beginning in Q1FY2011, we create POSTCELL from Sampling Stratum
*             Oldway: Postcell=(Group||Comgeo)
*             Newway: Postcell=substr(Stratum,1,5)
*          2) The order of trimming was switched in Q4Fy2011. See "trimming decision"
*             note in L:\Q4FY2011\Programs\Weighting\NewWeights\checking
*********************************************************************;

OPTIONS PS=79 LS=132 errors=10 COMPRESS=no NOCENTER formdlim='~'/*mlogic mprint symbolgen*/;
ods _ALL_ Close;
ods Listing;


%let quarter=Q3FY2015;

title1 "Program: Repwtp_Trimmed.sas (&quarter.)";
title2 "Purpose: Create the Replicate Weights";


LIBNAME INv6  "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\Afinal"; /* framea.sas7bdat */
LIBNAME IN    "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\Afinal"; /* postwt.sas7bdat */
LIBNAME OUT   "N:\Project\40309_HCS\DC1\HCSDB\&quarter.\Data\Afinal"; /* repwtp.sas7bdat */


/*MACRO FOR TRIMMING */
%macro trimmer(domain,oldw,neww);
data trim;
set trim;
*%if &neww.^= newtrim1 %then %do;
*drop number means stdev sumweight cutoff toobig trimadj sumold sumnew;
*%end;
run;

proc sort data=trim;
by &domain;
run;

proc means data=trim n mean std sum noprint;
var &oldw;
by &domain;
where fnstatus=11;
output out=meanspostwt(drop=_FREQ_ _TYPE_) n=number mean=means std=stdev sum=sumweight;
run;

data trim;
merge trim meanspostwt;
by &domain;
cutoff=means+stdev*6;
toobig=.;
trimadj=.;
if &oldw>cutoff and fnstatus=11 then toobig=1;
if toobig=1 then &neww=cutoff;
if cutoff=. and toobig=1 then &neww=&oldw;
if toobig=. then &neww=&oldw;
run;

proc means data=trim sum noprint;
```

```
var &oldw &neww;
by &domain;
where fnstatus=11;
output out=meansbig(drop=_FREQ_ _TYPE_) sum=sumold sumnew;
run;

data trim;
merge trim meansbig;
by &domain;
run;

data trim;
set trim;
/*cutoff~=. filter guards against divide by zero error if there is only 1 obs in domain */
if cutoff~=. then trimadj=sumold/sumnew;
if trimadj=. or fnstatus~=11 then trimadj=1;
&neww=trimadj*&neww;
run;

proc means data=trim sum noprint;
var &oldw &neww;
by &domain;
where fnstatus=11;
output out=sumcheck sum=old new;
run;

/*
data sumcheck;
set sumcheck;
diff=new-old;
run;

proc means data=sumcheck;
var diff;
run;

proc print data=sumcheck;
var &domain old new;
run;

proc freq data=trim;
table &oldw*&neww*toobig*stratum/list missing;
where &oldw>4000;
run;

proc freq data=trim;
table toobig*&oldw*&neww*stratum /list missing;
where toobig=1;
run;
*/
%mend trimmer;


%MACRO PROCESS(DOMAIN1,DOMAIN2,DOMAIN3,reps);
**********************************************************************
* calculate the population counts to be used in the poststratification
**********************************************************************;
data framea;
set inv6.framea;
length POSTCELL $5;
postcell=substr(stratum,1,5);  *Creating Postcell from Sampling Stratum;
run;

proc freq data=framea NOPRINT;
tables &domain3./missing list out=framecnt(drop=percent rename=(count=popcnt));
run;

**********************************************************************
* Sort the final weights file by user-specified domains
**********************************************************************;

PROC SORT DATA=IN.postwt_trimmed OUT=postwt;
     BY stratum MPRID ;
RUN;
```

```
************************************************************************
* Append SUBSET index (I) to each observation
************************************************************************;
DATA SUBSETS;
   SET postwt;
   BY stratum MPRID;

   IF _N_ = 1 OR MOD(_N_-1,&reps.) = 0 THEN SUBSET = 1;
   ELSE SUBSET + 1;

   RETAIN SUBSET;
   BBWT = BWT * (&reps. / (&reps. - 1));
RUN;

************************************************************************
************************************************************************
* Generate JackKnife/replicated weights adjwt01-adjwt60
************************************************************************
************************************************************************;
%DO I = 1 %TO &reps.;

DATA SUBSET;
   SET SUBSETS;
   IF &I. = SUBSET THEN DELETE; *Remove the current subset;
RUN;

*************************************************************************
* Calculate adjustment factor A1 for each cell
*************************************************************************;

proc sort data=subset;
by &domain1.;
run;

*************************************************************************
* Calculate adjustment factor A1 for each cell.
* This is the Eligibility Determination adjustment.
*************************************************************************;
DATA CELLSA1 (KEEP=SUMBBWT SUMG1-SUMG3 A1 CELLCNT cntg1-cntg3 &domain1.)
     MPRIDSA1 (KEEP=MPRID FNSTATUS BBWT &DOMAIN1. &DOMAIN2. &domain3. stratum com_geo enbgsmpl
patcat)
    ;
   SET subset;
   BY &DOMAIN1.;

if FNSTATUS in (11, 12, 20, 31, 41, 42) THEN DO;

   IF FIRST.&DOMAIN1. THEN DO;
      CELLCNT = 0;
      cntg1   = 0;
      cntg2   = 0;
      cntg3   = 0;
      SUMBBWT  = 0.0;
      SUMG1   = 0.0;
      SUMG2   = 0.0;
      SUMG3   = 0.0;
      A1 = 0.0;
   END;
   CELLCNT + 1;

   ****************************************************
   * Accumulate total weight sum
   ****************************************************;

   SUMBBWT + BBWT;

   ****************************************************
   * Accumulate group 1 weight sum
   ****************************************************;

   IF FNSTATUS IN (11,12) THEN
      do;
         SUMG1 + BBWT;
```

```
         cntg1 + 1;
      end;

   ****************************************************
   * Accumulate group 2 weight sum
   ****************************************************;

   ELSE IF FNSTATUS in (20,31) THEN
      do;
         SUMG2 + BBWT;
         cntg2 + 1;
      end;

   ****************************************************
   * Accumulate group 3 weight sum
   ****************************************************;

   ELSE IF FNSTATUS in (41,42) THEN
      do;
         SUMG3 + BBWT;
         cntg3 + 1;
      end;

   RETAIN SUMBBWT SUMG1-SUMG3 A1 CELLCNT cntg1-cntg3 MPRID;

   IF LAST.&DOMAIN1. THEN DO;
      A1 = (SUMG1 + SUMG2 + SUMG3)/(SUMG1 + SUMG2);
      OUTPUT CELLSA1;
   END;
END;

   OUTPUT MPRIDSA1;
RUN;

proc sort data=mpridsa1;
by &domain1.;
run;

proc sort data=cellsa1;
by &domain1.;
run;

data adj_one;
merge mpridsa1 cellsa1;
by &domain1.;
if fnstatus in (11,12,20,31) then adj1 = a1;
   else if fnstatus = 32 then adj1=1;
   else adj1 = 0;
adj_wt1 = adj1 * bbwt;
run;


/*
proc print data=mpridsa1;
var stratum PATCAT com_geo enbgsmpl;
run;

proc print data= cellsa1;
var stratum PATCAT com_geo enbgsmpl;
run;
*/

*************************************************************************
* Calculate adjustment factor A2 for each cell.
* This is the Nonresponse adjustment and creates the final weight (adjwt).
*************************************************************************;

proc sort data=adj_one;
by &domain2.;
run;

DATA CELLSA2 (KEEP= &domain2. NUMER DENOM numercnt denomcnt A2);
   set adj_one;
   BY &domain2.;
```

```
IF FNSTATUS in (11, 12, 20) THEN DO;

   IF FIRST.&domain2. THEN DO;
      A2 = 0.0;
      NUMER = 0.0;
      DENOM = 0.0;
      numercnt = 0;
      denomcnt = 0;
   END;


   RETAIN NUMER DENOM A2 numercnt denomcnt;

   IF FNSTATUS IN (11,12,20) THEN
      do;
         NUMER + adj_wt1;
         numercnt + 1;
      end;

   IF FNSTATUS = 11 THEN
      do;
         DENOM + adj_wt1;
         denomcnt + 1;
      end;

   IF LAST.&domain2. THEN DO;
      A2 = NUMER/DENOM;
      OUTPUT CELLSA2;
   END;
END;

RUN;

proc sort data=adj_one;
by &domain2.;
run;

proc sort data=cellsa2;
by &domain2.;
run;

data adj_two;
merge adj_one cellsa2;
by &domain2.;
if fnstatus = 11 then adj2 = a2;
   else if fnstatus in (31, 32) then adj2 = 1;
   else adj2 = 0;
adj_wt2 = adj2 * adj_wt1;
*KEEP MPRID FNSTATUS adj_wt2 bbwt &DOMAIN1. &DOMAIN2. &domain3.;
run;

*************************************************************************
* Calculate poststratification adjustment factor ps for each cell.
*************************************************************************;
proc freq data=adj_two NOPRINT;
tables &domain3./missing list out=weighted(drop=percent rename=(count=wtcnt));
weight adj_wt2;
run;

proc sort data=framecnt;
by &domain3.;
run;

proc sort data=weighted;
by &domain3.;
run;

data ps;
merge framecnt(in=A) weighted(in=B);
by &domain3.;
ps = popcnt/wtcnt;
if A and B;
run;
```

```
proc sort data=ps;
by &domain3.;
run;

proc sort data=adj_two;
by &domain3.;
run;

data subset&i.;
merge adj_two ps;
by &domain3.;
jkweight = ps * adj_wt2;
subset = &i.;
*KEEP MPRID subset jkweight;
run;

proc sort data=subset&i.;
by mprid;
run;

************************************;
/*          TRIMMING               */
************************************;
data trim;
set subset&i.;
run;

****************************************
*Trimming Decision for this Quarter:
****************************************;
%trimmer(patcat,jkweight,newtrim3); *Q3FY2015: patcat;


**********************************
Update Trimwt=. :
For Q3FY2015 : Trimwt=newtrim3 :
**********************************;
data trim;
set trim;
trimwt=newtrim3;  *Q3FY2015: patcat;
run;

************************************
  POSTSTRATIFY THE TRIMMED WEIGHTS
************************************;
proc freq data=trim NOPRINT;
tables &domain3./missing list out=weighted(drop=percent rename=(count=wtcnt));
weight trimwt;
run;

proc sort data=framecnt;
by &domain3.;
run;

proc sort data=weighted;
by &domain3.;
run;

data ps;
merge framecnt(in=A) weighted(in=B);
by &domain3.;
ps2 = popcnt/wtcnt;
if A and B;
run;

proc sort data=ps;
by &domain3.;
run;

proc sort data=trim;
by &domain3.;
run;
```

```
data subset&i.;
merge trim ps(drop=popcnt wtcnt);
by &domain3.;
jkweight2 = ps2 * trimwt;
subset = &i.;
*KEEP MPRID subset jkweight2;
run;

proc sort data=subset&i.;
by mprid;
run;

proc means data=subset&i.;
var jkweight2;
run;

************************************************************************
************************************************************************
* End of JackKnife/replicated weights WRWT01-WRWT60 assignments
************************************************************************
************************************************************************;
%END;

************************************************************************
* Combine all of the JackKnife weight subsets by MPRID
************************************************************************;
DATA ALLSETS;
   SET SUBSET1   SUBSET2   SUBSET3   SUBSET4  SUBSET5
       SUBSET6   SUBSET7   SUBSET8   SUBSET9   SUBSET10
       SUBSET11  SUBSET12  SUBSET13  SUBSET14  SUBSET15
       SUBSET16  SUBSET17  SUBSET18  SUBSET19  SUBSET20
       SUBSET21  SUBSET22  SUBSET23  SUBSET24  SUBSET25
       SUBSET26  SUBSET27  SUBSET28  SUBSET29  SUBSET30
       SUBSET31  SUBSET32  SUBSET33  SUBSET34  SUBSET35
       SUBSET36  SUBSET37  SUBSET38  SUBSET39  SUBSET40
       SUBSET41  SUBSET42  SUBSET43  SUBSET44  SUBSET45
       SUBSET46  SUBSET47  SUBSET48  SUBSET49  SUBSET50
       SUBSET51  SUBSET52  SUBSET53  SUBSET54  SUBSET55
       SUBSET56  SUBSET57  SUBSET58  SUBSET59  SUBSET60
   ;
       BY MPRID;
    ARRAY JKWT(&reps.) wrwt1-wrwt&reps.; RETAIN wrwt1-wrwt&reps.;
       IF FIRST.MPRID THEN DO;
       DO I = 1 TO &reps.; DROP I;
          JKWT(I) = . ;
      END;
 END;
   JKWT(SUBSET) = JKWEIGHT2;
   IF LAST.MPRID THEN OUTPUT;
   KEEP MPRID SUBSET wrwt1-wrwt&reps.;
RUN;


************************************************************************
* Sort the original data, get the final weight (WRWT), append the
* JackKnife/Replicated weights (WRWT1-WRWT60), and label variables.
************************************************************************;
PROC SORT DATA=IN.postwt_trimmed OUT=trimwt;
BY MPRID;
RUN;

proc sort data=allsets;
by mprid;
run;

options compress=yes;

**********************
 OUTPUT FINAL DATA :
**********************;
DATA OUT.repwtp ;
   MERGE trimwt ALLSETS;
   BY MPRID;
```

```
   LABEL
      MPRID  = 'MPR ID Number'
      WRWT1  = 'Replicated/JackKnife Weight 1'
      WRWT2  = 'Replicated/JackKnife Weight 2'
      WRWT3  = 'Replicated/JackKnife Weight 3'
      WRWT4  = 'Replicated/JackKnife Weight 4'
      WRWT5  = 'Replicated/JackKnife Weight 5'
      WRWT6  = 'Replicated/JackKnife Weight 6'
      WRWT7  = 'Replicated/JackKnife Weight 7'
      WRWT8  = 'Replicated/JackKnife Weight 8'
      WRWT9  = 'Replicated/JackKnife Weight 9'
      WRWT10 = 'Replicated/JackKnife Weight 10'
      WRWT11 = 'Replicated/JackKnife Weight 11'
      WRWT12 = 'Replicated/JackKnife Weight 12'
      WRWT13 = 'Replicated/JackKnife Weight 13'
      WRWT14 = 'Replicated/JackKnife Weight 14'
      WRWT15 = 'Replicated/JackKnife Weight 15'
      WRWT16 = 'Replicated/JackKnife Weight 16'
      WRWT17 = 'Replicated/JackKnife Weight 17'
      WRWT18 = 'Replicated/JackKnife Weight 18'
      WRWT19 = 'Replicated/JackKnife Weight 19'
      WRWT20 = 'Replicated/JackKnife Weight 20'
      WRWT21 = 'Replicated/JackKnife Weight 21'
      WRWT22 = 'Replicated/JackKnife Weight 22'
      WRWT23 = 'Replicated/JackKnife Weight 23'
      WRWT24 = 'Replicated/JackKnife Weight 24'
      WRWT25 = 'Replicated/JackKnife Weight 25'
      WRWT26 = 'Replicated/JackKnife Weight 26'
      WRWT27 = 'Replicated/JackKnife Weight 27'
      WRWT28 = 'Replicated/JackKnife Weight 28'
      WRWT29 = 'Replicated/JackKnife Weight 29'
      WRWT30 = 'Replicated/JackKnife Weight 30'
      WRWT31 = 'Replicated/JackKnife Weight 31'
      WRWT32 = 'Replicated/JackKnife Weight 32'
      WRWT33 = 'Replicated/JackKnife Weight 33'
      WRWT34 = 'Replicated/JackKnife Weight 34'
      WRWT35 = 'Replicated/JackKnife Weight 35'
      WRWT36 = 'Replicated/JackKnife Weight 36'
      WRWT37 = 'Replicated/JackKnife Weight 37'
      WRWT38 = 'Replicated/JackKnife Weight 38'
      WRWT39 = 'Replicated/JackKnife Weight 39'
      WRWT40 = 'Replicated/JackKnife Weight 40'
      WRWT41 = 'Replicated/JackKnife Weight 41'
      WRWT42 = 'Replicated/JackKnife Weight 42'
      WRWT43 = 'Replicated/JackKnife Weight 43'
      WRWT44 = 'Replicated/JackKnife Weight 44'
      WRWT45 = 'Replicated/JackKnife Weight 45'
      WRWT46 = 'Replicated/JackKnife Weight 46'
      WRWT47 = 'Replicated/JackKnife Weight 47'
      WRWT48 = 'Replicated/JackKnife Weight 48'
      WRWT49 = 'Replicated/JackKnife Weight 49'
      WRWT50 = 'Replicated/JackKnife Weight 50'
      WRWT51 = 'Replicated/JackKnife Weight 51'
      WRWT52 = 'Replicated/JackKnife Weight 52'
      WRWT53 = 'Replicated/JackKnife Weight 53'
      WRWT54 = 'Replicated/JackKnife Weight 54'
      WRWT55 = 'Replicated/JackKnife Weight 55'
      WRWT56 = 'Replicated/JackKnife Weight 56'
      WRWT57 = 'Replicated/JackKnife Weight 57'
      WRWT58 = 'Replicated/JackKnife Weight 58'
      WRWT59 = 'Replicated/JackKnife Weight 59'
      WRWT60 = 'Replicated/JackKnife Weight 60'
   ;
RUN;

TITLE1 "2011 DoD Quarterly Health Survey Final/Replicated Weights";
title2 "Checks for the Replicate Weights";
TITLE3 "Program Name: Repwtp_Trimmed.sas";

****************************************************
Check the structure of the data set OUT.repwtp;
****************************************************;

proc sort data=OUT.repwtp out=sorted;
```

```
by stratum mprid;
run;

proc print data=sorted (obs=500);
var stratum mprid SUBSET fnstatus postwt trimwt postwt2 wrwt1-wrwt5;
run;

PROC MEANS DATA=OUT.repwtp n sum;
VAR  postwt trimwt postwt2 WRWT1-WRWT&reps.;
RUN;

PROC SORT DATA=OUT.repwtp out=repwtp;
BY MPRID;
RUN;

DATA OUT.repwtp;
   SET repwtp;
   BY MPRID;

   ARRAY WGTS(&reps.) WRWT1-WRWT&reps.;
   DO I = 1 TO &reps.; DROP I;
      IF WGTS(I) EQ . THEN WGTS(I) = 0;
   END;

   KEEP MPRID BWT postwt trimwt postwt2 WRWT1-WRWT&reps. fnstatus &domain1.
        &domain2. &domain3. com_geo web encounter;
RUN;

title4 "Check the replicate weights -- for all 51,000 cases";
PROC MEANS DATA=OUT.repwtp n sum;
VAR  postwt trimwt postwt2 wrwt1-wrwt&reps.;
output out=sums sum(postwt trimwt postwt2 wrwt1-wrwt&reps.)=postwt trimwt postwt2 wrwt1-
wrwt&reps.;
RUN;

proc transpose data=sums out=t_sums;
var postwt trimwt postwt2 wrwt1-wrwt&reps.;
run;

proc univariate data=t_sums normal ;
var col1;
run;

title4 "Check the replicate weights -- for the final completes";
PROC MEANS DATA=OUT.repwtp n sum;
where fnstatus=11;
VAR  postwt trimwt postwt2 wrwt1-wrwt&reps.;
output out=sums sum(postwt trimwt postwt2 wrwt1-wrwt&reps.)=postwt trimwt postwt2 wrwt1-
wrwt&reps.;
Run;

proc transpose data=sums out=t_sums;
var postwt trimwt postwt2 wrwt1-wrwt&reps.;
run;

proc univariate data=t_sums normal ;
var col1;
run;


**added for Amang q4 2002;
data repwt2;
  set OUT.repwtp;
  where fnstatus = 11;
  array subset2(60) wrwt1-wrwt60;
  do m=1 to 60;
     if subset2(m)=0 then
        subset=m;
  end;
run;

proc sort data = repwt2;
by subset;
run;
```

```
proc means data = repwt2 noprint;
by subset;
var postwt2 wrwt1-wrwt60;
output out = amang sum= / autoname;
run;

***added by Haixia on 05/11/2005 for q1, 2005 weighting.
rename wrwt1_sum, ..., wrwt60_sum as sum_wrwt1, ..., sum_wrwt60
so the numbered range list sum_wrwt1 - sum_wrwt60 can be used in the proc print below;

data amang;
set amang;
rename postwt2_sum = sum_postwt2;
%do i =1 %to 60;
rename wrwt&i._sum = sum_wrwt&i.;
%end;
run;

proc print data = amang;
sum _freq_ sum_postwt2  sum_wrwt1 - sum_wrwt60;
run;

*****************************************************************
* CREATE FINAL REPWT DATASET FOR KEITH -- Rename the variables
*****************************************************************;
data OUT.repwtp (drop = postwt postwt2 com_geo trimwt encounter web);
set in.repwtp;
fwrwt = postwt2;
%do i =1 %to 60;
rename wrwt&i.= fwrwt&i.;
%end;
label &domain1. = 'Weighting cell in the unknown eligibility adjustment';
label &domain2. = 'Weighting cell in the nonresponse adjustment';
label &domain3. = "ps cell for new wts - for all 4 quarters";
label fwrwt = "Final NEW Weight";
run;

data OUT.repwtp;
set OUT.repwtp;
* Label wts;
    %DO I = 1 %TO 60;
         LABEL    FWRWT&I. = "Replicated/JackKnife NEW Weight &I.";
    %END;
run;

PROC CONTENTS DATA=OUT.repwtp;
run;

%MEND process;

%PROCESS(pcell_a1, pcell_a2, postcell, 60);


**********************    END **************************;
```

F.15 Q3FY2015\Programs\WEIGHTING\ADDWGTSA.SAS - Merge the final quarterly weights with the final questionnaire/sample file - Run Quarterly

```
*************************************************************************
*
* PROGRAM:  ADDWGTSA.SAS
* TASK:     DOD HEALTH CARE SURVEY ANALYSIS (6401-903)
* PURPOSE:  MERGE THE FINAL WEIGHTS FILE WITH THE FINAL
*           QUESTIONNAIRE/SAMPLE FILE
*
* WRITTEN:  02/02/2001 BY KEITH RATHBUN
*
* INPUTS:   1) REPWTP.sas7bdat - Final/Replicated Weights file - FORM A
*           2) MERGEQ.sas7bdat - Final FORM A Questionnaire/Sample File
*
* OUTPUTS:  1) HCSyyq_n.sas7bdat - Final FORM A Questionnaire/Sample File
*              combined with Final/Replicated Weights file - FORM A
*              where  yy = Year
*                      q = Quarter Number
*                      n = Final Dataset Suffix/Version Number
*           2) HCSyyq_v.XPT - Final Public-Use Adult SAS XPORT Dataset
*
* MODIFIED:
*
**************************************************************************;
* Define global parameters.
**************************************************************************;
%LET DSN1 = HCS&YR.&QT._1; * Public-Use data set;
%LET DSN2 = HCS&YR.&QT._2; * Private-Use data set;
%LET DSN3 = HCS&YR.&QT._3; * Private-Use data set;
%LET DSNw = REPWTP;   * Final and replicate weight file;
%LET QTR  = Q&QT.FY20&YR.; * Current Quarters data folder name;

*************************************************************************
* Define libraries and options.
**************************************************************************;
LIBNAME IN1     "..\..\DATA\AFINAL";
LIBNAME IN2     "N:\Project\40309_HCS\Restricted\DC1\&QTR";                   * Location of
restricted-use sample file;
LIBNAME OUT     "..\..\DATA\AFINAL";
LIBNAME LIBRARY "..\..\DATA\AFINAL\FMTLIB";

OPTIONS PS=79 LS=132 COMPRESS=NO NOCENTER MPRINT MLOGIC;

*************************************************************************
* Merge the final weights file with the final Questionnaire/Sample file
**************************************************************************;
PROC SORT DATA=IN1.&DSNw   OUT=&DSNw;  BY MPRID; RUN;
PROC SORT DATA=IN1.MERGEQ  OUT=MERGEQ; BY MPRID; RUN;

PROC CONTENTS DATA=IN1.&DSNw;  Title 'repwtp- New weights'; RUN;
PROC CONTENTS DATA=IN1.MERGEQ; Title 'mergeq'; RUN;

*************************************************************************
* Create and attach XCATCH (Catchment Reporting variable) to final dataset.
* Note that dataset TMPXCTCH with XCATCH is created by this include file.
**************************************************************************;
DATA TEMP1;
   SET MERGEQ;
   IF FNSTATUS = 11;
RUN;

%INCLUDE "XCATCH.INC"; * Requires input dataset called TEMP1;

PROC SORT DATA=TMPXCTCH; BY MPRID; RUN;

DATA OUT.&DSN1(DROP=PRN     DMIS_ID  D_PAR    ENRID
                    CACSMPL SERVAREA DCATCH   MSM
                    D_FAC   DAGEQY   FIELDAGE PNLCATCD
                    DMEDELG MEDTYPE  MBRRELCD MRTLSTAT INTTIME)
       T_&DSN2(DROP=PRN DMIS_ID  D_PAR )
              ;
   MERGE MERGEQ(IN=IN2 DROP=MIQCNTL COM_GEO)
```

```
         TMPXCTCH(IN=IN3)
         &DSNw(IN=IN1 KEEP=MPRID POSTCELL FWRWT FWRWT1--FWRWT60
                      RENAME=(fwrwt=FWRWT  postcell=POSTCELL
                              fwrwt1=FWRWT1 fwrwt2=FWRWT2 fwrwt3=FWRWT3 fwrwt4=FWRWT4
fwrwt5=FWRWT5
                              fwrwt6=FWRWT6 fwrwt7=FWRWT7 fwrwt8=FWRWT8 fwrwt9=FWRWT9
fwrwt10=FWRWT10
                              fwrwt11=FWRWT11 fwrwt12=FWRWT12 fwrwt13=FWRWT13 fwrwt14=FWRWT14
fwrwt15=FWRWT15
                              fwrwt16=FWRWT16 fwrwt17=FWRWT17 fwrwt18=FWRWT18 fwrwt19=FWRWT19
fwrwt20=FWRWT20
                              fwrwt21=FWRWT21 fwrwt22=FWRWT22 fwrwt23=FWRWT23 fwrwt24=FWRWT24
fwrwt25=FWRWT25
                              fwrwt26=FWRWT26 fwrwt27=FWRWT27 fwrwt28=FWRWT28 fwrwt29=FWRWT29
fwrwt30=FWRWT30
                              fwrwt31=FWRWT31 fwrwt32=FWRWT32 fwrwt33=FWRWT33 fwrwt34=FWRWT34
fwrwt35=FWRWT35
                              fwrwt36=FWRWT36 fwrwt37=FWRWT37 fwrwt38=FWRWT38 fwrwt39=FWRWT39
fwrwt40=FWRWT40
                              fwrwt41=FWRWT41 fwrwt42=FWRWT42 fwrwt43=FWRWT43 fwrwt44=FWRWT44
fwrwt45=FWRWT45
                              fwrwt46=FWRWT46 fwrwt47=FWRWT47 fwrwt48=FWRWT48 fwrwt49=FWRWT49
fwrwt50=FWRWT50
                              fwrwt51=FWRWT51 fwrwt52=FWRWT52 fwrwt53=FWRWT53 fwrwt54=FWRWT54
fwrwt55=FWRWT55
                              fwrwt56=FWRWT56 fwrwt57=FWRWT57 fwrwt58=FWRWT58 fwrwt59=FWRWT59
fwrwt60=FWRWT60
                 ));
   BY MPRID;
   IF FNSTATUS = 11;

   IF NOT (IN1 AND IN2)
   THEN PUT "ERROR: NO MATCHING MPRID WITH MERGEQ..sas7bdat AND &DSNw..sas7bdat";


   IF IN1 AND IN2 AND IN3;

   FORMAT XCATCH CACR.
      ;

RUN;


*************************************************************************
* Extract private-use variables from quarterly sample file.
*************************************************************************;
DATA SAMPLA02;
   SET IN2.SAMPLA02
       (KEEP=MPRID MASTCD MAPRZIP MAPRZIPX PNBRTHDT PGCD RANKCD MSA_ID);
RUN;
PROC SORT DATA=SAMPLA02; BY MPRID; RUN;

*************************************************************************
* Append private-use variables to the public-use file.
*************************************************************************;
DATA OUT.&DSN2;
   MERGE T_&DSN2(IN=IN1) SAMPLA02(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2; *KEEP only eligible respondents;
   DROP INTTIME;
RUN;


/*  The third file is the same as the one above, but with INTTIME included. MT 3/26/2015 */

DATA OUT.&DSN3;
   MERGE T_&DSN2(IN=IN1) SAMPLA02(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2; *KEEP only eligible respondents;
RUN;


TITLE1 "DOD Quarterly Health Care Survey (6663-300)";
TITLE2 "Program Name: ADDWGTSA.SAS";
```

```
TITLE3 "Program Inputs: Mergeq.sas7bdat -- &DSNw..sas7bdat";
TITLE4 "Program Outputs: &DSN1..sas7bdat/XPT";
PROC CONTENTS DATA=OUT.&DSN1; RUN;

*************************************************************************
* Output the restricted use CONTENTS text file for delivery with the
* database CD.
*************************************************************************;
PROC PRINTTO PRINT="&DSN2..TXT" NEW; RUN;
OPTIONS PAGENO=1;
TITLE4 "Program Outputs: &DSN2..sas7bdat/XPT";
PROC CONTENTS DATA=OUT.&DSN2; RUN;
PROC PRINTTO; RUN;
*************************************************************************
* Define and generate SAS Transport file.
*************************************************************************;
LIBNAME XFILE1 XPORT "..\..\data\afinal\&DSN1..XPT";
PROC COPY IN=OUT OUT=XFILE1; * Converts input file to transport file;
          SELECT &DSN1;      * Selects sas7bdat file to copy;
RUN;

LIBNAME XFILE2 XPORT "..\..\data\afinal\&DSN2..XPT";
PROC COPY IN=OUT OUT=XFILE2; * Converts input file to transport file;
          SELECT &DSN2;      * Selects sas7bdat file to copy;
RUN;

LIBNAME XFILE3 XPORT "..\..\data\afinal\&DSN3..XPT";
PROC COPY IN=OUT OUT=XFILE3; * Converts input file to transport file;
          SELECT &DSN3;      * Selects sas7bdat file to copy;
RUN;
```

F.16 WEIGHTING\CREPWT.SAS - Calculate combined replicate weights - Annual.

```
************************************************************************
* PROGRAM: CREPWT.SAS
* TASK:    DOD QUARTERLY HEALTH CARE SURVEY (40309.H21)
* PURPOSE: CALCULATE COMBINED ANNUAL REPLICATE WEIGHTS FOR DOD SURVEY
*          - New Weights REQUESTED BY DON JANG.
* CREATED: 12/19/2001 by Esther M Friedman
* UPDATED: 02/09/2006 by Haixia Xu for 2005 annual weighting - new weights
*          10/10/2006 by Haixia Xu for 2006 annual weighting - new weights
*          10/09/2007 by Haixia Xu for 2007 annual weighting - new weights
*          10/09/2008 by Haixia Xu for 2008 annual weighting - new weights
*          10/04/2010 by Haixia Xu for 2010 annual weighting - new weights
*          10/03/2011 by Sabrina R.for 2011 annual weighting - new weights
*          07/18/2013 by Karlesha R. for 2013 annual weighting - new weights
*          07/18/2013 by Sabrina R. for 2015 annual weighting - new weights
*
* INPUTS:  framea.sas7bdat - Quarterly frame files
*          REPWTP.sas7bdat - Quarterly new weights
*
* OUTPUTS: crepwt.sd2 - Combined anuual replicates for new weights
*
* NOTES: Starting from FY 2013, Q3t and Q4 were not used in calculating of
*        Annual Weights. Data for these two quarters were not collected for
*        budget cuts.
************************************************************************;

%let year=2015;

/*repwtp.sas7bdat*/
LIBNAME IN1  "N:\Project\40309_HCS\DC1\HCSDB\Q1FY&year.t\Data\AFinal";
LIBNAME IN2  "N:\Project\40309_HCS\DC1\HCSDB\Q2FY&year.t\Data\AFinal";
LIBNAME IN3  "N:\Project\40309_HCS\DC1\HCSDB\Q3FY&year.\Data\AFinal";


/*framea.sas7bdat*/
LIBNAME INf1  "N:\Project\40309_HCS\DC1\HCSDB\Q1FY&year.\Data\AFinal";
LIBNAME INf2  "N:\Project\40309_HCS\DC1\HCSDB\Q2FY&year.\Data\AFinal";
LIBNAME INf3  "N:\Project\40309_HCS\DC1\HCSDB\Q3FY&year.\Data\AFinal";


/* crepwt.sas7bdat */
LIBNAME OUT  "N:\Project\40309_HCS\DC1\HCSDB\&year.\Data";

%include
"N:\Project\40309_HCS\DC1\HCSDB\Q3FY2015\Programs\Weighting\NewWeights\design_effects_unequal_we
ights.sas";


OPTIONS PS=79 LS=132 COMPRESS=no errors=0 NOCENTER mlogic mprint symbolgen;

title1 "Program:CREPWT.SAS (YEAR=&year. , TaskNo: 40309.H21)";
title2 "PURPOSE: CREATES ANNUAL COMBINED WEIGHT AND COMBINED REPLICATED WEIGHT - New weights";


**********************************************************************
* MERGE THE  NEW (with trickles) QUARTERLY WEIGHT FILES
**********************************************************************;
%macro doqrt(qrt=);
data repwtq&qrt.;
set in&qrt..repwtp(keep=mprid fnstatus postcell bwt fwrwt fwrwt1-fwrwt60);
quarter=&qrt.;
label quarter = 'Dod quarter indicator';
format _all_;
run;

proc sort data=repwtq&qrt.;
by mprid;
run;

%mend doqrt;

%doqrt(qrt=1);
%doqrt(qrt=2);
```

```
%doqrt(qrt=3);

*merge the new quarterly files;
data repwt;
set repwtq1 repwtq2 repwtq3;
by mprid;
run;

*****************************
* CREATE THE ANNUAL WEIGHTS
*****************************;
* Use Equal Weighting Method:  Divide each quarterly weight by 3;
data repwt;
  set repwt;
  cfwt=fwrwt/3;
  label cfwt= 'combined annual NEW wt';
run;

***************************
* CHECK NEW ANNUAL WEIGHTS
***************************;
title3 "Combined replicate file";
proc freq data=repwt;
tables quarter fnstatus fnstatus*quarter/list missing;
run;

title3 "Weighted using fwrwt - quarterly new wt";
proc freq data=repwt;
tables quarter fnstatus fnstatus*quarter/list missing;
weight fwrwt;
run;

title3 "Weighted using cfwt - combined annual new wt";
proc freq data=repwt;
tables quarter fnstatus fnstatus*quarter/list missing;
weight cfwt;
run;

title3 'Checks for cfwt and fwrwt for fnstatus=11';
Proc print data=repwt (obs=200) noobs;
var quarter cfwt fwrwt;
where fnstatus=11;
run;

title3 'Checks for fwrwt by quarter for fnstatus=11';
proc sort data=repwt;
by quarter;
run;

proc means data=repwt n sum mean min max Q1 median Q3;
var fwrwt;
by quarter;
where fnstatus=11;
run;

title3 'Checks for cfwt for fnstatus=11';
proc univariate data=repwt;
var cfwt;
where fnstatus=11;
run;

options compress=yes;


******************************
* CREATE THE REPLICATE WEIGHTS
******************************;
data crepwt_newwt ( drop = rep );
set repwt;
array repwt[60] fwrwt1 - fwrwt60;
array annual_repwt[180] cfwt1 - cfwt180;
do rep = 1 to 180;
if 1 <= rep <= 60 then
   do;
```

```
   if quarter in ( 2, 3 ) then
      annual_repwt[rep] = fwrwt;
   else
      annual_repwt[rep] = repwt[rep];
   end;
else if 61 <= rep <= 120 then
   do;
   if quarter in ( 1, 3 ) then
      annual_repwt[rep] = fwrwt;
   else
      annual_repwt[rep] = repwt[rep - 60];
   end;
else if 121 <= rep <= 180 then
   do;
   if quarter in ( 1, 2 ) then
      annual_repwt[rep] = fwrwt;
   else
      annual_repwt[rep] = repwt[rep - 120];
   end;
     annual_repwt[rep] = annual_repwt[rep]/3;
end;*replicate loop;
run;

* Check the new cfwts;
title3 'Checks for the sum of the new cfwts';
PROC MEANS DATA=crepwt_newwt n sum;
VAR  cfwt cfwt1-cfwt180;
output out=sums sum(cfwt cfwt1-cfwt180) = cfwt cfwt1-cfwt180;
RUN;

proc transpose data=sums out=t_sums;
VAR  cfwt cfwt1-cfwt180;
run;

proc univariate data=t_sums normal ;
var col1;
run;

************************************;
* Output the combined annual replicate weights - Old and New weights
************************************;
* Label wts;
%MACRO LABWT;
    %DO J = 1 %TO 180;
         LABEL CFWT&J.  = "Combined Replicated NEW Weight &J.";
    %END;
%MEND LABWT;

data out.crepwt;
set crepwt_newwt;
if _N_=1 then do;
  label CFWT  = "Combined annual NEW Weight"
%LABWT;
end;
run;

title3 'Contents of crepwt.sd2';
proc contents data=out.crepwt ;
run;


*****************************************************************************
*** Calculate the Design Effects
*** As per Nancy and Sonya's requests, check the deff for the annual wts to see
*** how the quarterly weight affects the annual estimates.
*****************************************************************************;

%macro mergefiles(qrt=);

data frame&qrt.;
set inf&qrt..framea(keep=mprid enbgsmpl tnexreg d_health com_geo servaff);

***facility TNEX region***;
length TNEX_grp $1;
```

```
if d_health in ('00', '13', '14', '15') then TNEX_grp='O';
else if d_health in ('17', '01','05') then TNEX_grp='N';
else if d_health in ('18','04') then TNEX_grp='S';
else if d_health in ('19','08','11') then TNEX_grp='W';
*Correct the TNEX regions for com_geo 0047, 9001, 9002, 9003, 9004:
All the cases in the same com_geo should be in the same TNEX region, which is the region of the
com_geo;
if COM_GEO = '0047' then TNEX_grp='S';
else if COM_GEO = '9001' then TNEX_grp='N';
else if COM_GEO = '9002' then TNEX_grp='S';
else if COM_GEO = '9003' then TNEX_grp='W';
else if COM_GEO = '9004' then TNEX_grp='O';

if tnex_grp in ('N', 'S', 'W') then conus=1;
else if tnex_grp ='O' then conus=0;

run;

title3 "Check the construction TNEX_grp, conus for quarter &qrt.";
proc freq data=frame&qrt.;
tables TNEX_grp*d_health conus*tnex_grp/missing list;
run;

proc sort data=in&qrt..repwtp(keep=mprid) out=repwt; by mprid; run;
proc sort data=frame&qrt.; by mprid; run;

data merged&qrt.;
merge repwt(in=A) frame&qrt.(in=B);
by mprid;
if a and b;
run;

%mend mergefiles;

%mergefiles(qrt=1);
%mergefiles(qrt=2);
%mergefiles(qrt=3);

data merged123;
set merged1 merged2 merged3;
by mprid;
run;

proc sort data=out.crepwt(keep=mprid fnstatus bwt fwrwt cfwt) out=crepwt;
by mprid;
run;

data merged;
merge crepwt(in=A) merged123(in=B);
by mprid;
if a and b;
run;

**create dataset of completes only;
data postwt_fnl;
set merged;
where fnstatus=11;
run;

%design_effects_unequal_weights ( postwt_fnl, enbgsmpl, cfwt, deff_overall, deff_enb );
%design_effects_unequal_weights ( postwt_fnl, tnexreg,  cfwt, deff_overall, deff_tnexreg );
%design_effects_unequal_weights ( postwt_fnl, TNEX_grp, cfwt, deff_overall, deff_tnexgrp );
%design_effects_unequal_weights ( postwt_fnl, conus,    cfwt, deff_overall, deff_conus );
%design_effects_unequal_weights ( postwt_fnl, servaff,  cfwt, deff_overall, deff_servaff );
%design_effects_unequal_weights ( postwt_fnl, TNEX_grp servaff,  cfwt, deff_overall,
deff_TNEXservaff );

*** For Overall ***;
title3 'Design Effects Overall';
proc print data = deff_overall;
run;

*** For ENBGSMPL Groups ***;
title3 'Design Effects for ENBGSMPL';
```

```
proc print data= deff_enb;
sum _freq_;
run;

*** For Beneficiary TNEX Region ***;
title3 'Design Effects for TNEXREG';
proc print data= deff_tnexreg;
sum _freq_;
run;

*** For Facility TNEX region ***;
title3 "Design Effects for Facility's TNEX region";
proc print data= deff_tnexgrp;
sum _freq_;
run;

*** For conus region ***;
title3 "Design Effects for conus";
proc print data= deff_conus;
sum _freq_;
run;

*** For Service Affiliation for the facility  ***;
title3 "Design Effects for Facility's Service Affiliation";
proc print data= deff_servaff;
sum _freq_;
run;

*** For TNEX_grp*Servaff ***;
title3 "Design Effects for TNEX_grp by Servaff";
proc print data= deff_TNEXservaff;
sum _freq_;
run;

******************** The End ************************;
```

F.17 WEIGHTING\FIX2013XCATCH.SAS - Fix catchment reporting variable (XCATCH) for 2013 - Annual

```
***************************************************************************
*
* PROGRAM: Fix2013XCATCH.SAS
* PURPOSE: Fix catchment reporting variable (XCATCH) for 2013
* WRITTEN  November 6, 2007 BY Keith Rathbun
* TASK:    2012 DoD Database Development (6244-300)
*
* INPUTS:  1) FRAMEA.sas7bdat - 2013 Quarterly Sample Frames
*          2) HCS13A_1/2.sas7bdat - 2013 Combined Annual HCSDB dataset
*
* UPDATES: 1) September 17, 2009 by Emma Ernst for 2009 database
*          2) September 2, 2010 by Mike Rudacille for 2010 database
*          3) September 23, 2011 by Mike Rudacille for 2011 database
*          4) September 19, 2012 by Amanda Kudis for 2012 database
*          4) June 02, 2014 by Amanda Kudis for 2014 database
*
* OUTPUTS: 1) XCATCH13.sas7bdat - 2013 combined corrected Annual HCSDB dataset
*             (output in the 2014 data area)
*
* NOTES:   1) XCATCH needed to be redefined with the 2014 definition
*             on the 2013 annual dataset
*
***************************************************************************;
OPTIONS NOFMTERR NOCENTER LS=132 PS=80 COMPRESS=YES;
LIBNAME OUT    "..\..\DATA";
LIBNAME IN2013 "..\..\..\2013\DATA" access=readonly;

***************************************************************************
* Extract variables necessary to construct XCATCH by QUARTER.
***************************************************************************;
%MACRO GET_QTR(QTR=);
   PROC SORT DATA=IN2013.HCS13A_2
        (KEEP=MPRID ENRID PCM DCATCH D_HEALTH D_FAC SERVAFF XREGION PATCAT QUARTER TNEXREG)
        OUT=TEMP1_&QTR;
      BY MPRID;
      WHERE QUARTER = "&QTR";
   RUN;
%MEND;

%GET_QTR(QTR=Q1FY2013);
%GET_QTR(QTR=Q2FY2013);
%GET_QTR(QTR=Q3FY2013);
*%GET_QTR(QTR=Q4FY2013);

***************************************************************************
* Extract D_PAR for use with creating XCATCH.
***************************************************************************;
%MACRO GETD_PAR(LOC=);
   LIBNAME IN "..\..\..\&LOC.\DATA\AFINAL";
   PROC SORT DATA=IN.FRAMEA(KEEP=MPRID D_PAR) OUT=&LOC.;
      BY MPRID;
   RUN;
%MEND;

%GETD_PAR(LOC=Q1FY2013);
%GETD_PAR(LOC=Q2FY2013);
%GETD_PAR(LOC=Q3FY2013);
*%GETD_PAR(LOC=Q4FY2013);

DATA Q1;
   MERGE Q1FY2013(IN=IN1) TEMP1_Q1FY2013(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;

DATA Q2;
   MERGE Q2FY2013(IN=IN1) TEMP1_Q2FY2013(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;
```

```
DATA Q3;
   MERGE Q3FY2013(IN=IN1) TEMP1_Q3FY2013(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;
/*
DATA Q4;
   MERGE Q4FY2013(IN=IN1) TEMP1_Q4FY2013(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;
*/
DATA TEMP1;
   SET Q1 Q2 Q3; *Q4;
   BY MPRID;

   IF      SERVAFF = 'A' THEN XSERVAFF = 1; * Army;
   ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2; * Air Force;
   ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3; * Navy;
   ELSE XSERVAFF = 4;                       * Other;

   ************************************************************************
   * Assign XTNEXREG and XOCONUS using XREGION.
   ************************************************************************;
   IF XREGION IN (1,2,5) THEN XTNEXREG = 1;
   ELSE IF XREGION IN (3,4,6) THEN XTNEXREG = 2;
   ELSE IF XREGION IN (7,8,9,10,11,12,16) THEN XTNEXREG = 3;
   ELSE IF XREGION IN (13,14,15) THEN XTNEXREG = 4;
   ELSE IF XREGION = . THEN DO; /* MER 03/23/10 - If XREGION is missing, set XTNEXREG = TNEXREG
*/
      IF TNEXREG = 'N' THEN XTNEXREG=1;
      ELSE IF TNEXREG = 'S' THEN XTNEXREG=2;
      ELSE IF TNEXREG = 'W' THEN XTNEXREG=3;
      ELSE IF TNEXREG = 'O' THEN XTNEXREG=4;
      ELSE XTNEXREG=.;
   END;

   IF XREGION      = 13 THEN XOCONUS = 1;
   ELSE IF XREGION = 14 THEN XOCONUS = 2;
   ELSE IF XREGION = 15 THEN XOCONUS = 3;
RUN;

*************************************************************************
* Create and attach XCATCH (Catchment Reporting variable) to final dataset.
* Note that dataset TMPXCTCH with XCATCH is created by this include file.
*************************************************************************;
%INCLUDE "XCATCH.INC"; * Requires input dataset called TEMP1;
PROC SORT DATA=TMPXCTCH; BY MPRID; RUN;

PROC SORT DATA=IN2013.HCS13A_1(DROP=XCATCH) OUT=HCS13A_1;
   BY MPRID;
RUN;

DATA OUT.XCATCH13;
   MERGE HCS13A_1(IN=IN1) TMPXCTCH(IN=IN2);
   BY MPRID;
   FORMAT _ALL_;
   KEEP MPRID XCATCH QUARTER;
RUN;

TITLE1 "Annual DOD Health Care Survey Database (6244-300)";
TITLE2 "Program Name: Fix2013XCATCH.SAS By Keith Rathbun";
TITLE3 "Program Inputs: 2013 HCSDB sample and analysis files";
TITLE4 "Program Output: XCATCH13.sas7bdat - FY 2013 Combined XCATCH dataset";

PROC FREQ;
   TABLES XCATCH /MISSING LIST;
RUN;
```

F.18 WEIGHTING\FIX2014XCATCH.SAS - Fix catchment reporting variable (XCATCH) for 2014 - Annual.

```
***************************************************************************
*
* PROGRAM: Fix2014XCATCH.SAS
* PURPOSE: Fix catchment reporting variable (XCATCH) for 2013
* WRITTEN  November 6, 2007 BY Keith Rathbun
* TASK:    2012 DoD Database Development (6244-300)
*
* INPUTS:  1) FRAMEA.sas7bdat - 2013 Quarterly Sample Frames
*          2) HCS13A_1/2.sas7bdat - 2013 Combined Annual HCSDB dataset
*
* UPDATES: 1) September 17, 2009 by Emma Ernst for 2009 database
*          2) September 2, 2010 by Mike Rudacille for 2010 database
*          3) September 23, 2011 by Mike Rudacille for 2011 database
*          4) September 19, 2012 by Amanda Kudis for 2012 database
*          5) June 02, 2014 by Amanda Kudis for 2014 database
*          6) July 21, 2015 by Matt Turbyfill for 2015 database
*
* OUTPUTS: 1) XCATCH13.sas7bdat - 2013 combined corrected Annual HCSDB dataset
*             (output in the 2014 data area)
*
* NOTES:   1) XCATCH needed to be redefined with the 2014 definition
*             on the 2013 annual dataset
*
***************************************************************************;
%LET YR = 14;


OPTIONS NOFMTERR NOCENTER LS=132 PS=80 COMPRESS=YES;
LIBNAME OUT    "..\..\DATA";
LIBNAME IN20&YR. "..\..\..\20&YR.\DATA" access=readonly;


***************************************************************************
* Extract variables necessary to construct XCATCH by QUARTER.
***************************************************************************;
%MACRO GET_QTR(QTR=);
   PROC SORT DATA=IN20&YR..HCS&YR.A_2
        (KEEP=MPRID ENRID PCM DCATCH D_HEALTH D_FAC SERVAFF XREGION PATCAT QUARTER TNEXREG)
        OUT=TEMP1_&QTR;
      BY MPRID;
      WHERE QUARTER = "&QTR";
   RUN;
%MEND;

%GET_QTR(QTR=Q1FY20&YR.);
%GET_QTR(QTR=Q2FY20&YR.);
%GET_QTR(QTR=Q3FY20&YR.);
*%GET_QTR(QTR=Q4FY2013);

***************************************************************************
* Extract D_PAR for use with creating XCATCH.
***************************************************************************;
%MACRO GETD_PAR(LOC=);
   LIBNAME IN "..\..\..\&LOC.\DATA\AFINAL";
   PROC SORT DATA=IN.FRAMEA(KEEP=MPRID D_PAR) OUT=&LOC.;
      BY MPRID;
   RUN;
%MEND;

%GETD_PAR(LOC=Q1FY20&YR.);
%GETD_PAR(LOC=Q2FY20&YR.);
%GETD_PAR(LOC=Q3FY20&YR.);
*%GETD_PAR(LOC=Q4FY2013);

DATA Q1;
   MERGE Q1FY20&YR.(IN=IN1) TEMP1_Q1FY20&YR.(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;
```

```
DATA Q2;
   MERGE Q2FY20&YR.(IN=IN1) TEMP1_Q2FY20&YR.(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;

DATA Q3;
   MERGE Q3FY20&YR.(IN=IN1) TEMP1_Q3FY20&YR.(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;
/*
DATA Q4;
   MERGE Q4FY2013(IN=IN1) TEMP1_Q4FY2013(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;
*/
DATA TEMP1;
   SET Q1 Q2 Q3; *Q4;
   BY MPRID;

   IF      SERVAFF = 'A' THEN XSERVAFF = 1; * Army;
   ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2; * Air Force;
   ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3; * Navy;
   ELSE XSERVAFF = 4;                       * Other;

   ************************************************************************
   * Assign XTNEXREG and XOCONUS using XREGION.
   ************************************************************************;
   IF XREGION IN (1,2,5) THEN XTNEXREG = 1;
   ELSE IF XREGION IN (3,4,6) THEN XTNEXREG = 2;
   ELSE IF XREGION IN (7,8,9,10,11,12,16) THEN XTNEXREG = 3;
   ELSE IF XREGION IN (13,14,15) THEN XTNEXREG = 4;
   ELSE IF XREGION = . THEN DO; /* MER 03/23/10 - If XREGION is missing, set XTNEXREG = TNEXREG
*/
      IF TNEXREG = 'N' THEN XTNEXREG=1;
      ELSE IF TNEXREG = 'S' THEN XTNEXREG=2;
      ELSE IF TNEXREG = 'W' THEN XTNEXREG=3;
      ELSE IF TNEXREG = 'O' THEN XTNEXREG=4;
      ELSE XTNEXREG=.;
   END;

   IF XREGION      = 13 THEN XOCONUS = 1;
   ELSE IF XREGION = 14 THEN XOCONUS = 2;
   ELSE IF XREGION = 15 THEN XOCONUS = 3;
RUN;

*************************************************************************
* Create and attach XCATCH (Catchment Reporting variable) to final dataset.
* Note that dataset TMPXCTCH with XCATCH is created by this include file.
*************************************************************************;
%INCLUDE "XCATCH.INC"; * Requires input dataset called TEMP1;
PROC SORT DATA=TMPXCTCH; BY MPRID; RUN;

PROC SORT DATA=IN20&YR..HCS&YR.A_1(DROP=XCATCH) OUT=HCS&YR.A_1;
   BY MPRID;
RUN;

DATA OUT.XCATCH&YR.;
   MERGE HCS&YR.A_1(IN=IN1) TMPXCTCH(IN=IN2);
   BY MPRID;
   FORMAT _ALL_;
   KEEP MPRID XCATCH QUARTER;
RUN;

TITLE1 "Annual DOD Health Care Survey Database (6244-300)";
TITLE2 "Program Name: Fix20&YR.XCATCH.SAS By Keith Rathbun";
TITLE3 "Program Inputs: 20&YR. HCSDB sample and analysis files";
TITLE4 "Program Output: XCATCH&YR..sas7bdat - FY 20&YR. Combined XCATCH dataset";

PROC FREQ;
   TABLES XCATCH /MISSING LIST;
RUN;
```

F.19.A WEIGHTING\COMB2015.SAS - Combine quarterly datasets into one annual file - Annual

```
***************************************************************************
*
*  PROGRAM:  COMB2015.SAS
*  TASK:     ANNUAL DOD HEALTH CARE SURVEY ANALYSIS (6244-300)
*  PURPOSE:  Combine quarterly datasets into one annual file.
*
*  WRITTEN:  12/23/2002 BY KEITH RATHBUN.
*
*   INPUTS:  1) HCSyyq_2.sas7bdat - Q1-Q4 DOD HCS Analysis files
*                  Where yy = Year (11)
*                         q = Quarter Number (1-4)
*
*  MODIFIED: 1) September 17, 2009 by Emma Ernst for 2009 database
*            2) October 12, 2010 by Mike Rudacille for 2010 database
*               Switched from HCSyyq_1 to HCSyyq_2, as some of the necessary variables
*               are now only available in the restricted use dataset
*            3) September 23, 2011 by Mike Rudacille for 2011 database
*            4) September 20, 2012 by Amanda Kudis for 2012 database
*            5) July 24, 2013 by Amanda Kudis for 2013 datasets
*            6) June 02, 2014 by Amanda Kudis for 2014 datasets
*            7) July 21, 2015 by Matt Turbyfill for 2015 datasets
*
*   OUTPUT:  1) COMB2015.sas7bdat - Combined quarterly datasets in one annual file
*
*    NOTES:  1) The output dataset produced by this program contains all
*               of the original quarterly responses plus additional
*               responses that "trickled" in after the end of the
*               fielding period. The variable called QUARTER can be used
*               to identify which version of the quarterly survey is
*               applicable to the respondent.
*
*  INCLUDES: 1) XCATCH.INC - Create catchment reporting variable
*
***************************************************************************
* Assign data libraries and options
***************************************************************************;
LIBNAME INQ1      "..\..\..\Q1FY2015t\DATA\AFINAL";
LIBNAME INQ2      "..\..\..\Q2FY2015t\DATA\AFINAL";
LIBNAME INQ3      "..\..\..\Q3FY2015\DATA\AFINAL"; *AMK NO TRICKLE FOR 2014;
*LIBNAME INQ4      "..\..\..\Q4FY2012\DATA\AFINAL"; /***AMK NO Q4 FOR 2014; JMA 11/17/2011 -
Unlike other years, In 2011, we used trickle Q4 data ***/
LIBNAME OUT       "..\..\DATA";
LIBNAME LIBRARY   "..\..\Data\fmtlib";
OPTIONS COMPRESS=YES LS=142 PS=79 NOCENTER NOFMTERR;

***************************************************************************
* Extract variable names for each quarter for overlap checking purposes.
***************************************************************************;
PROC CONTENTS DATA=INQ1.HCS151_2 OUT=Q1(KEEP=NAME) NOPRINT; RUN;
PROC SORT; BY NAME; RUN;

PROC CONTENTS DATA=INQ2.HCS152_2 OUT=Q2(KEEP=NAME) NOPRINT; RUN;
PROC SORT; BY NAME; RUN;

PROC CONTENTS DATA=INQ3.HCS153_2 OUT=Q3(KEEP=NAME) NOPRINT; RUN;
PROC SORT; BY NAME; RUN;

/*PROC CONTENTS DATA=INQ4.HCS144_2 OUT=Q4(KEEP=NAME) NOPRINT; RUN;*AMK NO Q4 FOR 2014;
PROC SORT; BY NAME; RUN;*/

DATA VARIABLES;
   MERGE Q1(IN=INQ1) Q2(IN=INQ2) Q3(IN=INQ3) /*Q4(IN=INQ4)*/;*AMK NO Q4 FOR 2014;
   BY NAME;
   LENGTH Q1-Q3 $3; *AMK NO Q4 FOR 2014;
   IF INQ1 THEN Q1 = "YES"; ELSE Q1 = "NO";
   IF INQ2 THEN Q2 = "YES"; ELSE Q2 = "NO";
   IF INQ3 THEN Q3 = "YES"; ELSE Q3 = "NO";
   /*IF INQ4 THEN Q4 = "YES"; ELSE Q4 = "NO";*AMK NO Q4 FOR 2014;*/
RUN;

TITLE1 "Annual DOD Health Care Survey Database (6244-300)";
```

```
TITLE2 "Program Name: COMB2015.SAS By Keith Rathbun";
TITLE3 "Program Inputs: HCSyyq_2.sas7bdat - Q1-Q3 DOD HCS Sample and Analysis files"; *AMK NO Q4
FOR 2014;
TITLE4 "Program Output: COMB2015.sas7bdat - Combined quarterly datasets in one annual file";

***************************************************************************
* Print summary of variable name quarterly overlap.
***************************************************************************;
PROC PRINT; RUN;

***************************************************************************
* Combine quarterly datasets with all of the "trickle" data into one file.
***************************************************************************;
DATA COMB2015(DROP= XCATCH /* Xcatch will be recreated based on annual counts */);
   SET INQ1.HCS151_2              /* MER 10/5/11 - MISS_3 was out of scope in 2011 and was
dropped */
       INQ2.HCS152_2              /* starting in Q2. This DROP statement can be removed in
COMB2012 */
       INQ3.HCS153_2              /* AMK REMOVED (DROP=MISS_3) for 2012*/
       /*INQ4.HCS124_2*/; *AMK NO Q4 FOR 2014;
   BY MPRID;
   LABEL FIELDAGE = "Age at start of fielding period"
         DAGEQY   = "Age at time of data collection"
        ;
RUN;

***************************************************************************
* Sort by MPRID and check for duplicates.  There should not be duplicates.
***************************************************************************;
PROC SORT DATA=COMB2015 NODUPKEY OUT=TEMP1; BY MPRID; RUN;

***************************************************************************
* Create and attach XCATCH (Catchment Reporting variable) to final dataset.
* Note that dataset TEMP with XCATCH is created by this include file.
***************************************************************************;
%INCLUDE "XCATCH.INC"; * Requires input dataset called TEMP1;
PROC SORT DATA=TMPXCTCH; BY MPRID; RUN;


DATA OUT.COMB2015
     HCS151_2x(KEEP=MPRID XCATCH) HCS152_2x(KEEP=MPRID XCATCH)
     HCS153_2x(KEEP=MPRID XCATCH) /*HCS124_2x(KEEP=MPRID XCATCH)*/ ; *AMK NO Q4 FOR 2014;

   MERGE TEMP1(IN=IN1) TMPXCTCH(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2 THEN DO;
      IF XCATCH = 1450 THEN XCATCH = 117; /* MER 11/15/08 Map new Lackland */
                                          /* catchment area to old one     */

      IF XCATCH = 37 THEN XCATCH = 67; /* MER 11/7/12 Map old Walter Reed */
                                       /* catchment area to new one       */
      OUTPUT OUT.COMB2015;
      IF QUARTER="Q1FY2015" THEN OUTPUT HCS151_2x;
      IF QUARTER="Q2FY2015" THEN OUTPUT HCS152_2x;
      IF QUARTER="Q3FY2015" THEN OUTPUT HCS153_2x;
      *IF QUARTER="Q4FY2012" THEN OUTPUT HCS124_2x;*AMK NO Q4 FOR 2014;
   END;
RUN;
/* AMK 6/16/ Don't over write quaterly until after code review
DATA INQ1.HCS151_2;
   UPDATE INQ1.HCS151_2 HCS151_2x;
   BY MPRID;
RUN;

DATA INQ2.HCS152_2;
   UPDATE INQ2.HCS152_2 HCS152_2x;
   BY MPRID;
RUN;

DATA INQ3.HCS153_2;
   UPDATE INQ3.HCS153_2 HCS153_2x;
   BY MPRID;
RUN;
*/
```

```
/*DATA INQ4.HCS124_2;
   UPDATE INQ4.HCS124_2 HCS124_2x;
   BY MPRID;
RUN;*/ *AMK NO Q4 FOR 2013;


PROC CONTENTS; RUN;
```

F.19.B WEIGHTING\XCATCH.INC - Create detailed CACSMPL for annual report cards - Annual.

```
***************************************************************************
*
* PROGRAM:   XCATCH.INC
* TASK:      DOD HEALTH CARE SURVEY ANALYSIS (6077-300)
* PURPOSE:   CREATE DETAILED CACSMPL FOR ANNUAL REPORT CARDS
*
* WRITTEN:   01/20/2004 BY KEITH RATHBUN
*
* MODIFIED:  1) 02/14/2005 BY LUCY LU. RENAME STEP1Q.INC TO XCATCH.INC
*            2) 03/10/2005 BY LUCY LU, REVISED PROGRAM TO RUN 2002 AND 2003 FILES
*            3) 01/06/2006 BY KEITH RATHBUN.  Updated for 2006.  Removed
*               PROCESS macro.
*                      4) 07/31/2015 BY MATT TURBYFILL. Added 0366 to line 106 so that Randolph
is calculated separately for the 2015 annual run.
*
*
* INPUTS:   1) TEMP1.sas7bdat - Temporary SAS dataset
*           2) TMA.sas7bdat - TMA-provided catchment definitions
*
* OUTPUT:   1) TEMP.sas7bdat  - Temporary SAS dataset
*
* NOTES:    1) This program is setup to run for all survey years as long
*              as the necessary variables are passed to it in TEMP1.
*           2) Required variables in TEMP1 dataset include the following:
*              MPRID, ENRID, PCM, DCATCH, D_PAR, D_HEALTH, and D_FAC.
*
* INCLUDES: 1) AssignGEOCELL.inc
*           2) AssignCOM_GEO.inc
*
***************************************************************************;

/*HXU 7/17/2015: Copied and modified from
N:\Project\40309_HCS\DC1\HCSDB\Q3FY2015\Programs\Weighting\xcatchi.inc (lastquarter for 2015)*/

LIBNAME TMA V9 "N:\Project\40309_HCS\DC1\HCSDB\Q3FY2015\Data\AFinal";
DATA TEMP(KEEP=MPRID GEOCELL PCM ENRID XTNEXREG XSERVAFF XOCONUS PATCAT);
   SET TEMP1;
   BY MPRID;
   if pcm = 'MTF' then do;
      %INCLUDE "N:\Project\40309_HCS\DC1\HCSDB\Q3FY2015\Programs\Sampling\AssignGeoCell.inc";
      else if ('1976' <= enrid <= '1980' ) or ( '6301' <= enrid <= '6323' ) or
         ('6991' <= enrid <= '6994')   or ('6501' <=enrid <='6512') or
         ('7166' <= enrid <= '7195') or ('6700' <= enrid <= '6881') or enrid='0000'
         then geocell=dcatch; *administrative assignment 1976-1980 added q4 2002, 6700-6881
added q1 2004,
                              0000 added q1,2005;
       else if ('8001' <= enrid <= '8036') or ('6901' <= enrid <= '6919')
         then geocell = dcatch; *Managed care contractor assignment, added in q1 2005; *8001-
8036 added q2 2005;
      else if ('3031' <= enrid <= '3057')
         then geocell = dcatch; ***On board ship***;
      else if enrid in ('0002', '0041', '0044', '0082', '0111', '0213', '0235', '0585', '5208',
'0250',
                        '0449', '0626', '0012')
         then geocell = dcatch; ***Inactive***;  *0626 added q2 2003, 0012 added q4 2003,
                                                  0041, 0044, 0082, 0111, 0213, 0235, 0585 added
q2 2005;
      else if enrid = ' ' then geocell = dcatch; ***enrolled, but missing ENRID, added q2
2005***;
      ****************************************************************;
      else if ('0190' <= enrid <='0199') then geocell = dcatch;**BYDON;
      ****************************************************************;
      else geocell = enrid;
   end;
   else if patcat='ACTDTY' then geocell=dcatch; /*Added in q1fy2007, Put the rest of ACTDTY in
their dcatch for sampling purpose*/
   else geocell=dcatch;
RUN;

PROC SORT DATA=TEMP; BY GEOCELL; RUN;
```

```
data TMA (keep = geocell d_par d_fac d_instal d_health d_dmis servaff);
   set TMA.TMA;
   rename facility_Type_Code   =d_fac
          installation_Name    =d_instal
          dmis_facility_Name   =d_dmis
          facility_Service_Code=servaff ;
   length d_par $4.;
   d_par = DMIS_PARENT_ID;
   length geocell $4.;
   geocell = DMIS_ID;
   length d_health $2.;
   d_health = HEALTH_Service_region;
run;

PROC SORT DATA=TMA; BY GEOCELL; RUN;

DATA TEMP;
   MERGE TEMP(IN=IN1) TMA(IN=IN2);
   BY GEOCELL;
   LENGTH FLAG $15;
   IF IN1 AND IN2 THEN FLAG = "BOTH";
   ELSE IF IN1 THEN FLAG = "HCSDB ONLY";
   ELSE FLAG = "TMA XLS ONLY";
   IF IN1;
RUN;

PROC FREQ;
   TABLES FLAG /MISSING LIST;
RUN;

DATA TEMP(KEEP=MPRID XCATCH XTNEXREG XSERVAFF XOCONUS);
   SET TEMP;
   LENGTH XCATCH 8;
   com_geo = geocell;
   if pcm = 'MTF' then do;
      %INCLUDE "N:\Project\40309_HCS\DC1\HCSDB\Q3FY2015\Programs\Sampling\AssignCOM_GEO.inc";
      else if ('1976' <= enrid <= '1980' ) or ( '6301' <= enrid <= '6323' ) or
         ('6991' <= enrid <= '6994')   or ('6501' <=enrid <='6512') or
         ('7166' <= enrid <= '7195') or ( '6700' <= enrid <= '6881' ) or enrid = '0000' or
         ('8001' <= enrid <= '8036') or ('6901' <= enrid <= '6919') or
         ('3031' <= enrid <= '3057') or
         enrid in ('0002', '0041', '0044', '0082', '0111', '0213', '0235', '0585', '5208',
'0250',
                        '0449', '0626', '0012', '0366') or
         ('0190' <= enrid <='0199') then com_geo = geocell;
      else com_geo = d_par;
   end;
   else if patcat='ACTDTY' then com_geo=d_par;

   if d_fac='NONCAT' or d_fac='TGRO' or d_fac="TPR" then do;
      if d_health in ('01','02','05','17') then com_geo = '9901';
      else if d_health in ('03','04','06','18') then com_geo = '9902';
      else if d_health in ('07','08','09','10','11','12','19') then com_geo = '9903';
      else if d_health in ('00','13','14','15') then com_geo = '9904';
   end;
   ******************************************************************************;
   ***d_fac="TPR" and d_health = '17', '18', '19' were added above for Q4, 2004,  ***;
   ***since we got the new regions 17(North T_NEX),18(South T_NEX),19(West T_NEX).***;
   ******************************************************************************;

   *** If the facility is unknown then set com_geo indicates unknown facility ***;
   *** '0999' added 03/15 to account for id 6992;
   if com_geo in ('9900', '0999', '0998',' ') then com_geo = '9904';

   ********************************************************************;
   ***Made the following 9 Navy sites stand alone in q1,2005:       ***;
   ***'0026','0068','0231','0378','0387','0405','0407','0508','6215'***;
   ********************************************************************;

   /*NOTE in q1fy2007: All thest 9 sites are in listdmis.sd2 that Eric provides, which makes
sense.

   Note in q2fy2015: Put 0366 here as a separate strata.
```

```
   since it is on the MTF list, and historically is a separate strata(that is, DMIS parent ID is
itself),
   though now its DMIS pareant ID is 0117, but it is a huge clinic with a lot of enrollees(16507
in q2fy2015),
   so we want to have a separate strata for it*/


   if geocell in ('0026','0068','0231','0378','0387','0405','0407','0508','6215','0366') then
com_geo=geocell;

   xcatch = INPUT(com_geo,8.);
   label xcatch = "XCATCH - Catchment Area (Reporting)";
RUN;

PROC SORT DATA=TEMP; BY XCATCH; RUN;

PROC SUMMARY DATA=TEMP NWAY;
     CLASS XCATCH;
     OUTPUT OUT=TEMPCNT(DROP=_TYPE_ rename=_FREQ_=XCATCHno);
RUN;

PROC PRINT DATA=TEMPCNT;
RUN;

DATA TMPXCTCH(KEEP=MPRID XCATCH);
   MERGE TEMPCNT TEMP;
   BY XCATCH;

   /*** JMA 10/25/2006 Values of Xcatch which occur less than 20 times in
    *** the dataset will be updated
    ***/


   IF XCATCHno < 60 THEN DO;
      XCATCH=SUM(9000,100*XTNEXREG,XSERVAFF);

      IF XOCONUS=1 THEN XCATCH=SUM(9400,XSERVAFF);
      IF XOCONUS=2 THEN XCATCH=SUM(9500,XSERVAFF);
      IF XOCONUS=3 THEN XCATCH=SUM(9600,XSERVAFF);
   END;

RUN;
```

F.20 WEIGHTING\ADDWGTS.SAS - Merge the combined annual weights with the final questionnaire/sample file - Annual

```
***************************************************************************
*
* PROGRAM:  ADDWGTS.SAS
* TASK:     DOD HEALTH CARE SURVEY ANALYSIS (6244-300)
* PURPOSE:  MERGE THE FINAL WEIGHTS FILE WITH THE FINAL
*           QUESTIONNAIRE/SAMPLE FILE
*
* WRITTEN:  02/02/2001 BY KEITH RATHBUN
*
* MODIFIED: 1) 01/15/2002 BY KEITH RATHBUN: Updated to combine all quarterly
*              datasets including trickles with the annual weights file.
*           2) 12/30/2002 BY KEITH RATHBUN: Updated for 2002 survey.
*           3) 01/20/2004 BY LUCY LU: Updated for 2003 survey.
*           4) 02/10/2004 BY KEITH RATHBUN: Added catchment reporting variable
*              (XCATCH) constructed in STEP1Q.
*           5) 03/03/05 BY LUCY LU: Updateed for 2004 annual survey.
*              -- Create macro variables and eliminate macro program,
*              -- update the length statement for year 2004.
*           6) 01/04/2006 BY KEITH RATHBUN: Updated for 2005 survey.
*           7) 09/18/2007 BY LUCY LU: Updated for 2007 survey.
*           8) 09/17/2009 BY Emma Ernst: Updated for 2009 survey.
*           9) 10/13/2010 BY MIKE RUDACILLE: Updated for 2010 survey.
*                Modified to produce both public and private use datasets.
*          10) 09/23/2011 BY MIKE RUDACILLE: Updated for 2011 survey.
*          11) 09/20/2012 by AMANDA KUDIS: Updated for 2012 survey.
*          12) 07/24/13 BY AMANDA KUDIS: Updates for 2013 survey.
*
* INPUTS:   1) CREPWT.sas7bdat  - Final/Replicated Weights file - FORM A
*           2) COMB2014.sas7bdat - Combined Q1-Q3 FORM A Questionnaire/Sample File *AMK NO Q4
FOR 2014;
*
* OUTPUTS:  1) HCSyyA_n.sas7bdat - Final FORM A Questionnaire/Sample File
*              combined with Final/Replicated Weights file - FORM A
*              where  yy = Year
*                      A = Form A - Annual
*                      n = Final Dataset Suffix/Version Number
*           2) HCSyyA_n.XPT - Final Adult SAS XPORT Dataset
*              where  yy = Year
*                      A = Form A - Annual
*                      n = Final Dataset Suffix/Version Number
*
* NOTES:    1) This program combines all of the quarterly input datasets
*              including trickles with the annual weights file.
*
***************************************************************************;

%LET YR = 15;

LIBNAME OUT          "..\..\DATA";
LIBNAME LIBRARY "..\..\Data\FMTLIB";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER NOFMTERR;

%LET DSNI_1 = CREPWT;
%LET DSNI_2 = COMB20&YR.;
%LET DSNO_1 = HCS&YR.A_1;
%LET DSNO_2 = HCS&YR.A_2;

***************************************************************************
* Merge the final weights file with the final Questionnaire/Sample file
***************************************************************************;
PROC SORT DATA=OUT.&DSNI_1 OUT=&DSNI_1; WHERE FNSTATUS EQ 11; BY MPRID; RUN;
PROC SORT DATA=OUT.&DSNI_2 OUT=&DSNI_2; BY MPRID; RUN;

DATA &DSNO_2(DROP= DRP_RND1  /* jma Oct 24 2008 */
          );

   MERGE &DSNI_2(IN=IN2 )
         &DSNI_1(IN=IN1 KEEP=MPRID CFWT CFWT1-CFWT180); /*AMK changed CFWT240 to CFWT180 for
2013*/
```

```
   BY MPRID;

   IF FNSTATUS = 11;
   IF IN1 AND IN2;
   IF NOT (IN1 AND IN2) THEN PUT "ERROR: NO MATCHING MPRID WITH &DSNI_1..sas7bdat AND
&DSNI_2..sas7bdat";


   FORMAT CACSMPL CACR.  WEB WEB.  /* MER 11/7/12 - changed from CAC to CACR format */
          /*TRICKDUP $trckdup. */

       N1
       N2 N3 N3_BC1 N3_BC2 N4 N5 N5_C1 N5_C2 N5_C3
       N6 N7 N8 N8_01
       N9 N10 N10_B1
       N11 N12 N13 N14 N15 N16
       N17 N17_R1 N17_R2 N17_R3 N17_R4
       N18 N19A N19B N20 N21 N22 N23 N23_HT N23_WT
       N24 N25
          notes.

          XBMI xbmi.;

    LABEL CFWT='Combined Annual NEW Weight';


  RUN;


DATA OUT.&DSNO_2 ;
   ************************************************************************
   * Reorder file for documentation purposes.
   ************************************************************************;
   LENGTH
       MPRID       $ 8         /* ID                */
       SVCSMPL       8         /* sampling variable */
       SEXSMPL       8         /* sampling variable */
       STRATUM     $ 7         /* sampling variable */
       CACSMPL       8         /* sampling variable */
       ENBGSMPL    $ 2         /* sampling variable */
       MPCSMPL       8         /* sampling variable */
       NHFF          8         /* sampling variable */
       SERVAREA    $ 2         /* sampling variable */
       QUARTER     $ 8         /* sampling variable */
       /*PRN           8*/         /* sampling variable */
       DCATCH      $ 4         /* sampling variable */
       ENRID       $ 4         /* sampling variable */
       /*DMIS_ID     $ 9*/         /* sampling variable */
       MSM         $ 2         /* sampling variable */
       D_FAC       $ 9         /* sampling variable */
       /*D_PAR       $ 4*/         /* sampling variable */
       D_HEALTH    $ 2         /* sampling variable */
       TNEXREG     $ 1         /* sampling variable */
       SERVAFF     $ 1         /* sampling variable */
       /*COM_GEO     $ 4*/         /* sampling variable */ /* MER 7/20/10 - Added to sampling
vars so it won't be */
                                                          /* at the end of the proc contents by
default anymore. */
                                                          /* This variable gets dropped in
ADDWGTSA.sas.         */


       MRTLSTAT    $ 1         /* DEERS variable    */
       RACEETHN    $ 1         /* DEERS variable    */
       PNSEXCD     $ 1         /* DEERS variable    */
       DAGEQY      $ 3         /* DEERS variable    */
       RDAGEQY       3         /* DEERS variable    */
       FIELDAGE    $ 3         /* DEERS variable    */
       RFLDAGE       3         /* DEERS variable    */
       PCM         $ 3         /* DEERS variable    */
       ACV         $ 1         /* DEERS variable    */
       DBENCAT     $ 3         /* DEERS variable    */
       DMEDELG     $ 1         /* DEERS variable    */
       DSPONSVC    $ 1         /* DEERS variable    */
```

```
MBRRELCD    $ 1         /* DEERS variable    */
MEDTYPE     $ 1         /* DEERS variable    */
PATCAT      $ 7         /* DEERS variable    */
PNTYPCD     $ 1         /* DEERS variable    */
PNLCATCD    $ 1         /* DEERS variable    */


H&YR.001        4         /* Questionnaire variable     */
H&YR.002A       4         /* Questionnaire variable     */
H&YR.002C       4         /* Questionnaire variable     */
H&YR.002N       4         /* Questionnaire variable     */
H&YR.002O       4         /* Questionnaire variable     */
H&YR.002P       4         /* Questionnaire variable     */
H&YR.002Q       4         /* Questionnaire variable     */
H&YR.002S       4         /* Questionnaire variable     */
H&YR.002T       4         /* Questionnaire variable     */
H&YR.002V       4         /* Questionnaire variable     */
H&YR.002K       4         /* Questionnaire variable     */
H&YR.002U       4         /* Questionnaire variable     */
H&YR.002F       4         /* Questionnaire variable     */
H&YR.002G       4         /* Questionnaire variable     */
H&YR.002H       4         /* Questionnaire variable     */
H&YR.002I       4         /* Questionnaire variable     */
H&YR.002J       4         /* Questionnaire variable     */
H&YR.002M       4         /* Questionnaire variable     */
H&YR.002R       4         /* Questionnaire variable     */
H&YR.002L       4         /* Questionnaire variable     */
H&YR.003        4         /* Questionnaire variable     */
H&YR.004        4         /* Questionnaire variable     */
H&YR.005        4         /* Questionnaire variable     */
H&YR.006        4         /* Questionnaire variable     */
H&YR.007        4         /* Questionnaire variable     */
H&YR.008        4         /* Questionnaire variable     */
H&YR.009        4         /* Questionnaire variable     */
H&YR.010        4         /* Questionnaire variable     */
H&YR.011        4         /* Questionnaire variable     */
H&YR.012        4         /* Questionnaire variable     */
H&YR.013        4         /* Questionnaire variable     */
H&YR.014        4         /* Questionnaire variable     */
H&YR.015        4         /* Questionnaire variable     */
H&YR.016        4         /* Questionnaire variable     */
H&YR.017        4         /* Questionnaire variable     */
H&YR.018        4         /* Questionnaire variable     */
H&YR.019        4         /* Questionnaire variable     */
H&YR.020        4         /* Questionnaire variable     */
H&YR.021        4         /* Questionnaire variable     */
H&YR.022        4         /* Questionnaire variable     */
H&YR.023        4         /* Questionnaire variable     */
H&YR.024        4         /* Questionnaire variable     */
H&YR.025        4         /* Questionnaire variable     */
H&YR.026        4         /* Questionnaire variable     */
H&YR.027        4         /* Questionnaire variable     */
H&YR.028        4         /* Questionnaire variable     */
H&YR.029        4         /* Questionnaire variable     */
H&YR.030        4         /* Questionnaire variable     */
H&YR.031        4         /* Questionnaire variable     */
H&YR.032        4         /* Questionnaire variable     */
H&YR.033        4         /* Questionnaire variable     */
H&YR.034        4         /* Questionnaire variable     */
H&YR.035        4         /* Questionnaire variable     */
H&YR.036        4         /* Questionnaire variable     */
H&YR.037        4         /* Questionnaire variable     */
H&YR.038        4         /* Questionnaire variable     */
H&YR.039        4         /* Questionnaire variable     */
H&YR.040        4         /* Questionnaire variable     */
H&YR.041        4         /* Questionnaire variable     */
H&YR.042        4         /* Questionnaire variable     */
H&YR.043        4         /* Questionnaire variable     */
H&YR.044        4         /* Questionnaire variable     */
H&YR.045        4         /* Questionnaire variable     */
H&YR.046        4         /* Questionnaire variable     */
H&YR.047        4         /* Questionnaire variable     */
H&YR.048        4         /* Questionnaire variable     */
H&YR.049        4         /* Questionnaire variable     */
```

```
H&YR.050        4         /* Questionnaire variable     */
H&YR.051        4         /* Questionnaire variable     */
H&YR.052        4         /* Questionnaire variable     */
H&YR.053        4         /* Questionnaire variable     */
H&YR.054        4         /* Questionnaire variable     */
H&YR.055        4         /* Questionnaire variable     */
H&YR.056        4         /* Questionnaire variable     */
H&YR.057A       4         /* Questionnaire variable     */
H&YR.057B       4         /* Questionnaire variable     */
H&YR.057C       4         /* Questionnaire variable     */
H&YR.057D       4         /* Questionnaire variable     */
H&YR.058        4         /* Questionnaire variable     */
H&YR.059B       4         /* Questionnaire variable     */
H&YR.060        4         /* Questionnaire variable     */
H&YR.061        4         /* Questionnaire variable     */
H&YR.062        4         /* Questionnaire variable     */
H&YR.063        4         /* Questionnaire variable     */
H&YR.064        4         /* Questionnaire variable     */
H&YR.065        4         /* Questionnaire variable     */
H&YR.066        4         /* Questionnaire variable     */
H&YR.067        4         /* Questionnaire variable     */
H&YR.068        4         /* Questionnaire variable     */
H&YR.069        4         /* Questionnaire variable     */
H&YR.070        4         /* Questionnaire variable     */
H&YR.071F       4         /* Questionnaire variable     */
H&YR.071I       4         /* Questionnaire variable     */
H&YR.072        4         /* Questionnaire variable     */
H&YR.073        4         /* Questionnaire variable     */
H&YR.073A       4         /* Questionnaire variable     */
H&YR.073B       4         /* Questionnaire variable     */
H&YR.073C       4         /* Questionnaire variable     */
H&YR.073D       4         /* Questionnaire variable     */
H&YR.073E       4         /* Questionnaire variable     */
H&YR.074        4         /* Questionnaire variable     */
H&YR.075        4         /* Questionnaire variable     */
H&YR.076        4         /* Questionnaire variable     */
H&YR.077        4         /* Questionnaire variable     */
H&YR.078        4         /* Questionnaire variable     */
H&YR.079        4         /* Questionnaire variable     */

SREDA         4         /* Questionnaire variable     */
SRRACEA       4         /* Questionnaire variable     */
SRRACEB       4         /* Questionnaire variable     */
SRRACEC       4         /* Questionnaire variable     */
SRRACED       4         /* Questionnaire variable     */
SRRACEE       4         /* Questionnaire variable     */
SRAGE         4         /* Questionnaire variable     */

S&YR.009        4         /* Q1 & Q2 & Q3 Supplement      */
S&YR.010        4         /* Q1 & Q2 & Q3 Supplement      */
S&YR.011        4         /* Q1 & Q2 & Q3 Supplement      */
S&YR.014        4         /* Q1 & Q2 & Q3 Supplement      */
S&YR.B01        4         /* Q1 & Q2 & Q3 Supplement      */
S&YR.B02        4         /* Q1 & Q2 & Q3 Supplement      */
S&YR.B03        4         /* Q1 & Q2 & Q3 Supplement      */
S&YR.B04        4         /* Q1 & Q2 & Q3 Supplement      */


S&YR.BC01A      4         /* Q1 Supplement      */
S&YR.BC01B      4         /* Q1 Supplement      */
S&YR.BC01C      4         /* Q1 Supplement      */
S&YR.BC01D      4         /* Q1 Supplement      */
S&YR.BC02A      4         /* Q1 Supplement      */
S&YR.BC02B      4         /* Q1 Supplement      */
S&YR.BC02C      4         /* Q1 Supplement      */
S&YR.BC02D      4         /* Q1 Supplement      */
S&YR.BC03A      4         /* Q1 Supplement      */
S&YR.BC03B      4         /* Q1 Supplement      */
S&YR.BC03C      4         /* Q1 Supplement      */
S&YR.BC03D      4         /* Q1 Supplement      */
S&YR.BC03E      4         /* Q1 Supplement      */
S&YR.BC04A      4         /* Q1 Supplement      */
S&YR.BC04B      4         /* Q1 Supplement      */
S&YR.BC04C      4         /* Q1 Supplement      */
```

```
S&YR.BC04D      4          /* Q1 Supplement      */
S&YR.BC04E      4          /* Q1 Supplement      */
S&YR.BC04F      4          /* Q1 Supplement      */
S&YR.BC04G      4          /* Q1 Supplement      */
S&YR.BC05A      4          /* Q1 Supplement      */
S&YR.BC05B      4          /* Q1 Supplement      */
S&YR.BC05C      4          /* Q1 Supplement      */
S&YR.BC05D      4          /* Q1 Supplement      */
S&YR.BC06A      4          /* Q1 Supplement      */
S&YR.BC06B      4          /* Q1 Supplement      */
S&YR.BC06C      4          /* Q1 Supplement      */
S&YR.BC06D      4          /* Q1 Supplement      */
S&YR.BC07A      4          /* Q1 Supplement      */
S&YR.BC07B      4          /* Q1 Supplement      */
S&YR.BC07C      4          /* Q1 Supplement      */
S&YR.BC07D      4          /* Q1 Supplement      */
S&YR.BC07E      4          /* Q1 Supplement      */
S&YR.BC08A      4          /* Q1 Supplement      */
S&YR.BC08B      4          /* Q1 Supplement      */
S&YR.BC08C      4          /* Q1 Supplement      */
S&YR.BC08D      4          /* Q1 Supplement      */
S&YR.BC08E      4          /* Q1 Supplement      */
S&YR.BC08F      4          /* Q1 Supplement      */
S&YR.BC09       4          /* Q1 Supplement      */
S&YR.BC10       4          /* Q1 Supplement      */


S&YR.BE01A      4          /* Q2 Supplement      */
S&YR.BE01B      4          /* Q2 Supplement      */
S&YR.BE01C      4          /* Q2 Supplement      */
S&YR.BE01D      4          /* Q2 Supplement      */
S&YR.J01        4          /* Q2 Supplement      */
S&YR.J02A       4          /* Q2 Supplement      */
S&YR.J02B       4          /* Q2 Supplement      */
S&YR.J02C       4          /* Q2 Supplement      */
S&YR.J02D       4          /* Q2 Supplement      */
S&YR.J02E       4          /* Q2 Supplement      */
S&YR.J02F       4          /* Q2 Supplement      */
S&YR.J02G       4          /* Q2 Supplement      */
S&YR.J02H       4          /* Q2 Supplement      */
S&YR.J02I       4          /* Q2 Supplement      */
S&YR.J03        4          /* Q2 Supplement      */
S&YR.J04        4          /* Q2 Supplement      */
S&YR.J05        4          /* Q2 Supplement      */
S&YR.J06        4          /* Q2 Supplement      */
S&YR.J07A       4          /* Q2 Supplement      */
S&YR.J07B       4          /* Q2 Supplement      */
S&YR.J07C       4          /* Q2 Supplement      */
S&YR.J07D       4          /* Q2 Supplement      */
S&YR.J07E       4          /* Q2 Supplement      */
S&YR.J07F       4          /* Q2 Supplement      */
S&YR.J07G       4          /* Q2 Supplement      */
S&YR.J07H       4          /* Q2 Supplement      */
S&YR.J07I       4          /* Q2 Supplement      */
S&YR.J07J       4          /* Q2 Supplement      */
S&YR.J07K       4          /* Q2 Supplement      */
S&YR.J07L       4          /* Q2 Supplement      */
S&YR.J07M       4          /* Q2 Supplement      */
S&YR.J07N       4          /* Q2 Supplement      */
S&YR.J07O       4          /* Q2 Supplement      */
S&YR.J08        4          /* Q2 Supplement      */
S&YR.J09A       4          /* Q2 Supplement      */
S&YR.J09B       4          /* Q2 Supplement      */
S&YR.J09C       4          /* Q2 Supplement      */
S&YR.J09D       4          /* Q2 Supplement      */
S&YR.J09E       4          /* Q2 Supplement      */
S&YR.J09F       4          /* Q2 Supplement      */
S&YR.J09G       4          /* Q2 Supplement      */
S&YR.J09H       4          /* Q2 Supplement      */
S&YR.J09I       4          /* Q2 Supplement      */
S&YR.J09J       4          /* Q2 Supplement      */
S&YR.J09K       4          /* Q2 Supplement      */
S&YR.J09L       4          /* Q2 Supplement      */
S&YR.J10        4          /* Q2 Supplement      */
```

```
 S&YR.J11A       4         /* Q2 Supplement      */
 S&YR.J11B       4         /* Q2 Supplement      */
 S&YR.J11C       4         /* Q2 Supplement      */
 S&YR.J11D       4         /* Q2 Supplement      */
 S&YR.J11E       4         /* Q2 Supplement      */
 S&YR.J11F       4         /* Q2 Supplement      */
 S&YR.J11G       4         /* Q2 Supplement      */
 S&YR.J11H       4         /* Q2 Supplement      */
 S&YR.J11I       4         /* Q2 Supplement      */
 S&YR.J11J       4         /* Q2 Supplement      */
 S&YR.J11K       4         /* Q2 Supplement      */
 S&YR.J11L       4         /* Q2 Supplement      */
 S&YR.J11M       4         /* Q2 Supplement      */
 S&YR.J11N       4         /* Q2 Supplement      */
 S&YR.J12        4         /* Q2 Supplement      */


 S&YR.C09        4         /* Q3 Supplement      */
 S&YR.C10        4         /* Q3 Supplement      */
 S&YR.C11        4         /* Q3 Supplement      */
 S&YR.C12        4         /* Q3 Supplement      */
 S&YR.C13        4         /* Q3 Supplement      */
 S&YR.C14        4         /* Q3 Supplement      */
    S&YR.R01        4          /* Q3 Supplement       */
 S&YR.R02        4         /* Q3 Supplement      */
 S&YR.R03A       4         /* Q3 Supplement      */
 S&YR.R03B       4         /* Q3 Supplement      */
 S&YR.R03C       4         /* Q3 Supplement      */
 S&YR.R03D       4         /* Q3 Supplement      */
 S&YR.R03E       4         /* Q3 Supplement      */
 S&YR.R04A       4         /* Q3 Supplement      */
 S&YR.R04B       4         /* Q3 Supplement      */
 S&YR.R04C       4         /* Q3 Supplement      */
 S&YR.R04D       4         /* Q3 Supplement      */
 S&YR.R04E       4         /* Q3 Supplement      */
 S&YR.R04F       4         /* Q3 Supplement      */
 S&YR.R04G       4         /* Q3 Supplement      */
 S&YR.R05        4         /* Q3 Supplement      */
 S&YR.R06        4         /* Q3 Supplement      */
 S&YR.R07        4         /* Q3 Supplement      */
 S&YR.R08        4         /* Q3 Supplement      */
 S&YR.R09        4         /* Q3 Supplement      */
 S&YR.R10        4         /* Q3 Supplement      */
 S&YR.R11        4         /* Q3 Supplement      */
 S&YR.R12        4         /* Q3 Supplement      */
 S&YR.R13        4         /* Q3 Supplement      */
 S&YR.R14        4         /* Q3 Supplement      */
 S&YR.R15        4         /* Q3 Supplement      */
 S&YR.015        4         /* Q3 Supplement      */


 ONTIME      $ 3         /* Survey fielding variable */
 FLAG_FIN    $ 5         /* Survey fielding variable */
 DUPFLAG     $ 3         /* Survey fielding variable */
 FNSTATUS      8         /* Survey fielding variable */
 KEYCOUNT      8         /* Survey fielding variable */
 WEB           8         /* Survey fielding variable */
 EMAILRES    $ 25        /* Survey fielding variable */
 /** jma 11/17/11 MIQCNTL    $ 12  ***/        /* Survey fielding variable */


/* EXPFLAG       8         /* CS flag variable     *//*AMK removed for 2013*/
 N1            8         /* CS flag variable     */
 N1_J1         8         /* CS flag variable     */
 N1_J2         8         /* CS flag variable     */
 N1_J3         8         /* CS flag variable     */
 N1_J4         8         /* CS flag variable     */
 N1_J5         8         /* CS flag variable     */
 N1_J6         8         /* CS flag variable     */
 N2            8         /* CS flag variable     */
 N3            8         /* CS flag variable     */
 N3_BC1        8         /* CS flag variable     */
 N3_BC2        8         /* CS flag variable     */
 N3_BC3        8         /* CS flag variable     */
```

```
N3_BC4        8         /* CS flag variable     */
N3_BC5        8         /* CS flag variable     */
N3_BC6        8         /* CS flag variable     */
N3_BC7        8         /* CS flag variable     */
N3_BC8        8         /* CS flag variable     */
N4            8         /* CS flag variable     */
N5            8         /* CS flag variable     */
N5_C1         8         /* CS flag variable     */
N5_C2         8         /* CS flag variable     */
N5_C3         8         /* CS flag variable     */
N6            8         /* CS flag variable     */
N7            8         /* CS flag variable     */
N8            8         /* CS flag variable     */
N8_01         8         /* CS flag variable     */
N9            8         /* CS flag variable     */
N10           8         /* CS flag variable     */
N10_B1        8         /* CS flag variable     */
N11           8         /* CS flag variable     */
N12           8         /* CS flag variable     */
N13           8         /* CS flag variable     */
N14           8         /* CS flag variable     */
N15           8         /* CS flag variable     */
N16           8         /* CS flag variable     */
N17           8         /* CS flag variable     */
N17_R1        8         /* CS flag variable     */
N17_R2        8         /* CS flag variable     */
N17_R3        8         /* CS flag variable     */
N17_R4        8         /* CS flag variable     */
N18           8         /* CS flag variable     */
N19A          8         /* CS flag variable     */
N19B          8         /* CS flag variable     */
N20           8         /* CS flag variable     */
N21           8         /* CS flag variable     */
N22           8         /* CS flag variable     */
N23           8         /* CS flag variable     */
N23_HT        8         /* CS flag variable     */
N23_WT        8         /* CS flag variable     */
N24           8         /* CS flag variable     */
N25           8         /* CS flag variable     */

MISS_1        8         /* CS Count             */
MISS_4        8         /* CS Count             */
MISS_5        8         /* CS Count             */
MISS_6        8         /* CS Count             */
MISS_7        8         /* CS Count             */
MISS_9        8         /* CS Count             */
MISS_TOT      8         /* CS Count             */

JSFLAG        8         /* constructed       */
XENRLLMT      8         /* constructed       */
XENR_PCM      8         /* constructed       */
XINS_COV      8         /* constructed       */
XBENCAT       8         /* constructed       */
XENR_RSV      8         /* constructed       */
XINS_RSV      8         /* constructed       */
XREGION       3         /* constructed       */
XTNEXREG      3         /* constructed       */
XCATCH        8         /* constructed       */
USA           3         /* constructed       */
XOCONUS       3         /* constructed       */
OUTCATCH      8         /* constructed       */
XSEXA         8         /* constructed       */
XBMI          8         /* constructed       */
XBMICAT       3         /* constructed       */
XBNFGRP       8         /* constructed       */
XSERVAFF      3         /* constructed       */
KMILOPQY      8         /* constructed       */
KCIVOPQY      8         /* constructed       */
KCIVINS       8         /* constructed       */
HP_PRNTL      8         /* constructed       */
HP_MAMOG      8         /* constructed       */
HP_MAM50      8         /* constructed       */
HP_PAP        8         /* constructed       */
HP_BP         8         /* constructed       */
```

```
HP_FLU        8         /* constructed       */
HP_OBESE      8         /* constructed       */
HP_SMOKE      8         /* constructed       */
HP_SMKH3      8         /* constructed       */
HP_CESH3      8         /* constructed       */

POSTCELL      $5        /* Postratification Variables */

BWT           8         /* weights           */

FWRWT         8         /* weights           */
FWRWT1        8         /* weights           */
FWRWT2        8         /* weights           */
FWRWT3        8         /* weights           */
FWRWT4        8         /* weights           */
FWRWT5        8         /* weights           */
FWRWT6        8         /* weights           */
FWRWT7        8         /* weights           */
FWRWT8        8         /* weights           */
FWRWT9        8         /* weights           */
FWRWT10       8         /* weights           */
FWRWT11       8         /* weights           */
FWRWT12       8         /* weights           */
FWRWT13       8         /* weights           */
FWRWT14       8         /* weights           */
FWRWT15       8         /* weights           */
FWRWT16       8         /* weights           */
FWRWT17       8         /* weights           */
FWRWT18       8         /* weights           */
FWRWT19       8         /* weights           */
FWRWT20       8         /* weights           */
FWRWT21       8         /* weights           */
FWRWT22       8         /* weights           */
FWRWT23       8         /* weights           */
FWRWT24       8         /* weights           */
FWRWT25       8         /* weights           */
FWRWT26       8         /* weights           */
FWRWT27       8         /* weights           */
FWRWT28       8         /* weights           */
FWRWT29       8         /* weights           */
FWRWT30       8         /* weights           */
FWRWT31       8         /* weights           */
FWRWT32       8         /* weights           */
FWRWT33       8         /* weights           */
FWRWT34       8         /* weights           */
FWRWT35       8         /* weights           */
FWRWT36       8         /* weights           */
FWRWT37       8         /* weights           */
FWRWT38       8         /* weights           */
FWRWT39       8         /* weights           */
FWRWT40       8         /* weights           */
FWRWT41       8         /* weights           */
FWRWT42       8         /* weights           */
FWRWT43       8         /* weights           */
FWRWT44       8         /* weights           */
FWRWT45       8         /* weights           */
FWRWT46       8         /* weights           */
FWRWT47       8         /* weights           */
FWRWT48       8         /* weights           */
FWRWT49       8         /* weights           */
FWRWT50       8         /* weights           */
FWRWT51       8         /* weights           */
FWRWT52       8         /* weights           */
FWRWT53       8         /* weights           */
FWRWT54       8         /* weights           */
FWRWT55       8         /* weights           */
FWRWT56       8         /* weights           */
FWRWT57       8         /* weights           */
FWRWT58       8         /* weights           */
FWRWT59       8         /* weights           */
FWRWT60       8         /* weights           */

CFWT          8         /* weights           */
CFWT1         8         /* weights           */
```

```
CFWT2          8          /* weights           */
CFWT3          8          /* weights           */
CFWT4          8          /* weights           */
CFWT5          8          /* weights           */
CFWT6          8          /* weights           */
CFWT7          8          /* weights           */
CFWT8          8          /* weights           */
CFWT9          8          /* weights           */
CFWT10         8          /* weights           */
CFWT11         8          /* weights           */
CFWT12         8          /* weights           */
CFWT13         8          /* weights           */
CFWT14         8          /* weights           */
CFWT15         8          /* weights           */
CFWT16         8          /* weights           */
CFWT17         8          /* weights           */
CFWT18         8          /* weights           */
CFWT19         8          /* weights           */
CFWT20         8          /* weights           */
CFWT21         8          /* weights           */
CFWT22         8          /* weights           */
CFWT23         8          /* weights           */
CFWT24         8          /* weights           */
CFWT25         8          /* weights           */
CFWT26         8          /* weights           */
CFWT27         8          /* weights           */
CFWT28         8          /* weights           */
CFWT29         8          /* weights           */
CFWT30         8          /* weights           */
CFWT31         8          /* weights           */
CFWT32         8          /* weights           */
CFWT33         8          /* weights           */
CFWT34         8          /* weights           */
CFWT35         8          /* weights           */
CFWT36         8          /* weights           */
CFWT37         8          /* weights           */
CFWT38         8          /* weights           */
CFWT39         8          /* weights           */
CFWT40         8          /* weights           */
CFWT41         8          /* weights           */
CFWT42         8          /* weights           */
CFWT43         8          /* weights           */
CFWT44         8          /* weights           */
CFWT45         8          /* weights           */
CFWT46         8          /* weights           */
CFWT47         8          /* weights           */
CFWT48         8          /* weights           */
CFWT49         8          /* weights           */
CFWT50         8          /* weights           */
CFWT51         8          /* weights           */
CFWT52         8          /* weights           */
CFWT53         8          /* weights           */
CFWT54         8          /* weights           */
CFWT55         8          /* weights           */
CFWT56         8          /* weights           */
CFWT57         8          /* weights           */
CFWT58         8          /* weights           */
CFWT59         8          /* weights           */
CFWT60         8          /* weights           */
CFWT61         8          /* weights           */
CFWT62         8          /* weights           */
CFWT63         8          /* weights           */
CFWT64         8          /* weights           */
CFWT65         8          /* weights           */
CFWT66         8          /* weights           */
CFWT67         8          /* weights           */
CFWT68         8          /* weights           */
CFWT69         8          /* weights           */
CFWT70         8          /* weights           */
CFWT71         8          /* weights           */
CFWT72         8          /* weights           */
CFWT73         8          /* weights           */
CFWT74         8          /* weights           */
CFWT75         8          /* weights           */
```

```
CFWT76        8         /* weights           */
CFWT77        8         /* weights           */
CFWT78        8         /* weights           */
CFWT79        8         /* weights           */
CFWT80        8         /* weights           */
CFWT81        8         /* weights           */
CFWT82        8         /* weights           */
CFWT83        8         /* weights           */
CFWT84        8         /* weights           */
CFWT85        8         /* weights           */
CFWT86        8         /* weights           */
CFWT87        8         /* weights           */
CFWT88        8         /* weights           */
CFWT89        8         /* weights           */
CFWT90        8         /* weights           */
CFWT91        8         /* weights           */
CFWT92        8         /* weights           */
CFWT93        8         /* weights           */
CFWT94        8         /* weights           */
CFWT95        8         /* weights           */
CFWT96        8         /* weights           */
CFWT97        8         /* weights           */
CFWT98        8         /* weights           */
CFWT99        8         /* weights           */
CFWT100       8         /* weights           */
CFWT101       8         /* weights           */
CFWT102       8         /* weights           */
CFWT103       8         /* weights           */
CFWT104       8         /* weights           */
CFWT105       8         /* weights           */
CFWT106       8         /* weights           */
CFWT107       8         /* weights           */
CFWT108       8         /* weights           */
CFWT109       8         /* weights           */
CFWT110       8         /* weights           */
CFWT111       8         /* weights           */
CFWT112       8         /* weights           */
CFWT113       8         /* weights           */
CFWT114       8         /* weights           */
CFWT115       8         /* weights           */
CFWT116       8         /* weights           */
CFWT117       8         /* weights           */
CFWT118       8         /* weights           */
CFWT119       8         /* weights           */
CFWT120       8         /* weights           */
CFWT121       8         /* weights           */
CFWT122       8         /* weights           */
CFWT123       8         /* weights           */
CFWT124       8         /* weights           */
CFWT125       8         /* weights           */
CFWT126       8         /* weights           */
CFWT127       8         /* weights           */
CFWT128       8         /* weights           */
CFWT129       8         /* weights           */
CFWT130       8         /* weights           */
CFWT131       8         /* weights           */
CFWT132       8         /* weights           */
CFWT133       8         /* weights           */
CFWT134       8         /* weights           */
CFWT135       8         /* weights           */
CFWT136       8         /* weights           */
CFWT137       8         /* weights           */
CFWT138       8         /* weights           */
CFWT139       8         /* weights           */
CFWT140       8         /* weights           */
CFWT141       8         /* weights           */
CFWT142       8         /* weights           */
CFWT143       8         /* weights           */
CFWT144       8         /* weights           */
CFWT145       8         /* weights           */
CFWT146       8         /* weights           */
CFWT147       8         /* weights           */
CFWT148       8         /* weights           */
CFWT149       8         /* weights           */
```

```
        CFWT150       8         /* weights           */
        CFWT151       8         /* weights           */
        CFWT152       8         /* weights           */
        CFWT153       8         /* weights           */
        CFWT154       8         /* weights           */
        CFWT155       8         /* weights           */
        CFWT156       8         /* weights           */
        CFWT157       8         /* weights           */
        CFWT158       8         /* weights           */
        CFWT159       8         /* weights           */
        CFWT160       8         /* weights           */
        CFWT161       8         /* weights           */
        CFWT162       8         /* weights           */
        CFWT163       8         /* weights           */
        CFWT164       8         /* weights           */
        CFWT165       8         /* weights           */
        CFWT166       8         /* weights           */
        CFWT167       8         /* weights           */
        CFWT168       8         /* weights           */
        CFWT169       8         /* weights           */
        CFWT170       8         /* weights           */
        CFWT171       8         /* weights           */
        CFWT172       8         /* weights           */
        CFWT173       8         /* weights           */
        CFWT174       8         /* weights           */
        CFWT175       8         /* weights           */
        CFWT176       8         /* weights           */
        CFWT177       8         /* weights           */
        CFWT178       8         /* weights           */
        CFWT179       8         /* weights           */
        CFWT180       8         /* weights           */
/*       CFWT181       8         /* weights           */ /*AMK FOR 2013 WEIGHTS ONLY GO UP TO
180 B/C NO Q4 */
/*       CFWT182       8         /* weights           */
/*       CFWT183       8         /* weights           */
/*       CFWT184       8         /* weights           */
/*       CFWT185       8         /* weights           */
/*       CFWT186       8         /* weights           */
/*       CFWT187       8         /* weights           */
/*       CFWT188       8         /* weights           */
/*       CFWT189       8         /* weights           */
/*       CFWT190       8         /* weights           */
/*       CFWT191       8         /* weights           */
/*       CFWT192       8         /* weights           */
/*       CFWT193       8         /* weights           */
/*       CFWT194       8         /* weights           */
/*       CFWT195       8         /* weights           */
/*       CFWT196       8         /* weights           */
/*       CFWT197       8         /* weights           */
/*       CFWT198       8         /* weights           */
/*       CFWT199       8         /* weights           */
/*       CFWT200       8         /* weights           */
/*       CFWT201       8         /* weights           */
/*       CFWT202       8         /* weights           */
/*       CFWT203       8         /* weights           */
/*       CFWT204       8         /* weights           */
/*       CFWT205       8         /* weights           */
/*       CFWT206       8         /* weights           */
/*       CFWT207       8         /* weights           */
/*       CFWT208       8         /* weights           */
/*       CFWT209       8         /* weights           */
/*       CFWT210       8         /* weights           */
/*       CFWT211       8         /* weights           */
/*       CFWT212       8         /* weights           */
/*       CFWT213       8         /* weights           */
/*       CFWT214       8         /* weights           */
/*       CFWT215       8         /* weights           */
/*       CFWT216       8         /* weights           */
/*       CFWT217       8         /* weights           */
/*       CFWT218       8         /* weights           */
/*       CFWT219       8         /* weights           */
/*       CFWT220       8         /* weights           */
/*       CFWT221       8         /* weights           */
/*       CFWT222       8         /* weights           */
```

```
/*       CFWT223       8         /* weights           */
/*       CFWT224       8         /* weights           */
/*       CFWT225       8         /* weights           */
/*       CFWT226       8         /* weights           */
/*       CFWT227       8         /* weights           */
/*       CFWT228       8         /* weights           */
/*       CFWT229       8         /* weights           */
/*       CFWT230       8         /* weights           */
/*       CFWT231       8         /* weights           */
/*       CFWT232       8         /* weights           */
/*       CFWT233       8         /* weights           */
/*       CFWT234       8         /* weights           */
/*       CFWT235       8         /* weights           */
/*       CFWT236       8         /* weights           */
/*       CFWT237       8         /* weights           */
/*       CFWT238       8         /* weights           */
/*       CFWT239       8         /* weights           */
/*       CFWT240       8         /* weights           */
     ;

   SET  &DSNO_2;

   LABEL XCATCH = "XCATCH - Catchment Area (Reporting) ";
   FORMAT XCATCH CACR.;
   BY MPRID;
RUN;

TITLE1 "DOD Annual Health Care Survey (0663-300)";
TITLE2 "Program Name: ADDWGTS.SAS";
TITLE3 "Program Inputs: &DSNI_1..sas7bdat -- &DSNI_2..sas7bdat";
TITLE4 "Program Outputs: &DSNO_1..sas7bdat -- &DSNO_2..sas7bdat";

PROC CONTENTS POSITION; RUN;

/* Create public-use dataset */
DATA OUT.&DSNO_1;
   SET OUT.&DSNO_2(DROP=MSA_ID /** jma 11/17/2011***/
                        CACSMPL  SERVAREA DCATCH   MSM
                        D_FAC    DAGEQY   FIELDAGE PNLCATCD
                        DMEDELG  MEDTYPE  MBRRELCD MRTLSTAT
                        PNBRTHDT PGCD     MASTCD   MAPRZIP
                        MAPRZIPX RANKCD   ENRID);
RUN;

PROC CONTENTS POSITION; RUN;

*************************************************************************
* Output the restricted use CONTENTS text file for delivery with the
* database CD.
*************************************************************************;
PROC PRINTTO PRINT="&DSNO_2..TXT" NEW; RUN;
OPTIONS PAGENO=1;
TITLE4 "Program Outputs: &DSNO_2..sas7bdat/XPT";
PROC CONTENTS DATA=OUT.&DSNO_2; RUN;

*************************************************************************
* Define and generate SAS Transport file.
*************************************************************************;
LIBNAME XFILE1 XPORT "..\..\data\&DSNO_1..XPT";
PROC COPY IN=OUT OUT=XFILE1; * Converts input file to transport file;
          SELECT &DSNO_1;      * Selects sas7bdat file to copy;
RUN;

LIBNAME XFILE2 XPORT "..\..\data\&DSNO_2..XPT";
PROC COPY IN=OUT OUT=XFILE2; * Converts input file to transport file;
          SELECT &DSNO_2;      * Selects sas7bdat file to copy;
RUN;
```

F.21 Q3FY2015\PROGRAMS\HCSDB_Database_Macro_Batch_Program.SAS - Run all database creation programs as a single process

```
*-------------------------------------------------------
Program: HCSDB_Database_BatchProgram.sas
Programmer: Amanda Kudis
Date: 9/26/14

Notes: The following changes must still be made within
       the programs each quarter.
       1) Macro variables in this program updated
       2) Format library - Updated with new formats
       3) MergeSyn - No updates
       4) CschmYRq.sas
            a) Program name with new YR
            b) New note logic added, old note logic removed
       5) CschmYRq.fmt
            a) Program name with new YR
            b) New variable formats and labels added, old removed
       6) SelectQ.sas
            a) Overlap_fnstatus.inc(called in selectq.sas) - Verify which
               TSS data each quarter overlaps with and update file. If
               there is no selectq to compare to, but there are overlap cases
               then updated NOSELECTQ (below) to Y.
       7) Convarq.sas - No updates
       8) Mergeq.sas - Add new/remove old variables to length statement
       9) Addwgtsa.sas - No updates
      10) Database_QA.sas - Update note frequencies to match
             variables in the coding scheme document.

-------------------------------------------------------;
options source2 mprint nofmterr /*mlogic symbolgen*/ msglevel=i FORMCHAR='|-++++++++++=Ý-/\<>*';

*-------------------------------------------
Set MACRO variables
-------------------------------------------;

%LET YR = 15;
%LET QT  = 3;

/*FIELDATE and FIELDLBL are the date that the survey first goes into the field.
Q1: Oct. 1 of the previous year
Q2: Jan. 1 of the current year
Q3: Apr. 1 of the current year
Q4: Jul. 1 of the current year
*/
%LET FIELDATE = 04012015; * mmddyyyy;
%LET FIELDLBL = Apr 1st 2015;
%LET NOSELECTQ = N; /*UPDATE TO Y WHEN NO TSS SELECTQ AVAILABLE TO COMPARE TO OVERLAP CASES;*/
%LET EXPATH = N:\Project\40309_HCS\Restricted\DC1\Q3FY2015; /* Ask for location of Extract
dataset, currently Sabrina Rahman */

*Set last quarter based on current quarter;
%LET LSTQ=%SYSEVALF(&QT.-1);
%LET LSTYR = &YR.;
%MACRO M;
%IF &LSTQ=0 %then %DO;
        %LET LSTQ=3;
        %LET LSTYR = %EVAL(&YR - 1);
%end;
%MEND; %M;
%put &lstyr.;
%put &lstq.;

*Set trickle flag based on folder name;
%macro settrickle;
%global trickle path;
%let folder = %sysfunc(getoption(SYSIN));
%if %index("&folder.", Q&QT.FY20&YR.t)>0 %then %let trickle=1;
%else %let trickle=0;

data _null_;
```

```
path=tranwrd("&folder.", "\Programs\HCSDB_Database_BatchProgram.sas", "");
call symput('path',trim(path));
run;
%mend; %settrickle;
%put &trickle;
%put &path;

*-------------------------------------------
Call programs
-------------------------------------------;

%macro runprog(dir, file);

/*Set the path for the log file.
proc printto log = "&dir.\&file..log" new; run;

ods listing;
proc printto print="&dir.\&file..lst" new ; run; */

/*Change the current directory.  This is so the filepath references in each program work
correctly.*/
x "cd &dir.";

%include "&dir.\&file..SAS";


/*Clear all formats*/
proc datasets memtype=catalog;
delete formats;
run;
quit;

/*Clear all datasets form WORK library*/
proc datasets lib=work kill nolist memtype=data;
quit;

%mend;
/*%runprog(dir=&path.\Data\afinal\fmtlib, file = Hafmt);
%runprog(dir=&path.\Programs\Weighting, file = Mergesyn);
%runprog(dir=&path.\Programs\CodingScheme,file=Cschm&YR.q);
%runprog(dir=&path.\Programs\Weighting, file = Selectq);
%runprog(dir=&path.\Programs\Construct, file = Convarq);
%runprog(dir=&path.\Programs\Construct, file = Mergeq);
%runprog(dir=&path.\Programs\Construct, file = Database_QA);

/*Addwgtsa.sas gets run separately from the other programs.*/

%runprog(dir=&path.\Programs\Weighting, file =addwgtsa);
```

F.22.A Response_Rate\ANNUAL_RR.SAS - Combine Q1-Q3 and annual Response Rates into one excel file.

```
*************************************************************************
* PROGRAM: ANNUAL_RR.SAS
* TASK:    DOD HEALTH CARE SURVEY ANALYSIS (40309.H21)
* PURPOSE: Combine Q1-Q3 and Annual Response_Rates.xls files
*          into one file called Response_Rates_Annual.xls.
* WRITTEN: 03/15/2005 BY KEITH RATHBUN
*
* MODIFIED:
*
* INPUT:   1) RESPONSE_RATES.XLS files (Q1-Q3 and Annual)
*          2) EMPTY_ANNUAL.XLS file (empty template)
*
* OUTPUT:  1) RESPONSE_RATES_ANNUAL.XLS
*
* INCLUDES: None
*
* NOTES:
*
* 1) This program must be run in BATCH mode.  DO NOT modify the directory
*    references to be hard-wired to support interactive use.
* 2) For FY2012, dropping HAS_EMAIL
* 3) From FY2013: We donot receiving any Q3t and Q4 Weights. Annual Wt and RR
*    are calculated using Q1t, Q2t and Q3 quarters.
* 3) We need to run programs in order of table02.sas, annual_rr.sas.
* 4) We can run table02_xcatch.sas anytime at this point, since it is
*    independent from other two above.
*************************************************************************;
OPTIONS PS=79 LS=132 COMPRESS=YES ERRORS=1 NOXWAIT NOCENTER mprint mlogic symbolgen NOXSYNC;

LIBNAME LIBRARY  "N:\Project\40309_HCS\DC1\HCSDB\Q3FY2015\Data\AFinal\fmtlib";

*************************************************************************
* Assign Q1-Q3 and annual spreadsheet file names and year.
*************************************************************************;
%LET YEAR  = 2015;

%LET FILE1 =
N:\Project\40309_HCS\DC1\HCSDB\Q1FY&YEAR.t\PROGRAMS\RESPONSE_RATE\RESPONSE_RATES.XLS;
%LET FILE2 =
N:\Project\40309_HCS\DC1\HCSDB\Q2FY&YEAR.t\PROGRAMS\RESPONSE_RATE\RESPONSE_RATES.XLS;
%LET FILE3 =
N:\Project\40309_HCS\DC1\HCSDB\Q3FY&YEAR.\PROGRAMS\RESPONSE_RATE\RESPONSE_RATES.XLS;
%LET FILE4 = RESPONSE_RATES.XLS;

TITLE1 "Program: ANNUAL_RR.SAS (FY=&YEAR.):";
TITLE2 "Purpose: Combine Q1-Q3 and Annual Response Rate XLS files (40309.H21)";

*************************************************************************
* Assign sheetnames and establish global variables.
*************************************************************************
* All of the response_rates.xls files must be populated with the following
* sheetnames (generated by TABLE02.SAS):
*************************************************************************;

%LET DSN1  = TABLE02A;
*%LET DSN2  = XREGION;
*%LET DSN2  = HAS_EMAIL;
%LET DSN3  = XOCONUS;
%LET DSN4  = USA;
%LET DSN5  = SEXSMPL;
%LET DSN6  = ENBGSMPL;
%LET DSN7  = CACSMPL;
%LET DSN8  = PATCAT;
%LET DSN9  = SERVAFF;
%LET DSN10 = SVCSMPL;
%LET DSN11 = XTNEXREG;
%LET DSN12 = PATCATSVCSMPL;
%LET DSN13 = PATCATSEXSMPL;
%LET DSN14 = XTNEXREGCACSMPL;
*%LET DSN15 = PATCATHAS_EMAIL;
```

```
*%LET DSN16 = USAPATCATHAS_EMAIL;

*****************************************************************************
* Macro used to read Q1-Q3 and annual spreadsheet files.
*****************************************************************************;
%MACRO READXLS(DSN=, NUMDOM=);
   %IF &NUMDOM LE 1 %THEN %DO; * Read 3 columns in sheet;
      FILENAME INDATA DDE "excel|&DSN!r5c1:r9999c3";
   %END;
   %ELSE %IF &NUMDOM = 2 %THEN %DO; * Read 4 columns in sheet;
      FILENAME INDATA DDE "excel|&DSN!r5c1:r9999c4";
   %END;
   %ELSE %IF &NUMDOM = 3 %THEN %DO; * Read 5 columns in sheet;
      FILENAME INDATA DDE "excel|&DSN!r5c1:r9999c5";
   %END;
   DATA &DSN.&I;
      INFILE INDATA DLM='09'X NOTAB LRECL=500 PAD MISSOVER DSD;
      LENGTH DOMAIN1-DOMAIN3 $40;
      LENGTH DSN $30;
      %IF &NUMDOM = 0 %THEN %DO;
         INPUT DOMAIN1 : $CHAR40.
               RR      : 4.1
               RRW     : 4.1;
         DOMAIN1 = "TABLE02A";
      %END;
      %IF &NUMDOM = 1 %THEN %DO;
         INPUT DOMAIN1 : $CHAR40.
               RR      : 4.1
               RRW     : 4.1;
      %END;
      %ELSE %IF &NUMDOM = 2 %THEN %DO;
         INPUT DOMAIN1 : $CHAR40.
               DOMAIN2 : $CHAR40.
               RR      : 4.1
               RRW     : 4.1;
      %END;
      %ELSE %IF &NUMDOM = 3 %THEN %DO;
         INPUT DOMAIN1 : $CHAR40.
               DOMAIN2 : $CHAR40.
               DOMAIN3 : $CHAR40.
               RR      : 4.1
               RRW     : 4.1;
      %END;
      NUMDOM = &NUMDOM;
      FNUM = &I;
      DSN = "&DSN";
   RUN;
%MEND READXLS;

*****************************************************************************
* Read Q1-Q3 and annual spreadsheet files.
*****************************************************************************;
%MACRO READIT;
   /*%GLOBAL I;*/
   %DO I = 1 %TO 4; /*5*/
   %PUT CHECK &&FILE&I;
      X "START &&FILE&I";
         DATA _NULL_;
            S=SLEEP(10);
         RUN;
      %READXLS(DSN=&DSN1,  NUMDOM=0);
      *%READXLS(DSN=&DSN2,  NUMDOM=1);
      %READXLS(DSN=&DSN3,  NUMDOM=1);
      %READXLS(DSN=&DSN4,  NUMDOM=1);
      %READXLS(DSN=&DSN5,  NUMDOM=1);
      %READXLS(DSN=&DSN6,  NUMDOM=1);
      %READXLS(DSN=&DSN7,  NUMDOM=1);
      %READXLS(DSN=&DSN8,  NUMDOM=1);
      %READXLS(DSN=&DSN9,  NUMDOM=1);
      %READXLS(DSN=&DSN10, NUMDOM=1);
      %READXLS(DSN=&DSN11, NUMDOM=1);
      %READXLS(DSN=&DSN12, NUMDOM=2);
         %READXLS(DSN=&DSN13, NUMDOM=2);
      %READXLS(DSN=&DSN14, NUMDOM=2);
```

```
      *%READXLS(DSN=&DSN15, NUMDOM=2);
          *%READXLS(DSN=&DSN16, NUMDOM=3);

      ************************************************************************
      * Quit spreadsheet application.
      ************************************************************************;

      FILENAME CMDS DDE "EXCEL|SYSTEM";
      DATA _NULL_;
         FILE CMDS;
                PUT '[CLOSE]';
         PUT '[QUIT]';
      RUN;
          DATA _NULL_;
             S=SLEEP(10);
          RUN;
   %END;
%MEND READIT;

%READIT;

*****************************************************************************
* Macro used to merge the Q1-Q3 and annual spreadsheet files by DOMAIN(s).
*****************************************************************************;
%MACRO MERGEIT(DSN=, NUMDOM=);
   %IF &NUMDOM LE 1 %THEN %DO;
       PROC SORT DATA=&DSN.1; BY DOMAIN1; RUN;
       PROC SORT DATA=&DSN.2; BY DOMAIN1; RUN;
       PROC SORT DATA=&DSN.3; BY DOMAIN1; RUN;
       PROC SORT DATA=&DSN.4; BY DOMAIN1; RUN;
       /*PROC SORT DATA=&DSN.5; BY DOMAIN1; RUN;*/
   %END;
   %ELSE %IF &NUMDOM = 2 %THEN %DO;
       PROC SORT DATA=&DSN.1; BY DOMAIN1 DOMAIN2; RUN;
       PROC SORT DATA=&DSN.2; BY DOMAIN1 DOMAIN2; RUN;
       PROC SORT DATA=&DSN.3; BY DOMAIN1 DOMAIN2; RUN;
       PROC SORT DATA=&DSN.4; BY DOMAIN1 DOMAIN2; RUN;
       /*PROC SORT DATA=&DSN.5; BY DOMAIN1 DOMAIN2; RUN;*/
   %END;
   %ELSE %IF &NUMDOM = 3 %THEN %DO;
       PROC SORT DATA=&DSN.1; BY DOMAIN1 DOMAIN2 DOMAIN3; RUN;
       PROC SORT DATA=&DSN.2; BY DOMAIN1 DOMAIN2 DOMAIN3; RUN;
       PROC SORT DATA=&DSN.3; BY DOMAIN1 DOMAIN2 DOMAIN3; RUN;
       PROC SORT DATA=&DSN.4; BY DOMAIN1 DOMAIN2 DOMAIN3; RUN;
       /*PROC SORT DATA=&DSN.5; BY DOMAIN1 DOMAIN2 DOMAIN3; RUN;*/
   %END;
   DATA MERGED_&DSN;
      MERGE &DSN.1(RENAME=(RR=RR1 RRW=RRW1))
            &DSN.2(RENAME=(RR=RR2 RRW=RRW2))
            &DSN.3(RENAME=(RR=RR3 RRW=RRW3))
            &DSN.4(RENAME=(RR=RR4 RRW=RRW4))
            /*&DSN.5(RENAME=(RR=RR5 RRW=RRW5))*/;
      %IF &NUMDOM LE 1 %THEN %DO;
          BY DOMAIN1;
      %END;
      %ELSE %IF &NUMDOM = 2 %THEN %DO;
          BY DOMAIN1 DOMAIN2;
      %END;
      %ELSE %IF &NUMDOM = 3 %THEN %DO;
          BY DOMAIN1 DOMAIN2 DOMAIN3;
      %END;
   RUN;
%MEND MERGEIT;

*****************************************************************************
* Merge the Q1-Q3 and annual spreadsheet files by DOMAIN(s).
*****************************************************************************;
%MERGEIT(DSN=&DSN1,  NUMDOM=0);
*%MERGEIT(DSN=&DSN2,  NUMDOM=1);
%MERGEIT(DSN=&DSN3,  NUMDOM=1);
%MERGEIT(DSN=&DSN4,  NUMDOM=1);
%MERGEIT(DSN=&DSN5,  NUMDOM=1);
%MERGEIT(DSN=&DSN6,  NUMDOM=1);
%MERGEIT(DSN=&DSN7,  NUMDOM=1);
```

```
%MERGEIT(DSN=&DSN8,  NUMDOM=1);
%MERGEIT(DSN=&DSN9,  NUMDOM=1);
%MERGEIT(DSN=&DSN10, NUMDOM=1);
%MERGEIT(DSN=&DSN11, NUMDOM=1);
%MERGEIT(DSN=&DSN12, NUMDOM=2);
%MERGEIT(DSN=&DSN13, NUMDOM=2);
%MERGEIT(DSN=&DSN14, NUMDOM=2);
*%MERGEIT(DSN=&DSN15, NUMDOM=2);
*%MERGEIT(DSN=&DSN16, NUMDOM=3);



*****************************************************************************
* Macro used to write the combined annual spreadsheet file for each DOMAIN/DSN.
*****************************************************************************;
%MACRO WRITEXLS(DSN=, NUMDOM=);
   DATA _NULL_;
      SET MERGED_&DSN;
      ******************************************************************
      * Add values for each DOMAIN to each sheet.
      ******************************************************************;
      %IF &NUMDOM LE 1 %THEN %DO;
         /*FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c11";*/
            FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c9";
         FILE OUTDATA DLM='09'X NOTAB LRECL=500;
         LENGTH OLINE $50;
         IF _N_ = 1 THEN DO;
            OLINE = "RESPONSE RATES FOR &YEAR";
            PUT OLINE;
            OLINE = "FOR DOMAIN = &DSN";
            PUT OLINE /;
            H1 = "DOMAIN";     H2 = "Q1 RR"; H3 = "Q1 RRW";
            H4 = "Q2 RR";      H5 = "Q2 RRW";
            H6 = "Q3 RR";      H7 = "Q3 RRW";
            *H8 = "Q4 RR";      *H9 = "Q4 RRW";
            H10 = "Annual RR"; H11 = "Annual RRW";
            PUT H1  : $CHAR50.
                H2  : $CHAR50.
                H3  : $CHAR50.
                H4  : $CHAR50.
                H5  : $CHAR50.
                H6  : $CHAR50.
                H7  : $CHAR50.
                /*H8  : $CHAR50.
                H9  : $CHAR50.*/
                H10 : $CHAR50.
                H11 : $CHAR50.
               ;
         END;
         PUT DOMAIN1: $CHAR40.
             RR1    : 4.1
             RRW1   : 4.1
             RR2    : 4.1
             RRW2   : 4.1
             RR3    : 4.1
             RRW3   : 4.1
             RR4    : 4.1
             RRW4   : 4.1
           /*RR5    : 4.1
             RRW5   : 4.1*/
            ;
      %END;
      %ELSE %IF &NUMDOM = 2 %THEN %DO;
        /*FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c12";*/
            FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c10";
         FILE OUTDATA DLM='09'X NOTAB LRECL=500;
         LENGTH OLINE $50;
         IF _N_ = 1 THEN DO;
            OLINE = "RESPONSE RATES FOR &YEAR";
            PUT OLINE;
            OLINE = "FOR DOMAIN = &DSN";
            PUT OLINE /;
            H1 = "DOMAIN1";    H2 = "DOMAIN2";
            H3 = "Q1 RR";      H4 = "Q1 RRW";
```

```
      H5 = "Q2 RR";      H6 = "Q2 RRW";
      H7 = "Q3 RR";      H8 = "Q3 RRW";
      *H9 = "Q4 RR";      *H10 = "Q4 RRW";
      H11 = "Annual RR"; H12 = "Annual RRW";
      PUT H1  : $CHAR50.
          H2  : $CHAR50.
          H3  : $CHAR50.
          H4  : $CHAR50.
          H5  : $CHAR50.
          H6  : $CHAR50.
          H7  : $CHAR50.
          H8  : $CHAR50.
        /*H9  : $CHAR50.
          H10 : $CHAR50.*/
          H11 : $CHAR50.
          H12 : $CHAR50.
         ;
   END;
   PUT DOMAIN1: $CHAR40.
       DOMAIN2: $CHAR40.
       RR1    : 4.1
       RRW1   : 4.1
       RR2    : 4.1
       RRW2   : 4.1
       RR3    : 4.1
       RRW3   : 4.1
       RR4    : 4.1
       RRW4   : 4.1
     /*RR5    : 4.1
       RRW5   : 4.1*/
      ;
%END;
%ELSE %IF &NUMDOM = 3 %THEN %DO;
  /*FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c13";*/
          FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c11";
   FILE OUTDATA DLM='09'X NOTAB LRECL=500;
   LENGTH OLINE $50;
   IF _N_ = 1 THEN DO;
      OLINE = "RESPONSE RATES FOR &YEAR";
      PUT OLINE;
      OLINE = "FOR DOMAIN = &DSN";
      PUT OLINE /;
      H1  = "DOMAIN1";   H2  = "DOMAIN2"; H3 = "DOMAIN3";
      H4  = "Q1 RR";     H5  = "Q1 RRW";
      H6  = "Q2 RR";     H7  = "Q2 RRW";
      H8  = "Q3 RR";     H9  = "Q3 RRW";
      *H10 = "Q4 RR";     *H11 = "Q4 RRW";
      H12 = "Annual RR"; H13 = "Annual RRW";
      PUT H1  : $CHAR50.
          H2  : $CHAR50.
          H3  : $CHAR50.
          H4  : $CHAR50.
          H5  : $CHAR50.
          H6  : $CHAR50.
          H7  : $CHAR50.
          H8  : $CHAR50.
          H9  : $CHAR50.
        /*H10 : $CHAR50.
          H11 : $CHAR50.*/
          H12 : $CHAR50.
          H13 : $CHAR50.
         ;
   END;
   PUT DOMAIN1: $CHAR40.
       DOMAIN2: $CHAR40.
       DOMAIN3: $CHAR40.
       RR1    : 4.1
       RRW1   : 4.1
       RR2    : 4.1
       RRW2   : 4.1
       RR3    : 4.1
       RRW3   : 4.1
       RR4    : 4.1
       RRW4   : 4.1
```

```
          /* RR5    : 4.1
             RRW5   : 4.1*/
            ;
      %END;
   RUN;
%MEND;

*************************************************************************
* Copy empty template file to the combined annual response rate spreadsheet
* and start the XLS file.
*************************************************************************;
X "COPY EMPTY_ANNUAL.XLS RESPONSE_RATES_ANNUAL.XLS";
X "START RESPONSE_RATES_ANNUAL.XLS";


/*wait for a few seconds to allow Excel to come up */
/*adding sleep statement to avoid a log error saying
  ERROR: Physical file does not exist, excel|OVERALLA!r1c1:r9999c3*/
data _null_;
x=sleep(8);
run;


**************************************************************************
* Write the combined annual spreadsheet file for each DOMAIN/DSN.
**************************************************************************;
%WRITEXLS(DSN=&DSN1,  NUMDOM=0);
*%WRITEXLS(DSN=&DSN2,  NUMDOM=1);
%WRITEXLS(DSN=&DSN3,  NUMDOM=1);
%WRITEXLS(DSN=&DSN4,  NUMDOM=1);
%WRITEXLS(DSN=&DSN5,  NUMDOM=1);
%WRITEXLS(DSN=&DSN6,  NUMDOM=1);
%WRITEXLS(DSN=&DSN7,  NUMDOM=1);
%WRITEXLS(DSN=&DSN8,  NUMDOM=1);
%WRITEXLS(DSN=&DSN9,  NUMDOM=1);
%WRITEXLS(DSN=&DSN10, NUMDOM=1);
%WRITEXLS(DSN=&DSN11, NUMDOM=1);
%WRITEXLS(DSN=&DSN12, NUMDOM=2);
%WRITEXLS(DSN=&DSN13, NUMDOM=2);
%WRITEXLS(DSN=&DSN14, NUMDOM=2);
*%WRITEXLS(DSN=&DSN15, NUMDOM=2);
*%WRITEXLS(DSN=&DSN16, NUMDOM=3);

************************************************************************
* Quit spreadsheet application.
************************************************************************;
FILENAME CMDS DDE "EXCEL|SYSTEM";
DATA _NULL_;
   FILE CMDS;
   PUT '[SAVE]';
   PUT '[QUIT]';
RUN;


***************************** End ***************************************;
```

F.22.B Response_Rate\TABLE02.SAS - Calculate the annual Response Rates.

```
************************************************************************
* PROGRAM: TABLE02.SAS
* TASK:    DOD HEALTH CARE SURVEY ANALYSIS (40309.H21)
* PURPOSE: BUILD TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY
*          Quarterly DOD HEALTH CARE SURVEY FILE.
* WRITTEN: 11/09/1999 BY KEITH RATHBUN
*
* MODIFIED:
* 1) 12/14/2000, Keith Rathbun - Added printing of weighted (WN) and
*    unweighted (SN) population sizes.  Also, Update for quarterly survey
*    to use BWT instead of BWT99 (generalized variable name for ease of
*    maintenance).
* 2) 02/01/2001, Keith Rathbun - Added the PERIOD parameter.
* 3) 01/30/2002, Esther Friedman - added nested macro so it would run
*    for all 4 quarters trickle files.
* 4) 11/16/2004, Haixia Xu for Q3, 2004 RR
*              - Changed FNSTATUS from 30 to 31, SN3->SN31, WN3->WN31
*              - Use MERGEQ.SD2 as the input data
*              - Produce the RR for servaff and xtnexreg
* 5) 01/18/2005, Keith Rathbun - Added CREATXLS macro.
*
* LAST UPDATED:
*    07/15/2015, Sabrina R.- Updated for 2015 Annual RR
*
* INPUT:    1) MERGEQ.sas7bdat (All quarters)
*
* INCLUDES: 1) TABLE02.IN1
*           2) TABLE02.IN2
*
* NOTES:
*
* 1) This program must be run in BATCH mode.  DO NOT modify the directory
*    references to be hard-wired to support interactive use.
* 2) If you add a new domain combination, you will need to update the
*    EMPTY.XLS file to have a new sheet with the same name as the domain
*    variable(s) combination.
* 3) We need to run programs in order of table02.sas, annual_rr.sas.
* 4) We can run table02_xcatch.sas anytime at this point, since it is
*    independent from other two above.
************************************************************************;
OPTIONS PS=79 LS=132 COMPRESS=YES ERRORS=1 NOXWAIT NOCENTER NOFMTERR;* mprint mlogic symbolgen;

%Let year  = 2015;

LIBNAME in1t     "N:\Project\40309_HCS\DC1\HCSDB\Q1FY&year.t\DATA\AFINAL"; * Q1 mergeq with late
response;
LIBNAME in2t     "N:\Project\40309_HCS\DC1\HCSDB\Q2FY&year.t\DATA\AFINAL"; * Q2 mergeq with late
response;
LIBNAME in3      "N:\Project\40309_HCS\DC1\HCSDB\Q3FY&year.\DATA\AFINAL";  * Q3 mergeq with late
response;

LIBNAME inr1     "N:\Project\40309_HCS\Restricted\DC1\Q1FY&year."; * Q1 sample;
LIBNAME inr2     "N:\Project\40309_HCS\Restricted\DC1\Q2FY&year."; * Q2 sample;
LIBNAME inr3     "N:\Project\40309_HCS\Restricted\DC1\Q3FY&year."; * Q3 sample;

LIBNAME LIBRARY  "N:\Project\40309_HCS\DC1\HCSDB\Q3FY2015\Data\AFinal\fmtlib";

TITLE1 "Program: TABLE02.SAS (YEAR=&year. , TaskNo: &TSKno.)";
TITLE2 "Purpose: Compute response rates by DOMAIN";

%LET OFILES  = N:\Project\40309_HCS\DC1\HCSDB\2015\Data\Response_Rate\;
%LET QUARTER = &year. Combined Annual;
%LET DATE    = 07-15-2015;
%LET TASKNUM = 40309.H21;

proc format;
  VALUE $ENBGSm
          '01' = "01:Active duty"
          '02' = "02:Active duty fam,Prime,civ PCM"
          '03' = "03:Active duty fam,Prime,mil PCM"
          '04' = "04:Active duty fam,non-enrollee"
```

```
          '05' = "05:Retired,<65,civ PCM"
          '06' = "06:Retired,<65,mil PCM"
          '07' = "07:Retired,<65,non-enrollee"
          '08' = "08:Retired,65+,enrolled"
          '10' = "10:Retired,65+,non-enrollee"
          '11' = "11:TRICARE Reserve Select";
  VALUE TNEX
    . = "Missing Data"
    1 = "North"
    2 = "South"
    3 = "West"
    4 = "Overseas" ;
RUN;

*****************************************************************
* Create ebg_com
*****************************************************************;

%macro create_ebg(qrt=, q=);
DATA MERGEQ&qrt.;
SET in&qrt..MERGEQ;
/*01/31/2007 by H.Xu.
As per Nancy's suggestion, collapse 09 with 08, since 09 has two few beneficiaries*/
if enbgsmpl = '09' then enbgsmpl='08';
format enbgsmpl $enbgsm.;
RUN;

proc sort data=mergeq&QRt; by mprid;run;
%mend;

%create_ebg(qrt=1t,q=1);
%create_ebg(qrt=2t,q=2);
%create_ebg(qrt=3, q=3);


/*Combine 3 quarters*/
DATA MERGERR;
   SET MERGEQ1t MERGEQ2t MERGEQ3;
RUN;
proc contents data=mergerr;run;

PROC FREQ DATA=MERGERR;
   TABLES  PATCAT*FNSTATUS
           PATCAT RACEETHN PATCAT*RACEETHN PATCAT*SVCSMPL   /MISSING LIST;
RUN;

%MACRO PROCESS(INPT=, FORM=);
   ***************************************************************
   * Process OVERALL Summary of response rates
   ***************************************************************;
   DATA _NULL_;
      SET &INPT END=FINISHED;
      IF _N_ = 1 THEN DO;
         SN    = 0;
         SN1   = 0;
         SN11  = 0;
         SN12  = 0;
         SN2   = 0;
         SN31   = 0;
         SN4   = 0;
         SN41  = 0;
         SN42  = 0;
         WN   = 0;
         WN1  = 0;
         WN11 = 0;
         WN12 = 0;
         WN2  = 0;
         WN31  = 0;
         WN4  = 0;
         WN41 = 0;
         WN42 = 0;
      END;
      ************************************************************
      * Accumulate group 1 weighted and unweighted counts.
```

```
   ************************************************************;
   SN + 1;
   WN + BWT;
   IF FNSTATUS IN(11,12) THEN DO;
      SN1 + 1;
      WN1 + BWT;
      IF FNSTATUS = 11 THEN DO;
         SN11 + 1;
         WN11 + BWT;
      END;
      ELSE DO;
         SN12 + 1;
         WN12 + BWT;
      END;
   END;
   ****************************************************
   * Accumulate group 2 weighted and unweighted counts.
   ****************************************************;
   ELSE IF FNSTATUS = 20 THEN DO;
      SN2 + 1;
      WN2 + BWT;
   END;
   ****************************************************
   * Accumulate group 3 weighted and unweighted counts.
   ****************************************************;
   ELSE IF FNSTATUS = 31 THEN DO;
      SN31 + 1;
      WN31 + BWT;
   END;
   ****************************************************
   * Accumulate group 4 weighted and unweighted counts.
   ****************************************************;
   ELSE IF FNSTATUS IN(41,42) THEN DO;
      SN4 + 1;
      WN4 + BWT;
      IF FNSTATUS = 42 THEN DO;
         SN42 + 1;
         WN42 + BWT;
      END;
      ELSE DO;
         SN41 + 1;
         WN41 + BWT;
      END;
   END;

   DROP I;
   RETAIN
      SN
      SN1
      SN11
      SN12
      SN2
      SN31
      SN4
      SN41
      SN42
      WN
      WN1
      WN11
      WN12
      WN2
      WN31
      WN4
      WN41
      WN42
     ;

   IF FINISHED THEN GO TO FINISHED;
   RETURN;

FINISHED:
  FILE "&OFILES.TABLE02&FORM..OUT" RECFM=V LRECL=9999;
  PUT; PUT; PUT;
  PUT @001 "TABLE 2: OVERALL RESPONSE RATES SUMMARY";
```

```
     PUT @001 "&DATE., TASK: &TASKNUM.";
     PUT;
     PUT "SUMMARY OF GROUP COUNTS: FORM &FORM";
     PUT;
     PUT @131 "UNWEIGHTED COUNT"
         @181 "WEIGHTED COUNT"
        ;
     PUT @121 'FLR'
         @131 'FCR'
         @141 'FRR'
         @151 'POP'
         @171 'FLR'
         @181 'FCR'
         @191 'FRR'
         @201 'POP'
        ;
     %INCLUDE "TABLE02.IN2";
   RUN;
%MEND PROCESS;

*****************************************************************
* Process Single Domain where domain1 is the variable of interest.
*****************************************************************;
%MACRO PROCESS1(DOMAIN1=, INPT=, FORM=);

   PROC SORT DATA=&INPT; BY &DOMAIN1; RUN;

   DATA _NULL_;
      SET &INPT;
      BY &DOMAIN1;
      FILE "&OFILES.&DOMAIN1..OUT" RECFM=V LRECL=9999;
      LENGTH VARNAME1 $8;
      LENGTH VARIABLE $30;
      CALL VNAME(&DOMAIN1,VARNAME1);
      VARIABLE = VARNAME1;
      %INCLUDE "TABLE02.IN1";
      IF LAST.&DOMAIN1 THEN DO;
         PUT @001 &DOMAIN1 @;
         %INCLUDE "TABLE02.IN2";
      END; * DOMAIN;
   RUN;
%MEND PROCESS1;


*******************************************************************
* Process Double Domain where domain1/domain2 are the
* variables of interest.
*******************************************************************;
%MACRO PROCESS2(DOMAIN1=, DOMAIN2=, INPT=, FORM=);

   PROC SORT DATA=&INPT; BY &DOMAIN1 &DOMAIN2; RUN;

   DATA _NULL_;
      SET &INPT;
      BY &DOMAIN1 &DOMAIN2;
      FILE "&OFILES.&DOMAIN1&DOMAIN2..OUT" RECFM=V LRECL=9999;
      LENGTH VARNAME1 $8;
      LENGTH VARNAME2 $8;
      LENGTH VARIABLE $30;
      CALL VNAME(&DOMAIN1,VARNAME1);
      CALL VNAME(&DOMAIN2,VARNAME2);
      VARIABLE = VARNAME1 || " " || VARNAME2;
      %INCLUDE "TABLE02.IN1";
      IF LAST.&DOMAIN2 THEN DO;
         PUT @001 &DOMAIN1 @;
         PUT @041 &DOMAIN2 @;
         %INCLUDE "TABLE02.IN2";
         SN    = 0;
         SN1   = 0;
         SN11  = 0;
         SN12  = 0;
         SN2   = 0;
         SN31   = 0;
         SN4   = 0;
```

```
         SN41  = 0;
         SN42  = 0;
         WN   = 0;
         WN1  = 0;
         WN11 = 0;
         WN12 = 0;
         WN2  = 0;
         WN31  = 0;
         WN4  = 0;
         WN41 = 0;
         WN42 = 0;
      END; * DOMAIN;
   RUN;
%MEND PROCESS2;


*********************************************************************
* Process Triple Domain where domain1-3 are the variables of interest.
*********************************************************************;
%MACRO PROCESS3(DOMAIN1=, DOMAIN2=, DOMAIN3=, INPT=, FORM=);

   PROC SORT DATA=&INPT; BY &DOMAIN1 &DOMAIN2 &DOMAIN3; RUN;

   DATA _NULL_;
      SET &INPT;
      BY &DOMAIN1 &DOMAIN2 &DOMAIN3;
      FILE "&OFILES.&DOMAIN1&DOMAIN2&DOMAIN3..OUT" RECFM=V LRECL=9999;
      LENGTH VARNAME1 $8;
      LENGTH VARNAME2 $8;
      LENGTH VARNAME3 $8;
      LENGTH VARIABLE $30;
      CALL VNAME(&DOMAIN1,VARNAME1);
      CALL VNAME(&DOMAIN2,VARNAME2);
      CALL VNAME(&DOMAIN3,VARNAME3);
      VARIABLE = VARNAME1 || " " || VARNAME2 || " " || VARNAME3;
      %INCLUDE "TABLE02.IN1";
      IF LAST.&DOMAIN3 THEN DO;
         PUT @001 &DOMAIN1 @;
         PUT @041 &DOMAIN2 @;
         PUT @081 &DOMAIN3 @;
         %INCLUDE "TABLE02.IN2";
         SN    = 0;
         SN1   = 0;
         SN11  = 0;
         SN12  = 0;
         SN2   = 0;
         SN31   = 0;
         SN4   = 0;
         SN41  = 0;
         SN42  = 0;
         WN   = 0;
         WN1  = 0;
         WN11 = 0;
         WN12 = 0;
         WN2  = 0;
         WN31  = 0;
         WN4  = 0;
         WN41 = 0;
         WN42 = 0;
      END; * DOMAIN;
   RUN;
%MEND PROCESS3;


***Note that the ERROR message of division by zero may be printed out
in the log file due to no complete in some domains***;

*********************************************************
* PROCESS OVERALL RESPONSE RATE TABULATION - FORM A
*********************************************************;
%PROCESS(INPT=MERGERR, FORM=A);

*********************************************************
* PROCESS SINGLE DOMAIN RESPONSE RATE TABULATION - FORM A
```

```
*********************************************************;
*%PROCESS1(DOMAIN1=xregion,  INPT=MERGERR, FORM="FORM A");
*%PROCESS1(DOMAIN1=QFLAG, INPT=MERGERR, FORM="FORM A");
*%PROCESS1(DOMAIN1=has_email,INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=xoconus,  INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=USA,      INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=sexsmpl,  INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=enbgsmpl, INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=cacsmpl,  INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=patcat,   INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=servaff,  INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=svcsmpl,  INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=xtnexreg, INPT=MERGERR, FORM="FORM A");

*********************************************************
* PROCESS DOUBLE DOMAIN RESPONSE RATE TABULATION - FORM A
*********************************************************;

%PROCESS2(DOMAIN1=patcat,   DOMAIN2=svcsmpl, INPT=MERGERR, FORM="FORM A");
%PROCESS2(DOMAIN1=patcat,   DOMAIN2=sexsmpl, INPT=MERGERR, FORM="FORM A");
%PROCESS2(DOMAIN1=xtnexreg, DOMAIN2=cacsmpl, INPT=MERGERR, FORM="FORM A");
*%PROCESS2(DOMAIN1=PATCAT, DOMAIN2=HAS_EMAIL, INPT=MERGERR, FORM="FORM A");

*********************************************************
* PROCESS TRIPLE DOMAIN RESPONSE RATE TABULATION - FORM A
*********************************************************;
*%PROCESS3(DOMAIN1=USA, DOMAIN2=patcat, DOMAIN3=has_email, INPT=MERGERR, FORM="FORM A");

*************************************************************************
* Copy empty template file to constructed variables spreadsheet and
* start the XLS file.
*************************************************************************;
X "COPY EMPTY.XLS RESPONSE_RATES.XLS";
X "START RESPONSE_RATES.XLS";


/*wait for a few seconds to allow Excel to come up */
/*adding sleep statement to avoid a log error saying
  ERROR: Physical file does not exist, excel|OVERALLA!r1c1:r9999c3*/
data _null_;
x=sleep(10);
run;



%MACRO CREATXLS(DSN=, NUMDOM=);
   ************************************************************************
   * Read text files with response rates for each DOMAIN .
   ************************************************************************;
   DATA &DSN(KEEP=DOMAIN1 DOMAIN2 DOMAIN3 RR RRW);
      INFILE "&OFILES.&DSN..OUT" LRECL=9999 RECFM=V;
      INPUT LINEIN $100 @; DROP LINEIN; *Skip over header records;
      LENGTH DOMAIN1-DOMAIN3 $40;
      IF _N_ GE 7 THEN DO;
         INPUT
            @001 DOMAIN1 $CHAR40.
            @041 DOMAIN2 $CHAR40.
            @081 DOMAIN3 $CHAR40.
            @121 FLR1   4.3
            @131 FCR1   4.3
            @141 FRR1   4.3
            @147 SN     7.0
            @171 FLR2   4.3
            @181 FCR2   4.3
            @191 FRR2   4.3
            @197 WN     7.0
           ;
         RR  = FRR1*100;
         RRW = FRR2*100;
         OUTPUT;
      END;
   RUN;
   ************************************************************************
   * Add values for each DOMAIN to each sheet.
```

```
*********************************************************************;
%IF &NUMDOM LE 1 %THEN %DO;
   FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c3";
   DATA _NULL_;
      SET &DSN;
      FILE OUTDATA DLM='09'X NOTAB LRECL=500;
      LENGTH OLINE $50;
      IF _N_ = 1 THEN DO;
         OLINE = "RESPONSE RATES FOR &QUARTER";
         PUT OLINE;
         OLINE = "FOR DOMAIN = &DSN";
         PUT OLINE /;
         H1 = "DOMAIN"; H2 = "RR"; H3 = "RRW";
         PUT H1 : $CHAR50.
             H2 : $CHAR50.
             H3 : $CHAR50.
            ;
      END;
      PUT DOMAIN1: $CHAR40.
          RR     : 4.1
          RRW    : 4.1
         ;
   RUN;
%END;
%ELSE %IF &NUMDOM = 2 %THEN %DO;
   FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c4";
   DATA _NULL_;
      SET &DSN;
      FILE OUTDATA DLM='09'X NOTAB LRECL=500;
      LENGTH OLINE $50;
      IF _N_ = 1 THEN DO;
         OLINE = "RESPONSE RATES FOR &QUARTER";
         PUT OLINE;
         OLINE = "FOR DOMAIN = &DSN";
         PUT OLINE /;
         H1 = "DOMAIN1"; H2 = "DOMAIN2"; H3 = "RR"; H4 = "RRW";
         PUT H1 : $CHAR50.
             H2 : $CHAR50.
             H3 : $CHAR50.
             H4 : $CHAR50.
            ;
      END;
      PUT DOMAIN1: $CHAR40.
          DOMAIN2: $CHAR40.
          RR     : 4.1
          RRW    : 4.1
         ;
   RUN;
%END;
%ELSE %IF &NUMDOM = 3 %THEN %DO;
   FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c5";
   DATA _NULL_;
      SET &DSN;
      FILE OUTDATA DLM='09'X NOTAB LRECL=500;
      LENGTH OLINE $50;
      IF _N_ = 1 THEN DO;
         OLINE = "RESPONSE RATES FOR &QUARTER";
         PUT OLINE;
         OLINE = "FOR DOMAIN = &DSN";
         PUT OLINE /;
         H1 = "DOMAIN1"; H2 = "DOMAIN2"; H3 = "DOMAIN3"; H4 = "RR"; H5 = "RRW";
         PUT H1 : $CHAR50.
             H2 : $CHAR50.
             H3 : $CHAR50.
             H4 : $CHAR50.
             H5 : $CHAR50.
            ;
      END;
      PUT DOMAIN1 : $CHAR40.
          DOMAIN2 : $CHAR40.
          DOMAIN3 : $CHAR40.
          RR      : 4.1
          RRW     : 4.1
         ;
```

```
      RUN;
   %END;
%MEND CREATXLS;

%CREATXLS(DSN=TABLE02A, NUMDOM=0);
*CREATXLS(DSN=QFLAG, NUMDOM=1);
*%CREATXLS(DSN=HAS_EMAIL, NUMDOM=1);
%CREATXLS(DSN=XOCONUS, NUMDOM=1);
%CREATXLS(DSN=USA, NUMDOM=1);
%CREATXLS(DSN=SEXSMPL, NUMDOM=1);
%CREATXLS(DSN=enbgsmpl, NUMDOM=1);
%CREATXLS(DSN=cacsmpl, NUMDOM=1);
%CREATXLS(DSN=PATCAT, NUMDOM=1);
%CREATXLS(DSN=SERVAFF, NUMDOM=1);
%CREATXLS(DSN=SVCSMPL, NUMDOM=1);
%CREATXLS(DSN=XTNEXREG, NUMDOM=1);
%CREATXLS(DSN=PATCATSVCSMPL, NUMDOM=2);
%CREATXLS(DSN=PATCATSEXSMPL, NUMDOM=2);
%CREATXLS(DSN=XTNEXREGcacsmpl, NUMDOM=2);
*%CREATXLS(DSN=PATCATHAS_EMAIL, NUMDOM=2);
*%CREATXLS(DSN=USAPATCATHAS_EMAIL, NUMDOM=3);
*************************************************************************
* Quit spreadsheet application.
*************************************************************************;
FILENAME CMDS DDE "EXCEL|SYSTEM";
DATA _NULL_;
   FILE CMDS;
   PUT '[SAVE]';
   PUT '[QUIT]';
RUN;


**************************  End ************************;
```

F.22.C Response_Rate\TABLE02.IN1 - Include file1 used to Calculate annual Response Rates.

```
***************************************************************************
*
* PROGRAM: TABLE02.IN1
* TASK:    2002 DOD HEALTH CARE SURVEY ANALYSIS
* PURPOSE: COMMON CODE INCLUDE FILE USED TO BUILD
*          TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY
*          2002 DOD HEALTH CARE SURVEY FILE.
* WRITTEN: 01/08/99 BY KEITH RATHBUN
*
* MODIFIED:
* 1) 5/17/1999, Keith Rathbun - Removed printing of the final location rate
*    (FLR) and final completion rate (FCR).
* 2) 7/07/1999, Keith Rathbun - Added back printing of FLR
* 3) 12/14/2000, Keith Rathbun - Update for quarterly survey to use BWT
*    instead of BWT99 (generalized variable name for ease of maintenance).
* 4) 11/16/2004 by Haixia Xu - Update the coding of FNSTATUS from 30 to 31.
*                              SN3->SN31, WN3->WN31
* 5) 01/24/2005 by Keith Rathbun - Update PUT statements to accomodate up
*    to 3 CHAR*40 domains.
*
***************************************************************************
*;
IF _N_ = 1 THEN DO;
   PUT; PUT;
   PUT @001 "TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY";
   PUT @001 "&DATE., TASK: &TASKNUM.";
   PUT;
   PUT "SUMMARY OF GROUP COUNTS: " &FORM;
   PUT "VARIABLE = " VARIABLE;
   PUT;
   PUT @131 "UNWEIGHTED COUNT"
       @181 "WEIGHTED COUNT"
      ;
   PUT @121 'FLR'
       @131 'FCR'
       @141 'FRR'
       @151 'POP'
       @171 'FLR'
       @181 'FCR'
       @191 'FRR'
       @201 'POP'
      ;
END;
IF FIRST.&DOMAIN1 THEN DO;
   SN    = 0;
   SN1   = 0;
   SN11  = 0;
   SN12  = 0;
   SN2   = 0;
   SN31  = 0;
   SN4   = 0;
   SN41  = 0;
   SN42  = 0;
   WN   = 0;
   WN1  = 0;
   WN11 = 0;
   WN12 = 0;
   WN2  = 0;
   WN31  = 0;
   WN4  = 0;
   WN41 = 0;
   WN42 = 0;
END;
*****************************************************
* Accumulate group 1 weighted and unweighted counts
*****************************************************
;
SN + 1;
WN + BWT;
IF FNSTATUS IN(11,12) THEN DO;
   SN1 + 1;
```

```
   WN1 + BWT;
   IF FNSTATUS = 11 THEN DO;
      SN11 + 1;
      WN11 + BWT;
   END;
   ELSE DO;
      SN12 + 1;
      WN12 + BWT;
   END;
END;
*****************************************************
* Accumulate group 2 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS = 20 THEN DO;
   SN2 + 1;
   WN2 + BWT;
END;
*****************************************************
* Accumulate group 3 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS = 31 THEN DO;
   SN31 + 1;
   WN31 + BWT;
END;
*****************************************************
* Accumulate group 4 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS IN(41,42) THEN DO;
   SN4 + 1;
   WN4 + BWT;
   IF FNSTATUS = 42 THEN DO;
      SN42 + 1;
      WN42 + BWT;
   END;
   ELSE DO;
      SN41 + 1;
      WN41 + BWT;
   END;
END;

DROP I;
RETAIN
   SN
   SN1
   SN11
   SN12
   SN2
   SN31
   SN4
   SN41
   SN42
   WN
   WN1
   WN11
   WN12
   WN2
   WN31
   WN4
   WN41
   WN42
  ;
```

F.22.D Response_Rate\TABLE02.IN2 - Include file2 used to Calculate annual Response Rates.

```
***************************************************************************
*
* PROGRAM: TABLE02.IN2
* TASK:    QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS
* PURPOSE: COMMON CODE INCLUDE FILE USED TO BUILD
*          TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY
*          QUARTERLY DOD HEALTH CARE SURVEY FILE.
* WRITTEN: 01/08/99 BY KEITH RATHBUN
*
* MODIFIED:
* 1) 5/17/1999, Keith Rathbun - Removed printing of the final location rate
*    (FLR) and final completion rate (FCR).
* 2) 7/07/1999, Keith Rathbun - Added back printing of FLR
* 3) 12/14/2000, Keith Rathbun - Added printing of weighted (WN) and
*    unweighted (SN) population sizes.
* 4) 11/17/2004 BY Haixia Xu - Made changes due to the different coding of FNSTATUS:
*                            -Rewrite the formula used to calculating FRR1, FRR2
*                            -SN3->SN31, WN3->WN31
* 5) 01/24/2005 by Keith Rathbun - Update PUT statements to accomodate up
*    to 3 CHAR*40 domains.
*
***************************************************************************
*;

   *Final Response Rate;
   FRR1 = SN11/(SN1 + SN2 + SN4*((SN1 + SN2)/(SN1 + SN2 + SN31)) );
   FRR2 = WN11/(WN1 + WN2 + WN4*((WN1 + WN2)/(WN1 + WN2 + WN31)) );

   *Final Location Rate;
   L = ((SN1 + SN2)/(SN1 + SN2 + SN31))*SN41;
   WL = ((WN1 + WN2)/(WN1 + WN2 + WN31))*WN41;
   FLR1 = (SN1 + SN2 + L)/(SN1 + SN2 + SN4*((SN1 + SN2)/(SN1 + SN2 + SN31)));
   FLR2 = (WN1 + WN2 + WL)/(WN1 + WN2 + WN4*((WN1 + WN2)/(WN1 + WN2 + WN31)));

   *Final Completion Rate;
   FCR1 = SN11/(SN1 + SN2 + L);
   FCR2 = WN11/(WN1 + WN2 + WL);
   PUT @121 FLR1  4.3
       @131 FCR1  4.3
       @141 FRR1  4.3
       @147 SN   7.0
       @171 FLR2  4.3
       @181 FCR2  4.3
       @191 FRR2  4.3
       @197 WN    7.0
      ;
```

F.22.E Response_Rate\TABLE02_XCATCH.SAS - Calculate Response Rates by catchment area

```
*************************************************************************
* PROGRAM: TABLE02_xcatch.SAS
* TASK:    DOD HEALTH CARE SURVEY ANALYSIS (40309.H21)
* PURPOSE: BUILD TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY
*          Quarterly DOD HEALTH CARE SURVEY FILE.
* WRITTEN: 11/09/1999 BY KEITH RATHBUN
* MODIFIED: H. Xu on 03/01/2006
*           H. Xu on 11/21/2006 to produce the annual RR for xcatch
*           H. Xu on 11/13/2007 to produce the annual RR for xcatch
*           H. Xu on 11/21/2008 to produce the annual RR for xcatch
*           S. Ra.on 10/05/2011 to produce the annual RR for xcatch
*           S. Ra.on 12/05/2012 to produce the annual RR for xcatch
*           S. Ra.on 06/02/2014 to produce the annual RR for xcatch
*
* INPUT:    1) MERGEQ.SD2 (All quarters)
*
* INCLUDES: 1) TABLE02.IN1
*           2) TABLE02.IN2
*
* NOTES: This program is modified from 325table02.sas in F:\2004\Programs\Response_Rate
*        to produce the RR only for XCATCH
* NOTE : We need to run programs in order of table02.sas, annual_rr.sas.
*        We can run table02_xcatch.sas anytime at this point, since it is
*        independent from other two above.
*************************************************************************;
OPTIONS PS=79 LS=132 COMPRESS=YES ERRORS=1 NOXWAIT NOCENTER NOFMTERR mprint mlogic symbolgen;

%Let YR=2015;

LIBNAME Q1t  "N:\Project\40309_HCS\DC1\HCSDB\Q1FY&YR.t\DATA\AFINAL";  * Q1t mergeq with late
response;
LIBNAME Q2t  "N:\Project\40309_HCS\DC1\HCSDB\Q2FY&YR.t\DATA\AFINAL";  * Q2t mergeq with late
response;
LIBNAME Q3   "N:\Project\40309_HCS\DC1\HCSDB\Q3FY&YR.\DATA\AFINAL";   * Q3  mergeq with late
response;

LIBNAME LIBRARY  "N:\Project\40309_HCS\DC1\HCSDB\Q3FY2015\Data\AFinal\fmtlib";

TITLE1 "Program: TABLE02_xcatch.SAS (FY=&YR., 40309.H20):";
TITLE2 "Purpose: Compute response rates by DOMAIN";

%LET OFILES  = N:\Project\40309_HCS\DC1\HCSDB\&YR.\DATA\Response_Rate\xcatch\;
%LET QUARTER = &YR. Combined Annual;
%LET DATE    = 07-16-2015;
%LET TASKNUM = 40309.H21;



*****************************************************************
* Create XCATCH in the annual combined file
*****************************************************************;
DATA COMB&YR.;
   SET Q1t.MERGEQ    Q2t.MERGEQ    Q3.MERGEQ;
run;

PROC SORT DATA=COMB&YR. OUT=TEMP1; BY MPRID; RUN;

*************************************************************************
* Create and attach XCATCH (Catchment Reporting variable) to final dataset.
* Note that dataset tmpxctch with XCATCH is created by this include file.
*************************************************************************;



/********** READING INCLUDE FILE FROM ANNDUAL-WT FOLDER OF THIS FY *******/
/*************************************************************************/
%include "N:\Project\40309_HCS\DC1\HCSDB\&YR.\Programs\Weighting\xcatch.inc";
/*************************************************************************/
```

```
proc sort data=tmpxctch out=temp2; by mprid; run;
proc sort data=temp1(keep=mprid fnstatus bwt) out=temp3; by mprid;run;

data temp;
merge temp2(in=A) temp3(in=B);
by mprid;
if A and B;
format xcatch cacr.;
run;

%MACRO PROCESS(INPT=, FORM=);
   ***************************************************************
   * Process OVERALL Summary of response rates
   ***************************************************************;
   DATA _NULL_;
      SET &INPT END=FINISHED;
      IF _N_ = 1 THEN DO;
         SN    = 0;
         SN1   = 0;
         SN11  = 0;
         SN12  = 0;
         SN2   = 0;
         SN31   = 0;
         SN4   = 0;
         SN41  = 0;
         SN42  = 0;
         WN   = 0;
         WN1  = 0;
         WN11 = 0;
         WN12 = 0;
         WN2  = 0;
         WN31  = 0;
         WN4  = 0;
         WN41 = 0;
         WN42 = 0;
      END;
      ************************************************************
      * Accumulate group 1 weighted and unweighted counts.
      ************************************************************;
      SN + 1;
      WN + BWT;
      IF FNSTATUS IN(11,12) THEN DO;
         SN1 + 1;
         WN1 + BWT;
         IF FNSTATUS = 11 THEN DO;
            SN11 + 1;
            WN11 + BWT;
         END;
         ELSE DO;
            SN12 + 1;
            WN12 + BWT;
         END;
      END;
      ****************************************************
      * Accumulate group 2 weighted and unweighted counts.
      ****************************************************;
      ELSE IF FNSTATUS = 20 THEN DO;
         SN2 + 1;
         WN2 + BWT;
      END;
      ****************************************************
      * Accumulate group 3 weighted and unweighted counts.
      ****************************************************;
      ELSE IF FNSTATUS = 31 THEN DO;
         SN31 + 1;
         WN31 + BWT;
      END;
      ****************************************************
      * Accumulate group 4 weighted and unweighted counts.
      ****************************************************;
      ELSE IF FNSTATUS IN(41,42) THEN DO;
         SN4 + 1;
```

```
         WN4 + BWT;
         IF FNSTATUS = 42 THEN DO;
            SN42 + 1;
            WN42 + BWT;
         END;
         ELSE DO;
            SN41 + 1;
            WN41 + BWT;
         END;
      END;

      DROP I;
      RETAIN
         SN
         SN1
         SN11
         SN12
         SN2
         SN31
         SN4
         SN41
         SN42
         WN
         WN1
         WN11
         WN12
         WN2
         WN31
         WN4
         WN41
         WN42
        ;

      IF FINISHED THEN GO TO FINISHED;
      RETURN;

   FINISHED:
     FILE "&OFILES.TABLE02&FORM..OUT" RECFM=V LRECL=9999;
     PUT; PUT; PUT;
     PUT @001 "TABLE 2: OVERALL RESPONSE RATES SUMMARY";
     PUT @001 "12-05-2012, TASK: 06663.300";
     PUT;
     PUT "SUMMARY OF GROUP COUNTS: FORM &FORM";
     PUT;
     PUT @131 "UNWEIGHTED COUNT"
         @181 "WEIGHTED COUNT"
        ;
     PUT @121 'FLR'
         @131 'FCR'
         @141 'FRR'
         @151 'POP'
         @171 'FLR'
         @181 'FCR'
         @191 'FRR'
         @201 'POP'
        ;
     %INCLUDE "TABLE02.IN2";
   RUN;
%MEND PROCESS;

*****************************************************************
* Process Single Domain where domain1 is the variable of interest.
*****************************************************************;
%MACRO PROCESS1(DOMAIN1=, INPT=, FORM=);

   PROC SORT DATA=&INPT; BY &DOMAIN1; RUN;

   DATA _NULL_;
      SET &INPT;
      BY &DOMAIN1;
      FILE "&OFILES.&DOMAIN1..OUT" RECFM=V LRECL=9999;
      LENGTH VARNAME1 $8;
      LENGTH VARIABLE $30;
      CALL VNAME(&DOMAIN1,VARNAME1);
```

```
      VARIABLE = VARNAME1;
      %INCLUDE "TABLE02.IN1";
      IF LAST.&DOMAIN1 THEN DO;
         PUT @001 &DOMAIN1 @;
         %INCLUDE "TABLE02.IN2";
      END; * DOMAIN;
   RUN;
%MEND PROCESS1;

***Note that the ERROR message of division by zero may be printed out
in the log file due to no complete in some domains***;

*********************************************************
* PROCESS OVERALL RESPONSE RATE TABULATION - FORM A
*********************************************************;
%PROCESS(INPT=temp, FORM=A);

*********************************************************
* PROCESS SINGLE DOMAIN RESPONSE RATE TABULATION - FORM A
*********************************************************;
%PROCESS1(DOMAIN1=XCATCH,   INPT=temp, FORM="FORM A");

*************************************************************************
* Copy empty template file to constructed variables spreadsheet and
* start the XLS file.
*************************************************************************;
X "COPY EMPTY_xcatch.XLS RESPONSE_RATES_xcatch.XLS";
X "START RESPONSE_RATES_xcatch.XLS";


/*wait for a few seconds to allow Excel to come up */
/*adding sleep statement to avoid a log error saying
  ERROR: Physical file does not exist, excel|OVERALLA!r1c1:r9999c3*/
data _null_;
x=sleep(8);
run;



%MACRO CREATXLS(DSN=, NUMDOM=);
   ************************************************************************
   * Read text files with response rates for each DOMAIN .
   ************************************************************************;
   DATA &DSN(KEEP=DOMAIN1 DOMAIN2 DOMAIN3 RR RRW);
      INFILE "&OFILES.&DSN..OUT" LRECL=9999 RECFM=V;
      INPUT LINEIN $100 @; DROP LINEIN; *Skip over header records;
      LENGTH DOMAIN1-DOMAIN3 $40;
      IF _N_ GE 7 THEN DO;
         INPUT
            @001 DOMAIN1 $CHAR40.
            @041 DOMAIN2 $CHAR40.
            @081 DOMAIN3 $CHAR40.
            @121 FLR1   4.3
            @131 FCR1   4.3
            @141 FRR1   4.3
            @147 SN     7.0
            @171 FLR2   4.3
            @181 FCR2   4.3
            @191 FRR2   4.3
            @197 WN     7.0
           ;
         RR  = FRR1*100;
         RRW = FRR2*100;
         OUTPUT;
      END;
   RUN;
   ************************************************************************
   * Add values for each DOMAIN to each sheet.
   ************************************************************************;
   %IF &NUMDOM LE 1 %THEN %DO;
      FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c3";
      DATA _NULL_;
         SET &DSN;
         FILE OUTDATA DLM='09'X NOTAB LRECL=500;
```

```
         LENGTH OLINE $50;
         IF _N_ = 1 THEN DO;
            OLINE = "RESPONSE RATES FOR &QUARTER";
            PUT OLINE;
            OLINE = "FOR DOMAIN = &DSN";
            PUT OLINE /;
            H1 = "DOMAIN"; H2 = "RR"; H3 = "RRW";
            PUT H1 : $CHAR50.
                H2 : $CHAR50.
                H3 : $CHAR50.
               ;
         END;
         PUT DOMAIN1: $CHAR40.
             RR     : 4.1
             RRW    : 4.1
            ;
      RUN;
   %END;
   %ELSE %IF &NUMDOM = 2 %THEN %DO;
      FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c4";
      DATA _NULL_;
         SET &DSN;
         FILE OUTDATA DLM='09'X NOTAB LRECL=500;
         LENGTH OLINE $50;
         IF _N_ = 1 THEN DO;
            OLINE = "RESPONSE RATES FOR &QUARTER";
            PUT OLINE;
            OLINE = "FOR DOMAIN = &DSN";
            PUT OLINE /;
            H1 = "DOMAIN1"; H2 = "DOMAIN2"; H3 = "RR"; H4 = "RRW";
            PUT H1 : $CHAR50.
                H2 : $CHAR50.
                H3 : $CHAR50.
                H4 : $CHAR50.
               ;
         END;
         PUT DOMAIN1: $CHAR40.
             DOMAIN2: $CHAR40.
             RR     : 4.1
             RRW    : 4.1
            ;
      RUN;
   %END;
   %ELSE %IF &NUMDOM = 3 %THEN %DO;
      FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c5";
      DATA _NULL_;
         SET &DSN;
         FILE OUTDATA DLM='09'X NOTAB LRECL=500;
         LENGTH OLINE $50;
         IF _N_ = 1 THEN DO;
            OLINE = "RESPONSE RATES FOR &QUARTER";
            PUT OLINE;
            OLINE = "FOR DOMAIN = &DSN";
            PUT OLINE /;
            H1 = "DOMAIN1"; H2 = "DOMAIN2"; H3 = "DOMAIN3"; H4 = "RR"; H5 = "RRW";
            PUT H1 : $CHAR50.
                H2 : $CHAR50.
                H3 : $CHAR50.
                H4 : $CHAR50.
                H5 : $CHAR50.
               ;
         END;
         PUT DOMAIN1 : $CHAR40.
             DOMAIN2 : $CHAR40.
             DOMAIN3 : $CHAR40.
             RR      : 4.1
             RRW     : 4.1
            ;
      RUN;
   %END;
%MEND CREATXLS;

%CREATXLS(DSN=TABLE02A, NUMDOM=0);
%CREATXLS(DSN=XCATCH, NUMDOM=1);
```

```
************************************************************************
* Quit spreadsheet application.
************************************************************************;
FILENAME CMDS DDE "EXCEL|SYSTEM";
DATA _NULL_;
   FILE CMDS;
   PUT '[SAVE]';
   PUT '[QUIT]';
RUN;


**************** End **********************;
```

APPENDIX G

SAS CODE FOR STATISTICAL AND WEB SPECIFICATIONS FOR THE 2015 TRICARE BENEFICIARY REPORTS – QUARTERS I-III

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G.1.A Q3FY2015\PROGRAMS\ReportCards\CAHPS_AdultQ3FY2015\STEP1Q.SAS - Create and recode variables used in Adult Beneficiary Reports - Run Quarterly.

```
***************************************************************************
*
*  PROJECT:  DoD - Quarterly Adult Report Cards
*  PROGRAM:  STEP1Q.SAS
*  PURPOSE:  Create Dummy and Recode Variables used in Adult Report Card
*                  Create a Female dummy variable
*                  Create an Education dummy variable
*                  Create 15 region dummies combining regions.
*                         7 & 8 into region 8. That is, there
*                         isn't a region 7 dummy.
*                  Create 7 age dummy variables.
*
*            We require the most desired code to be the highest value.
*            Recode the dependent variables into:
*                  1 - the least desirable value
*                  2 - the 2nd least desirable value
*                  3 - the most desirable value
*                  . - missing
*
*            Create 7 variables GROUP1 - GROUP7
*                 IF (XINS_COV IN (1,2,6) AND H10004>=2) THEN GROUP1 = 1
*                 IF (XENR_PCM IN (1,2,6) AND H10004>=2) THEN GROUP2 = 1
*                 IF (XENR_PCM = 3,7      AND H10004>=2) THEN GROUP3 = 1
*                 IF XINS_COV IN (3)                     THEN GROUP4 = 1
*                          /*JSO 08/24/2006, Deleted 4,5*/
*                 IF XBNFGRP = 1                         THEN GROUP5 = 1
*                 IF XBNFGRP = 2                         THEN GROUP6 = 1
*                 IF XBNFGRP IN (3,4)                    THEN GROUP7 = 1
*                 GROUP8 is output for all beneficiaries
*
*  MODIFIED:52) November 3, 2012 By Mike Rudacille, Updated for handling of Joint Service
facilities
*           53) December 27, 2012 By Aimee Valenzuela, Update program for Q1FY2013.Updated
Variable names
*               and input dataset.
*           54) March 23, 2013 By Mike Rudacille, Update program for Q2FY2013.
*           55) Sept 23, 2013 By Amanda Kudis, Update program for Q1FY2014.
*           56) Feb 27, 2013 By Amanda Kudis, now use xservaff from database
*           57) December 1, 2014 by Matt Turbyfill, revised for the Macro Program.
*                                   Changed HCSyyq_2 to &DATAFILE.
*                                   Changed H14 and R14 to H&FY. And R&FY.
*                                   Replaced RCTYPE with &PC.ReportCards.
*                                   Changed CONVERT.SAS to
..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\CONVERT.SAS.
*
*  INPUTS:   1) HCSyyq_2 - DoD Quarterly HCS Database
*
*  OUTPUTS:  1) GROUP1-8.sas7bdat - DoD Quarterly GROUP files as defined above
*
*  INCLUDES: 1) CONVERT.SAS - Convert item responses to proportional
*                             values for consistency w/ TOPS
*
*  NOTES:    1) Groups 1-3 modified 10/09/2000
*
*            2) In Q1_2002, S02S01 was renamed and recoded to H00077 (health
*               status variable for 2000).  H02077 was the Hispanic/Latino
*               variable.  In Q2_2002, H02077 is health status, and H02079
*               is the Hispanic/Latino variable.  To make the Quarter 2 data
*               file (HSC022_1.sd2) more consistent with the Quarter 1 file,
*               the health status variable which was H02077 is now H04075,
*               and the Hispanic/Latino variable which was H02079 is now
*               H02077.
*
***************************************************************************;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards                ***/
%LET RCTYPE = &PC.ReportCards;

OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR NOOVP COMPRESS=YES;
LIBNAME OUT      "DATA";
```

```
LIBNAME IN1      "..\..\..\Data\AFinal";
LIBNAME LIBRARY  "..\..\..\Data\Afinal\fmtlib";

TITLE1    'Program Saved as: STEP1Q.SAS';

%LET WGT = FWRWT;

proc format;
     value servreg 1 = 'North Army'
                   2 = 'North Air Force'
                   3 = 'North Navy'
                   4 = 'North Other'
                   5 = 'North Joint Service'
                   6 = 'South Army'
                   7 = 'South Air Force'
                   8 = 'South Navy'
                   9 = 'South Other'
                  10 = 'South Joint Service'
                  11 = 'West Army'
                  12 = 'West Air Force'
                  13 = 'West Navy'
                  14 = 'West Other'
                  15 = 'West Joint Service'
                  16 = 'Europe Army'
                  17 = 'Europe Air Force'
                  18 = 'Europe Navy'
                  19 = 'Europe Other'
                  20 = 'Europe Joint Service'
                  21 = 'Pacific Army'
                  22 = 'Pacific Air Force'
                  23 = 'Pacific Navy'
                  24 = 'Pacific Other'
                  25 = 'Pacific Joint Service'
                  26 = 'Latin America Army'
                  27 = 'Latin America Air Force'
                  28 = 'Latin America Navy'
                  29 = 'Latin America Other'
                  30 = 'Latin America Joint Service';

DATA ENTIRE;
   SET IN1.&DATAFILE.(KEEP=
                MPRID
                XCATCH    /*MER 11/03/12*/
                FIELDAGE   /*MJS 01/26/04*/
                XTNEXREG
                SERVAFF    /*KRR 04/09/04*/
                DBENCAT    /*JSO 04/26/2007, added for reservists logic*/
                USA
                ENBGSMPL
                SREDA
                XSEXA
                XBNFGRP
                STRATUM    /*KRR 04/03/2006, changed from ADJ_CELL*/
                XINS_COV
                XENR_PCM
                XOCONUS    /*JSO 08/24/2006, Overseas Region Indicator*/
                &WGT.
                /* Getting Needed Care */
                H&FY.033
                H&FY.029
                /* Getting Care Quickly */
                H&FY.007
                H&FY.010
                /* How Well Doctors Communicate */
                H&FY.021
                H&FY.022
                H&FY.023
                H&FY.024
                /* Customer Service */
                H&FY.041
                H&FY.042
                /* Claims Processing */
                H&FY.046
                H&FY.047  /****************************/
```

```
                H&FY.065  /* Health Status            */
                H&FY.018  /* Health Care Rating       */
                H&FY.048  /* Health Plan Rating       */
                H&FY.027  /* Personal Doctor Rating   */
                H&FY.031  /* Specialist Rating        */
                H&FY.003  /* Health Plan Used         *//*JSO 04/26/2007, added for reservists
logic*/
                H&FY.004  /* How Long in Health Plan   */
                        /****************************/
               );
    FORMAT _ALL_;

       IF SERVAFF='A' THEN XSERVAFF=1;            *Army;
       ELSE IF SERVAFF='F' THEN XSERVAFF=2;      *Air Force;
       ELSE IF SERVAFF='N' THEN XSERVAFF=3;      *Navy;
       ELSE XSERVAFF=4;                          *Other;

    IF PUT(XCATCH, JOINTSRV.)='1' THEN XSERVAFF=5; *Joint Service;

    IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

    IF XTNEXREG = . THEN DELETE;  /* RSG 02/2005 USE CACSMPL TO DELETE MISSING FIELDS*/

    IF XINS_COV NOT IN(1,2,3,6,9,10,13,14) THEN DELETE;  /*JSO 07/30/2007, Added 9*/  /*MER
07/12/11 Added 10,11*/
                                                          /*AMK 2/10/14 removed 11, added 13/14*/

    NXNS_COV = XINS_COV;              /*JSO 04/26/2007 added for reservists logic*/
                                      /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
    IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
    IF DBENCAT IN('GRD','IGR') AND H&FY.003 = 3 THEN DO;
       NXNS_COV = 3;
       XENR_PCM = .;
    END;
                      /* Note:  use tmp_cell in step2q.sas */
    LENGTH TMP_CELL XSERVREG 8;
    TMP_CELL = STRATUM; /*KRR 04/03/2006, changed from ADJ_CELL*/

    IF XTNEXREG = 1 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 1;
       ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
       ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
       ELSE IF XSERVAFF = 4 THEN XSERVREG = 4;
       ELSE XSERVREG = 5;
    END;

    IF XTNEXREG = 2 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 6;
       ELSE IF XSERVAFF = 2 THEN XSERVREG = 7;
       ELSE IF XSERVAFF = 3 THEN XSERVREG = 8;
       ELSE IF XSERVAFF = 4 THEN XSERVREG = 9;
       ELSE XSERVREG = 10;
    END;

    IF XTNEXREG = 3 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 11;
       ELSE IF XSERVAFF = 2 THEN XSERVREG = 12;
       ELSE IF XSERVAFF = 3 THEN XSERVREG = 13;
       ELSE IF XSERVAFF = 4 THEN XSERVREG = 14;
       ELSE XSERVREG = 15;
    END;

    IF XTNEXREG = 4 THEN DO; /*JSO 08/24/2006, Changed Overseas Regions*/
       IF XOCONUS = 1 THEN DO;
          IF      XSERVAFF = 1 THEN XSERVREG = 16;
          ELSE IF XSERVAFF = 2 THEN XSERVREG = 17;
          ELSE IF XSERVAFF = 3 THEN XSERVREG = 18;
          ELSE IF XSERVAFF = 4 THEN XSERVREG = 19;
          ELSE                      XSERVREG = 20;
       END;
       IF XOCONUS = 2 THEN DO;
          IF      XSERVAFF = 1 THEN XSERVREG = 21;
          ELSE IF XSERVAFF = 2 THEN XSERVREG = 22;
          ELSE IF XSERVAFF = 3 THEN XSERVREG = 23;
```

```
         ELSE IF XSERVAFF = 4 THEN XSERVREG = 24;
         ELSE                      XSERVREG = 25;
      END;
      IF XOCONUS = 3 THEN DO;
         IF      XSERVAFF = 1 THEN XSERVREG = 26;
         ELSE IF XSERVAFF = 2 THEN XSERVREG = 27;
         ELSE IF XSERVAFF = 4 THEN XSERVREG = 29;
         ELSE IF XSERVAFF = 3 THEN XSERVREG = 28;
         ELSE                      XSERVREG = 30;
      END;
    END;

RUN;

*************************************************************************
* Create AGE, FEMALE and GROUP (Beneficiary/Enrollment)
* subsets. Create the region dummies.  Recode region 7 to region 8.
*************************************************************************;
DATA ENTIRE;
   SET ENTIRE;
   LENGTH DEFAULT = 4;
   IF FIELDAGE NE "  " THEN DO;   /*MJS 01/26/04*/
      AGE1824=0;
      AGE2534=0;
      AGE3544=0;
      AGE4554=0;
      AGE5564=0;
      AGE6574=0;
      AGE75UP=0;
      IF      ( '018' <= FIELDAGE <= '024' ) THEN AGE1824=1;   /*MJS 01/26/04*/
      ELSE IF ( '025' <= FIELDAGE <= '034' ) THEN AGE2534=1;
      ELSE IF ( '035' <= FIELDAGE <= '044' ) THEN AGE3544=1;
      ELSE IF ( '045' <= FIELDAGE <= '054' ) THEN AGE4554=1;
      ELSE IF ( '055' <= FIELDAGE <= '064' ) THEN AGE5564=1;
      ELSE IF ( '065' <= FIELDAGE <= '074' ) THEN AGE6574=1;
      ELSE IF (          FIELDAGE  > '074' ) THEN AGE75UP=1;
   END;

   ************************************************************************
   * Create the FEMALE dummy variable.
   ************************************************************************;
   IF XSEXA = 2 THEN
      FEMALE = 1;
   ELSE
      FEMALE = 0;

   ************************************************************************
   * Create the beneficiary group/enrollment group subsets.
   ************************************************************************;
   GROUP1 = 0;
   GROUP2 = 0;
   GROUP3 = 0;
   GROUP4 = 0;
   GROUP5 = 0;
   GROUP6 = 0;
   GROUP7 = 0;
   GROUP8 = 1;     * EVERYONE;

   IF (NXNS_COV IN (1,2,6,13)  AND H&FY.004>=2) THEN GROUP1 = 1;/*AMK 2/19/14 added 13*/
   IF (XENR_PCM IN (1,2,6)  AND H&FY.004>=2) THEN GROUP2 = 1;
   /* JSO 04/05/2007 conditions to run RC type */
   IF "&RCTYPE" = 'ReportCards' AND (XENR_PCM IN (3,7) AND H&FY.004>=2) THEN GROUP3 = 1;
   ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND ((XENR_PCM IN (3,7) AND H&FY.004>=2) OR
NXNS_COV IN (3,9,10,14)) THEN GROUP3 = 1;/*AMK 2/13/14 added 14*/
   IF NXNS_COV IN  (3,9,10,14)    THEN GROUP4 = 1; /*JSO 08/24/2006, Deleted 4,5*//*JSO
07/30/2007, Added 9*/ /*MER 07/12/11 Added 10*/
   IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN GROUP5 = 1;
                                             /*JSO 07/30/2007, added DBENCAT conditions*/
   IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN GROUP6 = 1;
                                             /*JSO 07/30/2007, added DBENCAT conditions*/
   IF XBNFGRP IN (3,4)      THEN GROUP7 = 1;

   ************************************************************************
   * Recode variables with Never, Sometimes, Usually and Always:
```

```
*    Recode Never & Sometimes (1 & 2) to 1.
*    Recode Usually (3) to 2.
*    Recode Always (4) to 3.
************************************************************************;

IF H&FY.007 = 1      THEN R&FY.007 = 1;
ELSE IF H&FY.007 = 2 THEN R&FY.007 = 1;
ELSE IF H&FY.007 = 3 THEN R&FY.007 = 2;
ELSE IF H&FY.007 = 4 THEN R&FY.007 = 3;
ELSE IF H&FY.007 < 0 THEN R&FY.007 = .;

IF H&FY.010 = 1      THEN R&FY.010 = 1;
ELSE IF H&FY.010 = 2 THEN R&FY.010 = 1;
ELSE IF H&FY.010 = 3 THEN R&FY.010 = 2;
ELSE IF H&FY.010 = 4 THEN R&FY.010 = 3;
ELSE IF H&FY.010 < 0 THEN R&FY.010 = .;

IF H&FY.021 = 1      THEN R&FY.021 = 1;
ELSE IF H&FY.021 = 2 THEN R&FY.021 = 1;
ELSE IF H&FY.021 = 3 THEN R&FY.021 = 2;
ELSE IF H&FY.021 = 4 THEN R&FY.021 = 3;
ELSE IF H&FY.021 < 0 THEN R&FY.021 = .;

IF H&FY.022 = 1      THEN R&FY.022 = 1;
ELSE IF H&FY.022 = 2 THEN R&FY.022 = 1;
ELSE IF H&FY.022 = 3 THEN R&FY.022 = 2;
ELSE IF H&FY.022 = 4 THEN R&FY.022 = 3;
ELSE IF H&FY.022 < 0 THEN R&FY.022 = .;

IF H&FY.023 = 1      THEN R&FY.023 = 1;
ELSE IF H&FY.023 = 2 THEN R&FY.023 = 1;
ELSE IF H&FY.023 = 3 THEN R&FY.023 = 2;
ELSE IF H&FY.023 = 4 THEN R&FY.023 = 3;
ELSE IF H&FY.023 < 0 THEN R&FY.023 = .;

IF H&FY.024 = 1      THEN R&FY.024 = 1;
ELSE IF H&FY.024 = 2 THEN R&FY.024 = 1;
ELSE IF H&FY.024 = 3 THEN R&FY.024 = 2;
ELSE IF H&FY.024 = 4 THEN R&FY.024 = 3;
ELSE IF H&FY.024 < 0 THEN R&FY.024 = .;

IF H&FY.029 = 1      THEN R&FY.029 = 1;
ELSE IF H&FY.029 = 2 THEN R&FY.029 = 1;
ELSE IF H&FY.029 = 3 THEN R&FY.029 = 2;
ELSE IF H&FY.029 = 4 THEN R&FY.029 = 3;
ELSE IF H&FY.029 < 0 THEN R&FY.029 = .;

IF H&FY.033 = 1      THEN R&FY.033 = 1;
ELSE IF H&FY.033 = 2 THEN R&FY.033 = 1;
ELSE IF H&FY.033 = 3 THEN R&FY.033 = 2;
ELSE IF H&FY.033 = 4 THEN R&FY.033 = 3;
ELSE IF H&FY.033 < 0 THEN R&FY.033 = .;

IF H&FY.041 = 1      THEN R&FY.041 = 1;
ELSE IF H&FY.041 = 2 THEN R&FY.041 = 1;
ELSE IF H&FY.041 = 3 THEN R&FY.041 = 2;
ELSE IF H&FY.041 = 4 THEN R&FY.041 = 3;
ELSE IF H&FY.041 < 0 THEN R&FY.041 = .;

IF H&FY.042 = 1      THEN R&FY.042 = 1;
ELSE IF H&FY.042 = 2 THEN R&FY.042 = 1;
ELSE IF H&FY.042 = 3 THEN R&FY.042 = 2;
ELSE IF H&FY.042 = 4 THEN R&FY.042 = 3;
ELSE IF H&FY.042 < 0 THEN R&FY.042 = .;

IF H&FY.046 = 1      THEN R&FY.046 = 1;
ELSE IF H&FY.046 = 2 THEN R&FY.046 = 1;
ELSE IF H&FY.046 = 3 THEN R&FY.046 = 2;
ELSE IF H&FY.046 = 4 THEN R&FY.046 = 3;
ELSE IF H&FY.046 < 0 THEN R&FY.046 = .;

IF H&FY.047 = 1      THEN R&FY.047 = 1;
ELSE IF H&FY.047 = 2 THEN R&FY.047 = 1;
ELSE IF H&FY.047 = 3 THEN R&FY.047 = 2;
```

```
   ELSE IF H&FY.047 = 4 THEN R&FY.047 = 3;
   ELSE IF H&FY.047 < 0 THEN R&FY.047 = .;

   ************************************************************************
   * Recode variables to one missing condition ".".
   * This also renames all the "Hyyxxx" to "Ryyxxx".
   ************************************************************************;
   R&FY.027 = H&FY.027;  IF R&FY.027 < 0 THEN R&FY.027 = .;
   R&FY.031 = H&FY.031;  IF R&FY.031 < 0 THEN R&FY.031 = .;
   R&FY.018 = H&FY.018;  IF R&FY.018 < 0 THEN R&FY.018 = .;
   R&FY.048 = H&FY.048;  IF R&FY.048 < 0 THEN R&FY.048 = .;
   R&FY.065 = H&FY.065;  IF R&FY.065 < 0 THEN R&FY.065 = .;

   ************************************************************************
   * Create region and service affiliation dummies.
   ************************************************************************;
   IF XSERVREG NE . THEN DO;  /*JSO 08/24/2006, Changed 16 to 24*/ /*MER 11/03/2012, Changed 24
to 30*/
      ARRAY REGDUMS (30) REG01 REG02 REG03 REG04 REG05 REG06
                         REG07 REG08 REG09 REG10 REG11 REG12
                         REG13 REG14 REG15 REG16 REG17 REG18
                         REG19 REG20 REG21 REG22 REG23 REG24
                         REG25 REG26 REG27 REG28 REG29 REG30;
      DO I = 1 TO 30;
         REGDUMS(I)=0;
      END;
      IF       XSERVREG= 1  THEN REG01  =1;
      ELSE IF  XSERVREG= 2  THEN REG02  =1;
      ELSE IF  XSERVREG= 3  THEN REG03  =1;
      ELSE IF  XSERVREG= 4  THEN REG04  =1;
      ELSE IF  XSERVREG= 5  THEN REG05  =1;
      ELSE IF  XSERVREG= 6  THEN REG06  =1;
      ELSE IF  XSERVREG= 7  THEN REG07  =1;
      ELSE IF  XSERVREG= 8  THEN REG08  =1;
      ELSE IF  XSERVREG= 9  THEN REG09  =1;
      ELSE IF  XSERVREG= 10 THEN REG10  =1;
      ELSE IF  XSERVREG= 11 THEN REG11  =1;
      ELSE IF  XSERVREG= 12 THEN REG12  =1;
      ELSE IF  XSERVREG= 13 THEN REG13  =1;
      ELSE IF  XSERVREG= 14 THEN REG14  =1;
      ELSE IF  XSERVREG= 15 THEN REG15  =1;
      ELSE IF  XSERVREG= 16 THEN REG16  =1;
      ELSE IF  XSERVREG= 17 THEN REG17  =1;
      ELSE IF  XSERVREG= 18 THEN REG18  =1;
      ELSE IF  XSERVREG= 19 THEN REG19  =1;
      ELSE IF  XSERVREG= 20 THEN REG20  =1;
      ELSE IF  XSERVREG= 21 THEN REG21  =1;
      ELSE IF  XSERVREG= 22 THEN REG22  =1;
      ELSE IF  XSERVREG= 23 THEN REG23  =1;
      ELSE IF  XSERVREG= 24 THEN REG24  =1;
      ELSE IF  XSERVREG= 25 THEN REG25  =1;
      ELSE IF  XSERVREG= 26 THEN REG26  =1;
      ELSE IF  XSERVREG= 27 THEN REG27  =1;
      ELSE IF  XSERVREG= 28 THEN REG28  =1;
      ELSE IF  XSERVREG= 29 THEN REG29  =1;
      ELSE IF  XSERVREG= 30 THEN REG30  =1;

      ARRAY SRVDUMS (5) SRV01 SRV02 SRV03 SRV04 SRV05; /*MER 11/03/2012 Changed from 4 to 5*/
      DO I = 1 TO 5;    /*Needed for consumer watch ONLY */
         SRVDUMS(I)=0;
      END;

      IF       XSERVAFF = 1 THEN SRV01 = 1;
      ELSE IF  XSERVAFF = 2 THEN SRV02 = 1;
      ELSE IF  XSERVAFF = 3 THEN SRV03 = 1;
      ELSE IF  XSERVAFF = 4 THEN SRV04 = 1;
      ELSE IF  XSERVAFF = 5 THEN SRV05 = 1;

   END;

RUN;

***************************************************************************
* Recode item responses to proportional values using CONVERT.SAS.
```

```
*************************************************************************;
%INCLUDE "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\CONVERT.SAS";

%CONT2(DSN=ENTIRE, NUM=4,  Y=R&FY.018 R&FY.048 R&FY.027 R&FY.031);
%CONT3(DSN=ENTIRE, NUM=12, Y=R&FY.007 R&FY.010 R&FY.029 R&FY.033
                            R&FY.021 R&FY.022 R&FY.023 R&FY.024
                            R&FY.041 R&FY.042 R&FY.046 R&FY.047);

************************************************************************
* Sort the main file to reorder it by MPRID.
*************************************************************************;
PROC SORT DATA=ENTIRE; BY MPRID; RUN;

************************************************************************
* Print the contents of ENTIRE dataset.
*************************************************************************;
PROC CONTENTS DATA=ENTIRE;
   TITLE2 'Contents of ENTIRE';
RUN;


************************************************************************
* Print some of the recoded records.
*************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR MPRID
       FIELDAGE   /*MJS 01/26/04*/
       XTNEXREG
       XSERVAFF
       XSERVREG
       USA
       ENBGSMPL
       XSEXA
       STRATUM   /*KRR 04/03/2006 Changed from ADJ_CELL*/
       XINS_COV
       NXNS_COV  /*JSO 04/26/2007, added for reservists logic*/
       DBENCAT   /*JSO 04/26/2007, added for reservists logic*/
       XENR_PCM
       &WGT.
      ;
RUN;

************************************************************************
* Print some of the recoded records.
*************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR FIELDAGE   /*MJS 01/26/04*/
       AGE1824
       AGE2534
       AGE3544
       AGE4554
       AGE5564
       AGE6574
       AGE75UP

       XSEXA
       FEMALE

       ENBGSMPL
       XINS_COV
       NXNS_COV
       XENR_PCM
       XBNFGRP
       GROUP1
       GROUP2
       GROUP3
       GROUP4
       GROUP5
       GROUP6
       GROUP7
      ;
RUN;
```

```
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded question variables';
   VAR H&FY.007  R&FY.007
       H&FY.010  R&FY.010
       H&FY.021  R&FY.021
       H&FY.022  R&FY.022
       H&FY.023  R&FY.023
       H&FY.024  R&FY.024
       H&FY.029  R&FY.029
       H&FY.033  R&FY.033
       H&FY.041  R&FY.041
       H&FY.042  R&FY.042
       H&FY.046  R&FY.046
       H&FY.047  R&FY.047
       H&FY.018  R&FY.018
       H&FY.027  R&FY.027
       H&FY.031  R&FY.031
       H&FY.048  R&FY.048
       H&FY.065  R&FY.065
      ;
RUN;


/*JSO 08/24/2006, Changed 16 to 24*/
/*MER 11/03/2012, Changed 24 to 30*/
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded REGION variables';
   VAR XSERVREG
       REG01
       REG02
       REG03
       REG04
       REG05
       REG06
       REG07
       REG08
       REG09
       REG10
       REG11
       REG12
       REG13
       REG14
       REG15
       REG16
       REG17
       REG18
       REG19
       REG20
       REG21
       REG22
       REG23
       REG24
       REG25
       REG26
       REG27
       REG28
       REG29
       REG30;
RUN;

/*MER 11/03/2012 Changed 4 to 5*/
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded service affiliation variables';
   VAR XSERVREG
       XSERVAFF
       XOCONUS /*JSO 08/24/2006, Changed Overseas Regions*/
       SRV01
       SRV02
       SRV03
       SRV04
       SRV05
      ;
RUN;
```

```
*************************************************************************
* Create the 7 subgroups for processing by STEP2.SAS.
*************************************************************************;
DATA OUT.GROUP1
     OUT.GROUP2
     OUT.GROUP3
     OUT.GROUP4
     OUT.GROUP5
     OUT.GROUP6
     OUT.GROUP7
     OUT.GROUP8;

     SET ENTIRE;

     DROP
        H&FY.007
        H&FY.010
        H&FY.021
        H&FY.022
        H&FY.023
        H&FY.024
        H&FY.029
        H&FY.033
        H&FY.041
        H&FY.042
        H&FY.046
        H&FY.047
        H&FY.018
        H&FY.027
        H&FY.031
        H&FY.048
        H&FY.065
        ;
      IF GROUP1 = 1 THEN OUTPUT OUT.GROUP1;
      IF GROUP2 = 1 THEN OUTPUT OUT.GROUP2;
      IF GROUP3 = 1 THEN OUTPUT OUT.GROUP3;
      IF GROUP4 = 1 THEN OUTPUT OUT.GROUP4;
      IF GROUP5 = 1 THEN OUTPUT OUT.GROUP5;
      IF GROUP6 = 1 THEN OUTPUT OUT.GROUP6;
      IF GROUP7 = 1 THEN OUTPUT OUT.GROUP7;
      OUTPUT OUT.GROUP8;
RUN;
```

G.1.B Q3FY2015\PROGRAMS\ReportCards\CAHPS_AdultQ3FY2015\Convert.SAS - Convert Item Responses To Proportional Values.

```
***************************************************************************
*
* PROGRAM:  CONVERT.SAS
* TASK:     DOD HEALTH CARE SURVEY ANALYSIS (8687-330)
* PURPOSE:  CONVERT ITEM RESPONSES TO PROPORTIONAL VALUES FOR CONSISTENCY
*           WITH THE TOPS SURVEY.
* WRITTEN:  October 2000 BY ERIC SCHONE
*
* MODIFIED: October 2000 BY KEITH RATHBUN, Added PROLOG.  Also, added DSN
*           to argument lists.
*
* INPUTS:  1) User-specified SAS Dataset
*
* OUTPUTS: 1) User-specified SAS Dataset with recoded values
*
* NOTES:
*
* 1) Arguments for the CONT1-CONT3 macros are as follows:
*    a) SAS dataset name (dsn)
*    b) Number of variables to be converted (num)
*    c) List of variables to be converted (y)
* 2) These macros assume that the response items have already been
*    converted/recoded to CAHPS scales.
*
***************************************************************************
* CONT1 - Convert big problem, small problem, not a problem questions to
*         proportional values.
***************************************************************************;
%macro cont1(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i = 1 to &num;
      if vars(i) ne . and vars(i) ne 3 then vars(i) = 0;
      if vars(i) = 3 then vars(i) = 1;
   end;
run;
%mend cont1;

***************************************************************************
* CONT2 - Convert rating questions to proportional values.
***************************************************************************;
%macro cont2(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i=1 to &num;
      if vars(i) ne . and vars(i) < 8 then vars(i) = 0;
      if vars(i) in (8,9,10) then vars(i) = 1;
   end;
run;
%mend cont2;

***************************************************************************
* CONT3 - Convert Never, Sometimes, Usually, Always questions to
*         proportional values.
***************************************************************************;
%macro cont3(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i=1 to &num;
      if vars(i) ne . and vars(i) >= 2 then vars(i) = 2;
      vars(i) = vars(i) - 1;
   end;
run;
%mend cont3;
```

G.1.C Q3FY2015\PROGRAMS\ReportCards\CAHPS_AdultQ3FY2015\STEP2Q.SAS - Calculate CAHPS Adjusted Scores - Run Quarterly.

```
***************************************************************************
*
*  Project:  DoD - Quarterly Adult Report Cards
*  Program:  STEP2Q.SAS
*  Purpose:  Generate risk-adjusted CAHPS Scores for Adult Report Card.
*
*  Requires: Program STEP1Q.SAS must be run prior to running this program.
*
*  The adult report card contains a large number of risk-adjusted scores.
*  Some scores are calculated from responses to individual survey questions.
*  Composite scores are calculated by combining scores from individual
*  questions.  The scores then are compared with external civilian
*  benchmarks.  The programming tasks involved in building the report
*  card are:
*
*       1) Preparing data for analyses
*       2) Estimating risk adjustment models
*       3) Calculating risk-adjusted values and variances
*       4) Calculating benchmarks
*       5) Comparing risk-adjusted values to benchmarks
*          and hypothesis testing
*
*
*  Previous Program:  STEP1Q.SAS
*
*  Modified:19) November 3, 2012 by Mike Rudacille, updated for handling of
*               Joint Service facilities
*           20) December 27, 2012 by Aimee Valenzuela, updated variable names for Q1FY2013
*           21) December 1, 2014 by Matt Turbyfill, revised for the Macro Program.
*                                   Change R14 to R&FY.
*                                   Inserted ..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\ as
the filepath for all INC files, including
*                                        REGRSREG, RISKARRY, RISKMEAN, REGARRAY, RISKVARS,
MEANFILE, RISKARRY, RISKMEAN.  Also for the FILE statements.
*
***************************************************************************;
OPTIONS NOCENTER LS=132 PS=79 SOURCE NOOVP COMPRESS=YES;
LIBNAME IN1     "DATA";
LIBNAME OUT     "DATA";
LIBNAME OUT2    "DATA\ADULTHATFILES";
LIBNAME LIBRARY "..\..\..\Data\Afinal\fmtlib";

/* RSG 02/2005 hard coded skelreg so data does not have to be copied from quarter to quarter*/
/* JSO 08/24/2006, Changed from 16 to 24 Regions */ /* MER 11/03/2012, Changed from 24 to 30
Regions */

DATA SKELREG (COMPRESS=NO);
   INPUT XSERVREG;
   DATALINES;
      1
      2
      3
      4
      5
      6
      7
      8
      9
      10
      11
      12
      13
      14
      15
      16
      17
      18
      19
      20
      21
```

```
      22
      23
      24
      25
      26
      27
      28
      29
      30
;
RUN;

*************************************************************************
*************************************************************************
* Set GLOBAL parameters here.
*************************************************************************
*************************************************************************;

*************************************************************************
* Set the number of Dependent variables to process.
* One does not need to start at 1, but the max must be >= min.
*************************************************************************;
%LET MIN_VAR =  1;
%LET MAX_VAR = 16;

*************************************************************************
* Set the number of subgroups to process.
*************************************************************************;
%LET MIN_GRP = 1;
%LET MAX_GRP = 8;

*************************************************************************
* These are expected to remain the same for a particular dependent
* variable run.
*************************************************************************;
%LET WGT      = FWRWT;
%LET IND_VAR1 = R&FY.065;
%LET IND_VAR2 =  ;  * FEMALE;
%LET IND_VAR3 =  ;  * SREDHIGH;
%LET DEBUGFLG = 0;  * Set to 1 if you want extra printout;


%LET TITL1 = Prime Enrollees;
%LET TITL2 = Enrollees w/military PCM;
%LET TITL3 = Enrollees w/civilian PCM;
%LET TITL4 = Nonenrollees;
%LET TITL5 = Active Duty;
%LET TITL6 = Active Duty Dependents;
%LET TITL7 = Retirees and Dependents;
%LET TITL8 = All Beneficiaries;


*************************************************************************
* GETTING NEEDED CARE.
*************************************************************************;
%LET DEPVAR1  = R&FY.029;
%LET DEPVAR2  = R&FY.033;

*************************************************************************
* GETTING NEEDED CARE QUICKLY.
*************************************************************************;
%LET DEPVAR3  = R&FY.007;
%LET DEPVAR4  = R&FY.010;

*************************************************************************
* HOW WELL DOCTORS COMMUNICATE.
*************************************************************************;
%LET DEPVAR5  = R&FY.021;
%LET DEPVAR6  = R&FY.022;
%LET DEPVAR7  = R&FY.023;
%LET DEPVAR8  = R&FY.024;

*************************************************************************
* CUSTOMER SERVICE.
```

```
*************************************************************************;
%LET DEPVAR9  = R&FY.041;
%LET DEPVAR10 = R&FY.042;

*************************************************************************
* CLAIMS PROCESSING.
*************************************************************************;
%LET DEPVAR11 = R&FY.046;
%LET DEPVAR12 = R&FY.047;

*************************************************************************
* RATING ALL HEALTH CARE: 0 - 10.
*************************************************************************;
%LET DEPVAR13 = R&FY.018;

*************************************************************************
* RATING OF HEALTH PLAN: 0 - 10.
*************************************************************************;
%LET DEPVAR14 = R&FY.048;

*************************************************************************
* RATING OF PERSONAL DR: 0 - 10.
*************************************************************************;
%LET DEPVAR15 = R&FY.027;

*************************************************************************
* SPECIALITY CARE: 0 - 10.
*************************************************************************;
%LET DEPVAR16 = R&FY.031;

%MACRO SCORE;
*************************************;
* use this macro for all groups;
* super region variables are to be used     ;
*************************************;
%PUT ****************************************;
%PUT STARTING MACRO SCORE;
%PUT "GROUP    = " GROUP&IGRP;
%PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP;
%PUT "DEP_VAR  = " &&DEPVAR&IVAR;
%PUT "IND_VAR1 = " &IND_VAR1;
%PUT "IND_VAR2 = " &IND_VAR2;
%PUT "IND_VAR3 = " &IND_VAR3;
%PUT "WGT      = " &WGT;
%PUT ****************************************;

*---------------------------------------------------;
* If the current group is 1 use the skeleton files;
* else used the previous groups output file;
* The mrgfile is added to by each subgroup;
*---------------------------------------------------;
%LET RMRGFILE = OUT.R_&&DEPVAR&IVAR;
%IF "&IGRP" = "1" %THEN %LET RMRGFILE = SKELREG;

* run regression using the region level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
     TITLE2 "Regression Model for GROUP&igrp for regions";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
     WEIGHT &WGT;
     %INCLUDE "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\REGRSREG.INC";
     OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                       PRED&IGRP RESID&IGRP XSERVREG &&DEPVAR&IVAR)
              P = PRED&IGRP
              R = RESID&IGRP;

RUN;

* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
         TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with predicted values and the RESID&IGRP";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
```

```
         VAR MPRID XSERVREG &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
    RUN;

    PROC PRINT DATA=BETAS;
         TITLE2 "BETAS:  file with coefficients";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


*-----------------------------------------;
*----- get the standard err/variance ----;
*-----------------------------------------;
%LET DEP = &&DEPVAR&IVAR;
%R_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);



* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
 DATA ADJUST;
    SET MEANFILE;
    IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
    %include "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\RISKARRY.INC";
    %include "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\RISKMEAN.INC";
    DO I = 1 TO DIM(COEFFS);
       IF COEFFS(I) = . THEN COEFFS(I) = 0;
       IF MEANS(I) = .  THEN MEANS(I)  = 0;
       ADJUST + ( COEFFS(I) * MEANS(I) );
    END;
    ADJUST = ADJUST + INTERCEPT;
 RUN;


* add the region coefficients to the adjusted value from above;
* output one record per region with the region;
* level adjusted scores;
DATA COEFFREG(KEEP=XSERVREG NEWADJST);
    SET ADJUST;
    %include "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\REGARRAY.INC";
    LENGTH NAME $8;
    DO I=1 TO DIM(REGRHS);
       CALL VNAME(REGRHS(I),NAME);
       XSERVREG=INPUT(SUBSTR(NAME,4,2),2.);
       IF REGRHS(I) = . THEN REGRHS(I) = 0;
       NEWADJST=ADJUST + REGRHS(I);
       OUTPUT;
    END;
RUN;


* sum of wgts for each region;
PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
  CLASS XSERVREG;
  VAR   &WGT;
  OUTPUT OUT=REG_WGTS (DROP = _TYPE_ _FREQ_) N=REGCNT&IGRP SUM=REGWGT&IGRP;
RUN;


* merge the COEFFREG file with the region;
* adjusted scores to the region level total weight;
* merge by the region.  Creates a region level;
* file with the total sample weight of the region;
DATA COEFFREG;
      MERGE COEFFREG(IN=IN1)
            REG_WGTS(IN=IN2   KEEP=XSERVREG REGCNT&IGRP REGWGT&IGRP);
      BY XSERVREG;
      IF IN1;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=MEANFILE;
```

```
         TITLE2 'Print of MEANFILE';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=ADJUST;
         TITLE2 'Print of ADJUST';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Region Adjusted Scores';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=REG_WGTS;
         TITLE2 'Print of REG_WGTS: Region Area Sum of WGTS';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Regions Adjusted Scores - with sum of wgts and region';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


* Calculate region level adjusted scores from the;
* region level adjusted scores in COEFFREG;
PROC MEANS DATA=COEFFREG NWAY NOPRINT;
  WEIGHT REGWGT&IGRP;
  CLASS  XSERVREG;
  VAR    NEWADJST;
  OUTPUT OUT=REGFILE1 (DROP = _TYPE_ _FREQ_) MEAN=ADJ&IGRP;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=REGFILE1;
        TITLE2 'Print of REGFILE1: Region Scores';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;

* merge the previous groups region results (if any);
* with the region level std errs and the region;
* level results from catchment results collapsed to region;
DATA OUT.R_&&DEPVAR&IVAR;
     MERGE &RMRGFILE(IN=INS)
           R&IGRP&&DEPVAR&IVAR
           REG_WGTS(KEEP = REGCNT&IGRP REGWGT&IGRP XSERVREG)
           REGFILE1(KEEP = ADJ&IGRP XSERVREG);
     BY XSERVREG;
     DEPENDNT = "&&DEPVAR&IVAR";
     IF INS;
RUN;

* merge the previous groups regional results (if any);
* with the region level std err and the region;
* level results from the current group/dependent var;
DATA OUT.R_&&DEPVAR&IVAR;
    MERGE OUT.R_&&DEPVAR&IVAR(IN=INS)
          R&IGRP&&DEPVAR&IVAR    /*KRR - removed perm dataset ref to OUT2 */
          REG_WGTS
          REGFILE1;
    BY XSERVREG;
    DEPENDNT = "&&DEPVAR&IVAR";
    IF INS;
RUN;

PROC PRINT DATA=OUT.R_&&DEPVAR&IVAR;
     TITLE2 "Print of XSERVREG variables in &&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;
%MEND SCORE;
```

```
%MACRO MAKE_INC;
*************************************;
* creates include files for later Procs;
* Needs to be run each time.  Called   ;
* in the outer (beneficiary loop).     ;
* I chose this method because it was   ;
* clearer(to me at least).             ;
* This macro needs to be run once per  ;
* Dep var per subgroup.                ;
*************************************;

* Drop records where the dependent var is missing;
* Drop records with missing catchment or region values;
  DATA GROUP&IGRP;
       SET IN1.GROUP&IGRP;
       IF &&DEPVAR&IVAR NOT = .;
  RUN;

 DATA _NULL_;
      SET GROUP&IGRP END = EOF;
      IF &&DEPVAR&IVAR NOT = .;

      ARRAY AGECNT(7) 8 aCNT1 - aCNT7;
      RETAIN AGECNT 0;
      RETAIN CNT 0;
      ARRAY AGENAM(7)  $8 AGENAM1 - AGENAM7;
      ARRAY AGENAMX(7) $8 AGENAMX1 - AGENAMX7;
      RETAIN AGENAM;
      RETAIN AGENAMX;
      ARRAY REGCNT(30)  8 REGCNT01- REGCNT30; /*JSO 08/24/2006, Changed from 16 to 24*/
                                              /*MER 11/03/2012, Changed from 24 to 30*/
      RETAIN CATCNT 0;
      RETAIN REGCNT 0;

      * create a name array for the parent age dummies;
      IF _N_ = 1 THEN DO;
         AGENAM(1) = "AGE1824";
         AGENAM(2) = "AGE2534";
         AGENAM(3) = "AGE3544";
         AGENAM(4) = "AGE4554";
         AGENAM(5) = "AGE5564";
         AGENAM(6) = "AGE6574";
         AGENAM(7) = "AGE75UP";
      END;

      * total record count;
      CNT + 1;

      * count records in each age group;
      * we will use only age groups with more;
      * than 2 obs;
      IF AGE1824  = 1 THEN AGECNT(1) + 1;
      IF AGE2534  = 1 THEN AGECNT(2) + 1;
      IF AGE3544  = 1 THEN AGECNT(3) + 1;
      IF AGE4554  = 1 THEN AGECNT(4) + 1;
      IF AGE5564  = 1 THEN AGECNT(5) + 1;
      IF AGE6574  = 1 THEN AGECNT(6) + 1;
      IF AGE75UP  = 1 THEN AGECNT(7) + 1;

      * count records in each XSERVREG group;
      * we will only use XSERVREGs with more than than 2 obs;
      * I am using the region value as the subscript;
      * to make the code simpler and more readable;
      IF 1<= XSERVREG <=30  THEN DO; /*JSO 08/24/2006, Changed from 16 to 24*/ /*MER 11/3/12 24
to 30*/
         REGCNT(XSERVREG) = REGCNT(XSERVREG) + 1;
      END;

      IF EOF THEN GOTO ENDFILE;
      RETURN;

ENDFILE:
     * create a title common to all procs in the current group;
```

```
TITLE  " &&DEPVAR&IVAR  &&TITL&IGRP";

* display counts in the log;
%IF &DEBUGFLG > 0  %THEN %DO;
   PUT ' ';
   PUT 'AT EOF:';
   PUT "TOTAL CNT = "    CNT;
   PUT AGENAM(1) "  " AGECNT(1)=;
   PUT AGENAM(2) "  " AGECNT(2)=;
   PUT AGENAM(3) "  " AGECNT(3)=;
   PUT AGENAM(4) "  " AGECNT(4)=;
   PUT AGENAM(5) "  " AGECNT(5)=;
   PUT AGENAM(6) "  " AGECNT(6)=;
   PUT AGENAM(7) "  " AGECNT(7)=;
   PUT " ";

   DO I = 1 TO 30;  /*JSO 08/24/2006, Changed from 16 to 24*/ /*MER 11/3/12 24 to 30*/
      IF(REGCNT(I) > 0) THEN DO;
         PUT  'REG' I Z2. REGCNT(I) 6.;
      END;
   END;
   PUT ' ';


 %END;    *** of debug test;

*-------------------------------------------------------;
* This include is for the regression using regions;
* in this case we drop the last XSERVREG;
FILE "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\REGRSREG.INC";
PUT @6  "MODEL  &&DEPVAR&IVAR = ";
IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

CNT2 = 0;
* setup an array of those age groups that have > 1 obs;
DO I = 1 TO 7;
   IF AGECNT(I) > 1 THEN DO;
      CNT2 + 1;
      AGENAMX(CNT2) = AGENAM(I);
   END;
END;

* now drop the last category to create;
* an omitted category which is required;
* to solve the regression properly;
DO I = 1 TO CNT2-1;
   PUT @12 AGENAMX(I);
END;

* ditto for the catchment areas with > 0 obs;
* in this case we drop the the first USABLE category;
* this is not consistent with the catchment area code;
* but this is the method that Portia used;
FIRST = 0;        /*JSO 08/24/2006, Changed from 16 to 24*/ /*MER 11/3/12 24 to 30*/
DO I = 1 TO 30;   * skip the 1st region with 1+ obs;
   IF REGCNT(I) > 0 THEN DO;
      IF FIRST = 1 THEN PUT @12 'REG' I Z2.;
      FIRST = 1;
   END;
END;
PUT @11 ';';


*-------------------------------------------------------;
* now create the complete var statement;
* for the Proc MEANS used to replace the;
* independent variables missing values;
* we assume the age groups will always be used;
* These are also called the RISK FACTORS;
FILE "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\RISKVARS.INC";
PUT @10  "VAR";
DO I = 1 TO CNT2;
```

```
         PUT @12 AGENAMX(I);
      END;

      * not all the other dependent variables will be used;
      * only write them out if they are not null;
      CNT3 = 0;
      IF "&IND_VAR1" NE "" THEN DO;
          CNT3 + 1;
          PUT @12 "&IND_VAR1";
      END;

      IF "&IND_VAR2" NE "" THEN DO;
          CNT3 + 1;
          PUT @12 "&IND_VAR2";
      END;

      IF "&IND_VAR3" NE "" THEN DO;
          CNT3 + 1;
          PUT @12 "&IND_VAR3";
      END;
      PUT @11 ';';


      *-------------------------------------------------------;
      * create an ARRAY statement of the desired risk factors;
      * called adjusters in the specs and in the code;
      FILE "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\RISKARRY.INC";
      PUT @10  "ARRAY COEFFS(*) $8";
      DO I = 1 TO CNT2;
         PUT @12 AGENAMX(I);
      END;

      CNT3 = 0;
      IF "&IND_VAR1" NE "" THEN DO;
          CNT3 + 1;
          PUT @12 "&IND_VAR1";
      END;

      IF "&IND_VAR2" NE "" THEN DO;
          CNT3 + 1;
          PUT @12 "&IND_VAR2";
      END;

      IF "&IND_VAR3" NE "" THEN DO;
          CNT3 + 1;
          PUT @12 "&IND_VAR3";
      END;
      PUT @11 ';';


      *-------------------------------------------------------;
      * create an ARRAY of mean names for the output;
      * from a proc MEANS of the Risk Factors in RISKARRY;
      FILE "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\RISKMEAN.INC";
      IND_CNT = CNT2 + CNT3;
      PUT @6 "ARRAY MEANS(*) $8";
      DO I = 1 TO IND_CNT;
         PUT @12 "MEAN" I Z2.;
      END;
      PUT @11 ';';

*   -----------------------------------------------------;
*   create the equivalent of the following statement;
*   OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN=MEAN1-MEAN&MEAN_CNT;
      FILE "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\MEANFILE.INC";
      PUT @6 "OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN = ";
      DO I = 1 TO IND_CNT;
         PUT @12 "MEAN" I Z2.;
      END;
      PUT @11 ';';

      *-------------------------------------------------------;
      * create a super region area array;
      * with at least ONE obs;
```

```
     FILE "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\REGARRAY.INC";
     PUT @10  "ARRAY REGRHS(*) $8";
     DO I = 1 TO 30;              /*JSO 08/24/2006, Changed from 16 to 24*/ /*MER 11/3/12 24 to
30*/
        IF REGCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
           PUT  @16 'REG' I Z2.;
        END;
     END;
     PUT @11 ';';
 RUN;

 * Create the means of the adjuster variables;
 * They will be used to replace missing adjuster variables;
 * calculate weighted means;
 PROC MEANS DATA=GROUP&IGRP;
   WEIGHT &WGT;
   %include "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\RISKVARS.INC";
   %include "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\MEANFILE.INC";
 RUN;



%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=MEANFILE;
        TITLE2 "Print of MEANFILE for Risk Adjuster variables";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;

DATA GROUP&IGRP;
     SET GROUP&IGRP;
     IF _N_ = 1 THEN SET MEANFILE;
     %include "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\RISKARRY.INC";
     %include "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\RISKMEAN.INC";
     DO I = 1 TO DIM(COEFFS);
        IF COEFFS(I) = . THEN DO;
           COEFFS(I) = MEANS(I);
        END;
     END;
RUN;
/* PROC MEANS DATA=out.group8;
   WEIGHT &WGT;
   %include "RISKVARS.INC";
   %include "MEANFILE.INC";
 RUN;*/
%MEND MAKE_INC;

%MACRO R_SUDAAN(INFILE);
*****************************************************
* Use this macro to create standard err (variances)
* for XSERVREGs.
*****************************************************;
%PUT ****************************************;
%PUT STARTING MACRO R_SUDAAN (XSERVREG);
%PUT ****************************************;

DATA &INFILE;
   SET &INFILE;
   IF 1<= XSERVREG <= 30;  /*JSO 08/24/2006, Changed from 16 to 24*/ /*MER 11/3/12 24 to 30*/
RUN;


* Sort data by TMP_CELL;
PROC SORT DATA=&INFILE;
   BY TMP_CELL;
RUN;

%IF &DEBUGFLG > 5  %THEN %DO;
   PROC PRINT DATA=&INFILE(OBS=5);
        TITLE2 'Print of the input file to SUDAAN (XSERVREG)';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;
```

```
* Calculate values for super regions;
PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;
   SETENV DECWIDTH=4;
   NEST TMP_CELL / missunit;
   VAR RESID&IGRP;
   TABLES XSERVREG;
   SUBGROUP XSERVREG;
   LEVELS 30;   /*JSO 08/24/2006, Changed from 16 to 24*/ /*MER 11/3/12 24 to 30*/
   OUTPUT  SEMEAN
         / REPLACE TABLECELL=DEFAULT
           FILENAME=RS&DEP;
   RUN;

   DATA R&IGRP&&DEPVAR&IVAR;
        SET RS&DEP;
        KEEP XSERVREG SEMEAN;
        IF SEMEAN NE .;
        RENAME SEMEAN = SEMEAN&IGRP;
   RUN;


   PROC PRINT DATA=R&IGRP&&DEPVAR&IVAR;
      TITLE2 "Print XSERVREG DESCRIPT DATA=R&IGRP&&DEPVAR&IVAR";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

%MEND  R_SUDAAN;


%***********************************;
%*  call the macros;
%***********************************;

%MACRO MAINLOOP(MIN_VAR,MAX_VAR,MIN_GRP,MAX_GRP);
    %* loop over the set of dependent variables;
       %DO IVAR = &MIN_VAR %TO &MAX_VAR;
          %DO IGRP = &MIN_GRP %TO &MAX_GRP;
             %MAKE_INC;
             %SCORE;
          %END;
       %END;

%MEND;

%MAINLOOP(&MIN_VAR,&MAX_VAR,&MIN_GRP,&MAX_GRP);
```

G.1.D Q3FY2015\PROGRAMS\ReportCards\CAHPS_AdultQ3FY2015\COMPOSIT.SAS - Calculate CAHPS Composite Scores - Run Quarterly.

```
*************************************************************************
* Project:  DoD - Quarterly Adult Report Cards
* Program:  COMPOSIT.SAS
* Purpose:  Generate Quarterly Adult Report Card composite scores
* Requires: Programs STEP1Q.SAS and STEP2Q.SAS must be run prior
*           to this program.
*
* Modified: 1) December 1, 2014 by Matt Turbyfill, revised for the Macro Program.
*                                   Changed FILES filepath to
..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\FILES.INC.
*                                   Change R14 to R&FY.
*                                   Added INFILE Data step removing BYVARs with only one
occurrence.
*
*************************************************************************;
OPTIONS NOCENTER LS=132 PS=78 SOURCE SOURCE2 MLOGIC MPRINT NOOVP COMPRESS=YES NOFMTERR;
libname in      "data";
libname in2     "data\adulthatfiles";
libname out     "data";
LIBNAME LIBRARY "..\..\..\DATA\AFINAL\FMTLIB";

%LET WGT = FWRWT;

 %MACRO COMPOSIT (TYPE=,COMPOS=,VAR1=,VAR2=,VAR3=,VAR4=,QCOUNT=);

  DATA _NULL_;
   %IF "&TYPE" = "R" %THEN %DO;
       CALL SYMPUT ('BYVAR','XSERVREG');
   %END; %ELSE
   %IF "&TYPE" = "C" %THEN %DO;
       CALL SYMPUT ('BYVAR','CACSMPL');
   %END;

 ****************************************;
 *   Create a Composite Score           ;
 ****************************************;
 DATA _NULL_;
     FILE "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\FILES.INC";
     PUT @6 'SET';
     IF "&VAR1" NE '' THEN PUT @8 "IN.&TYPE._&VAR1";
     IF "&VAR2" NE '' THEN PUT @8 "IN.&TYPE._&VAR2";
     IF "&VAR3" NE '' THEN PUT @8 "IN.&TYPE._&VAR3";
     IF "&VAR4" NE '' THEN PUT @8 "IN.&TYPE._&VAR4";
     PUT @8 ';';
 RUN;


 DATA COMPOS&COMPOS;
      LENGTH DEPENDNT $ 8;
      %INCLUDE "..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\FILES.INC";
      DEPENDNT = "&TYPE.COMPOS&COMPOS";
 RUN;

 PROC SORT DATA=COMPOS&COMPOS;
      BY &BYVAR;
 RUN;

 PROC PRINT DATA=COMPOS&COMPOS(OBS=60);
      TITLE "Print of COMPOS&COMPOS after sort";
 RUN;

 DATA COMPOS&COMPOS;
      SET COMPOS&COMPOS;
      BY &BYVAR;
   %IF "&TYPE" = "R" %THEN %DO;
       ARRAY N(*) REGCNT1 - REGCNT8;
       ARRAY W(*) REGWGT1 - REGWGT8;
       ARRAY TN(*) TOTCNT1 - TOTCNT8;
       ARRAY TW(*) TOTWGT1 - TOTWGT8;
   %END; %ELSE
```

```
   %IF "&TYPE" = "C" %THEN %DO;
       ARRAY N(*) CATCNT1 - CATCNT8;
       ARRAY W(*) CATWGT1 - CATWGT8;
       ARRAY TN(*) TOTCNT1 - TOTCNT8;
       ARRAY TW(*) TOTWGT1 - TOTWGT8;
   %END;
      ARRAY ADJ(*)    ADJ1 - ADJ8;
      ARRAY TOTADJ(*) TOTADJ1 - TOTADJ8;
      ARRAY AVGADJ(*) AVJADJ1 - AVJADJ8;
      RETAIN TOTADJ TN TW;
      RETAIN AVGADJ;

      IF FIRST.&BYVAR THEN DO;
         DO I = 1 TO DIM(TOTADJ);
            TOTADJ(I) = 0; TN(I)=0; TW(I)=0;
         END;
      END; DROP I;

      PUT ' ';
      PUT ' --- STARTING LOOP1: ' &BYVAR=;
      DO I = 1 TO DIM(TOTADJ);
         PUT I= ADJ(I)=;
         IF ADJ(I) NE . THEN DO;
            TOTADJ(I) = TOTADJ(I) + ADJ(I);
            TN(I)=TN(I)+N(I);
            TW(I)=TW(I)+W(I);
         END;
         PUT I= ADJ(I)= TOTADJ(I)=;
      END;


      PUT ' ';
      PUT ' --- STARTING LOOP2: ' &BYVAR=;
      IF LAST.&BYVAR THEN DO;
         DO I = 1 TO DIM(TOTADJ);
            PUT I= ADJ(I)= TOTADJ(I)= AVGADJ(I)=;
            AVGADJ(I) = TOTADJ(I)/&QCOUNT;
            adj(i)=avgadj(i);
            N(I)=TN(I)/&QCOUNT;
            W(I)=TW(I)/&QCOUNT;
         END;
         OUTPUT;
      END;

 RUN;

%do i=1 %to 8;
/* Collect Standard Errors and residuals from variables in composite */
        %if &type=R|(&i=1|&i=2|&i>4) %then %do;
                %if &var1~= %then %do;
                        %let n=r_&var1;
                        %let m=s_&var1;

                        data s_&var1(rename=(semean&i=s_&var1));
                                set in.&type._&var1(keep=semean&i &byvar);

                        proc sort;
                                by &byvar;

                        data r_&var1;
                                set in2.h&i.&var1(rename=(resid&i=r_&var1));

                        proc sort data=r_&var1;
                                by mprid;
                %end;

                %if &var2~= %then %do;
                        %let n=%str(&n r_&var2);
                        %let m=%str(&m s_&var2);

                        data s_&var2(rename=(semean&i=s_&var2));
                                set in.&type._&var2(keep=semean&i &byvar);

                        proc sort;
```

```
                by &byvar;

        data r_&var2;
                set in2.h&i.&var2(rename=(resid&i=r_&var2));

        proc sort data=r_&var2;
                by mprid;
%end;

%if &var3~= %then %do;
        %let n=%str(&n r_&var3);

        data s_&var3(rename=(semean&i=s_&var3));
                set in.&type._&var3(keep=semean&i &byvar);

        proc sort;
                by &byvar;

        data r_&var3;
                set in2.h&i.&var3(rename=(resid&i=r_&var3));

        proc sort data=r_&var3;
                by mprid;

        %let m=%str(&m s_&var3);
%end;

%if &var4~= %then %do;
        %let n=%str(&n r_&var4);

        data s_&var4(rename=(semean&i=s_&var4));
                set in.&type._&var4(keep=semean&i &byvar);

        proc sort;
                by &byvar;

        data r_&var4;
                set in2.h&i.&var4(rename=(resid&i=r_&var4));

        %let m=%str(&m s_&var4);

        proc sort data=r_&var4;
                by mprid;
%end;
        /* Merge residual files and estimate correlations */
data infile;
        merge &n;
        by mprid;

proc sort;
        by &byvar;



data infile;
        set infile;
        by &byvar.;
        if first.&byvar ne 1 or  last.&byvar ne 1;
run;



proc corr  outp=outf noprint;
        by &byvar;
        var &n;
        weight &WGT.;

data outf;
        set outf;
        by &byvar;
        where _type_='CORR';

/*  sum standard error of a row variable times correlation times standard error
of each column variable, then sum sums and take square root, divide by number of variables */
```

```
data final;
        merge &m outf;
        by &byvar;

data final;
        set final; by &byvar;
        array r_val &n;
        array s_val &m;
        sde=0;

        do i=1 to dim(s_val);
                %do j=1 %to &qcount;
                        if upcase(_name_)=upcase("R_&&var&j") then
                                sde=sum(sde,r_val(i)*s_&&var&j*s_val(i));
                %end;
        end;

data sefin&compos._&i ERROR;
        set final;
        by &byvar;
        if first.&byvar then tv=0;
        tv+sde;
        if last.&byvar then do;
                if tv >= 0 then sde&i=(tv**.5)/&qcount; /* RSG 06/22/2004 change
to only do the power calculation if the tv value is nonnegative*/
                else if tv < 0 then do;   /* RSG 06/22/2004 those with negative
trend is set aside to print out*/
                output error;          /*                  and determine whether
it is from nonmissing data of 30 or more*/
                sde&i=.;
                end;
                output sefin&compos._&i;
        end;

run;
        /* RSG 06/22/2004 - count how many nonmissing values are in the trend
data
            to determine whether the negative trend in above datastep
            (tv < 0) is something to be concerned about */
proc means data=infile noprint;
        by &byvar;
        var &n;
        output out=miss (drop=_type_ _freq_) n=;

data error2;
        merge error(in=a drop=&n) miss(in=b);
        by &byvar;
        if a;
run;

proc print data=error2; /* RSG 06/22/2004  print out negative trend data and
count of nonmissing data*/
        var &byvar tv &n;
        title "ERROR - NEGAVTIVE TREND FOR &N IN GROUP=&I. AND COMPOSE=&COMPOS.";
run;

title ' '; /** RSG 06/22/2004 - BLANK OUT TITLE FOR NEXT LOOP **/

%if &i=1 %then %do;
        data sefin&compos;
                set sefin&compos._1(keep=&byvar sde&i);
                by &byvar;
                rename sde&i=semean&i;
        run;
%end;
%else %do;
        data sefin&compos;
                merge sefin&compos sefin&compos._&i(keep=&byvar sde&i);
                by &byvar;
                rename sde&i=semean&i;
        run;
%end;
```

```
       %end;
%end;

data out.&type.compos&compos;
merge compos&compos sefin&compos; by &byvar;
run;
PROC PRINT DATA=OUT.&TYPE.COMPOS&COMPOS;
      TITLE1 COMPTITL;
 RUN;
%MEND COMPOSIT;

*--------------------------------------;
*-       set the parameters here      -;
*--------------------------------------;
************************************;
* Call the macro for each composite ;
************************************;
%COMPOSIT (type=R,compos=1,var1=R&FY.029,var2=R&FY.033,qcount=2);
%COMPOSIT (type=R,compos=2,var1=R&FY.007,var2=R&FY.010,qcount=2);
%COMPOSIT (type=R,compos=3,var1=R&FY.021,var2=R&FY.022,var3=R&FY.023,var4=R&FY.024,qcount=4);
%COMPOSIT (type=R,compos=4,var1=R&FY.041,var2=R&FY.042,qcount=2);
%COMPOSIT (type=R,compos=5,var1=R&FY.046,var2=R&FY.047,qcount=2);
```

G.2.A Q3FY2015\PROGRAMS\LOADWEB\CAHPS_AdultQ3FY2015\LOADCAHQ.SAS - Convert CAHPS Scores into WEB layout - Run Quarterly.

```
***************************************************************************
*
* PROGRAM:  LOADCAHQ.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Convert the CAHPS Scores Database into the WEB layout
*
* WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from LOADCAHP.SAS.
*
* INPUTS:   1) CAHPS Individual and Composite data sets with adjusted scores
*
* OUTPUT:   1) LOADCAHQ.sas7bdat - Combined CAHPS Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*              and composite data sets
*
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - STEP1Q.SAS - Recode questions and generate group files
*    - STEP2Q.SAS - Calculate individual adjusted scores for group 1-7
*    - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
*
* 2) The output file (LOADCAHQ.sas7bdat) will be run through the
*    MAKEHTMQ.SAS program to generate the WEB pages.
*
* MODIFIED:
*
* 36) 3/5/2012 by Amanda Kudis - Changed libname IN and Year Macro Var for Q2.
* 37) 6/20/2012 by Amanda Kuis - Updated for Q3FY2012.
* 38) 8/23/2012 by Christine Cheu - Updated for Q4FY2012.
* 39) 12/27/2012 by Aimee Valenzuela - Updated for Q1FY2013.
* 40) 03/23/2013 by Mike Rudacille - Updated for Q2FY2013.
* 41) December 1, 2014 by Matt Turbyfill, revised for the Macro Program.
*              Replaced RCTYPE with &PC.ReportCards.
*              Changed IN to "..\..\&RCTYPE\CAHPS_ADULT&FOLDER.&FYYEAR.DATA".
*              Changed LOADCAHQ.INC to ..\..\LoadWeb\LOADCAHQ.INC.
*              Changed YEAR to &CYYEAR.
*              Changed R14 to R&FY.
*
***************************************************************************
* Assign data libraries and options
***************************************************************************;
/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards                ***/
%LET RCTYPE = &PC.ReportCards;

LIBNAME IN   "..\..\&RCTYPE\CAHPS_ADULT&FOLDER.&FYYEAR.\DATA";
LIBNAME OUT  "DATA";
LIBNAME LIBRARY   "..\..\..\DATA\AFINAL\FMTLIB";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

***************************************************************************
* Load Format definitions for CAHPS Individual and composite data sets.
***************************************************************************;
%INCLUDE "..\..\LoadWeb\LOADCAHQ.INC";

***************************************************************************
***************************************************************************
*
* Process Macro Input Parameters:
*
* 1) QUESTION = Variable Question Name (DSN).
*    - For individual Questions it is the variable name
*    - For composite Questions it is called xCOMPOSn
*      where n = a predefined composite # and
*            x = R (Region) or C (Catchment)
* 2) TYPE = Type of Score (COMPOSITE or INDIVIDUAL)
* 3) REGCAT = Region/Catchment Area
*
***************************************************************************
```

```
*************************************************************************;
%MACRO PROCESS(QUESTION=,TYPE=);
*************************************************************************
* Assign value for BENTYPE composite year
*************************************************************************;
%LET YEAR = "&CYYEAR."; * Note that this is based on Calendar Year here;

*************************************************************************
* Assign prefix for weighted/unweighted count variables.
* Unweighted counts is REGCNTn where n=group number.
* Weighted counts is REGWGTn where n=group number.
*************************************************************************;
%LET PREFIX = REG;

*************************************************************************
*
* Convert the CAHPS individual Scores Record into WEB layout.
* There are 8 logical records (adjusted scores) per physical record
*
*************************************************************************;
DATA &QUESTION;
   SET IN.&QUESTION;

   LENGTH MAJGRP  $30;
   LENGTH REGION  $30; **RSG 01/2005 - Changed format to be large enough to include service
affiliation;
   LENGTH REGCAT  $30; **MER 11/07/2012 - Changed REGION and REGCAT to be large enough for Joint
Services;
   LENGTH BENTYPE $50;
   LENGTH BENEFIT $34;
   LENGTH TIMEPD  $35; **MJS 07/03/03 Added line;

   ********************************************************************
   * Assign Region
   ********************************************************************;
   REGION  = PUT(XSERVREG,SERVREGF.);
   ********************************************************************
   * Assign benefit and benefit type
   ********************************************************************;
   IF "&TYPE" = "INDIVIDUAL" THEN DO;
      IF DEPENDNT IN("R&FY.018","R&FY.048","R&FY.027","R&FY.031") THEN
         BENTYPE = "Composite";   ***MJS 07/03/03 Changed from BENTYPE = PUT(&YEAR,$BENTYPF.);
      ELSE
         BENTYPE = PUT(DEPENDNT,$BENTYPF.);
      BENEFIT = PUT(DEPENDNT,$BENEF.);
      TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added line;
   END;
   ELSE IF "&TYPE" = "COMPOSITE" THEN DO;
      BENTYPE = "Composite";   ***MJS 07/03/03 Changed from BENTYPE = PUT(&YEAR,$BENTYPF.);
      BENEFIT = PUT(DEPENDNT,$BENEF.);
      TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added line;
   END;
   ELSE PUT "ERROR - Invalid TYPE = &TYPE";

   ********************************************************************
   * For now, Initialize Significance test to zero.
   ********************************************************************;
   SIG = 0;
   ********************************************************************
   * Assign Region
   ********************************************************************;
   REGCAT = PUT(XSERVREG,SERVREGF.);

   ********************************************************************
   * 1 = Prime Enrollees
   ********************************************************************;
   MAJGRP = PUT(1,MAJGRPF.);
   SCORE = ADJ1;
   SEMEAN = SEMEAN1;
   N_OBS = &PREFIX.CNT1;
   N_WGT = &PREFIX.WGT1;
   OUTPUT;

   ********************************************************************
```

```
   * 2 = Enrollees with Military PCM
   ********************************************************************;
   MAJGRP = PUT(2,MAJGRPF.);
   SCORE = ADJ2;
   SEMEAN = SEMEAN2;
   N_OBS = &PREFIX.CNT2;
   N_WGT = &PREFIX.WGT2;
   OUTPUT;

   ********************************************************************
   * 3 = Enrollees with Civilian PCM
   ********************************************************************;
   MAJGRP = PUT(3,MAJGRPF.);
   SCORE = ADJ3;
   SEMEAN = SEMEAN3;
   N_OBS = &PREFIX.CNT3;
   N_WGT = &PREFIX.WGT3;
   OUTPUT;

   ********************************************************************
   * 4 = Non-enrolled Beneficiaries
   ********************************************************************;
   MAJGRP = PUT(4,MAJGRPF.);
   SCORE = ADJ4;
   SEMEAN = SEMEAN4;
   N_OBS = &PREFIX.CNT4;
   N_WGT = &PREFIX.WGT4;
   OUTPUT;

   ********************************************************************
   * 5 = Active Duty
   ********************************************************************;
   MAJGRP = PUT(5,MAJGRPF.);
   SCORE = ADJ5;
   SEMEAN = SEMEAN5;
   N_OBS = &PREFIX.CNT5;
   N_WGT = &PREFIX.WGT5;
   OUTPUT;

   ********************************************************************
   * 6 = Active Duty Dependents
   ********************************************************************;
   MAJGRP = PUT(6,MAJGRPF.);
   SCORE = ADJ6;
   SEMEAN = SEMEAN6;
   N_OBS = &PREFIX.CNT6;
   N_WGT = &PREFIX.WGT6;
   OUTPUT;

   ********************************************************************
   * 7 = Retirees and Dependents
   ********************************************************************;
   MAJGRP = PUT(7,MAJGRPF.);
   SCORE = ADJ7;
   SEMEAN = SEMEAN7;
   N_OBS = &PREFIX.CNT7;
   N_WGT = &PREFIX.WGT7;
   OUTPUT;

   ********************************************************************
   * 8 = All Beneficiaries              ALL Beneficiaries
   ********************************************************************;
   MAJGRP = PUT(8,MAJGRPF.);
   SCORE  = ADJ8;
   SEMEAN = SEMEAN8;
   N_OBS = &PREFIX.CNT8;
   N_WGT = &PREFIX.WGT8;
   OUTPUT;

KEEP MAJGRP
     REGION
     REGCAT
     BENTYPE
     BENEFIT
```

```
     TIMEPD   /*MJS 07/03/03 Added*/
     SCORE
     SEMEAN
     N_OBS
     N_WGT
     SIG
   ;
RUN;

%MEND;

*************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*************************************************************************;
%PROCESS(QUESTION=RCOMPOS1,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R&FY.029,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R&FY.033,TYPE=INDIVIDUAL);

*************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*************************************************************************;
%PROCESS(QUESTION=RCOMPOS2,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R&FY.007,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R&FY.010,TYPE=INDIVIDUAL);

*************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
*************************************************************************;
%PROCESS(QUESTION=RCOMPOS3,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R&FY.021,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R&FY.022,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R&FY.023,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R&FY.024,TYPE=INDIVIDUAL);

*************************************************************************
* COMPOSITE # 4.
* CUSTOMER SERVICE.
*************************************************************************;
%PROCESS(QUESTION=RCOMPOS4,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R&FY.041,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R&FY.042,TYPE=INDIVIDUAL);

*************************************************************************
* COMPOSITE # 5.
* CLAIMS PROCESSING.
*************************************************************************;
%PROCESS(QUESTION=RCOMPOS5,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R&FY.046,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R&FY.047,TYPE=INDIVIDUAL);

*************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
*************************************************************************;
%PROCESS(QUESTION=R_R&FY.018,TYPE=INDIVIDUAL);

*************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
*************************************************************************;
%PROCESS(QUESTION=R_R&FY.048,TYPE=INDIVIDUAL);

*************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
*************************************************************************;
%PROCESS(QUESTION=R_R&FY.027,TYPE=INDIVIDUAL);

*************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
```

```
*************************************************************************;
%PROCESS(QUESTION=R_R&FY.031,TYPE=INDIVIDUAL);

*************************************************************************
*************************************************************************
* STACK up all of the files into one final output dataset.
*************************************************************************
*************************************************************************;
DATA OUT.LOADCAHQ;
   SET R_R&FY.029
       R_R&FY.033
       R_R&FY.007
       R_R&FY.010
       R_R&FY.021
       R_R&FY.022
       R_R&FY.023
       R_R&FY.024
       R_R&FY.041
       R_R&FY.042
       R_R&FY.046
       R_R&FY.047
       R_R&FY.018
       R_R&FY.048
       R_R&FY.027
       R_R&FY.031
       RCOMPOS1
       RCOMPOS2
       RCOMPOS3
       RCOMPOS4
       RCOMPOS5
    ;
    IF SCORE = . THEN DELETE;
RUN;

TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6663-410)";
TITLE2 "Program Name: LOADCAHQ.SAS By Keith Rathbun";
TITLE3 "Program Inputs: CAHPS Individual and Composite data sets with adjusted scores";
TITLE4 "Program Outputs: LOADCAHQ.SAS7BDAT - Combined CAHPS Scores Database in WEB layout";

PROC FREQ;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

G.2.B Q3FY2015\PROGRAMS\LOADWEB\LOADCAHQ.INC - Format definitions for converting the Scores Database into the WEB layout - Run Quarterly.

```
*************************************************************************
*
* PROGRAM:  LOADCAHQ.INC
* TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Format definitions for converting the CAHPS Scores Database
*           into the WEB layout.
*
* WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from LOADCAHP.INC.
*
* MODIFIED: 1) 08/13/2001 BY KEITH RATHBUN, Added XSERVAFF format to
*              accommodate the short reports.
*           2) 01/24/2002 BY KEITH RATHBUN, Added BENTYPF = 1998,1999,2000
*              added catchment composites.
*           3) 04/10/2002 BY KEITH RATHBUN, Added parameters for 2002 survey.
*           4) 04/03/2003 BY MIKE SCOTT, Added parameters for 2003 survey.
*           5) 07/08/2003 BY MIKE SCOTT, Added formats GETNCARE, GETCAREQ,
*              CRTSHELP, HOWWELL, CUSTSERV, CLMSPROC, and PREVCARE.
*           6) 03/22/2004 BY KEITH RATHBUN, Added parameters for 2004 survey.
*              Changed R04031 to be "Wait Less than 15 Minutes For Appointment".
*           7) 05/06/2004 BY MIKE SCOTT, Changed R04031 back to 2003 version of
*              the label ("Wait More than 15 Minutes Past Appointment") so that
*              the Q1 2004 version of the question is consistent with past
*              versions.  The label will be changed to the new version ("Waiting
*              in the Doctor's Office") in Makehtmq.sas.
*           8) 02/2006 BY REGINA GRAMSS, Changed date format to fielding dates.
*           9) 03/21/2006 BY KEITH RATHBUN, Added parameters for 2006 survey.
*          10) 08/22/2006 BY JUSTIN OH, Changed SERVREGF format for Overseas.
*          11) 12/15/2006 BY JUSTIN OH, Added parameters for 2007 survey.
*          12) 02/02/2007 BY JUSTIN OH, Added "s" in Healthy Behaviors in VALUE BEN.
*          13) 01/10/2008 BY KEITH RATHBUN, Added parameters for 2008 survey.
*          14) 01/09/2009 BY MIKE RUDACILLE, Added parameters for 2009 survey.
*          14) 01/16/2009 BY MIKE RUDACILLE, Changed CONUS to USA.
*          15) 04/11/2009 by Mike Rudacille - Changed formats to reflect
*              modifications to beneficiary reports necessary for V4
*          16) 12/17/09 by Emma Ernst, Added parameters for 2010 survey.
*          17) 12/02/10 by Mike Rudacille, Added parameters for 2011 survey.
*              Also removed 2000 parameters for space considerations.
*          18) 12/10/11 by Mike Rudacille, Added parameters for 2012 survey.
*              Also removed 2002 parameters for space considerations.
*          19) 11/03/12 by Mike Rudacille, Updated for handling of
*              Joint Service facilities
*          20) 12/27/12 by Aimee Valenzuela, Added parameters for 2013 survey.
*          21) 09/20/13 by Amanda Kudis, Added parameters for 2014 survey.
*
*
* INPUTS:   No direct input
*
* OUTPUT:   No direct output
*
* NOTES:    1) Under the new contract (8860), the survey year was changed
*              to be based on the year the survey is administered (2002)
*              as opposed to the questioning reference frame (2001).  This
*              include file contains variable names for both the 2001
*              survey administration year and the the 2002 administration
*              year surveys.
*
*************************************************************************
;
*************************************************************************
* FORMAT Definitions
*************************************************************************;
PROC FORMAT;
   VALUE MAJGRPF
      1 = "Prime Enrollees            "
      2 = "Enrollees with Military PCM"
      3 = "Enrollees with Civilian PCM"
      4 = "Non-enrolled Beneficiaries "
      5 = "Active Duty                "
      6 = "Active Duty Dependents     "
      7 = "Retirees and Dependents    "
```

```
      8 = "All Beneficiaries          "
   ;
   VALUE XSERVAFF
      1 = "ARMY"
      2 = "AIR FORCE"
      3 = "NAVY"
      4 = "OTHER"
      5 = "JOINT SERVICE"
   ;
   VALUE REGIONF
      0 = "USA MHS "
      1 = "North"
      2 = "South"
      3 = "West"
      4 = "Overseas"
   ;

/*JSO 08/24/2006, Changed Overseas to Service for Europe,Pacific,Latin*/
   VALUE SERVREGF
      1 = "North Army"
      2 = "North Air Force"
      3 = "North Navy"
      4 = "North Other"
      5 = "North Joint Service"
      6 = "South Army"
      7 = "South Air Force"
      8 = "South Navy"
      9 = "South Other"
     10 = "South Joint Service"
     11 = "West Army"
     12 = "West Air Force"
     13 = "West Navy"
     14 = "West Other"
     15 = "West Joint Service"
     16 = "Europe Army"
     17 = "Europe Air Force"
     18 = "Europe Navy"
     19 = "Europe Other"
     20 = "Europe Joint Service"
     21 = "Pacific Army"
     22 = "Pacific Air Force"
     23 = "Pacific Navy"
     24 = "Pacific Other"
     25 = "Pacific Joint Service"
     26 = "Latin America Army"
     27 = "Latin America Air Force"
     28 = "Latin America Navy"
     29 = "Latin America Other"
     30 = "Latin America Joint Service"
     31 = "USA ARMY"
     32 = "USA AIR FORCE"
     33 = "USA NAVY"
     34 = "USA OTHER";

/*JSO 08/24/2006, Changed Overseas to Europe,Pacific,Latin*/
   VALUE SERVREGO
      1 = "North Army"
      2 = "North Air Force"
      3 = "North Navy"
      4 = "North Other"
      5 = "North Joint Service"
      6 = "South Army"
      7 = "South Air Force"
      8 = "South Navy"
      9 = "South Other"
     10 = "South Joint Service"
     11 = "West Army"
     12 = "West Air Force"
     13 = "West Navy"
     14 = "West Other"
     15 = "West Joint Service"
     16 = "Overseas Europe"
     17 = "Overseas Pacific"
     18 = "Overseas Latin America";
```

```
   VALUE $BENTYPF
    "2005 Q1 " = "January, 2005                                  "
    "2005 Q2 " = "April, 2005                                    "
    "2005 Q3 " = "July, 2005                                     "
    "2005 Q4 " = "October, 2005                                  "
    "2006 Q1 " = "January, 2006                                  "
    "2006 Q2 " = "April, 2006                                    "
    "2006 Q3 " = "July, 2006                                     "
    "2006 Q4 " = "October, 2006                                  "
    "2007 Q1 " = "January, 2007                                  "
    "2007 Q2 " = "April, 2007                                    "
    "2007 Q3 " = "July, 2007                                     "
    "2007 Q4 " = "October, 2007                                  "
    "2008 Q1 " = "January, 2008                                  "
    "2008 Q2 " = "April, 2008                                    "
    "2008 Q3 " = "July, 2008                                     "
    "2008 Q4 " = "October, 2008                                  "
    "2009 Q1 " = "January, 2009                                  "
    "2009 Q2 " = "April, 2009                                    "
    "2009 Q3 " = "July, 2009                                     "
    "2009 Q4 " = "October, 2009                                  "
    "2010 Q1 " = "January, 2010                                  "
    "2010 Q2 " = "April, 2010                                    "
    "2010 Q3 " = "July, 2010                                     "
    "2010 Q4 " = "October, 2010                                  "
    "2011 Q1 " = "January, 2011                                  "
    "2011 Q2 " = "April, 2011                                    "
    "2011 Q3 " = "July, 2011                                     "
    "2011 Q4 " = "October, 2011                                  "
    "2012 Q1 " = "January, 2012                                  "
    "2012 Q2 " = "April, 2012                                    "
    "2012 Q3 " = "July, 2012                                     "
    "2012 Q4 " = "October, 2012                                  "
    "2013 Q1 " = "January, 2013                                  "
    "2013 Q2 " = "April, 2013                                    "
    "2013 Q3 " = "July, 2013                                     "
    "2013 Q4 " = "October, 2013                                  "
    "2014 Q1 " = "January, 2014                                  "
    "2014 Q2 " = "April, 2014                                    "
    "2014 Q3 " = "July, 2014                                     "
    "2014 Q4 " = "October, 2014                                  "
    "2015 Q1 " = "January, 2015                                  "
    "2015 Q2 " = "April, 2015                                    "
    "2015 Q3 " = "July, 2015                                     "
    "2015 Q4 " = "October, 2015                                  "

/*****************************************************************************************
***************/
    /* Admin. Year Defn.
*/
    /*  2005      2006      2007      2008      2009      2010      2011      2012     2013
2014       2015    */

/*****************************************************************************************
***************/
    "R05013", "R06013", "R07013", "R08013", "R09029", "R10029", "R11029", "R12029", "R13029",
"R14029", "R15029" = "Getting to See a Specialist        "
    "R05027", "R06027", "R07027", "R08027", "R09033", "R10033", "R11033", "R12033", "R13033",
"R14033", "R15033" = "Getting Treatment                  "
    "R05019", "R06019", "R07019", "R08019", "R09007", "R10007", "R11007", "R12007", "R13007",
"R14007", "R15007" = "Wait for Urgent Care               "
    "R05022", "R06022", "R07022", "R08022", "R09010", "R10010", "R11010", "R12010", "R13010",
"R14010", "R15010" = "Wait for Routine Visit             "
    "R05033", "R06033", "R07033", "R08033", "R09021", "R10021", "R11021", "R12021", "R13021",
"R14021", "R15021" = "Listens Carefully                  "
    "R05034", "R06034", "R07034", "R08034", "R09022", "R10022", "R11022", "R12022", "R13022",
"R14022", "R15022" = "Explains so You Can Understand     "
    "R05035", "R06035", "R07035", "R08035", "R09023", "R10023", "R11023", "R12023", "R13023",
"R14023", "R15023" = "Shows Respect                      "
    "R05036", "R06036", "R07036", "R08036", "R09024", "R10024", "R11024", "R12024", "R13024",
"R14024", "R15024" = "Spends Time with You               "
    "R05043", "R06043", "R07043", "R08043", "R09040", "R10040", "R11041", "R12041", "R13041",
"R14041", "R15041" = "Getting Information                "
```

```
    "R05045", "R06045", "R07045", "R08045", "R09041", "R10041", "R11042", "R12042", "R13042",
"R14042", "R15042" = "Courteous Customer Service         "
    "R05040", "R06040", "R07040", "R08040", "R09045", "R10045", "R11046", "R12046", "R13046",
"R14046", "R15046" = "Claims Handled in a Reasonable Time"
    "R05041", "R06041", "R07041", "R08041", "R09046", "R10046", "R11047", "R12047", "R13047",
"R14047", "R15047" = "Claims Handled Correctly           "
    "R05037", "R06037", "R07037", "R08037", "R09018", "R10018", "R11018", "R12018", "R13018",
"R14018", "R15018" = "Health Care                        "
    "R05048", "R06048", "R07048", "R08048", "R09047", "R10047", "R11048", "R12048", "R13048",
"R14048", "R15048" = "Health Plan                        "
    "R05009", "R06009", "R07009", "R08009", "R09027", "R10027", "R11027", "R12027", "R13027",
"R14027", "R15027" = "Primary Care Manager               "
    "R05015", "R06015", "R07015", "R08015", "R09031", "R10031", "R11031", "R12031", "R13031",
"R14031", "R15031" = "Specialty Care                     "
                           "PHYSIC  " = "Physical                                        "
                           "MENTAL  " = "Mental                                          "
   ;
   VALUE $BENEF
    "RCOMPOS1","CCOMPOS1","R05013","R05027",
                          "R06013","R06027",
                          "R07013","R07027",
                          "R08013","R08027",
                          "R09029","R09033",
                          "R10029","R10033",
                          "R11029","R11033",
                          "R12029","R12033",
                          "R13029","R13033",
                          "R14029","R14033",
                          "R15029","R15033"
    = "Getting Needed Care  "

    "RCOMPOS2","CCOMPOS2","R05019","R05022",
                          "R06019","R06022",
                          "R07019","R07022",
                          "R08019","R08022",
                          "R09007","R09010",
                          "R10007","R10010",
                          "R11007","R11010",
                          "R12007","R12010",
                          "R13007","R13010",
                          "R14007","R14010",
                          "R15007","R15010"
    = "Getting Care Quickly "

    "RCOMPOS3","CCOMPOS3","R05033","R05034","R05035","R05036",
                          "R06033","R06034","R06035","R06036",
                          "R07033","R07034","R07035","R07036",
                          "R08033","R08034","R08035","R08036",
                          "R09021","R09022","R09023","R09024",
                          "R10021","R10022","R10023","R10024",
                          "R11021","R11022","R11023","R11024",
                          "R12021","R12022","R12023","R12024",
                          "R13021","R13022","R13023","R13024",
                          "R14021","R14022","R14023","R14024",
                          "R15021","R15022","R15023","R15024"
    = "How Well Doctors Communicate "

    "RCOMPOS4","CCOMPOS4","R05043","R05045",
                          "R06043","R06045",
                          "R07043","R07045",
                          "R08043","R08045",
                          "R09040","R09041",
                          "R10040","R10041",
                          "R11041","R11042",
                          "R12041","R12042",
                          "R13041","R13042",
                          "R14041","R14042",
                          "R15041","R15042"
    = "Customer Service          "

    "RCOMPOS5","CCOMPOS5","R05040","R05041",
                          "R06040","R06041",
                          "R07040","R07041",
                          "R08040","R08041",
```

```
                          "R09045","R09046",
                          "R10045","R10046",
                          "R11046","R11047",
                          "R12046","R12047",
                          "R13046","R13047",
                          "R14046","R14047",
                          "R15046","R15047"
    = "Claims Processing
            "
    "RCOMPOS11","COMPOS11","MENTAL","PHYS"
    = "Health Status                      "

/*****************************************************************************************
*************/
    /* Admin. Year Defn.
*/
    /* 2005      2006      2007      2008      2009      2010      2011      2012     2013
2014      2015  */

/*****************************************************************************************
*************/
    "R05037", "R06037", "R07037", "R08037", "R09018", "R10018", "R11018", "R12018", "R13018",
"R14018", "R15018" = "Health Care                                  "
    "R05048", "R06048", "R07048", "R08048", "R09047", "R10047", "R11048", "R12048", "R13048",
"R14048", "R15048" = "Health Plan                                  "
    "R05009", "R06009", "R07009", "R08009", "R09027", "R10027", "R11027", "R12027", "R13027",
"R14027", "R15027" = "Primary Care Manager                         "
    "R05015", "R06015", "R07015", "R08015", "R09031", "R10031", "R11031", "R12031", "R13031",
"R14031", "R15031" = "Specialty Care                               "
   ;
VALUE BEN
/*  0 = 'Total'  deleted no longer calculating total 04/2005 RSG ***/
  1 = 'Getting Needed Care'
  2 = 'Getting Care Quickly'
  3 = 'How Well Doctors Communicate'
  4 = 'Customer Service'
  5 = 'Claims Processing'
  6 = 'Health Plan'
  7 = 'Health Care'
  8 = 'Primary Care Manager'
  9 = 'Specialty Care'
 10 = 'Preventive Care'
 11 = 'Healthy Behaviors';

  VALUE MAJOR
  1 = "Prime Enrollees            "
  2 = "Enrollees with Military PCM"
  3 = "Enrollees with Civilian PCM"
  4 = "Non-enrolled Beneficiaries "
  5 = "Active Duty                "
  6 = "Active Duty Dependents     "
  7 = "Retirees and Dependents    "
  8 = "All Beneficiaries          ";

  VALUE GETNCARE
  1 = "Getting to See a Specialist"
  2 = "Getting Treatment"
  3 = "Composite";

  VALUE GETCAREQ
  1 = "Wait for Routine Visit"
  2 = "Wait for Urgent Care"
  3 = "Composite";

  VALUE HOWWELL
  1 = "Listens Carefully"
  2 = "Explains so You Can Understand"
  3 = "Shows Respect"
  4 = "Spends Time with You"
  5 = "Composite";

  VALUE CUSTSERV
  1 = "Getting Information"
  2 = "Courteous Customer Service"
```

```
  3 = "Composite";

  VALUE CLMSPROC
  1 = "Claims Handled in a Reasonable Time"
  2 = "Claims Handled Correctly"
  3 = "Composite";

  VALUE PREVCARE
  1 = "Mammography"
  2 = "Pap Smear"
  3 = "Hypertension"
  4 = "Prenatal Care"
  5 = "Composite";

  VALUE SMOKEF
  1 = "Non-Smoking Rate"
  2 = "Counselled To Quit"
  3 = "Percent Not Obese"
  4 = "Composite";
RUN;
```

G.3.A Q3FY2015\PROGRAMS\BENCHMARK\BENCHA01.SAS - Extract Adult CAHPS Questions from NCBD - Run Quarterly.

```
***************************************************************************
*
* PROGRAM:  BENCHA01.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Extract Adult CAHPS Questions
*
* WRITTEN:  06/02/2000 BY KEITH RATHBUN
*
* INPUTS:   1) AC2009DB.sas7bdat - 2009 Adult CAHPS Questions
*
* OUTPUT:   1) BENCHA01.sas7bdat - 2009 Adult CAHPS Questions Renamed to be
*              consistent with the 2009 MPR DOD Survey.
*
* MODIFIED:20) April 4, 2012 by Amanda Kudis, updated for 2011 benchmarks.
*          21) January 10, 2013 by Aimee Valenzuela, updated for 2013, commented out
*              lines 119-124, and removed model from keep statement.
*          22) September 20, 2013 by Amanda Kudis, updated for 20134.
*          23) July 8, 2014 by Hoa Le, Modified to use NCQA data.
*              Changed variable names to match NCQA variable names.
*          24) December 1, 2014 by Matt Turbyfill, revised for Macro Program.
*                                  Change IN library to &BENCHINPUT.
*                                  Change C13_ZAMV to &BENCHFILE.
*                                  Change H14 to H&FY.
*
* NOTES:
*
* 1) This program will generate the input for BENCHA02.SAS.
*
***************************************************************************
* Assign data libraries and options
***************************************************************************;
LIBNAME IN  "&BENCHINPUT.";
LIBNAME OUT "data";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

DATA OUT.BENCHA01  ;
   SET IN.&BENCHFILE.;
   FORMAT _ALL_;
   H&FY.019 = S15;
   *******************************************
   * Getting Needed Care
   *******************************************;
   H&FY.029   = S25;
   H&FY.033   = S14;
   *******************************************
   * Getting Care Quickly
   *******************************************;
   H&FY.007   = S4;
   H&FY.010   = S6;
   *******************************************
   * How Well Doctors Communicate
   *******************************************;
   H&FY.021   = S18;
   H&FY.022   = S17;
   H&FY.023   = S19;
   H&FY.024   = S20;
   *******************************************
   * Customer Service
   *******************************************;
   H&FY.035   = S29;
   H&FY.041   = S35;
   H&FY.042   = S36;
   *******************************************
   * Claims Processing
   *******************************************;
   H&FY.046   = S40;
   H&FY.047   = S41;
   *******************************************
   * Health Care Rating
   *******************************************;
```

```
  H&FY.018   = S13;
  *******************************************
  * Health Plan Rating
  *******************************************;
  H&FY.048   = S42;
  *******************************************
  * Personal Doctor Rating
  *******************************************;
  H&FY.027   = S23;
  *******************************************
  * Specialist Rating
  *******************************************;
  H&FY.031   = S27;
  *******************************************
  * Health Status
  *******************************************;
  H&FY.065    = S43;
  AGEGROUP = S59;   *NEED TO USE USE THIS DIRECTLY (already grouped);
  XSEXA    = S60;
  SREDHIGH = S61; /* MER 03/31/11 changed AC55_09 to AC60_10 */


 LABEL  H&FY.029    = "S25 - Got appointment with a specialist"
        H&FY.033    = "S14 - Got necessary care"
        H&FY.007    = "S4 - Got urgent care quickly"
        H&FY.010    = "S6 - Got routine care quickly"
        H&FY.021    = "S18 - Doctors/providers listened carefully"
        H&FY.022    = "S17 - Doctors/providers explained things"
        H&FY.023    = "S19 - Doctors/providers showed respect"
        H&FY.024    = "S20 - Doctors/providers spent enough time"
        H&FY.041    = "S35 - Customer service provided needed info"
        H&FY.042    = "S36 - Customer services was courteous"
        H&FY.046    = "S40 - Claims handled quickly"
        H&FY.047    = "S41 - Claims handled correctly"
        H&FY.018    = "S13 - Rating of health care"
        H&FY.048    = "S42 - Rating of health plan"
        H&FY.027    = "S23 - Rating of personal doctor or nurse"
        H&FY.031    = "S27 - Rating of specialist seen most often"
        H&FY.065    = "S43 - Rating of overall health"
        AGEGROUP  = "S59 - Imputed adult age"
        XSEXA     = "S60 - Gender"
        SREDHIGH  = "S61 - Highest grade finished"
       ;
 KEEP   H&FY.029
        H&FY.033
        H&FY.007
        H&FY.010
        H&FY.021
        H&FY.022
        H&FY.023
        H&FY.024
        H&FY.041
        H&FY.042
        H&FY.046
        H&FY.047
        H&FY.018
        H&FY.048
        H&FY.027
        H&FY.031
        H&FY.065
        H&FY.035
        AGEGROUP
        XSEXA
        SREDHIGH
        SUB_ID
        DISP
        H&FY.019
       ;
RUN;

TITLE1 "Extract Adult CAHPS Questions (DoD)";
TITLE2 "Program Name: BENCHA01.SAS By Keith Rathbun";
TITLE3 "Program Input: c13_zamv.sas7bdat";
TITLE4 "Program Output: BENCHA01.sas7bdat";
```

```
PROC CONTENTS; RUN;

PROC FREQ;
TABLES _ALL_ /MISSING LIST;
RUN;
```

G.3.B Q3FY2015\PROGRAMS\BENCHMARK\BENCHA02.SAS - Recode Adult CAHPS Questions from NCBD to be consistent with the HCSDB - Run Quarterly.

```
*************************************************************************
*
* PROGRAM:  BENCHA02.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Recode Adult CAHPS Questions
*
* WRITTEN:  06/02/2000 BY KEITH RATHBUN
*
* INPUT:    1) BENCHA01.sas7bdat - Adult CAHPS Questions Renamed to be
*              consistent with the MPR DOD Survey.
*
* OUTPUT:   1) BENCHA02.sas7bdat - Recoded Adult CAHPS Questions Renamed
*              to be consistent with the MPR DOD Survey.
*
* MODIFIED:19) January 10, 2013 by Aimee Valenzuela, update for Q1FY2013
*          20) September 20, 2013 by Amanda Kudis, update for Q1FY2014
*          21) July 8, 2014 by Hoa Le, Modified to use NCQA data.
*              Changed variable names to match NCQA variable names.
*              Modified last line of each recode.
*          22) December 1, 2014 by Matt Turbyfill, revised for Macro Program.
*                            Changed H14 to H&FY.
*                            Changed R14 to R&FY.
* NOTES:
*
* 1) Run this program after BENCHA01.SAS.
* 2) This program will generate the input for BENCHA03.SAS.
*
*************************************************************************
* Assign data libraries and options
*************************************************************************;
LIBNAME IN      "data";
LIBNAME OUT     "..\&PC.Benchmark\data";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

DATA OUT.BENCHA02;
   SET IN.BENCHA01;

   ************************************************************************
   * Recode variables with Never, Sometimes, Usually and Always.
   * Recode Never & Sometimes (1 & 2) to 1.
   * Recode Usually (3) to 2.
   * Recode Always (4) to 3.
   ************************************************************************;

   IF H&FY.007 = 1      THEN R&FY.007 = 1;
   ELSE IF H&FY.007 = 2 THEN R&FY.007 = 1;
   ELSE IF H&FY.007 = 3 THEN R&FY.007 = 2;
   ELSE IF H&FY.007 = 4 THEN R&FY.007 = 3;
   ELSE R&FY.007 = .;

   IF H&FY.010 = 1      THEN R&FY.010 = 1;
   ELSE IF H&FY.010 = 2 THEN R&FY.010 = 1;
   ELSE IF H&FY.010 = 3 THEN R&FY.010 = 2;
   ELSE IF H&FY.010 = 4 THEN R&FY.010 = 3;
   ELSE R&FY.010 = .;

   IF H&FY.021 = 1      THEN R&FY.021 = 1;
   ELSE IF H&FY.021 = 2 THEN R&FY.021 = 1;
   ELSE IF H&FY.021 = 3 THEN R&FY.021 = 2;
   ELSE IF H&FY.021 = 4 THEN R&FY.021 = 3;
   ELSE R&FY.021 = .;

   IF H&FY.022 = 1      THEN R&FY.022 = 1;
   ELSE IF H&FY.022 = 2 THEN R&FY.022 = 1;
   ELSE IF H&FY.022 = 3 THEN R&FY.022 = 2;
   ELSE IF H&FY.022 = 4 THEN R&FY.022 = 3;
   ELSE R&FY.022 = .;

   IF H&FY.023 = 1      THEN R&FY.023 = 1;
   ELSE IF H&FY.023 = 2 THEN R&FY.023 = 1;
```

```
ELSE IF H&FY.023 = 3 THEN R&FY.023 = 2;
ELSE IF H&FY.023 = 4 THEN R&FY.023 = 3;
ELSE R&FY.023 = .;

IF H&FY.024 = 1      THEN R&FY.024 = 1;
ELSE IF H&FY.024 = 2 THEN R&FY.024 = 1;
ELSE IF H&FY.024 = 3 THEN R&FY.024 = 2;
ELSE IF H&FY.024 = 4 THEN R&FY.024 = 3;
ELSE R&FY.024 = .;

IF H&FY.029 = 1      THEN R&FY.029 = 1;
ELSE IF H&FY.029 = 2 THEN R&FY.029 = 1;
ELSE IF H&FY.029 = 3 THEN R&FY.029 = 2;
ELSE IF H&FY.029 = 4 THEN R&FY.029 = 3;
ELSE R&FY.029 = .;

IF H&FY.033 = 1      THEN R&FY.033 = 1;
ELSE IF H&FY.033 = 2 THEN R&FY.033 = 1;
ELSE IF H&FY.033 = 3 THEN R&FY.033 = 2;
ELSE IF H&FY.033 = 4 THEN R&FY.033 = 3;
ELSE R&FY.033 = .;

IF H&FY.035 = 1      THEN R&FY.035 = 1;
ELSE IF H&FY.035 = 2 THEN R&FY.035 = 1;
ELSE IF H&FY.035 = 3 THEN R&FY.035 = 2;
ELSE IF H&FY.035 = 4 THEN R&FY.035 = 3;
ELSE R&FY.035 = .;

IF H&FY.041 = 1      THEN R&FY.041 = 1;
ELSE IF H&FY.041 = 2 THEN R&FY.041 = 1;
ELSE IF H&FY.041 = 3 THEN R&FY.041 = 2;
ELSE IF H&FY.041 = 4 THEN R&FY.041 = 3;
ELSE R&FY.041 = .;

IF H&FY.042 = 1      THEN R&FY.042 = 1;
ELSE IF H&FY.042 = 2 THEN R&FY.042 = 1;
ELSE IF H&FY.042 = 3 THEN R&FY.042 = 2;
ELSE IF H&FY.042 = 4 THEN R&FY.042 = 3;
ELSE R&FY.042 = .;

IF H&FY.046 = 1      THEN R&FY.046 = 1;
ELSE IF H&FY.046 = 2 THEN R&FY.046 = 1;
ELSE IF H&FY.046 = 3 THEN R&FY.046 = 2;
ELSE IF H&FY.046 = 4 THEN R&FY.046 = 3;
ELSE R&FY.046 = .;

IF H&FY.047 = 1      THEN R&FY.047 = 1;
ELSE IF H&FY.047 = 2 THEN R&FY.047 = 1;
ELSE IF H&FY.047 = 3 THEN R&FY.047 = 2;
ELSE IF H&FY.047 = 4 THEN R&FY.047 = 3;
ELSE R&FY.047 = .;

IF H&FY.065 = 1           THEN R&FY.065 = 5;
ELSE IF H&FY.065 = 2      THEN R&FY.065 = 4;
ELSE IF H&FY.065 = 3      THEN R&FY.065 = 3;
ELSE IF H&FY.065 = 4      THEN R&FY.065 = 2;
ELSE IF H&FY.065 = 5      THEN R&FY.065 = 1;
ELSE R&FY.065 = .;

************************************************************************
* Recode variables to one missing condition "."
* This also makes all the "H000xx" to "R000xx".
************************************************************************;
R&FY.027 = H&FY.027;  IF R&FY.027 < 0|R&FY.027>10 THEN R&FY.027 = .;
R&FY.031 = H&FY.031;  IF R&FY.031 < 0|R&FY.031>10 THEN R&FY.031 = .;
R&FY.018 = H&FY.018;  IF R&FY.018 < 0|R&FY.018>10 THEN R&FY.018 = .;
R&FY.048 = H&FY.048;  IF R&FY.048 < 0|R&FY.048>10 THEN R&FY.048 = .;

LABEL R&FY.007   = "S4 - Got urgent care quickly"
      R&FY.010   = "S6 - Got routine care quickly"
      R&FY.021   = "S18 - Doctors/providers listened carefully"
      R&FY.022   = "S17 - Doctors/providers explained things"
      R&FY.023   = "S19 - Doctors/providers showed respect"
      R&FY.024   = "S20 - Doctors/providers spent enough time"
```

```
         R&FY.029   = "S25 - Got appointment with a specialist"
         R&FY.033   = "S14 - Got necessary care"
         R&FY.041   = "S35 - Customer service provided needed info"
         R&FY.042   = "S36 - Customer services was courteous"
         R&FY.046   = "S40 - Claims handled quickly"
         R&FY.047   = "S41 - Claims handled correctly"
         R&FY.018   = "S13 - Rating of health care"
         R&FY.027   = "S23 - Rating of personal doctor or nurse"
         R&FY.031   = "S27 - Rating of specialist seen most often"
         R&FY.048   = "S42 - Rating of health plan"
         R&FY.065   = "S43 - Rating of overall health"

         SUB_ID  = "Submission ID";
       ;

RUN;

TITLE1 "Recode Adult CAHPS Questions (6244-410)";
TITLE2 "Program Name: BENCHA02.SAS By Keith Rathbun";
TITLE3 "Program Input: BENCHA01.SAS7BDAT";
TITLE4 "Program Output: BENCHA02.SAS7BDAT";

PROC CONTENTS; RUN;

PROC FREQ;
TABLES  AGEGROUP
        XSEXA
        SREDHIGH
        R&FY.007 * H&FY.007
        R&FY.010 * H&FY.010
        R&FY.021 * H&FY.021
        R&FY.022 * H&FY.022
        R&FY.023 * H&FY.023
        R&FY.024 * H&FY.024
        R&FY.029 * H&FY.029
        R&FY.033 * H&FY.033
        R&FY.041 * H&FY.041
        R&FY.042 * H&FY.042
        R&FY.046 * H&FY.046
        R&FY.047 * H&FY.047
        R&FY.018 * H&FY.018
        R&FY.027 * H&FY.027
        R&FY.031 * H&FY.031
        R&FY.048 * H&FY.048
        R&FY.065 * H&FY.065
   /MISSING LIST;
RUN;
```

G.3.C Q3FY2015\PROGRAMS\BENCHMARK\BENCHA03.SAS - Calculate CAHPS Benchmark data for HCSDB - Run Quarterly.

```
***************************************************************************
*
* PROGRAM:  BENCHA03.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Adjust Adult CAHPS Benchmarks
*
* WRITTEN:  June 2000 BY ERIC SCHONE
*
* INPUTS:   1) BENCHA02.sas7bdat - 2010 Adult CAHPS Questions Renamed to be
*              consistent with the 2011 MPR DOD Survey.
*           2) GROUP8.sas7bdat - CAHPS Group8 (all beneficiaries) Dataset
*
* OUTPUTS:  1) Benchmark Composite Scores Data Sets
*
* MODIFIED:39) March 5, 2012 by Amanda Kudis - Changed libname in2 and include Convert.sas for
Q2FY2012.
*          40) June 20, 2012 by Amanda Kudis - Updated for Q3FY2012.
*          41) August 23, 2012 by Christine Cheu - Updated for Q4FY2012.
*          42) December 27,2012 by Aimee Valenzuela - Changed libname in in2 for Q1FY2013
*              and changed variable names.
*          43) March 23, 2013 by Mike Rudacille - Changed libname in2 and include Convert.sas
for Q2FY2013.
*          44) September 20, 2013 by Amanda Kudis - Updated for Q1FY2014.
*          45) July 8, 2014 by Hoa Le, Modified to use NCQA data.
*          46) December 1, 2014 by Matt Turbyfill, revised for the Macro Program.
                                     Replaced RCTYPE with &PC.ReportCards
                                     Changed IN2 to
"..\&RCTYPE\CAHPS_Adult&FOLDER.&FYYEAR.\Data".
                                     Replaced MERGE statement in &Q._&L., OUT&COMPNO._&I., and
OUT.COMP&COMPNO._&I DATA steps with SET statements.
                                     Added MERGE=1 to R_&X.
                                     Added BY MERGE to TEMP step.
                                     Changed R14 to R&FY.
                                     Changed CONVERT.SAS to
..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\CONVERT.SAS
*
* NOTES:
*
* 1) Run this program after BENCHA01.SAS and BENCHA02.SAS.
* 2) This program will generate the input for BENCHA04.SAS.
*
***************************************************************************
* Assign data libraries and options
***************************************************************************;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards                ***/
%LET RCTYPE = &PC.ReportCards;

libname in      "Data"; /*Use BENCHA02.sas7bdat from Q3fy2014*/
libname in2     "..\&RCTYPE\CAHPS_Adult&FOLDER.&FYYEAR.\Data";
libname out     "Data";
LIBNAME LIBRARY "..\..\DATA\AFINAL\FMTLIB";

%let wgt=FWRWT;

OPTIONS MLOGIC MPRINT NOCENTER MERGENOBY=WARN LS=132 PS=79;


%macro comb(f,t,q,l);

proc summary data=&f;
 var &t;
 where &q~=.;
 weight &wgt;
 output out=temp mean=&t;
run;

data temp;
 set temp;
 array old &t;
```

```
 call symput('z',left(dim(old)));
run;

data temp(drop=_type_ &t);
 set temp;
 array old &t;
 array new var1-var&z;
  do i=1 to &z;
   new(i)=old(i);
  end;
run;

data &q._&l;
 set temp;
 set c_&q;
 array coeffs &t;
 array means var1-var&z;
  DO I = 1 TO DIM(COEFFS);
   IF COEFFS(I) = . THEN COEFFS(I) = 0;
   IF MEANS(I) = . THEN MEANS(I) = 0;
   ADJUST + ( COEFFS(I) * MEANS(I) );
  END;
 merge=1;
 ADJUST = ADJUST + intercept;
 &q._&l=adjust;

run;

%mend comb;

%macro adjust(x,y);



proc summary data=setup;
where &x>.;
 class SUB_ID;

 output out=count;
run;

data count count2(rename=(_freq_=denom));
 set count;
 if _type_=0 then output count2;
 else output count;
run;

data count(keep=pweight SUB_ID);
 if _n_=1 then set count2;
 set count;
 pweight=denom/_freq_;
run;

data temp;
 merge count  setup; by SUB_ID;

run;
proc summary data=temp;
where &x>.;
weight pweight;
var &y;
output out=temp2 mean=&y;
data temp2;
 set temp2;
 array old &y;
 call symput('z',left(dim(old)));
run;
data temp2(keep=var1-var&z);
 set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
   new(i)=old(i);
  end;
```

```
run;
data temp;
set temp;
if _n_=1 then set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
  if old(i)=. then
   old(i)=new(i);
  end;
run;
proc reg data=temp outest=c_&x noprint;
 model &x=&y;
 weight pweight;
 output out=r_&x r=r_&x;
run;

data r_&x;
       set r_&x;
       merge=1;
run;

proc sort data=r_&x; by SUB_ID;
run;

PROC DESCRIPT DATA=r_&x DESIGN=STRWR NOPRINT;
 WEIGHT pweight;
 SETENV DECWIDTH=4;
 NEST SUB_ID / missunit;
 VAR R_&x;
 OUTPUT  SEMEAN / TABLECELL=DEFAULT
 FILENAME=s_&x;
RUN;

data s_&x(rename=(semean=s_&x));
 set s_&x(keep=semean);
 %do i=1 %to 8;
  %if &i=8 %then %do;

   data group8;
    set in2.group5 in2.group6 in2.group7;
   run;
   %comb(group8,&y,&x,8);
  %end;
  %else %do;
   %comb(in2.group&i,&y,&x,&i);
  %end;
 %end;


%mend adjust;

/* adjust all the variables */

%macro comp(compno,a,b,c,d);
 %if &a~= %then %do;
  %let n=r_&a;
  %let m=s_&a;
  %do i=1 %to 8;
   %let p&i=&a._&i;
  %end;
  %let grpnum=1;
   proc sort data=r_&a;
    by mpid;
   run;
 %end;
 %if &b~= %then %do;
  %let n=%str(&n r_&b);
  %let m=%str(&m s_&b);
  %do i=1 %to 8;
   %let p&i=%str(&&p&i &b._&i);
  %end;
  %let grpnum=2;
   proc sort data=r_&b;
```

```
    by mpid;
   run;
 %end;
 %if &c~= %then %do;
  proc sort data=r_&c;
   by mpid;
  run;
  %let grpnum=3;
  %let n=%str(&n r_&c);
  %do i=1 %to 8;
   %let p&i=%str(&&p&i &c._&i);
  %end;
  %let m=%str(&m s_&c); %end;

  %if &d~= %then %do;
   proc sort data=r_&d;
    by mpid;
   run;
   %let grpnum=4;
   %let n=%str(&n r_&d);
    %do i=1 %to 8;
     %let p&i=%str(&&p&i &d._&i);
    %end;

    %let m=%str(&m s_&d);
  %end;

data infile;
 merge &n;
 by mpid;
run;

proc corr outp=outf noprint;
 var &n;
 weight pweight;
run;

data final;
 if _n_=1 then do;
  %if &a~= %then %do;
   set s_&a;
  %end;
  %if &b~= %then %do;
   set s_&b;
  %end;
  %if &c~= %then %do;
   set s_&c;
  %end;
  %if &d~= %then %do;
   set s_&d;
  %end;
 end;
 set  outf;
 call symput('s'||compress(_n_),substr(_name_,3));
 where _type_='CORR';
run;

data final;
 set final;
 array r_val &n;
 array s_val &m;
 sde=0;
 do i=1 to dim(s_val);
  %do i=1 %to &grpnum;
   if _name_="r_&&s&i" then
   sde=sde+r_val(i)*s_&&s&i*s_val(i);
  %end;
 end;
run;

data sefin&compno;
 set final end=last;
 tv+sde;
 if last then do;
```

```
 sde=(tv**.5)/&grpnum;
 output;
end;

%do i=1 %to 8;
 data temp(keep=&&p&i);
  merge &&p&i;
  by merge;
 run;

data output;
 set &&p&i;
 totadj+adjust;
run;

data output(keep=totadj);
 set output end=last;
 if last then do;
  totadj=totadj/&grpnum;
  output;
 end;
run;

data out&compno._&i;
 set output;
 set temp;
run;

data out.comp&compno._&i;
   set out&compno._&i;
   set sefin&compno;
run;

%end;

%mend comp;

/* create composites */
proc sort data=in.bencha02 out=setup;
 by SUB_ID;
run;
data setup;
set setup;
by SUB_ID;

if disp in ('M10','I10')  ;
data setup;
 set setup; by SUB_ID;
 mpid=_n_;
 if agegroup ne . then do;
 age1824=0; age2534=0; age3544=0; age4554=0; age5564=0; age6574=0;

      if agegroup=1 then age1824=1;
 else if agegroup=2 then age2534=1;
 else if agegroup=3 then age3544=1;
 else if agegroup=4 then age4554=1;
 else if agegroup=5 then age5564=1;
 else if agegroup=6 then age6574=1;
 end;
 if agegroup<6;
run;
%INCLUDE "..\REPORTCARDS\CAHPS_Adult&FOLDER.&FYYEAR.\CONVERT.SAS";

%CONT2(DSN=SETUP, NUM=4,  Y=R&FY.018 R&FY.048 R&FY.027 R&FY.031);
%CONT3(DSN=SETUP, NUM=12, Y=R&FY.007 R&FY.010 R&FY.029 R&FY.033
                            R&FY.021 R&FY.022 R&FY.023 R&FY.024
                            R&FY.041 R&FY.042 R&FY.046 R&FY.047);
/* GETTING NEEDED CARE */
%adjust(R&FY.029,age1824 age2534 age3544 age4554  R&FY.065);
%adjust(R&FY.033,age1824 age2534 age3544 age4554  R&FY.065);
%comp(1,R&FY.029,R&FY.033);

/* GETTING NEEDED CARE QUICKLY */
%adjust(R&FY.007,age1824 age2534 age3544 age4554  R&FY.065);
```

```
%adjust(R&FY.010,age1824 age2534 age3544 age4554  R&FY.065);
%comp(2,R&FY.007,R&FY.010);

/* HOW WELL DOCTORS COMMUNICATE */
%adjust(R&FY.021,age1824 age2534 age3544 age4554  R&FY.065);
%adjust(R&FY.022,age1824 age2534 age3544 age4554  R&FY.065);
%adjust(R&FY.023,age1824 age2534 age3544 age4554  R&FY.065);
%adjust(R&FY.024,age1824 age2534 age3544 age4554  R&FY.065);
%comp(3,R&FY.021,R&FY.022,R&FY.023,R&FY.024);

/* CUSTOMER SERVICE */
%adjust(R&FY.041,age1824 age2534 age3544 age4554  R&FY.065);
%adjust(R&FY.042,age1824 age2534 age3544 age4554  R&FY.065);
%comp(4,R&FY.041,R&FY.042);

/* CLAIMS PROCESSING */
%adjust(R&FY.046,age1824 age2534 age3544 age4554  R&FY.065);
%adjust(R&FY.047,age1824 age2534 age3544 age4554  R&FY.065);
%comp(5,R&FY.046,R&FY.047);

/* RATING ALL HEALTH CARE: 0 - 10 */
%adjust(R&FY.018,age1824 age2534 age3544 age4554  R&FY.065);
%comp(6,R&FY.018);

/* RATING OF HEALTH PLAN: 0 - 10 */
%adjust(R&FY.048,age1824 age2534 age3544 age4554  R&FY.065);
%comp(7,R&FY.048);

/* RATING OF PERSONAL DR: 0 - 10 */
%adjust(R&FY.027,age1824 age2534 age3544 age4554  R&FY.065);
%comp(8,R&FY.027);

/* SPECIALTY CARE */
%adjust(R&FY.031,age1824 age2534 age3544 age4554  R&FY.065);
%comp(9,R&FY.031);
```

G.3.D.1 Q3FY2015\PROGRAMS\BENCHMARK\QPREDTEST\SAS2STATA_Grps.sas - Converts the groups datasets from SAS to STATA - Run Quarterly.

```
***************************************************************************
*
* PROGRAM:  SAS2STATA_Grps.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6401-904)
* PURPOSE:  Convert the CAHPS BENCHA02 and GROUP1-8 Files to STATA format
*
* WRITTEN:  01/11/2008 BY KEITH RATHBUN
*
* INPUTS:   1) BENCHA02.sas7bdat - CAHPS Benchmark Scores Database
*              GROUPi.sas7bdat - Group Files created by STEP1.SAS
*                           (where i = 1 -8 = group number)
*
* OUTPUTS:  1) BENCHA02.dta - CAHPS Benchmark Scores Database - STATA format
*              GROUPi.dta - Group Files created by STEP1.SAS - STATA format
*                           (where i = 1 -8 = group number)
*
* MODIFIED: 1) December 1, 2014 by Matt Turbyfill, revised for the Macro Program.
*                             Changed QUARTER to &FOLDER.&FYYEAR.
*                             Changed INBENCH to "&BENCHDATA."
*                             Changed INGROUP to
..\..\&PC.ReportCards\cahps_adult&QUARTER.\data.
*
* NOTES:
*
***************************************************************************
* Assign data libraries and options
***************************************************************************;
%LET QUARTER = &FOLDER.&FYYEAR.;
LIBNAME INBENCH "&BENCHDATA."; /*Use BENCHA02.sas7bdat from Q1fy2014*/
LIBNAME INGROUP "..\..\&PC.ReportCards\cahps_adult&QUARTER.\data";

***************************************************************************
* Convert CAHPS BENCHA02 to STATA format.
***************************************************************************;
PROC EXPORT
   DATA = INBENCH.BENCHA02
   OUTFILE = "..\..\&PC.Benchmark\&QA.predtest\BENCHA02.DTA"
   DBMS = DTA
   REPLACE;
RUN;

***************************************************************************
* Convert SAS Group files to STATA format.
***************************************************************************;
%MACRO CONVERT2STATA;
   %DO I = 1 %TO 8;
       PROC EXPORT
          DATA = INGROUP.GROUP&I
          OUTFILE = "GROUP&I..DTA"
          DBMS = DTA
          REPLACE;
       RUN;
   %END;
%MEND CONVERT2STATA;

%CONVERT2STATA;
```

G.3.D.2 Q3FY2015\PROGRAMS\BENCHMARK\QPREDTEST\vartest.do - Calculates Predicted Errors - Run Quarterly.

```
/*
   Program: vartest.do
   Author:  Eric Schone
   Modified: 1) 11/15/2006 Justin Oh, Added global variable "path"
                for assigning folder directory.
             2) 06/22/2009 Keith Rathbun, Changed fwrwt_v4 back to fwrwt
                and updated path for q3fy2009.
             3) 12/02/2010 Mike Rudacille, updated vars for 2011
             4) 12/10/2011 Mike Rudacille, updated vars for 2012
             5) 12/28/2012 Aimee Valenzuela,updated vars for 2013
             6) 09/20/2013 Amanda Kudis,updated vars for 2014
             7) 02/28/2014 Amanda Kudis, changes for compatibility with stata13
   WARNING - MUST EDIT THE GLOBAL PATH FOR EACH REPORTING PERIOD
*/


global path "N:\Project\40309_HCS\DC1\HCSDB\Q3FY2015\Programs\Benchmark"



program define initial
version 7.0

local i=1
while `i'<9{

gen str8 var=" "
gen se=.
save "$path\qpredtest\projerr`i'",replace
clear
 local i=`i'+1
}
end
program define stdlist1
version 7.0
local varlist required existing
parse "`*'"
while "`1'"~=""{

use "$path\qpredtest\bencha02",clear
keep if disp=="M10"|disp=="T10"





 gen ageund18=0 if agegroup~=.
gen age1824=0 if agegroup~=.
gen age2534=0 if agegroup~=.
gen age3544=0 if agegroup~=.
gen age4554=0 if agegroup~=.
 gen age5564=0 if agegroup~=.
gen age6574=0 if agegroup~=.

replace ageund18 = 1      if agegroup==0
replace age1824  = 1 if agegroup==1
replace age2534  = 1 if agegroup==2
replace age3544  = 1 if agegroup==3
replace age4554  = 1 if agegroup==4
replace age5564  = 1 if agegroup==5
replace age6574  = 1 if agegroup==6
keep if agegroup<6
replace `1'=10  if 8<=`1' & `1'<=10
replace `1'=0 if `1'~=. & `1'<8
replace `1'=`1'/10
egen coun=count(`1'), by(sub_id)
gen wt=1/coun
svyset strata sub_id
```

```
svyset pweight coun

egen ct=count(`1'*age1824*r15065), by(sub_id)
keep if ct>1
drop ct


svyreg `1' age1824 age2534 age3544 age4554 age5564 r15065

local i=1
while `i'<9{
use "$path\qpredtest\group`i'",clear
collapse (mean) age1824 age2534 age3544 age4554 age5564 r15065 [aw=fwrwt]
predict se, stdp
keep se
gen str8 var="`1'"
append using "$path\qpredtest\projerr`i'"
save "$path\qpredtest\projerr`i'",replace
local i=`i'+1
}
macro shift
}
end
program define stdlist2
version 7.0
local varlist required existing
parse "`*'"

while "`1'"~=""{

use "$path\qpredtest\bencha02",clear
keep if disp=="M10"|disp=="T10"









 gen ageund18=0 if agegroup~=.
gen age1824=0 if agegroup~=.
gen age2534=0 if agegroup~=.
gen age3544=0 if agegroup~=.
gen age4554=0 if agegroup~=.
 gen age5564=0 if agegroup~=.
gen age6574=0 if agegroup~=.

replace ageund18 = 1      if agegroup==0
replace age1824  = 1 if agegroup==1
replace age2534  = 1 if agegroup==2
replace age3544  = 1 if agegroup==3
replace age4554  = 1 if agegroup==4
replace age5564  = 1 if agegroup==5
replace age6574  = 1 if agegroup==6
keep if agegroup<6
replace `1'=0 if `1'~=. & `1'<3
replace `1'=1 if `1'>=2
egen coun=count(`1'), by(sub_id)
gen wt=1/coun
svyset strata sub_id
svyset pweight coun

egen ct=count(`1'*age1824*r15065), by(sub_id)
keep if ct>1
drop ct


svyreg `1' age1824 age2534 age3544 age4554 age5564 r15065
local i=1
while `i'<9{
use "$path\qpredtest\group`i'",clear
collapse (mean) age1824 age2534 age3544 age4554 age5564 r15065 [aw=fwrwt]
predict se, stdp
keep se
```

```
gen str8 var="`1'"
append using "$path\qpredtest\projerr`i'"
save "$path\qpredtest\projerr`i'",replace
export delimited "$path\qpredtest\projerr`i'",replace

local i=`i'+1

}
macro shift
}
end


set more 1

set mem 100m

log using "$path\qpredtest\varlog",replace
initial

use "$path\qpredtest\bencha02",clear
stdlist1 r15018 r15048 r15027 r15031
use "$path\qpredtest\bencha02",clear
stdlist2 r15029 r15033 r15041 r15042 r15007 r15010 r15021 r15022 r15023 r15024 r15046 r15047


log close
```

G.3.D.3 Q3FY2015\PROGRAMS\BENCHMARK\QPREDTEST\CSV2SAS_Proj.sas - Converts the Predicted Errors from STATA to SAS - Run Quarterly.

```
***************************************************************************
*
* PROGRAM:  CSV2SAS_Proj.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6401-904)
* PURPOSE:  Convert the PROJERR1-8 Files to SAS format
*
* WRITTEN:  02/19/2014 BY AMANDA KUDIS
*
* INPUTS:   1) PROJERRi.CSV - PROJERR Files created by VARTEST.DO
*                             (where i = 1 -8 = group number)
*
* OUTPUTS:  1) PROJERRi.sas7bdat - PROJERR Files created by VARTEST.DO - SAS format
*                             (where i = 1 -8 = group number)
*
* MODIFIED:
*
* NOTES:
*
***************************************************************************
* Assign data libraries and options
***************************************************************************;
LIBNAME OUT ".";

***************************************************************************
* Convert the PROJERR1-8 Files to SAS format
***************************************************************************;
%MACRO CONVERT2SAS;
   %DO I = 1 %TO 8;
       PROC IMPORT
          DATAFILE="projerr&i..csv"
          OUT=OUT.projerr&i
          DBMS=CSV
          REPLACE;
       RUN;
   %END;
%MEND CONVERT2SAS;

%CONVERT2SAS;
```

G.3.D.4 Q3FY2015\PROGRAMS\BENCHMARK\QPREDTEST\PREDCOMP.SAS - Compiles Predicted Composite Errors - Run Quarterly.

```
/*****************************************************************
/*
/*  Project:  HCSDB Adult Report Cards
/*  Program:  PREDCOMP.SAS
/*  Purpose:  Adult Report Card
/*  Requires programs STEP1Q and STEP2Q.SAS
/*
/* Modified: 1) December 1, 2014 by Matt Turbyfill, revised for the Macro Program.
*                                   Changed R14 to R&FY.
/*
/*
/*****************************************************************/
OPTIONS NOCENTER LS=132 PS=78 SOURCE SOURCE2 MLOGIC MPRINT NOOVP COMPRESS=NO;
libname in  ".";


 %MACRO COMPOSIT (TYPE=,COMPOS=,VAR1=,VAR2=,VAR3=,VAR4=,VAR5=,QCOUNT=);
 %do i=1 %to 8;
  data temp&i(keep=x se);
       set in.projerr&i end=last;
       variance=se**2;
       %do j=1 %to &qcount;
        if upcase(var)="&&var&j" then t_var+variance;
       %end;
       if last then do;
        se=t_var**.5/&qcount;
        x=&i;
         output;
       end;
  %end;
  data in.comp&compos;
    set temp1 temp2 temp3 temp4 temp5 temp6 temp7 temp8;
  run;



%MEND COMPOSIT;

*--------------------------------------;
*-       set the parameters here      -;
*--------------------------------------;
************************************;
*  call the macro for each composite;
************************************;
%COMPOSIT (type=R,compos=1,var1=R&FY.029,var2=R&FY.033,qcount=2);
%COMPOSIT (type=R,compos=2,var1=R&FY.007,var2=R&FY.010,qcount=2);
%COMPOSIT (type=R,compos=3,var1=R&FY.021,var2=R&FY.022,var3=R&FY.023,var4=R&FY.024,qcount=4);
%COMPOSIT (type=R,compos=4,var1=R&FY.041,var2=R&FY.042,qcount=2);
%COMPOSIT (type=R,compos=5,var1=R&FY.046,var2=R&FY.047,qcount=2);
```

G.3.E Q3FY2015\PROGRAMS\BENCHMARK\BENCHA04.SAS - Convert the Benchmark Scores Database into the WEB layout - Run Quarterly.

```
***************************************************************************
*
* PROGRAM:  BENCHA04.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6401-904)
* PURPOSE:  Convert the Benchmark Scores Database into the WEB layout
*
* WRITTEN:  06/01/2000 BY KEITH RATHBUN
*
* INPUTS:   1) Benchmark data sets with adjusted scores
*              (COMPn_i.sas7bdat where n = composite number and i = group number)
*
* OUTPUT:   1) BENCHA04.sas7bdat - Combined Benchmark Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*              and composite data sets
*
* MODIFIED:38) 03/23/2013 by Mike Rudacille - Updated for Q2 FY 2013.
*          39) 09/20/2014 by Amanda Kudis - Updated for Q1 FY 2014.;
/*          40) December 1, 2014 by Matt Turbyfill, revised for the Macro Program.
                                    Change YEAR to &CYYEAR.
                                    Add X = .; statement to initialize X.
                                    Change R14 to R&FY.
*/
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - BENCHA01.SAS - Extract Benchmark variables
*    - BENCHA02.SAS - Recode Benchmark variables
*    - BENCHA03.SAS - Construct Scores and SEMEAN datasets
*
* 2) The output file (BENCHA04.SAS7BDAT) will be run through the
*    MAKEHTML.SAS program to generate the WEB pages.
*
***************************************************************************
* Assign data libraries and options
***************************************************************************;
LIBNAME IN  "DATA";
LIBNAME IN2 "qpredtest";
LIBNAME OUT "DATA";
LIBNAME LIBRARY  "..\..\DATA\AFINAL\FMTLIB";


OPTIONS PS=79 LS=132 COMPRESS=NO NOCENTER;

***************************************************************************
* Load Format definitions for CAHPS Individual and composite data sets.
***************************************************************************;
%INCLUDE "..\LOADWEB\LOADCAHQ.INC";

***************************************************************************
***************************************************************************
*
* Process Macro Input Parameters:
*
* 1) CNUM = Composite or rating variable number (1-10)
* 2) GNUM = Group number (1-8)
* 3) NVAR = Number of variables in the composite
* 4) VARS = List of individual variables for composite
* 5) SE   = List of individual standard error variables
***************************************************************************;
%MACRO PROCESS(CNUM=, GNUM=, NVAR=, VARS=, SE=);
***************************************************************************
* Assign value for BENTYPE composite year
***************************************************************************;
%LET YEAR = "&CYYEAR."; * Note that this is based on Calendar Year here;

***************************************************************************
* Convert benchmark scores datasets into WEB layout.
***************************************************************************;
%IF &CNUM<6 %THEN %DO;
```

```
  DATA INP;
    SET IN2.COMP&CNUM;
     WHERE X=&GNUM;



   DATA INP;
    SET INP  IN2.PROJERR&GNUM;
    RENAME SE=SESX;
RUN;
%END;
%ELSE %DO;

   DATA INP;
    SET IN2.PROJERR&GNUM;
    RENAME SE=SESX;

       X = .;
RUN;
%END;



   DATA COMP&CNUM._&Gnum;
      SET INP;
     IF _N_=1 THEN
     SET IN.COMP&CNUM._&GNUM;
      LENGTH MAJGRP  $30;
      LENGTH REGION  $25;
      LENGTH REGCAT  $26;
      LENGTH BENTYPE $50;
      LENGTH BENEFIT $34;
      LENGTH TIMEPD  $35;   ***MJS 07/03/03 Added line;

      ********************************************************************
      * For now, assign SIG = 0
      ********************************************************************;
      SIG = 0;

      ********************************************************************
      * Assign major group
      ********************************************************************;
      MAJGRP  = PUT(&Gnum,MAJGRPF.);

      ********************************************************************
      * Assign Region and Regcat
      ********************************************************************;
      REGION  = "Benchmark";
      REGCAT  = "Benchmark";

      ********************************************************************
      * Assign benefit and benefit type
      ********************************************************************;
      IF      &CNUM = 1  THEN BENEFIT = "Getting Needed Care";
      ELSE IF &CNUM = 2  THEN BENEFIT = "Getting Care Quickly";
      ELSE IF &CNUM = 3  THEN BENEFIT = "How Well Doctors Communicate";
      ELSE IF &CNUM = 4  THEN BENEFIT = "Customer Service";
      ELSE IF &CNUM = 5  THEN BENEFIT = "Claims Processing";
      ELSE IF &CNUM = 6  THEN BENEFIT = "Health Care";
      ELSE IF &CNUM = 7  THEN BENEFIT = "Health Plan";
      ELSE IF &CNUM = 8  THEN BENEFIT = "Primary Care Manager";
      ELSE IF &CNUM = 9  THEN BENEFIT = "Specialty Care";

      BENTYPE = "Composite";   ***MJS 07/03/03 Changed from BENTYPE = PUT(&YEAR,$BENTYPF.);
      TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added;
       IF &CNUM<6 THEN DO;
          IF X=&GNUM THEN DO;
      ********************************************************************
      * Assign composite score and SEMEAN
      ********************************************************************;
            SCORE = TOTADJ;
            SEMEAN = SQRT(SDE**2+SESX**2);
```

```
      ********************************************************************
      * Output composite score record for each REGION
      ********************************************************************;
            OUTPUT;
          END;
       END;
      ********************************************************************
      * Now, output the individual score records
      ********************************************************************;
      IF &NVAR GT 1|&CNUM>5 THEN DO;
         ARRAY ITEMS &VARS;
         ARRAY SE    &SE;
         LENGTH NAME $8;
         DO I = 1 TO DIM(ITEMS); DROP I;
            CALL VNAME(ITEMS(I),NAME);
                      /*z = DIM(ITEMS);
                      z1=vname(items(1));*/
            NAME = SUBSTR(NAME,1,6);
            SCORE  = ITEMS(I);
            SEMEAN = SQRT(SE(I)**2+SESX**2);
            IF &NVAR GT 1 THEN
            BENTYPE = PUT(NAME,$BENTYPF.);
            TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added;
       IF COMPRESS(UPCASE(NAME))=COMPRESS(UPCASE(VAR)) THEN OUTPUT;
         END;
      END;

   KEEP MAJGRP
        REGION
        REGCAT
        BENTYPE
        BENEFIT
        TIMEPD   /*MJS 07/03/03 Added*/
        SEMEAN
        SCORE
        SIG
      ;
   RUN;

%MEND;

*************************************************************************
*************************************************************************
* Process each of the 8 Groups.
*************************************************************************
*************************************************************************;
%MACRO DOIT;
%DO I = 1 %TO 8;
   ***********************************************************************
   * COMPOSITE # 1.
   * GETTING NEEDED CARE VARIABLES.
   ***********************************************************************;
  %PROCESS(CNUM=1, GNUM=&I, NVAR=2, VARS=R&FY.029_&I R&FY.033_&I,
         SE=S_R&FY.029 S_R&FY.033);

   ***********************************************************************
   * COMPOSITE # 2.
   * GETTING CARE QUICKLY VARIABLES.
   ***********************************************************************;
   %PROCESS(CNUM=2, GNUM=&I, NVAR=2, VARS=R&FY.007_&I R&FY.010_&I,
         SE=S_R&FY.007 S_R&FY.010);

   ***********************************************************************
   * COMPOSITE # 3.
   * HOW WELL DOCTORS COMMUNICATE.
   ***********************************************************************;
   %PROCESS(CNUM=3, GNUM=&I, NVAR=4, VARS=R&FY.021_&I R&FY.022_&I R&FY.023_&I R&FY.024_&I,
         SE=S_R&FY.021 S_R&FY.022 S_R&FY.023 S_R&FY.024);

   ***********************************************************************
   * COMPOSITE # 4.
   * CUSTOMER SERVICE.
   ***********************************************************************;
   %PROCESS(CNUM=4, GNUM=&I, NVAR=2, VARS=R&FY.041_&I R&FY.042_&I,
```

```
      SE=S_R&FY.041 S_R&FY.042);

   ************************************************************************
   * COMPOSITE # 5.
   * CLAIMS PROCESSING.
   ************************************************************************;
   %PROCESS(CNUM=5, GNUM=&I, NVAR=2, VARS=R&FY.046_&I R&FY.047_&I,
      SE=S_R&FY.046 S_R&FY.047);

   ************************************************************************
   * INDIVIDUAL # 1.
   * RATING OF ALL HEALTH CARE: 0 - 10.
   ************************************************************************;
   %PROCESS(CNUM=6, GNUM=&I, NVAR=1, VARS=R&FY.018_&I, SE=S_R&FY.018);

   ************************************************************************
   * INDIVIDUAL # 2.
   * RATING OF HEALTH PLAN: 0 - 10.
   ************************************************************************;
   %PROCESS(CNUM=7, GNUM=&I, NVAR=1, VARS=R&FY.048_&I, SE=S_R&FY.048);

   ************************************************************************
   * INDIVIDUAL # 3.
   * RATING OF PERSONAL DOCTOR: 0 - 10.
   ************************************************************************;
   %PROCESS(CNUM=8, GNUM=&I, NVAR=1, VARS=R&FY.027_&I, SE=S_R&FY.027);

   ************************************************************************
   * INDIVIDUAL # 4.
   * SPECIALTY CARE: 0 - 10.
   ************************************************************************;
   %PROCESS(CNUM=9, GNUM=&I, NVAR=1, VARS=R&FY.031_&I, SE=S_R&FY.031);
%END;
%MEND DOIT;
%DOIT;

***************************************************************************
***************************************************************************
* STACK up all of the files into one final output dataset.
***************************************************************************
***************************************************************************;
DATA OUT.BENCHA04;
   SET COMP1_1  COMP1_2  COMP1_3  COMP1_4  COMP1_5  COMP1_6  COMP1_7  COMP1_8
       COMP2_1  COMP2_2  COMP2_3  COMP2_4  COMP2_5  COMP2_6  COMP2_7  COMP2_8
       COMP3_1  COMP3_2  COMP3_3  COMP3_4  COMP3_5  COMP3_6  COMP3_7  COMP3_8
       COMP4_1  COMP4_2  COMP4_3  COMP4_4  COMP4_5  COMP4_6  COMP4_7  COMP4_8
       COMP5_1  COMP5_2  COMP5_3  COMP5_4  COMP5_5  COMP5_6  COMP5_7  COMP5_8
       COMP6_1  COMP6_2  COMP6_3  COMP6_4  COMP6_5  COMP6_6  COMP6_7  COMP6_8
       COMP7_1  COMP7_2  COMP7_3  COMP7_4  COMP7_5  COMP7_6  COMP7_7  COMP7_8
       COMP8_1  COMP8_2  COMP8_3  COMP8_4  COMP8_5  COMP8_6  COMP8_7  COMP8_8
       COMP9_1  COMP9_2  COMP9_3  COMP9_4  COMP9_5  COMP9_6  COMP9_7  COMP9_8
    ;
    IF SCORE = . THEN DELETE;
RUN;

TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6663-410)";
TITLE2 "Program Name: BENCHA04.SAS By Keith Rathbun";
TITLE3 "Program Inputs: Benchmark Individual and Composite data sets with adjusted scores";
TITLE4 "Program Outputs: BENCHA04.SAS7BDAT - Combined Benchmark Scores Database in WEB layout";

PROC CONTENTS; RUN;

PROC FREQ;
TABLES TIMEPD BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

G.4.A Q3FY2015\PROGRAMS\REPORTCARDS\MPR_ADULTQ3FY2015\PRVCOMPQ.SAS - Calculate Preventive Care Composite Scores - Run Quarterly.

```
*****************************************************************
*  Project:   DoD Reporting and Analysis 6077-410
*  Program:   PRVCOMPQ.SAS
*  Author:    Chris Rankin
*  Date:      12/22/2000
*  Modified:  4/19/2001 By Keith Rathbun: Restrict population to
*             xins_cov in(1,2,3,6).  Use POSTSTR instead of
*             adj_cell.
*  Modified:  03/05/2012 By Amanda Kudis Updated %LET INDATA and YRDATA HCS122_2.
*             06/20/2012 By Amanda Kudis Updated for Q3FY2012.
*             08/23/2012 By Christine Cheu Updated for Q4FY2012.
*             11/03/2012 By Mike Rudacille Updated for handling of
*                        Joint Service facilities
*             12/28/2012 By Aimee Valenzuela Updated for Q1FY2013
*             03/23/2013 By Mike Rudacille Updated %LET INDATA and YRDATA HCS132_2.
*             05/17/2013 By Mike Rudacille Modified coded to address SUDAAN V11 handling
*                        of PROC DESCRIPT without LEVELS. Now invoking PROC DESCRIPT
*                        for TABLEVAR=USA (i.e. CONUS cases) similarly to the other cases,
*                        except using LEVELS 1.
*             9/23/2013 By Amanda Kuids Updated for Q1FY2014
*             2/27/2014 By Amanda Kudis changed xservaff to use version in database
*             12/1/2014 By Matt Turbyfill, revised for the Macro Program.
                                                Changed INNORM to "&NORMDATA."
                                                Replaced RCTYPE with &PC.ReportCards
                                                Changed NORMDAT to &NORMFILE.
                                                Changed INDATA and YRDATA to &DATAFILE.
                                                Changed first LIBRARY to "&NORMFMTLIB."
                                                Changed H11 to H&NY.
                                                Changed H14 to H&FY.
                                                Removed line referencing      JOINTSRV in
the NORMDATA step.
                                                Added %DO loop declaring all values of
SEMV&I. equal to 0.*

*  Purpose:   Calculate MPR Preventive Care Composites
*  Input:     HCSyyq_2.sas7bdat
*  Output:    RFINAL.sas7bdat
*             CFINAL.sas7bdat
*             MFINAL.sas7bdat
*             SFINAL.sas7bdat
*
*  Include
*   Files:    LOADCAHPQ.INC
*   Notes:    Next program is Loadmprq.sas
*
*             ***CHECK PARAMETER ASSIGNMENTS***
*****************************************************************;

OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 MLOGIC MPRINT
        NOFMTERR COMPRESS=YES;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards                ***/
%LET RCTYPE = &PC.ReportCards;

LIBNAME IN           "..\..\..\DATA\AFINAL";
LIBNAME INNORM       "&NORMDATA.";
LIBNAME OUT          ".";
LIBNAME LIBRARY      "..\..\..\DATA\AFINAL\FMTLIB";

%LET WGT=FWRWT;
%LET NORMWGT = CFWT;
%LET NORMDAT = &NORMFILE.;

%LET DEBUG=Y;      /** Set to Y for Debug print of datasets **/
%LET INDATA=&DATAFILE.;

%LET YRDATA=&DATAFILE.;

/***** The following parameters are used in the Variance ****/
/***** calcuation macro for region and catchment area    ****/
```

```
%LET GRPNUM=8;      /** number of groups          **/
%LET COMPNUM=6;     /** number of variables       **/  /* RSG - 04/2005 changed from 8 to 7
(eliminate cholesterol)*/
                                                       /* MER - 12/21/11 changed from 7 to 6
(eliminate 15 min access var)*/
%LET REGNUM=18;     /** number of regions         **/  /* RSG - 01/2005 CHANGED TO FIT THE 16
CATEGORIES OF XSERVREG */
                                                       /* JSO 08/24/2006 (16 TO 15) Changed
Overseas Regions*/
                                                       /* MER 11/03/2012 (15 TO 18) Joint
Service */
%LET CATCHNUM=9999; /** number of catchment areas **/

%LET CMPNUM1=4;    /** number of variables in first composite  **/   /*RSG 04/2005 Changed
CMPNUM1 from 5 to 4*/
%LET CMPNUM2=2;    /** number of variables in second composite **/   /*MJS 04/30/03 Changed
CMPNUM2 from 4 to 3*/
                                                                     /*MER 12/27/11 Changed
CMPNUM2 from 3 to 2*/

%LET COMPCNT=2;    /** number of composites                   **/

**** set up benchmarks for preventive services ;
**** note -- these are the hp 2000 goals       ;
**** MER 3/31/11 - updated to hp 2020 goals    ;

%LET GOALVAR1= .78;    /** HP Goal for prenatal care        **/
%LET GOALVAR2= .81;    /** HP Goal for Mammography          **/
%LET GOALVAR3= .93;    /** HP Goal for Papsmear             **/
%LET GOALVAR4= .95;    /** HP Goal for Blood Pressure check **/
%LET GOALVAR5= .90;    /** access goals                     **/ /*04/2005 - RSG: DELETED
CHOLESTEROLE GOAL*/
%LET GOALVAR6= .90;

%INCLUDE "..\..\LOADWEB\LOADCAHQ.INC";

/**** note -- output all data to a single dataset for macro */
/**** call                                                  */
/**** MACROS are no longer called for catchment areas       */

/* 08/24/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
LIBNAME LIBRARY "&NORMFMTLIB.";


DATA NORMDATA(KEEP=XTNEXREG XSERVREG &WGT PRVVAR1-PRVVAR&COMPNUM. NUMV1-NUMV&COMPNUM.
                  DENV1-DENV&COMPNUM XSERVAFF FIELDAGE);
                  /* 11/15/2006 JSO Added FIELDAGE in the keep statement */

  SET INNORM.&NORMDAT(KEEP=MPRID XINS_COV HP_BP HP_MAMOG HP_PAP HP_PRNTL XTNEXREG
                           XENR_PCM XBNFGRP ENBGSMPL &NORMWGT DBENCAT
                           H&NY.010 H&NY.007 H&NY.003 SERVAFF XREGION FIELDAGE XCATCH);
                      /* 08/24/2006 JSO Added XREGION in the keep statement to get XOCONUS */
                      /* 11/15/2006 JSO Added FIELDAGE in the keep statement */
                      /* 05/10/2007 JSO Added H05006, DBENCAT in the keep statement */
                      /* 12/21/2011 MER For switch to 2011 norm data mapped the following vars:
*/
                      /* H05006 -> H&NY.003
*/
                      /* H05007 -> H&NY.004 (subsequently taken out due to not being necessary
*/
                      /* H05019 -> H&NY.007
*/
                      /* H05022 -> H&NY.010
*/
                      /* H05030 and ADJ_CELL were dropped                                    */

***********************************************************************
* For quarterly reports, catchment level reporting is not done
* so the value of cellp is set to 1.
* For annual reporting purposes, cellp will need to be assigned
* to geocell
***********************************************************************;
```

```
/*RSG 02/2005 Added codes to define XTNEXREG & XSERVAFF*/

     IF SERVAFF = 'A' THEN XSERVAFF = 1;        *Army;
     ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;   *Air Force;
     ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;   *Navy;
     ELSE XSERVAFF = 4;                         *Other/unknown;

  IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

  IF XTNEXREG = . THEN DELETE;

  IF XINS_COV NOT IN(1,2,3,6,9,10,11) THEN DELETE;  /*JSO 07/30/2007, Added 9*/ /*MER 07/12/11
added 10, 11*/


  NXNS_COV = XINS_COV;              /*JSO 04/26/2007 added for reservists logic*/
                                    /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
  IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
  IF DBENCAT IN('GRD','IGR') AND H&NY.003 = 3 THEN DO;
     NXNS_COV = 3;
     XENR_PCM = .;
  END;

  PRVVAR1=HP_PRNTL;        /** prenatal care  **/
  PRVVAR2=HP_MAMOG;        /** mammography    **/
  PRVVAR3=HP_PAP;          /** papsmear       **/
  PRVVAR4=HP_BP;           /** blood pressure **/
  PRVVAR5=H&NY.010;          /** access var 1   **/
  PRVVAR6=H&NY.007;          /** access var 2   **/

/**** set up numerator and denominator for proportions ****/

  ARRAY PRVVAR(*) PRVVAR1-PRVVAR&COMPNUM;
  ARRAY  NUMER(*) NUMV1-NUMV&COMPNUM;
  ARRAY  DENOM(*) DENV1-DENV&COMPNUM;

  DO I = 1 TO &COMPNUM;
     IF I LE  &CMPNUM1 THEN DO;
        IF PRVVAR(I) = 1 THEN NUMER(I) = 1;
        ELSE NUMER(I)=0;
        IF PRVVAR(I) IN (1, 2) THEN DENOM(I)=1;
     END;
     ELSE IF I GT &CMPNUM1 THEN DO;
        IF PRVVAR(I) IN (1, 2) THEN NUMER(I)=1;
        ELSE NUMER(I)=0;
        IF PRVVAR(I) > 0 THEN DENOM(I)=1;
     END;
  END;
  DROP I;
  DENV4=1;

 /* 08/22/2006, JSO Create XOCONUS for 2005 data */
    IF      XREGION=13 THEN XOCONUS=1;
    ELSE IF XREGION=14 THEN XOCONUS=2;
    ELSE IF XREGION=15 THEN XOCONUS=3;

 /*RSG 02/2005 Added codes to define XSERVREG CACSMPL*/

    IF XTNEXREG = 1 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 1;
       ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
       ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
       ELSE IF XSERVAFF = 4 THEN XSERVREG = 4;
       ELSE XSERVREG = 5;
    END;

    IF XTNEXREG = 2 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 6;
       ELSE IF XSERVAFF = 2 THEN XSERVREG = 7;
       ELSE IF XSERVAFF = 3 THEN XSERVREG = 8;
       ELSE IF XSERVAFF = 4 THEN XSERVREG = 9;
       ELSE XSERVREG = 10;
    END;
```

```
    IF XTNEXREG = 3 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 11;
       ELSE IF XSERVAFF = 2 THEN XSERVREG = 12;
       ELSE IF XSERVAFF = 3 THEN XSERVREG = 13;
       ELSE IF XSERVAFF = 4 THEN XSERVREG = 14;
       ELSE XSERVREG = 15;
    END;

    IF XTNEXREG = 4 THEN DO; /*JSO 08/22/2006, Changed Overseas Regions*/
       IF      XOCONUS = 1 THEN XSERVREG = 16;
       ELSE IF XOCONUS = 2 THEN XSERVREG = 17;
       ELSE IF XOCONUS = 3 THEN XSERVREG = 18;
    END;

   RENAME &NORMWGT = &WGT;
run;

/* 08/22/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
LIBNAME LIBRARY  "..\..\..\Data\Afinal\fmtlib";

DATA &YRDATA(KEEP=BGROUP MHS USA XSERVAFF CACSMPL &WGT TMP_CELL
                  PRVVAR1-PRVVAR&COMPNUM. NUMV1-NUMV&COMPNUM.
                  DENV1-DENV&COMPNUM XTNEXREG XSERVREG FIELDAGE);
                  /* 11/15/2006 JSO Added FIELDAGE in the keep statement */

  SET IN.&INDATA(KEEP=XINS_COV HP_BP XTNEXREG HP_MAMOG HP_PAP HP_PRNTL   /*RSG 04/2005 DELETE
HP_CHOL*/
                      XREGION SERVAFF XENR_PCM XBNFGRP ENBGSMPL &WGT CACSMPL XCATCH
                      STRATUM H&FY.010 H&FY.007 H&FY.004 H&FY.003 D_HEALTH FIELDAGE DBENCAT);
                      /* 11/15/2006 JSO Added FIELDAGE in the keep statement */
                      /* 05/10/2007 JSO Added H07006, DBENCAT in the keep statement */

***************************************************************************
* For quarterly reports, catchment level reporting is not done
* so the value of cellp is set to 1.
* For annual reporting purposes, cellp will need to be assigned
* to geocell
***************************************************************************;
  IF SERVAFF = 'A' THEN XSERVAFF = 1;        *Army;
  ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;   *Air Force;
  ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;   *Navy;
  ELSE XSERVAFF = 4;                         *Other/unknown;

  IF PUT(XCATCH, JOINTSRV.)='1' THEN XSERVAFF=5; *Joint Service;

  CELLP = 1;
  LENGTH TMP_CELL 8;
  TMP_CELL = STRATUM;   /* Make STRATUM a numeric variable */

  IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

  IF XTNEXREG = . THEN DELETE;

  IF XINS_COV NOT IN(1,2,3,6,9,10,13,14) THEN DELETE;  /*JSO 07/30/2007, Added 9*/ /*MER
07/12/11 Added 10,11 */ /*AMK 2/13/14 removed 11 added 13/14*/

  NXNS_COV = XINS_COV;   /*JSO 05/14/2007 added for reservists logic*/
                         /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
  IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
  IF DBENCAT IN('GRD','IGR') AND H&FY.003 = 3 THEN DO;
     NXNS_COV = 3;
     XENR_PCM = .;
  END;

  PRVVAR1=HP_PRNTL;        /** prenatal care  **/
  PRVVAR2=HP_MAMOG;        /** mammography    **/
  PRVVAR3=HP_PAP;          /** papsmear       **/
  PRVVAR4=HP_BP;           /** blood pressure **/
  /*RSG 04/2005 - delete cholesterol, renumber PRVVAR below*/
  PRVVAR5=H&FY.010;          /** access var 1   **/
  PRVVAR6=H&FY.007;          /** access var 2   **/


/**** set up numerator and denominator for proportions ****/
```

```
  ARRAY PRVVAR(*) PRVVAR1-PRVVAR&COMPNUM;
  ARRAY  NUMER(*) NUMV1-NUMV&COMPNUM;
  ARRAY  DENOM(*) DENV1-DENV&COMPNUM;

  DO I = 1 TO &COMPNUM;
     IF I LE  &CMPNUM1 THEN DO;
        IF PRVVAR(I) = 1 THEN NUMER(I) = 1;
        ELSE NUMER(I)=0;
        IF PRVVAR(I) IN (1, 2) THEN DENOM(I)=1;
     END;
     ELSE IF I GT &CMPNUM1 THEN DO;
        IF PRVVAR(I) IN (1, 2) THEN NUMER(I)=1;
        ELSE NUMER(I)=0;
        IF PRVVAR(I) > 0 THEN DENOM(I)=1;
     END;
  END;
  DROP I;
  DENV4=1;

  MHS= 1;   /* set up dummy for MHS-- include all observations */

 /* 08/22/2006, JSO Create XOCONUS for 2005 data */
  IF      XREGION=13 THEN XOCONUS=1;
  ELSE IF XREGION=14 THEN XOCONUS=2;
  ELSE IF XREGION=15 THEN XOCONUS=3;

  IF XTNEXREG = 1 THEN DO;
     IF XSERVAFF = 1 THEN XSERVREG = 1;
     ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
     ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
     ELSE IF XSERVAFF = 4 THEN XSERVREG = 4;
     ELSE XSERVREG = 5;
  END;

  IF XTNEXREG = 2 THEN DO;
     IF XSERVAFF = 1 THEN XSERVREG = 6;
     ELSE IF XSERVAFF = 2 THEN XSERVREG = 7;
     ELSE IF XSERVAFF = 3 THEN XSERVREG = 8;
     ELSE IF XSERVAFF = 4 THEN XSERVREG = 9;
     ELSE XSERVREG = 10;
  END;

  IF XTNEXREG = 3 THEN DO;
     IF XSERVAFF = 1 THEN XSERVREG = 11;
     ELSE IF XSERVAFF = 2 THEN XSERVREG = 12;
     ELSE IF XSERVAFF = 3 THEN XSERVREG = 13;
     ELSE IF XSERVAFF = 4 THEN XSERVREG = 14;
     ELSE XSERVREG = 15;
  END;

  IF XTNEXREG = 4 THEN DO; /*JSO 08/22/2006, Changed Overseas Regions*/
     IF      XOCONUS = 1 THEN XSERVREG = 16;
     ELSE IF XOCONUS = 2 THEN XSERVREG = 17;
     ELSE IF XOCONUS = 3 THEN XSERVREG = 18;
  END;

***************************************************************************
* Assign indicator of CONUS based on XTNEXREG.  CONUS stands for
* Contential United States it but includes both Alaska and Hawaii.
* 1/16/09 Changed CONUS to USA.
***************************************************************************;
  IF XTNEXREG IN (1,2,3) THEN USA=1;                                /*RSG 01/2005 OVERALL
CONUS*/

  ELSE IF XTNEXREG = 4 THEN USA=2;

* Prime enrollees     *;

  IF (NXNS_COV IN (1,2,6,13) AND H&FY.004>=2) THEN DO; /*AMK 2/19/14 added 13*/
     BGROUP=1;
     OUTPUT;
  END;
```

```
* Enrollees with military PCMs *; /*JSO 04/05/2007, added conditions for RC type*/
IF "&RCTYPE" = 'ReportCards' AND
     (XENR_PCM IN (1,2,6) AND H&FY.004>=2) THEN DO;
     BGROUP=2;
     OUTPUT;
  END;
ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
     (XENR_PCM IN (1,2) AND H&FY.004>=2) THEN DO;
     BGROUP=2;
     OUTPUT;
  END;

* Enrollees with civilian PCMs *; /*JSO 04/05/2007, added conditions for RC type*/
IF "&RCTYPE" = 'ReportCards' AND
     (XENR_PCM IN (3,7) AND H&FY.004>=2) THEN DO;
     BGROUP=3;
     OUTPUT;
  END;
ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
     ((XENR_PCM IN (3) AND H&FY.004>=2) OR NXNS_COV IN (3,9,10,14)) THEN DO;  /*JSO 07/30/2007,
Added 9*/
     BGROUP=3;                                                          /*MER 07/12/11 Added
10*/ /*AMK 2/13/14 added  14*/
     OUTPUT;
  END;

* Nonenrollees *;

  IF NXNS_COV IN (3,9,10, 14) THEN DO; /*JSO 08/24/2006, Deleted 4,5*/
     BGROUP=4;                     /*JSO 07/30/2007, Added 9*/  /*MER 07/12/11 Added 10*/ /*AMK
2/13/14 added  14*/
     OUTPUT;
  END;

* Active duty      *;

  IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
     BGROUP=5;        /*JSO 07/30/2007, added DBENCAT conditions*/
     OUTPUT;
  END;

* Active duty dependents  *;

  IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN DO;
     BGROUP=6;        /*JSO 07/30/2007, added DBENCAT conditions*/
     OUTPUT;
  END;

* Retirees  *;

  IF XBNFGRP IN (3,4) THEN DO;
     BGROUP=7;
     OUTPUT;
  END;

* All beneficiaries *;

  BGROUP=8;
  OUTPUT;
RUN;


DATA HCSDB;
SET &YRDATA;
RUN;

*******************************************************
*** First, calculate standard errors and create     ***
*** a file for each analytical unit                 ***
*******************************************************;

PROC SORT DATA=HCSDB; BY TMP_CELL;
RUN;
```

```
*****************************************************
***** Sudaan macro to calculate standard errors   *****
***** there are three output datasets created     *****
***** (XTNEXREG, XSERVREG, MHS, XSERVAFF)                     *****
***** Note:  7/10/2000 use CONUS for MHS          *****
***** Note:  there are 8 variables and 8 groups   *****
***** Note:  1/16/09 Changed CONUS to USA         *****
*****************************************************;

%MACRO A_SUDAAN(TABLEVAR);

*** set the number of levels in the proc descript ***;
*** for region or catchment                      ***;

 %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
     %LET ENDNUM=4;
     %LET PREF=S;         /** dataset prefix for service affiliation data    **/
 %END;
 %IF %UPCASE(&TABLEVAR)=XSERVREG %THEN %DO;
     %LET ENDNUM=&REGNUM;
     %LET PREF=R;         /** dataset prefix for region data    **/
 %END;
 %ELSE %IF %UPCASE(&TABLEVAR)=USA %THEN %DO;
     %LET ENDNUM=1;
     %LET PREF=C;         /** dataset prefix for CONUS data **/
 %END;
 %ELSE %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
     %LET ENDNUM=5;      /** MER 11/03/2012 Change from 4 to 5 for Joint Service **/
     %LET PREF=M;
 %END;

 %DO I=1 %TO &GRPNUM;     /** 8 groups    **/

     %DO J=1 %TO &COMPNUM;   /** 6 variables **/

         DATA INDATA&I.&J(KEEP=&WGT MHS USA XSERVAFF XTNEXREG XSERVREG CACSMPL
                              XSERVAFF NUMV&J DENV&J TMP_CELL);
           SET HCSDB;
           WHERE XSERVREG > 0 AND BGROUP=&I AND DENV&J > 0;
           %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
               IF XSERVAFF > 5 OR XSERVAFF = . THEN DELETE;  /*MER 11/03/2012 Changed from 4 to
5 for Joint Service */
           %END;
           %IF %UPCASE(&TABLEVAR)=USA %THEN %DO;
               IF USA NE 1 THEN DELETE;
           %END;
           %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
               IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
           %END;
         RUN;

*** Calculate values for regions, catchment areas ****;

         PROC DESCRIPT DATA=INDATA&I.&J DESIGN=STRWR NOPRINT;
             WEIGHT &WGT;
             SETENV DECWIDTH=4;
             NEST TMP_CELL / MISSUNIT;
             VAR NUMV&J;
             TABLES &TABLEVAR;
             SUBGROUP &TABLEVAR;
             LEVELS &ENDNUM;
             OUTPUT SEMEAN/ TABLECELL=DEFAULT
             FILENAME=&PREF.GRP&I.V&J;
         RUN;


***** first, put all variables into one dataset for each group *****;

         DATA &PREF.GRP&I.V&J;
            SET &PREF.GRP&I.V&J;
            IF SEMEAN NE .;
            MHS=1;
         RUN;
```

```
         %IF &J=1 %THEN %DO;
            DATA &PREF.SEGRP&I;
               SET &PREF.GRP&I.V&J(KEEP=&TABLEVAR SEMEAN);
               GROUP=&I;
               IF SEMEAN NE .;
               RENAME SEMEAN = SERRV&J;
            RUN;
         %END;
         %ELSE %DO;
            DATA &PREF.SEGRP&I;
               MERGE &PREF.SEGRP&I &PREF.GRP&I.V&J(KEEP=&TABLEVAR SEMEAN);
               BY &TABLEVAR;
               GROUP=&I;
               RENAME SEMEAN = SERRV&J;
            RUN;
         %END;
     %END;

***** Put all data into one dataset  *****
***** Note:  changed output dataset  *****
***** to include group               *****;

     %IF &I=1 %THEN %DO;

        DATA &PREF.SERR;
           SET &PREF.SEGRP&I;
           KEEP GROUP &TABLEVAR SERRV1-SERRV&COMPNUM;
        RUN;
     %END;
     %ELSE %DO;

        DATA &PREF.SERR;
           SET &PREF.SERR
           &PREF.SEGRP&I;
        RUN;
     %END;

******** DEBUG PRINT   *******;

     %IF &DEBUG=Y %THEN %DO;
        %IF &I=&GRPNUM AND &PREF=R %THEN %DO;
             PROC PRINT DATA=&PREF.SERR;
                VAR &TABLEVAR GROUP SERRV1-SERRV&COMPNUM;
             RUN;
        %END;
     %END;

 %END;

%MEND A_SUDAAN;

%A_SUDAAN (USA);
%A_SUDAAN (XSERVAFF);
%A_SUDAAN (XSERVREG);
%A_SUDAAN (XTNEXREG);

*******************************************************
*** Next, calculate correlation coefficients         ***
*** and create a file for each analytical unit       ***
*******************************************************;

%MACRO GETCORR(BYVAR);

 %IF %UPCASE(&BYVAR)=XTNEXREG %THEN %LET PREF=S;
 %ELSE %IF %UPCASE(&BYVAR)=XSERVREG %THEN %LET PREF=R;
 %ELSE %IF %UPCASE(&BYVAR)=USA %THEN %LET PREF=C;
 %ELSE %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %LET PREF=M;

 PROC SORT DATA=HCSDB; BY &BYVAR;
 RUN;

 %DO I = 1 %TO &GRPNUM;

    PROC CORR NOPRINT DATA=HCSDB OUTP=&PREF.CORRC&I;
```

```
       %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %DO;
          WHERE BGROUP=&I AND 1 <= XSERVAFF <= 5;     /** MER 11/03/2012 Changed 4 to 5 for
Joint Service **/
       %END;
       %IF %UPCASE(&BYVAR)=USA %THEN %DO;
          WHERE BGROUP=&I AND USA = 1;
       %END;
       %ELSE %DO;
          WHERE BGROUP=&I;
       %END;
       BY &BYVAR;
       VAR PRVVAR1-PRVVAR&COMPNUM;
       WITH PRVVAR1-PRVVAR&COMPNUM;
       WEIGHT &WGT;
    RUN;

    DATA &PREF.CORRC&I;
      SET &PREF.CORRC&I;
      WHERE _TYPE_="CORR";
      GROUP=&I;
      ARRAY OLD PRVVAR1-PRVVAR&COMPNUM;
      ARRAY NEW CORV1-CORV&COMPNUM;
      DO J = 1 TO &COMPNUM;
         NEW(J)=OLD(J);
      END;
      DROP J PRVVAR1-PRVVAR&COMPNUM;
    RUN;

    %IF &I=1 %THEN %DO;

       DATA &PREF.CORRC;
         SET &PREF.CORRC&I;
       RUN;

    %END;
    %ELSE %DO;

       DATA &PREF.CORRC;
         SET &PREF.CORRC
         &PREF.CORRC&I;
       RUN;

    %END;
    %IF &DEBUG=Y %THEN %DO;
        %IF &I=&COMPNUM AND &PREF=R %THEN %DO;
           PROC PRINT DATA=&PREF.CORRC;
              WHERE GROUP=1;
           RUN;
        %END;
    %END;
 %END;

*** Flatten dataset(for each region, condense matrix to one row) ***;

 %DO K=1 %TO &COMPNUM;

    DATA &PREF.CORR&K;
      SET &PREF.CORRC;
      WHERE _NAME_ = "PRVVAR&K";
      ARRAY CORR   (&COMPNUM) CORV1-CORV&COMPNUM;
      ARRAY CORR&K (&COMPNUM) CORV&K.1-CORV&K.&COMPNUM;
      DO L=1 TO &COMPNUM;
         CORR&K(L)=CORR(L);
      END;
      KEEP GROUP &BYVAR CORV&K.1-CORV&K.&COMPNUM;
    RUN;
    %IF &K=1 %THEN %DO;
        DATA &PREF.CORR;
          SET &PREF.CORR&K;
        RUN;
    %END;
    %ELSE %DO;
       DATA &PREF.CORR;
         MERGE &PREF.CORR(IN=IN_1) &PREF.CORR&K(IN=IN_2);
```

```
          BY GROUP &BYVAR;
       RUN;
    %END;
    %IF &DEBUG=Y %THEN %DO;
       %IF &PREF=R %THEN %DO;
          PROC PRINT DATA=&PREF.CORR;
             WHERE GROUP=1;
          RUN;
       %END;
     %END;
 %END;

%MEND GETCORR;

%GETCORR(USA);
%GETCORR(XSERVAFF);
%GETCORR(XSERVREG);
%GETCORR(XTNEXREG);

*******************************************************
***  Macro to derive composites for each         *******
***  beneficiary group, level                    *******
***  output one dataset for each group           *******
*******************************************************;

%MACRO GETPROP(BYVAR);

 %LET START = %EVAL(&CMPNUM1+1);

 %IF %UPCASE(&BYVAR)=XSERVREG %THEN %LET PREF=R;
 %ELSE %IF %UPCASE(&BYVAR)=USA %THEN %LET PREF=C;
 %ELSE %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %LET PREF=M;
 %ELSE %IF %UPCASE(&BYVAR)=XTNEXREG %THEN %LET PREF=S;


 PROC MEANS NWAY NOPRINT DATA=HCSDB;
    CLASS BGROUP &BYVAR;
    VAR NUMV1-NUMV&COMPNUM
        DENV1-DENV&COMPNUM;
    WEIGHT &WGT;
    OUTPUT OUT= &PREF.CMPSUM(DROP = _TYPE_)
    SUM =  ;
 RUN;
 PROC MEANS NWAY NOPRINT DATA=normdata;
 *   CLASS &BYVAR;
    VAR
        DENV1-DENV&COMPNUM;
    WEIGHT &wgt.;
    OUTPUT OUT= &PREF.norms(DROP = _TYPE_)
    SUM =  nrmv1-nrmv&compnum;
 RUN;

 PROC MEANS NWAY NOPRINT DATA=HCSDB;
    CLASS BGROUP &BYVAR;
    VAR DENV1-DENV&COMPNUM;
    OUTPUT OUT=&PREF.DGFR(DROP=_TYPE_ _FREQ_)
    SUM= NOBSV1-NOBSV&COMPNUM;
 RUN;

data &pref.cmpsum;

if _n_=1 then set &pref.norms;
set &pref.cmpsum;
proc sort data=&pref.cmpsum; by bgroup &byvar;
 DATA &PREF.CMPSUM;
    MERGE &PREF.CMPSUM(RENAME=(_FREQ_=N_OBS))
          &PREF.DGFR;
    BY BGROUP &BYVAR;
    %IF &PREF=M %THEN %DO;  /** added 7/10/2000 **/
        WHERE 1 <= XSERVAFF <= 5;  /** MER 11/03/2012 Changed 4 to 5 for Joint Service **/
    %END;
    %ELSE %IF &PREF=C %THEN %DO;
        WHERE USA = 1;
    %END;
```

```
   **** set up group variable  **;

    RENAME BGROUP=GROUP;;

   **** set up proportions, and composites **;

   ARRAY PROPORT PROPV1-PROPV&COMPNUM;
   ARRAY NUMER   NUMV1-NUMV&COMPNUM;
   ARRAY DENOM   DENV1-DENV&COMPNUM;
   array norm    nrmv1-nrmv&compnum;

   DO J=1 TO DIM(PROPORT);
      PROPORT(J) = NUMER(J)/DENOM(J);
   END;
   DROP J;

  **** composites **;


** added goalvars to datastep, 5/30/2000                 ;
** taken out of temporary array for variance calculations;
** and used, kept as variables                            ;

  GOALVAR1=&GOALVAR1;
  GOALVAR2=&GOALVAR2;
  GOALVAR3=&GOALVAR3;
  GOALVAR4=&GOALVAR4;
  GOALVAR5=&GOALVAR5;
  GOALVAR6=&GOALVAR6;
/*RSG 04/2005 - delete goal8 since chol eliminated*/

** the weight for preventive service is defined as the         ;
** proportion of the denominator for that service to the       ;
;
** composite denominator                                       ;
** healthy people 2000 goals -- used as benchmarks             ;

  ARRAY   SVCWGT(&COMPNUM) WGTV1-WGTV&COMPNUM;
  ARRAY    BMARK(&COMPNUM) GOALVAR1-GOALVAR&COMPNUM;
  ARRAY WGTBMARK(&COMPNUM) WTDV1-WTDV&COMPNUM;
  array comp(&compnum) cmpv1-cmpv&compnum;
cpden1=sum(of nrmv1-nrmv&cmpnum1);
cpden2=sum(of nrmv&start-nrmv&compnum);
  DO K = 1 TO &COMPNUM;
      IF K < &START THEN SVCWGT(K)= norm(K)/CPDEN1;
      ELSE SVCWGT(K) = norm(K)/CPDEN2;
      WGTBMARK(K) = SVCWGT(K)*BMARK(K);
      comp(k)=svcwgt(k)*proport(k);
  END;
  DROP K;
  CPBMK1=SUM(OF WTDV1-WTDV&CMPNUM1);
  CPBMK2=SUM(OF WTDV&START-WTDV&COMPNUM);
  comp1=sum(of cmpv1-cmpv&cmpnum1);
comp2=sum(of cmpv&start-cmpv&compnum);
 DROP WGTV1-WGTV&COMPNUM WTDV1-WTDV&COMPNUM
       NUMV1-NUMV&COMPNUM;
 RUN;

 %IF &DEBUG=Y AND &PREF=R %THEN %DO;
     PROC PRINT DATA=&PREF.CMPSUM;  /* print out final dataset */
     RUN;                              /* for region to check     */
 %END;

%MEND GETPROP;

%GETPROP(USA);
%GETPROP(XSERVAFF);
%GETprop(XSERVREG);
%GETPROP(XTNEXREG);

*******************************************************
** since MHS benchmarks will be displayed           ****
** set up adjustment factor to apply to             ****
```

```
** each analytical unit's composite benchmarks      ****
*******************************************************;


*******************************************************
***  Macro to merge 3 datasets for each          *******
***  called by analytical unit                   *******
***  output final dataset for                    *******
***  XSERVAFF, XSERVREG, XTNEXREG, MHS (USA)     *******
*******************************************************;

PROC FORMAT;  /*RSG 02/2005 - hardcoded in prog to have caps vs format in loadcahq.inc*/
   VALUE REGIONF
      0 = "USA MHS "
      1 = "NORTH"
      2 = "SOUTH"
      3 = "WEST"
      4 = "OVERSEAS"
   ;
%MACRO GETSIG(BYVAR);

 %LET START = %EVAL(&CMPNUM1+1);
 %LET NEXT  = %EVAL(&CMPNUM1+2);

 %IF &BYVAR=XSERVREG %THEN %LET PREF=R;
 %ELSE %IF &BYVAR=USA %THEN %LET PREF=C;
 %ELSE %IF &BYVAR=XSERVAFF %THEN %LET PREF=M;
 %ELSE %IF &BYVAR=XTNEXREG %THEN %LET PREF=S;


 DATA OUT.&PREF.FINAL(KEEP= MAJGRP REGION REGCAT GOALVAR1-GOALVAR&COMPNUM
                SIGV1-SIGV&COMPNUM SCORV1-SCORV&COMPNUM
                CPSIG1-CPSIG&COMPCNT CP1SE CP2SE
                CSCOR1-CSCOR&COMPCNT CPBMK1-CPBMK&COMPCNT
                SERRV1-SERRV&COMPNUM CP1SE CP2SE
                COMP1 COMP2 PROPV1-PROPV&COMPNUM
                DFSCR1-DFSCR&COMPNUM DF_CP1 DF_CP2
                NOBSV1-NOBSV&COMPNUM CPOBS1-CPOBS&COMPCNT
                DENV1-DENV&COMPNUM CPDEN1-CPDEN&COMPCNT);

    FORMAT MAJGRP $30. REGION $30. REGCAT $30.; /* MER 11/11/12 - Updated REGION/REGCAT for
Joint Service facilities */
        MERGE &PREF.CMPSUM(IN=IN_PROP) &PREF.CORR
        &PREF.SERR;
        BY GROUP &BYVAR;
        IF IN_PROP;
 %DO Z=1 %TO &COMPCNT;

            CSCOR&Z=COMP&Z.*100;

    %END;
  **  MAJGRP -- text field for group   **;
    IF      GROUP=1 THEN MAJGRP="Prime Enrollees            ";
    ELSE IF GROUP=2 THEN MAJGRP="Enrollees with Military PCM";
    ELSE IF GROUP=3 THEN MAJGRP="Enrollees with Civilian PCM";
    ELSE IF GROUP=4 THEN MAJGRP="Non-enrolled Beneficiaries ";
    ELSE IF GROUP=5 THEN MAJGRP="Active Duty                ";
    ELSE IF GROUP=6 THEN MAJGRP="Active Duty Dependents     ";
    ELSE IF GROUP=7 THEN MAJGRP="Retirees and Dependents    ";
    ELSE IF GROUP=8 THEN MAJGRP="All Beneficiaries          ";

  **** REGION AND REGCAT SETUP          **;
    %IF &PREF=S %THEN %DO;
        REGCAT=PUT(XTNEXREG,REGIONF.);
        REGION=PUT(XTNEXREG,REGIONF.);
    %END;
    %else %IF &PREF=C %THEN %DO;
        REGION="USA MHS";
        REGCAT="USA MHS";
    %END;
    %ELSE %IF &PREF=R %THEN %DO;
        REGION=PUT(XSERVREG, SERVREGO.);
        REGCAT=PUT(XSERVREG, SERVREGO.);
    %END;
```

```
    %ELSE %IF &PREF=M %THEN %DO;                    /** RSG 1/2005 Add codes for service
grouping **/
        REGION=PUT(XSERVAFF,XSERVAFF.);
        REGCAT=PUT(XSERVAFF,XSERVAFF.);
    %END;

   **** setup t statistics, degreees of freedom    **;
    ARRAY    TSTAT{&COMPNUM} T_V1-T_V&COMPNUM;
    ARRAY    BMARK{&COMPNUM} GOALVAR1-GOALVAR&COMPNUM;
    ARRAY  STNDERR{&COMPNUM} SERRV1-SERRV&COMPNUM;
    ARRAY  SERRSQR{&COMPNUM} SESQV1-SESQV&COMPNUM;
    ARRAY     DEGF{&COMPNUM} DFSCR1-DFSCR&COMPNUM;
    ARRAY    DENOM{&COMPNUM} DENV1-DENV&COMPNUM;
    ARRAY  PROPORT{&COMPNUM} PROPV1-PROPV&COMPNUM;
    ARRAY    SCORE{&COMPNUM} SCORV1-SCORV&COMPNUM;
    ARRAY   PVALUE{&COMPNUM} PVALV1-PVALV&COMPNUM;
    ARRAY      SIG{&COMPNUM} SIGV1-SIGV&COMPNUM;
    ARRAY     NOBS{&COMPNUM} NOBSV1-NOBSV&COMPNUM;
    array     norm{&compnum} nrmv1-nrmv&compnum;

   ** get the item variance, t-statistics, df, p-values **;
   ** and whether significant                           **;
    DO I=1 TO &COMPNUM;
        SERRSQR{I}=STNDERR{I}**2;  /* Item variance */
        SCORE{I}=PROPORT{I}*100;   /* Score (prop. * 100) */
        IF STNDERR{I} > 0 THEN TSTAT{I}=(PROPORT{I}-BMARK{I})/STNDERR{I};
        ELSE TSTAT{I}=.;
        DEGF{I}=NOBS{I}-1;
        PVALUE{I}=(1-PROBT(ABS(TSTAT{I}),DEGF{I}))*2;
        IF PVALUE{I} GE .05 THEN SIG{I}=0;
        ELSE IF PVALUE{I} < .05 THEN DO;
            IF PROPORT{I} > BMARK{I} THEN SIG{I}=1;
            IF PROPORT{I} < BMARK{I} THEN SIG{I}=-1;
        END;
    END;
    DROP I;



  %DO I=1 %TO &COMPNUM.&COMPNUM.;
              SEMV&I. = 0;
  %END;



   ** multiply each item pair std. errors and correlation coefficients **;
   ** preventive care composite                                        **;
  ARRAY SEwC1{&CMPNUM1} SEwV1-SEwV&CMPNUM1;


    ARRAY SERRC1{&CMPNUM1} SERRV1-SERRV&CMPNUM1;
    %DO J = 1 %TO &CMPNUM1;
        ARRAY  SMEAN&J{&CMPNUM1} SEMV&J.1-SEMV&J.&CMPNUM1;
        ARRAY CORVAR&J{&CMPNUM1} CORV&J.1-CORV&J.&CMPNUM1;
        DO K=1 TO &CMPNUM1;
            SMEAN&J{K}=SERRV&J*SERRC1{K}*CORVAR&J{K}*norm{K}*nrmV&J;
        END;
        SEMV&J.&J=0;
         sewv&j= (nrmV&j**2)*SESQV&j;/** don't count in final standard error calculation **/
    %END;
    DROP K;
   ** multiply each item pair std. errors and correlation coefficients **;
   ** access to care composite                                         **;

    ARRAY SERRC2{&CMPNUM2} SERRV&START-SERRV&COMPNUM;
    %DO L = &START %TO &COMPNUM;
        ARRAY  SMEAN&L{&CMPNUM2} SEMV&L.&START-SEMV&L.&COMPNUM;
        ARRAY CORVAR&L{&CMPNUM2} CORV&L.&START-CORV&L.&COMPNUM;
        DO M=1 TO &CMPNUM2;
            SMEAN&L{M}=SERRV&L*SERRC2{M}*CORVAR&L{M};
        END;
        SEMV&L.&L=0;  /** don't coun't in final standard error calculation **/
    %END;
    DROP M;
```

```
   ** calculate composite t-statistic, pvalue, and whether significant **;
   ** for composites                                                    **;



        %DO P=1 %TO &COMPCNT;
         %IF &P=1 %THEN %DO;
         ** composite standard error comprised of two parts **;
             CP&P.SE1=SUM(OF SEwV1-SEwV&CMPNUM1);
             CP&P.SE2=SUM(OF SEMV11-SEMV&CMPNUM1.&CMPNUM1.);
             cpobs&p=sum(of nobsv1-nobsv&cmpnum1);
         %END;
         %ELSE %DO;
             CP&P.SE1=SUM(OF SESQV&START-SESQV&COMPNUM);
             CP&P.SE2=SUM(OF SEMV&START.&START.-SEMV&COMPNUM.&COMPNUM.);
             cpobs&p=sum(of nobsv&start-nobsv&compnum);
         %END;
   ** add the two parts of the composite standard error  **;
   ** calculate the composite t statistics and p-values  **;
   ** determine whether differences are sigificant       **;

         CP&P.SE=SQRT(CP&P.SE2+CP&P.SE1)/CPden&P;
         IF CP&P.SE > 0 THEN CP_T&P.=(COMP&P.-CPBMK&P.)/CP&P.SE;
         ELSE CP_T&P.= .;
         DF_CP&P.=CPOBS&P. - 1;
         CP_P&P.=(1-PROBT(ABS(CP_T&P.),DF_CP&P.))*2;
         IF CP_P&P GE .05 THEN CPSIG&P=0;
         ELSE IF CP_P&P < .05 THEN DO;
             IF COMP&P. > CPBMK&P THEN CPSIG&P= 1;
             ELSE IF COMP&P. < CPBMK&P THEN CPSIG&P=-1;
         END;
    %END;

    OUTPUT OUT.&PREF.FINAL;
 RUN;

%MEND GETSIG;

%GETSIG(USA);
%GETSIG(XTNEXREG);
%GETSIG(XSERVREG);
%GETSIG(XSERVAFF);
```

G.4.B Q3FY2015\PROGRAMS\REPORTCARDS\MPR_ADULTQ3FY2015\SMOKING_BMI.sas - Calculates Healthy Behavior Composite Scores - Run Quarterly.

```
***************************************************************************
*
*  Project:   DoD Reporting and Analysis 6077-410
*  Program:   SMOKING_BMI.SAS
*  Purpose:   Calculate Smoking Rate and Smoking Cessation
*             for each region-service affiliation and
*             conus-service affiliation groups.
*
*  Date:      1/31/2005
*  Author:    Regina Gramss
*
*  Modified: 38) 11/03/2012 By Mike Rudacille Updated for handling of Joint Service facilities
*            39) 12/28/2012 By Aimee Valenzuela Updated for Q1FY2013
*            40) 03/23/2013 By Mike Rudacille, Updated %LET DSN HCS132_2 and CURRENT January,
2013.
*            41) 09/20/2014 By Amanda Kudis, Updated for Q1FY2014.
*            42) 02/27/2014 By Amanda Kudis, Use XSERVAFF from database
*            43) 12/01/2014 By Matt Turbyfill, revised for the Macro Program.
                                   Replaced RCTYPE with &PC.ReportCards
                                   Changed BENCH to "&BENCHINPUT."
                                   Changed INNORM to "&NORMDATA."
                                   Changed DSN to &DATAFILE.
                                   Changed DSN_NORM to &NORMFILE.
                                   Changed CURRENT to &PERIOD4.
                                   Changed C13_ZAMV to &BENCHFILE.
                                   Changed first LIBRARY to "&NORMFMTLIB."
                                   Removed line referencing JOINTSRV in the NORMDATA step.
                                   Changed H11 to H&NY.
                                   Added NSUM = ROUND(NSUM,1)
*
*   Inputs:   1) HCS11A_2.sas7bdat - Annual 2011 Survey data
*             2) HCS141_2.sas7bdat - Q1 fy 2014 Survey data
*             3) AC2011DB.sas7bdat - 2011 CAHPS Benchmark Data
*
*   Output:   1) SMOKE.sas7bdat
*
*
***************************************************************************;

OPTIONS COMPRESS=YES NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards                ***/
%LET RCTYPE = &PC.ReportCards;

LIBNAME BENCH       "&BENCHINPUT.";
LIBNAME INDAT       "..\..\..\Data\afinal";
LIBNAME INNORM      "&NORMDATA.";
LIBNAME OUT         ".";

%LET DSN=&DATAFILE.;
%LET DSN_NORM=&NORMFILE.;                 /*JSO 08/24/2006, Changed Regions, 16 to 15*/ /* MER
11/03/12 15 to 18 */
%LET REGNUM = 18;                       /*RSG 01/2005 Number of Regions (with serv
affiliation)*/
%LET CONNUM = 4;                        /*RSG 01/2005 Number of Conus level (with serv
affiliation)*/
%LET SRVNUM = 5;                        /*MER 11/03/2012 Number of service affiliations,
including Joint Service */
%LET CURRENT = &PERIOD4.;
%LET WGT = FWRWT;
%LET NORMWGT = CFWT;
%LET CATCHNUM=9999;                     /*RSG 02/2005 number of catchment areas **/

DATA BENCHA01;
   SET BENCH.&BENCHFILE.;
   if rep_typ in ("HMO/PPO Combined", "PPO") then model = 1;
   else model = 2;
   if disp in ('M10','I10')  ;
   if S46 in (1,2) & S47>=1 & S47<=4;  /*02/2006 RSG - REMOVED REQUIREMENT FOR ADDITIONAL VISIT
(ACC22 FIELD)*/
```

```
   cessbnch=0;
   if S47>1 then cessbnch=1;



proc summary nway; class sub_id;
var cessbnch;
output out=tbench mean=;
proc print;
proc summary;
var cessbnch;
output out=tbench mean=;
proc print;
data _null_;
set tbench;
call symput('CNSLGOAL',cessbnch);
run;

%LET NSMKGOAL = 0.88;

%LET BMIGOAL  = 0.69;

%INCLUDE "..\..\LoadWeb\LOADCAHQ.INC";

PROC FORMAT;
VALUE AGEF
LOW - 34 = 1
 35 - 49 = 2
 50 - 64 = 3
 65 - HIGH = 4;

/* 08/22/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
LIBNAME LIBRARY "&NORMFMTLIB.";


DATA NORMDATA (KEEP=TMP_CELL AGE_GRP XTNEXREG XSERVREG XSERVAFF
                    SM_RATE SM_CESS SM_RTDN SM_CSDN  BMI_DN BMI
                    TOTCON GROUP XSEXA &WGT. age_n MPCSMPL NXNS_COV);
                    /* 05/10/2007 JSO Added NXNS_COV in the keep statement */
SET  INNORM.&DSN_NORM.(DROP=&WGT.); /* 4/4/2006, KRR added drop so CFWT can renamed/used */

LENGTH AGE_N AGE_GRP TMP_CELL 8.;

IF      XREGION=13 THEN XOCONUS=1; /* 08/24/2006, JSO Create XOCONUS for 2005 data */
ELSE IF XREGION=14 THEN XOCONUS=2;
ELSE IF XREGION=15 THEN XOCONUS=3;

TMP_CELL=STRATUM;

AGE_N = FIELDAGE;

AGE_GRP = PUT(AGE_N, AGEF.);
IF AGE_GRP < 4;

  IF SERVAFF = 'A' THEN XSERVAFF = 1;        *Army;
  ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;   *Air Force;
  ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;   *Navy;
  ELSE XSERVAFF = 4;                         *Other/unknown;



IF XTNEXREG = 1 THEN DO;
   IF XSERVAFF = 1 THEN XSERVREG = 1;
   ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
   ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
   ELSE IF XSERVAFF = 4 THEN XSERVREG = 4;
   ELSE XSERVREG = 5;
END;

IF XTNEXREG = 2 THEN DO;
   IF XSERVAFF = 1 THEN XSERVREG = 6;
   ELSE IF XSERVAFF = 2 THEN XSERVREG = 7;
   ELSE IF XSERVAFF = 3 THEN XSERVREG = 8;
   ELSE IF XSERVAFF = 4 THEN XSERVREG = 9;
```

```
   ELSE XSERVREG = 10;
END;

IF XTNEXREG = 3 THEN DO;
   IF XSERVAFF = 1 THEN XSERVREG = 11;
   ELSE IF XSERVAFF = 2 THEN XSERVREG = 12;
   ELSE IF XSERVAFF = 3 THEN XSERVREG = 13;
   ELSE IF XSERVAFF = 4 THEN XSERVREG = 14;
   ELSE XSERVREG = 15;
END;

IF XTNEXREG = 4 THEN DO; /*JSO 08/22/2006, Changed Overseas Regions*/
   IF      XOCONUS = 1 THEN XSERVREG = 16;
   ELSE IF XOCONUS = 2 THEN XSERVREG = 17;
   ELSE IF XOCONUS = 3 THEN XSERVREG = 18;
END;

IF HP_SMKH3 IN (1,2) THEN DO;
   SM_RATE = 0;
   IF HP_SMKH3 = 2 THEN SM_RATE=1;
   SM_RTDN=1;
END;

/* MER 3/31/11 Start using HP_CESH3 instead of re-creating work already done in convarq */
IF HP_CESH3 IN (1,2) THEN DO;
   SM_CESS = 0;
   IF HP_CESH3 = 1 THEN SM_CESS=1;
   SM_CSDN=1;
END;

IF xbmicat > 0  THEN DO;
    BMI = 0;
    BMI_DN=1;
   IF xbmicat <=3 THEN BMI=1;
END;

IF XTNEXREG IN (1,2,3) THEN TOTCON=1;

ELSE IF XTNEXREG = 4 THEN TOTCON=2;

IF MPCSMPL = 3 THEN MPCSMPL = 2;  /* RSG 02/2006 GROUP WARRANT OFFICER WITH OFFICER */

RENAME &NORMWGT = &WGT;

IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

IF XTNEXREG = .    THEN DELETE;

IF XINS_COV NOT IN(1,2,3,6,9,10,11) THEN DELETE;  /*JSO 07/30/2007, Added 9*/ /*MER 07/12/11
Added 10,11*/

NXNS_COV = XINS_COV;              /*JSO 04/26/2007 added for reservists logic*/
                                  /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
IF DBENCAT IN('GRD','IGR') AND H&NY.003 = 3 THEN DO;
   NXNS_COV = 3;
   XENR_PCM = .;
END;

* prime enrollees;
IF NXNS_COV IN (1,2,6) AND H&NY.004>=2 THEN DO;
   GROUP=1;
   OUTPUT;
END;

* enrollees with military pcms; /*JSO 04/05/2007, added conditions for RC type*/
IF "&RCTYPE" = 'ReportCards' AND
   XENR_PCM IN (1,2,6) AND H&NY.004>=2 THEN DO;
   GROUP=2;
   OUTPUT;
END;
ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
   XENR_PCM IN (1,2) AND H&NY.004>=2 THEN DO;
   GROUP=2;
```

```
   OUTPUT;
END;

* enrollees with civilian pcms; /*JSO 04/05/2007, added conditions for RC type*/
IF "&RCTYPE" = 'ReportCards' AND
   XENR_PCM = 3 AND H&NY.004>=2 THEN DO;
   GROUP=3;
   OUTPUT;
END;
ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
   ((XENR_PCM = 3 AND H&NY.004>=2) OR NXNS_COV IN (3,9,10)) THEN DO; /*JSO 07/30/2007, Added 9*/
   GROUP=3;                                                          /*MER 07/12/11, Added 10*/
   OUTPUT;
END;

* nonenrollees;
IF NXNS_COV IN (3,9,10) THEN DO; /*JSO 08/24/2006, Deleted 4,5*/
   GROUP=4;                      /*JSO 07/30/2007, Added 9*/ /*MER 07/12/11, Added 10*/
   OUTPUT;
END;

* active duty;
IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
   GROUP=5;        /*JSO 07/30/2007, added DBENCAT conditions*/
   OUTPUT;
END;

* active duty dependents;
IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR')THEN DO;
   GROUP=6;        /*JSO 07/30/2007, added DBENCAT conditions*/
   OUTPUT;
END;

* retirees;
IF XBNFGRP IN (3,4) THEN DO;
   GROUP=7;
   OUTPUT;
END;

* all beneficiaries;
GROUP=8;
OUTPUT;

RUN;

/* 08/22/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
LIBNAME LIBRARY '..\..\..\Data\afinal\fmtlib';

DATA SMOKE (KEEP=TMP_CELL AGE_GRP XTNEXREG XSERVREG XSERVAFF TOTCON GROUP
                 SM_RATE SM_CESS SM_RTDN SM_CSDN XSEXA &WGT BMI_DN BMI
                 MPCSMPL NXNS_COV);/* 05/10/2007 JSO Added NXNS_COV in the keep statement */
SET INDAT.&DSN.;
LENGTH AGE_N AGE_GRP TMP_CELL 8.;

/* MER 4/20/09 - Restrict dataset to just non-zero V4 weights */
IF &WGT <= 0 THEN DELETE;

TMP_CELL=STRATUM;

AGE_N = FIELDAGE;

AGE_GRP = PUT(AGE_N, AGEF.);

IF AGE_GRP < 4;
IF SERVAFF='A' THEN XSERVAFF=1;              *Army;
   ELSE IF SERVAFF='F' THEN XSERVAFF=2;      *Air Force;
   ELSE IF SERVAFF='N' THEN XSERVAFF=3;      *Navy;
   ELSE XSERVAFF=4;

IF PUT(XCATCH, JOINTSRV.)='1' THEN XSERVAFF=5; *Joint Service;

IF XTNEXREG = 1 THEN DO;
   IF XSERVAFF = 1 THEN XSERVREG = 1;
   ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
```

```
   ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
   ELSE IF XSERVAFF = 4 THEN XSERVREG = 4;
   ELSE XSERVREG = 5;
END;

IF XTNEXREG = 2 THEN DO;
   IF XSERVAFF = 1 THEN XSERVREG = 6;
   ELSE IF XSERVAFF = 2 THEN XSERVREG = 7;
   ELSE IF XSERVAFF = 3 THEN XSERVREG = 8;
   ELSE IF XSERVAFF = 4 THEN XSERVREG = 9;
   ELSE XSERVREG = 10;
END;

IF XTNEXREG = 3 THEN DO;
   IF XSERVAFF = 1 THEN XSERVREG = 11;
   ELSE IF XSERVAFF = 2 THEN XSERVREG = 12;
   ELSE IF XSERVAFF = 3 THEN XSERVREG = 13;
   ELSE IF XSERVAFF = 4 THEN XSERVREG = 14;
   ELSE XSERVREG = 15;
END;

IF XTNEXREG = 4 THEN DO; /*JSO 08/24/2006, Changed Overseas Regions*/
   IF      XOCONUS = 1 THEN XSERVREG = 16;
   ELSE IF XOCONUS = 2 THEN XSERVREG = 17;
   ELSE IF XOCONUS = 3 THEN XSERVREG = 18;
END;

IF XTNEXREG IN (1,2,3) THEN TOTCON=1;

ELSE IF XTNEXREG=4 THEN TOTCON=2;

IF MPCSMPL = 3 THEN MPCSMPL = 2;  /* RSG 02/2006 GROUP WARRANT OFFICER WITH OFFICER */

IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

IF XTNEXREG = . THEN DELETE;

IF XINS_COV NOT IN(1,2,3,6,9,10,13,14) THEN DELETE;  /*JSO 07/30/2007, Added 9*/ /*MER 07/12/11,
Added 10*/
                                                     /*AMK 2/10/14 removed 11, added 13/14*/

NXNS_COV = XINS_COV;              /*JSO 04/26/2007 added for reservists logic*/
                                  /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
IF DBENCAT IN('GRD','IGR') AND H&FY.003 = 3 THEN DO;
   NXNS_COV = 3;
   XENR_PCM = .;
END;

IF HP_SMKH3 IN (1,2) THEN DO;
   SM_RATE = 0;
   IF HP_SMKH3 = 2 THEN SM_RATE=1;
   SM_RTDN=1;
END;

/* MER 3/31/11 Start using HP_CESH3 instead of re-creating work already done in convarq */
IF HP_CESH3 IN (1,2) THEN DO;
   SM_CESS = 0;
   IF HP_CESH3 = 1 THEN SM_CESS=1;
   SM_CSDN=1;
END;

IF xbmicat > 0  THEN DO;
    BMI = 0;
    BMI_DN=1;
   IF xbmicat <=3 THEN BMI=1;
END;

* prime enrollees;
IF NXNS_COV IN (1,2,6,13) AND H&FY.004>=2 THEN DO; /*AMK 2/19/14 added 13*/
   GROUP=1;
   OUTPUT;
END;
```

```
* enrollees with military pcms; /*JSO 04/05/2007, added conditions for RC type*/
IF "&RCTYPE" = 'ReportCards' AND
   XENR_PCM IN (1,2,6) AND H&FY.004>=2 THEN DO;
   GROUP=2;
   OUTPUT;
END;
ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
   XENR_PCM IN (1,2) AND H&FY.004>=2 THEN DO;
   GROUP=2;
   OUTPUT;
END;

* enrollees with civilian pcms; /*JSO 04/05/2007, added conditions for RC type*/
IF "&RCTYPE" = 'ReportCards' AND
   XENR_PCM = 3 AND H&FY.004>=2 THEN DO;
   GROUP=3;
   OUTPUT;
END;
ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
   ((XENR_PCM = 3 AND H&FY.004>=2) OR NXNS_COV IN (3,9,10,14)) THEN DO; /*JSO 07/30/2007, Added
9*/
   GROUP=3;                                                          /*MER 07/12/11, Added
10*//*AMK 2/13/14 added 14*/
   OUTPUT;
END;

* nonenrollees;
IF NXNS_COV IN (3,9,10,14) THEN DO; /*JSO 08/24/2006, Deleted 4,5*/
   GROUP=4;                      /*JSO 07/30/2007, Added 9*/  /*MER 07/12/11, Added 10*//*AMK
2/13/14 added 14*/
   OUTPUT;
END;

* active duty;
IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
   GROUP=5;        /*JSO 07/30/2007, added DBENCAT conditions*/
   OUTPUT;
END;

* active duty dependents;
IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN DO;
   GROUP=6;        /*JSO 07/30/2007, added DBENCAT conditions*/
   OUTPUT;
END;

* retirees;
IF XBNFGRP IN (3,4) THEN DO;
   GROUP=7;
   OUTPUT;
END;

* all beneficiaries;
GROUP=8;
OUTPUT;

RUN;

PROC SORT DATA=SMOKE;
BY TMP_CELL;
PROC SORT DATA=NORMDATA;
BY TMP_CELL;
RUN;

%MACRO A_SUDAAN(TABLEVAR,SMOKE,SMOKEVAR,DEN);

%IF %UPCASE(&TABLEVAR)=XSERVREG %THEN %DO;
    %LET ENDNUM=&REGNUM;
    %LET PREF=R;
%END;
%ELSE %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
    %LET ENDNUM=&SRVNUM;
    %LET PREF=M;
%END;
%ELSE %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
```

```
    %LET ENDNUM=&CONNUM;
    %LET PREF=S;
%END;

%ELSE %IF %UPCASE(&TABLEVAR)=TOTCON %THEN %LET PREF=C;

%DO I = 1 %TO 8;

    DATA INDAT&I.(KEEP=&WGT XSERVAFF XSERVREG AGE_GRP XSEXA MPCSMPL
                      &SMOKEVAR. &DEN. TMP_CELL XTNEXREG);
    SET SMOKE;
    WHERE XSERVREG > 0 AND GROUP=&I. AND &DEN. >= 0;
       %IF %UPCASE(&TABLEVAR) = XSERVAFF %THEN %DO;
           IF XSERVAFF > 5 OR XSERVAFF = . THEN DELETE; /* MER 11/3/12 - Changed 4 to 5 */
       %END;
       %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
           IF TOTCON NE 1 THEN DELETE;
       %END;
       %IF %UPCASE(&TABLEVAR) = XTNEXREG %THEN %DO;
           IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
       %END;
    RUN;


        DATA NORMDAT&I.(KEEP=&WGT XSERVAFF XSERVREG AGE_GRP XSEXA &SMOKEVAR. &DEN.
                            TMP_CELL XTNEXREG MPCSMPL);
            SET NORMDATA;
                WHERE XSERVREG > 0 AND GROUP=&I.;

                %IF %UPCASE(&TABLEVAR) = XSERVAFF %THEN %DO;
                    IF XSERVAFF > 5 OR XSERVAFF = . THEN DELETE; /* MER 11/3/12 - Changed 4 to 5
*/
                %END;
            %IF %UPCASE(&TABLEVAR) = XTNEXREG %THEN %DO;
                IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
            %END;

            RUN;

        %IF %UPCASE(&SMOKE) NE CS AND %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
                    PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                    WEIGHT &WGT;
                    SETENV DECWIDTH=4;
                    NEST TMP_CELL / missunit;
                    VAR &SMOKEVAR;
                    TABLES AGE_GRP*XSEXA*MPCSMPL*&TABLEVAR.;
                    SUBGROUP AGE_GRP XSEXA MPCSMPL &TABLEVAR.;
                    LEVELS 8 2 2 &ENDNUM.;
                    OUTPUT  SEMEAN MEAN wsum nsum
                            / TABLECELL=DEFAULT REPLACE
                              FILENAME=&PREF.GRP&I.&SMOKE.;
                    RUN;
        %END;
        %ELSE %IF %UPCASE(&SMOKE) NE CS AND %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                    PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                    WEIGHT &WGT;
                    SETENV DECWIDTH=4;
                    NEST TMP_CELL / missunit;
                    VAR &SMOKEVAR;
                    TABLES AGE_GRP*XSEXA*MPCSMPL;
                    SUBGROUP AGE_GRP XSEXA MPCSMPL;
                    LEVELS 3 2 2;
                    OUTPUT  SEMEAN MEAN wsum nsum
                            / TABLECELL=DEFAULT REPLACE
                              FILENAME=&PREF.GRP&I.&SMOKE.;
                    RUN;
        %END;

    %IF %UPCASE(&SMOKE) NE CS %THEN %DO;

           DATA &PREF.SER_&I.&SMOKE.;
           SET &PREF.GRP&I.&SMOKE.;
           GROUP=&I.;
           IF SEMEAN NE .;
```

```
         %IF %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
             KEEP &TABLEVAR. GROUP AGE_GRP XSEXA MPCSMPL SEMEAN MEAN wsum nsum;
         %END;
         %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
             TOTCON=1;
             KEEP TOTCON GROUP AGE_GRP XSEXA MPCSMPL SEMEAN MEAN wsum nsum;
         %END;
      RUN;

      /* CREATE WEIGHTS FROM 2005 DATA*/
      proc summary data=normdat&i. nway;
              var &WGT;
              where &den>0;
              class age_grp xsexa MPCSMPL;
              output out=norm_&i. sum=normwt;

              proc sort data=&pref.ser_&i.&smoke.;
              by age_grp xsexa mpcsmpl;

              data &pref.ser_&i.&smoke.;
              merge &pref.ser_&i.&smoke.(in=gin) norm_&i.;
              by age_grp xsexa mpcsmpl;
              if gin;
              wsum=wsum/normwt;
              nsum=nsum/normwt;
              sesq=normwt*semean**2;
              run;

              proc summary data=&pref.ser_&i.&smoke. nway;
              var mean semean sesq wsum nsum;
              class &tablevar.;
              weight normwt;
              output out=&pref.sert&i.&smoke. mean(mean sesq)= sum(wsum nsum)=
sumwgt(semean)=;
              run;

      data &pref.sert&i.&smoke;
         set &pref.sert&i.&smoke;
         group=&i.;
                 semean=sqrt(sesq/semean);
                                NSUM = ROUND(NSUM,1);
         drop _type_ _freq_;
      run;

      %IF &I. = 1 %THEN %DO;

          DATA &PREF._&SMOKE.;
          SET &PREF.SERT&I.&SMOKE.;
          RUN;
      %END;
      %ELSE %DO;

          DATA &PREF._&SMOKE.;
                  SET &PREF._&SMOKE. &PREF.SERT&I.&SMOKE.;
          RUN;

          PROC SORT DATA=&PREF._&SMOKE.;
          BY GROUP;
          RUN;

      %END;

   %END;
      %IF %UPCASE(&SMOKE) = CS AND %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
                  PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                  WEIGHT &WGT;
                  SETENV DECWIDTH=4;
                  NEST TMP_CELL / missunit;
                  VAR &SMOKEVAR;
                  TABLES AGE_GRP*XSEXA*&TABLEVAR.;
                  SUBGROUP AGE_GRP XSEXA &TABLEVAR.;
                  LEVELS 3 2 &ENDNUM.;
                  OUTPUT  SEMEAN MEAN wsum nsum
                          / TABLECELL=DEFAULT REPLACE
```

```
                          FILENAME=&PREF.GRP&I.&SMOKE.;
                RUN;
        %END;
        %ELSE %IF %UPCASE(&SMOKE) = CS AND %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                WEIGHT &WGT;
                SETENV DECWIDTH=4;
                NEST TMP_CELL / missunit;
                VAR &SMOKEVAR;
                TABLES AGE_GRP*XSEXA;
                SUBGROUP AGE_GRP XSEXA;
                LEVELS 3 2 ;
                OUTPUT  SEMEAN MEAN wsum nsum
                        / TABLECELL=DEFAULT REPLACE
                          FILENAME=&PREF.GRP&I.&SMOKE.;
                RUN;
        %END;

    %IF %UPCASE(&SMOKE) = CS %THEN %DO;

           DATA &PREF.SER_&I.&SMOKE.;
           SET &PREF.GRP&I.&SMOKE.;
           GROUP=&I.;
           IF SEMEAN NE .;
           %IF %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
               KEEP &TABLEVAR. GROUP AGE_GRP XSEXA SEMEAN MEAN wsum nsum;
           %END;
           %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
               TOTCON=1;
               KEEP TOTCON GROUP AGE_GRP XSEXA SEMEAN MEAN wsum nsum;
           %END;
        RUN;

        /* CREATE WEIGHTS FROM 2005 DATA*/
        proc summary data=normdat&i. nway;
                var &WGT;
                where &den>0;
                class age_grp xsexa;
                output out=norm_&i. sum=normwt;

                proc sort data=&pref.ser_&i.&smoke.;
                by age_grp xsexa;

                data &pref.ser_&i.&smoke.;
                merge &pref.ser_&i.&smoke.(in=gin) norm_&i.;
                by age_grp xsexa;
                if gin;
                wsum=wsum/normwt;
                nsum=nsum/normwt;
                sesq=normwt*semean**2;
                run;

                proc summary data=&pref.ser_&i.&smoke. nway;
                var mean semean sesq wsum nsum;
                class &tablevar.;
                weight normwt;
                output out=&pref.sert&i.&smoke. mean(mean sesq)= sum(wsum nsum)=
sumwgt(semean)=;
                run;

        data &pref.sert&i.&smoke;
           set &pref.sert&i.&smoke;
           group=&i.;
                   semean=sqrt(sesq/semean);
           drop _type_ _freq_;
        run;





         %IF &I. = 1 %THEN %DO;
```

```
         DATA &PREF._CESS;
         SET &PREF.SERT&I.&SMOKE.;
         RUN;
         %END;
         %ELSE %DO;

         DATA &PREF._CESS;
               SET &PREF._CESS &PREF.SERT&I.&SMOKE.;
             RUN;

         PROC SORT DATA=&PREF._CESS;
         BY GROUP;
         RUN;

         %END;

     %END;
%END;

%MEND;

%A_SUDAAN(XSERVAFF,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XSERVAFF,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XSERVAFF,BM,BMI,BMI_DN);
%A_SUDAAN(XSERVREG,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XSERVREG,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XSERVREG,BM,BMI,BMI_DN);
%A_SUDAAN(XTNEXREG,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XTNEXREG,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XTNEXREG,BM,BMI,BMI_DN);
%A_SUDAAN(TOTCON,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(TOTCON,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(TOTCON,BM,BMI,BMI_DN);

%MACRO ADDIT(PREF, TYPE);

DATA &PREF._&TYPE;
SET &PREF._&TYPE;
LENGTH BENEFIT $34. BENTYPE $50.;

BENEFIT="Healthy Behaviors";
    %IF &TYPE=RT %THEN %DO;
        BENTYPE="Non-Smoking Rate";
    %END;
    %IF &TYPE=CESS %THEN %DO;
        BENTYPE="Counselled To Quit";
    %END;
    %IF &TYPE = BM %THEN %DO;
        BENTYPE = "Percent Not Obese";
    %END;
RUN;

%MEND;

%ADDIT(C,RT);
%ADDIT(C,CESS);
%ADDIT(C,BM);
%ADDIT(M,RT);
%ADDIT(M,CESS);
%ADDIT(M,BM);
%ADDIT(R,RT);
%ADDIT(R,CESS);
%ADDIT(R,BM);
%ADDIT(S,RT);
%ADDIT(S,CESS);
%ADDIT(S,BM);


%MACRO MAKEDATA(PREF, TABLEVAR);
  DATA &PREF._SMOKE;
   SET &PREF._RT
       &PREF._CESS
       &PREF._BM
```

```
;

   LENGTH MAJGRP $30. REGION REGCAT $30.; /* MER 11/11/12 - Updated REGION/REGCAT for Joint
Service facilities */

    IF      GROUP=1 THEN MAJGRP="Prime Enrollees            ";
    ELSE IF GROUP=2 THEN MAJGRP="Enrollees with Military PCM";
    ELSE IF GROUP=3 THEN MAJGRP="Enrollees with Civilian PCM";
    ELSE IF GROUP=4 THEN MAJGRP="Non-enrolled Beneficiaries ";
    ELSE IF GROUP=5 THEN MAJGRP="Active Duty                ";
    ELSE IF GROUP=6 THEN MAJGRP="Active Duty Dependents     ";
    ELSE IF GROUP=7 THEN MAJGRP="Retirees and Dependents    ";
    ELSE IF GROUP=8 THEN MAJGRP="All Beneficiaries          ";

    %IF &TABLEVAR = XSERVAFF %THEN %DO;
        IF XSERVAFF = 1 THEN REGION = 'ARMY';
        IF XSERVAFF = 2 THEN REGION = 'AIR FORCE';
        IF XSERVAFF = 3 THEN REGION = 'NAVY';
        IF XSERVAFF = 4 THEN REGION = 'OTHER';
            IF XSERVAFF = 5 THEN REGION = 'JOINT SERVICE'; /* MER 11/3/12 - Added for Joint
Service facilities */
    %END;

    %IF &TABLEVAR = XSERVREG %THEN %DO;
        REGION = PUT(XSERVREG,SERVREGO.); /*JSO 08/24/2006, Create new format for Overseas*/
    %END;

    %IF &TABLEVAR = XTNEXREG %THEN %DO;
        IF XTNEXREG=1 THEN REGION="NORTH";
        ELSE IF XTNEXREG=2 THEN REGION="SOUTH";
        ELSE IF XTNEXREG=3 THEN REGION="WEST";
        ELSE IF XTNEXREG=4 THEN REGION="OVERSEAS";
    %END;

    %IF &TABLEVAR = TOTCON %THEN %DO;
        REGION = "USA MHS";
    %END;


        REGCAT=REGION;
        DROP GROUP &TABLEVAR;

    IF &TABLEVAR NE 0;

   RUN;


%MEND MAKEDATA;

%MAKEDATA(M,XSERVAFF);
%MAKEDATA(C,TOTCON);
%MAKEDATA(R,XSERVREG);
%MAKEDATA(S,XTNEXREG);


DATA SMOKE;
SET M_SMOKE R_SMOKE S_SMOKE C_SMOKE;
SESQ = SEMEAN**2;
RENAME MEAN=SCORE wsum=n_wgt nsum=n_obs;
RUN;

/* CALCULATE COMPOSITE SCORE - AVERAGE RATE AND CESSATION*/

PROC SORT DATA=SMOKE;
BY MAJGRP REGION REGCAT;
RUN;

PROC SUMMARY DATA=SMOKE SUM;
BY MAJGRP REGION REGCAT;
VAR SCORE SESQ N_WGT N_OBS;
OUTPUT SUM= OUT=PRECOMP;
RUN;

DATA COMP(RENAME=(S_MEAN=SCORE S_SE=SEMEAN));
```

```
SET PRECOMP;
IF _FREQ_ = 3 THEN DO;
   S_MEAN=SCORE/3;
   S_SE=SQRT(SESQ)/3;
   N_OBS=round(N_OBS/3);
END;
ELSE DO;
   S_MEAN=.;
   S_SE=.;
END;
BENTYPE="Composite";
BENEFIT="Healthy Behaviors";
DROP _TYPE_ _FREQ_ SCORE SESQ;
RUN;

PROC SORT DATA=SMOKE;
BY MAJGRP BENTYPE;
RUN;

DATA BENCH;
SET SMOKE;
BY MAJGRP BENTYPE;
IF LAST.BENTYPE AND BENTYPE="Counselled To Quit" THEN DO;
   SCORE=&CNSLGOAL;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
ELSE IF LAST.BENTYPE AND BENTYPE="Non-Smoking Rate" THEN DO;
   SCORE=&NSMKGOAL;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
ELSE IF LAST.BENTYPE AND BENTYPE="Percent Not Obese" THEN DO;
   SCORE=&BMIGOAL;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
   SCORE=(SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   BENTYPE="Composite";
   DROP N_WGT;
   OUTPUT;
END;
RUN;

PROC SORT DATA=SMOKE;
BY REGION BENTYPE;
RUN;

DATA BENCH2;
SET SMOKE;
BY REGION BENTYPE;
IF LAST.BENTYPE AND BENTYPE="Counselled To Quit" THEN DO;
   SCORE=&CNSLGOAL;
   SEMEAN=.;
   MAJGRP="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
IF LAST.BENTYPE AND BENTYPE="Non-Smoking Rate" THEN DO;
   SCORE=&NSMKGOAL;
   SEMEAN=.;
   MAJGRP="Benchmark";
   DROP N_WGT;
```

```
   OUTPUT;
END;
IF LAST.BENTYPE AND BENTYPE="Percent Not Obese" THEN DO;
   SCORE=&BMIGOAL;
   SEMEAN=.;
   MAJGRP="Benchmark";
   DROP N_WGT;
   OUTPUT;
   SCORE=(SUM(&CNSLGOAL, &NSMKGOAL, &BMIGOAL))/3;
   SEMEAN=.;
   MAJGRP="Benchmark";
   BENTYPE="Composite";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
RUN;

DATA SIG1;
SET SMOKE COMP;
IF BENTYPE='Non-Smoking Rate' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-&NSMKGOAL)/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;

   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > &NSMKGOAL THEN SIG = 1;
      ELSE IF SCORE < &NSMKGOAL THEN SIG = -1;
   END;
END;
IF BENTYPE='Counselled To Quit' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-&CNSLGOAL)/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;
   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > &CNSLGOAL THEN SIG = 1;
      ELSE IF SCORE < &CNSLGOAL THEN SIG = -1;
   END;
END;
IF BENTYPE='Percent Not Obese' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-&BMIGOAL)/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;
   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > &BMIGOAL THEN SIG = 1;
      ELSE IF SCORE < &BMIGOAL THEN SIG = -1;
   END;
END;
IF BENTYPE='Composite' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3))/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;
   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > ((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3) THEN SIG = 1;
      ELSE IF SCORE <((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3) THEN SIG = -1;
   END;
END;

DROP TSTAT PVAL;
RUN;

DATA SMOKE_ALL;
SET SIG1 BENCH BENCH2;
TIMEPD="&CURRENT.";
RUN;

PROC SORT DATA=SMOKE_ALL OUT=OUT.SMOKE;
```

```
BY MAJGRP REGION REGCAT BENTYPE;
RUN;
```

G.4.C Q3FY2015\PROGRAMS\REPORTCARDS\MPR_ADULTQ3FY2015\LOADMPRQ.SAS - Convert the MPR Scores Database into the WEB layout - Run Quarterly.

```
***************************************************************************
*
*  Project:   DoD Reporting and Analysis 6077-410
*  Program:   LOADMPRQ.SAS
*  Purpose:   Calculate MPR Preventive Care Composites
*  Date:      4/07/2000
*  Author:    Chris Rankin
*
*  Modified: 40) 11/03/2012 By Mike Rudacille, Updated for handling of
*                Joint Service facilities
*            41) 12/28/2012 By Aimee Valenzuea, Updated for Q1FY2013
*            42) 03/23/2013 By Mike Rudacille, Updated %LET PERIOD January, 2013.
*            43) 09/23/2013 By Amanda Kudis, Updated Q1FY2014.
*            44) 12/01/2014 By Matt Turbyfill, revised for the Macro Program.
                                   Changed PERIOD to &PERIOD4
*
*   Input:    1) RFINAL.sas7bdat
*             2) CFINAL.sas7bdat
*             3) MFINAL.sas7bdat
*             4) SFINAL.sas7bdat
*             5) SMOKE.sas7bdat
*
*   Output:   loadmprq.sas7bdat
*
*   Note:     ***CHECK COMPNUM AND CMPNUM1 ASSIGNMENTS AND UPPER LIMIT OF DO LOOPS***
*
***************************************************************************;

OPTIONS COMPRESS=YES NOCENTER LS=124 PS=74 SOURCE SOURCE2;

LIBNAME INLIB   ".";
LIBNAME OUT     ".";
LIBNAME LIBRARY "..\..\..\Data\Afinal\fmtlib";

%LET CMPNUM1=4; /*** number of questions in first composite ***/ /*RSG 04/2005 Changed 5 to 4*/

%LET PERIOD = &PERIOD4.;
%INCLUDE "..\..\LOADWEB\LOADCAHQ.INC";

*************************************************************;
*** Note -- take out access to care questions and composite ***;
*************************************************************;

data mfinal(keep=cpbmk1 compress=no);
  set inlib.mfinal(keep=majgrp cpbmk1) INLIB.CFINAL (KEEP=MAJGRP CPBMK1);
  where majgrp="All Beneficiaries";    /*RSG 02/2005 Include CONUS MHS data*/
run;

data mfinal;
  if _n_=1 then set mfinal;
  set inlib.mfinal(drop=cpbmk1) INLIB.CFINAL(DROP=CPBMK1) ;
run;

proc sort data=mfinal;        /*RSG 01/2005 - Added code to select only 1 record per majgrp */
by majgrp;                    /*using xservreg, there are now 4 conus areas which caused
duplicate benchmark calcs */
data mfinal;
set mfinal;
by majgrp;
if first.majgrp;
run;

************************;
***** Benchmarks       **;
************************;

DATA BENCHMKS(KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD SCORE SIG);
     FORMAT   MAJGRP  $30. REGION  $30. REGCAT $30.    /** RSG 01/2005 Increase region format to
accommodate service affiliation **/
```

```
              BENEFIT $34. BENTYPE $50. TIMEPD $35.;   ***MJS 06/23/03 Added TIMEPD; /* MER
11/08/12 Increase region/regcat formats */
  SET MFINAL;

  ARRAY BENCHMK{*} GOALVAR1-GOALVAR&CMPNUM1 CPBMK1;
  DO I = 1 TO 5;   ***RSG 04/2005 Changed 6 to 5;
     SCORE   = BENCHMK{I}*100;
     SIG     = .;
     REGION  = "Benchmark";
     REGCAT  = "Benchmark";
     BENEFIT = "Preventive Care";
     IF      I = 1 THEN BENTYPE = "Prenatal Care";
     ELSE IF I = 2 THEN BENTYPE = "Mammography";
     ELSE IF I = 3 THEN BENTYPE = "Pap Smear";
     ELSE IF I = 4 THEN BENTYPE = "Hypertension";
     /*RSG 04/2005 DELETED CHOLESTEROL*/
     ELSE IF I = 5 THEN BENTYPE = "Composite";   ***MJS 06/23/03 Changed &PERIOD to Composite;
     TIMEPD = "&PERIOD";   ***MJS 06/23/03 Added line;
     OUTPUT;
  END;
  DROP I;
RUN;

DATA BENCHMKS;
  SET BENCHMKS;
  OUTPUT;
  IF MAJGRP = "All Beneficiaries" THEN DO;
     DO REG = 1 TO 18; DROP REG; /*JSO 08/24/2006, Changed Regions, 16 to 15*/ /* MER 11/3/12 15
to 18 */
           MAJGRP = "Benchmark";
           REGION = PUT(REG,SERVREGO.);
           REGCAT = PUT(REG,SERVREGO.);
           OUTPUT;
     END;
     DO SERV = 1 TO 5; DROP SERV; /* MER 11/03/2012 Changed 4 to 5 for Joint Service facilities
*/
         MAJGRP = "Benchmark";
         REGION = PUT(SERV,XSERVAFF.);
         REGCAT = PUT(SERV,XSERVAFF.);
         OUTPUT;
     END;

     MAJGRP = "Benchmark";
     REGION = 'USA MHS';
     REGCAT = 'USA MHS';
     OUTPUT;
     MAJGRP = "Benchmark";
     REGION = 'NORTH';
     REGCAT = 'NORTH';
     OUTPUT;
     MAJGRP = "Benchmark";
     REGION = 'SOUTH';
     REGCAT = 'SOUTH';
     OUTPUT;
     MAJGRP = "Benchmark";
     REGION = 'WEST';
     REGCAT = 'WEST';
     OUTPUT;
     MAJGRP = "Benchmark";
     REGION = 'OVERSEAS';
     REGCAT = 'OVERSEAS';
     OUTPUT;
  END;
RUN;

PROC FREQ DATA=BENCHMKS;
   TABLES MAJGRP/MISSING LIST;
RUN;

************************;
*****  Scores          **;
************************;

DATA SCORES(KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD SCORE SEMEAN SIG N_OBS N_WGT);
```

```
     FORMAT MAJGRP  $30. REGION  $30. REGCAT $30.    /** RSG 01/2005 Increase region format to
accommodate service affiliation **/
            BENEFIT $34. BENTYPE $50. TIMEPD $35.;   ***MJS 06/23/03 Added TIMEPD; /* MER
11/08/12 Increase region/regcat formats */
  SET INLIB.MFINAL INLIB.CFINAL
      INLIB.RFINAL INLIB.SFINAL;


  ARRAY SEMEANS{*} SERRV1-SERRV&CMPNUM1.  CP1SE ;
  ARRAY  SCORES{*} SCORV1-SCORV&CMPNUM1.  CSCOR1;
  ARRAY  SIGNIF{*} SIGV1-SIGV&CMPNUM1.    CPSIG1;
  ARRAY   NOBS {*} NOBSV1-NOBSV&CMPNUM1.  CPOBS1;
  ARRAY   NWGT {*} DENV1-DENV&CMPNUM1     CPDEN1;

  DO I = 1 TO 5;   ***RSG 04/2005 Changed 6 to 5;
     SCORE   = SCORES{I};
     SEMEAN  = SEMEANS{I};
     SIG     = SIGNIF{I};
     N_OBS   = NOBS{I};
     N_WGT   = NWGT{I};
     BENEFIT = "Preventive Care";
     IF      I = 1 THEN BENTYPE = "Prenatal Care";
     ELSE IF I = 2 THEN BENTYPE = "Mammography";
     ELSE IF I = 3 THEN BENTYPE = "Pap Smear";
     ELSE IF I = 4 THEN BENTYPE = "Hypertension";
     /*RSG 04/2005 DELETED CHOLESTEROL*/
     ELSE IF I = 5 THEN BENTYPE = "Composite";   ***MJS 06/23/03 Changed &PERIOD to Composite;
     TIMEPD = "&PERIOD";   ***MJS 06/23/03 Added line;
     OUTPUT;
  END;
RUN;

DATA LOADMPRQ (KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD SCORE SEMEAN SIG
                      N_OBS N_WGT);
SET BENCHMKS SCORES INLIB.SMOKE;
RUN;

PROC SORT DATA=LOADMPRQ OUT=OUT.LOADMPRQ;
BY MAJGRP REGION;
RUN;
```

G.5.A Q3FY2015\PROGRAMS\LOADWEB\FAKEQ.SAS - Generate the WEB layout/template file - Run Quarterly.

```
************************************************************************
* PROJECT:  DOD Quarterly Survey, Consumer Reports (6077-410)
* PROGRAM:  FAKEQ.SAS
* PURPOSE:  Generate Fake Data for Report Cards
* AUTHOR:   Mark A. Brinkley
*
* MODIFIED:48) 11/03/2012 By Mike Rudacille - Updated for handling of
*              Joint Service facilities
*          49) 12/28/2012 By Aimee Valenzuela - Changed %LET PERIOD1 - PERIOD4
*              Changed input data HCS124_2 to HCS131_2 for Q1FY2013 reports
*          50) 03/23/2013 By Mike Rudacille - Changed %LET PERIOD1 - PERIOD4
*              Changed input data HCS131_2 to HCS132_2 for Q2FY2013 reports
*          51) 09/23/2013 By Amanda Kudis - Updated for Q1 2014
*          52) 12/01/2014 By Matt Turbyfill, revised for the Macro Program.
                                  Changed PERIOD1-4 to &PERIOD1-4
                                  Changed HCSyyq_2 to &DATAFILE.
                                  Removed line referencing CATREP in the TEMP2 step.
                                  Set CAFMT to "BLANK".
                                  Changed LOADCAHQ to ..\LoadWeb\LOADCAHQ.INC
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*              and composite data sets
*
************************************************************************;
%LET NUMQTR = 5;   ***MJS 06/18/03 Changed 4 to 5;

%LET PERIOD1 = &PERIOD1;
%LET PERIOD2 = &PERIOD2;
%LET PERIOD3 = &PERIOD3;
%LET PERIOD4 = &PERIOD4;

%LET PERIOD5 = Trend;   ***MJS 06/18/03 Added line;

%INCLUDE "..\LoadWeb\LOADCAHQ.INC";   ***MJS 07/07/03 Added;

LIBNAME OUT      ".";
LIBNAME IN       "..\..\Data\AFinal";
LIBNAME LIBRARY  "..\..\Data\AFinal\fmtlib";

OPTIONS COMPRESS=YES NOFMTERR;

***************************************************************************
* CREATE TEMPORARY DATASET FOR RECODING CACSMPL TO BE COLLAPSED FOR
* REPORT CARD PURPOSES
* FOR QUARTERLY REPORTS CATCHMENT LEVEL REPORTING IS NOT DONE
* AND THEREFORE THE VALUE OF CELLP IS SET TO 1
* FOR ANNUAL REPORTING PURPOSES
* CELLP WILL NEED TO BE ASSIGNED TO GEOCELL (KEEP GEOCELL ON INPUT)
***************************************************************************;

DATA TEMP;
  SET IN.&DATAFILE.;
   CELLP=1;
   ************************************************************************
   * CODE FOR XSERVREG FROM XTNEXREG
   ************************************************************************;
    IF SERVAFF='A' THEN XSERVAFF=1;              *Army;
       ELSE IF SERVAFF='F' THEN XSERVAFF=2;      *Air Force;
       ELSE IF SERVAFF='N' THEN XSERVAFF=3;      *Navy;
       ELSE XSERVAFF=4;

    IF PUT(XCATCH, JOINTSRV.)='1' THEN XSERVAFF=5; *Joint Service;

    IF XTNEXREG = 1 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 1;
       ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
       ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
       ELSE IF XSERVAFF = 4 THEN XSERVREG = 4;
       ELSE XSERVREG = 5;
    END;
```

```
    IF XTNEXREG = 2 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 6;
       ELSE IF XSERVAFF = 2 THEN XSERVREG = 7;
       ELSE IF XSERVAFF = 3 THEN XSERVREG = 8;
       ELSE IF XSERVAFF = 4 THEN XSERVREG = 9;
       ELSE XSERVREG = 10;
    END;

    IF XTNEXREG = 3 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 11;
       ELSE IF XSERVAFF = 2 THEN XSERVREG = 12;
       ELSE IF XSERVAFF = 3 THEN XSERVREG = 13;
       ELSE IF XSERVAFF = 4 THEN XSERVREG = 14;
       ELSE XSERVREG = 15;
    END;

    IF XTNEXREG = . THEN DELETE;

RUN;

proc freq;
table xservreg*cacsmpl/ noprint out=temp;
run;

data temp2;
length cafmt $30;
set temp end=last;
by xservreg;
  caf=0;
where cacsmpl ne 9999;
  if first.xservreg then do; /* took out condition for xregion= 8 since useing xservreg now */
    cafmt=put(xservreg,servregf.);
    output;
  end;
  cafmt = "BLANK";
  caf=1;
  if count>60 & cafmt ne 'INV' then output;
  if last then do;
    xservreg=0;
    caf=0;
    cafmt='Benchmark';
   output;
          /** RSG 01/2005 Add in codes for service affiliation categories **/



   caf=1;

   xservreg=16;
   cafmt='Overseas Europe';
   output;
  xservreg=17;
   cafmt='Overseas Pacific';
   output;
  xservreg=18;
   cafmt='Overseas Latin America';
   output;
xservreg=19;
  cafmt = 'ARMY';
    output;
    xservreg=20;
    cafmt = 'AIR FORCE';
    output;
    xservreg=21;
    cafmt = 'NAVY';
    output;
    xservreg=22;
    cafmt = 'OTHER';
        output;
        xservreg=23;
        cafmt = 'JOINT SERVICE';
        output;
    xservreg=24;
```

```
    cafmt = 'NORTH';
    output;
    xservreg=25;
    cafmt = 'SOUTH';
    output;
    xservreg=26;
    cafmt = 'WEST';
    output;
    xservreg=27;
    cafmt = 'OVERSEAS';
    output;
    xservreg=28;
    cafmt = 'USA MHS';
    output;
    xservreg=29;
    cafmt = 'Europe Army';
    output;
    xservreg=30;
    cafmt = 'Europe Air Force';
    output;
    xservreg=31;
    cafmt = 'Europe Navy';
        output;
    xservreg=32;
    cafmt = 'Europe Other';
    output;
        xservreg=33;
        cafmt = 'Europe Joint Service';
        output;
    xservreg=34;
    cafmt = 'Pacific Army';
    output;
    xservreg=35;
    cafmt = 'Pacific Air Force';
    output;
    xservreg=36;
    cafmt = 'Pacific Navy';
    output;
    xservreg=37;
    cafmt = 'Pacific Other';
    output;
        xservreg=38;
        cafmt = 'Pacific Joint Service';
        output;
    xservreg=39;
    cafmt = 'Latin America Army';
    output;
    xservreg=40;
    cafmt = 'Latin America Air Force';
    output;
    xservreg=41;
    cafmt = 'Latin America Navy';
    output;
    xservreg=42;
    cafmt = 'Latin America Other';
    output;
        xservreg=43;
        cafmt = 'Latin America Joint Service';
        output;
  end;
run;

/*RSG 04/2005 order region groups the way it should appear in reports*/
data temp3 (rename=(temp_r=xservreg));
   set temp2;
if      xservreg=0  then temp_r=1;
else if xservreg=28 then temp_r=2;
else if xservreg=19 then temp_r=3;
else if xservreg=21 then temp_r=4;
else if xservreg=20 then temp_r=5;
else if xservreg=22 then temp_r=6;
else if xservreg=23 then temp_r=7;
else if xservreg=24 then temp_r=8;
else if xservreg=1  then temp_r=9;
```

```
else if xservreg=3  then temp_r=10;
else if xservreg=2  then temp_r=11;
else if xservreg=4  then temp_r=12;
else if xservreg=5  then temp_r=13;
else if xservreg=25 then temp_r=14;
else if xservreg=6  then temp_r=15;
else if xservreg=8  then temp_r=16;
else if xservreg=7  then temp_r=17;
else if xservreg=9  then temp_r=18;
else if xservreg=10 then temp_r=19;
else if xservreg=26 then temp_r=20;
else if xservreg=11 then temp_r=21;
else if xservreg=13 then temp_r=22;
else if xservreg=12 then temp_r=23;
else if xservreg=14 then temp_r=24;
else if xservreg=15 then temp_r=25;
else if xservreg=27 then temp_r=26;
else if xservreg=16 then temp_r=27;
else if xservreg=17 then temp_r=28;
else if xservreg=18 then temp_r=29;
else if xservreg=29 then temp_r=30;
else if xservreg=31 then temp_r=31;
else if xservreg=30 then temp_r=32;
else if xservreg=32 then temp_r=33;
else if xservreg=33 then temp_r=34;
else if xservreg=34 then temp_r=35;
else if xservreg=36 then temp_r=36;
else if xservreg=35 then temp_r=37;
else if xservreg=37 then temp_r=38;
else if xservreg=38 then temp_r=39;
else if xservreg=39 then temp_r=40;
else if xservreg=41 then temp_r=41;
else if xservreg=40 then temp_r=42;
else if xservreg=42 then temp_r=43;
else if xservreg=43 then temp_r=44;
drop xservreg;
run;

proc sort;
by xservreg caf cafmt;
run;

data temp4;
set temp3 end=last;

start=_n_;
label=cafmt;
type='N';
fmtname='ROWMAT';
if last then call symput('x',_n_);

run;

proc format cntlin=temp4;

proc print data=temp4;
run;

%MACRO FAKE;
DATA FAKE;

  KEEP MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD I K;   ***MJS 06/18/03 Added TIMEPD;

  LENGTH MAJGRP  $ 30
         REGION  $ 30    /*RSG 01/2005 lengthen format to fit service affiliation*/
         REGCAT  $ 30    /*MER 11/08/2012 length format for region/regcat for Joint Service
facilities */
         BENTYPE $ 50
         TIMEPD  $ 35;   ***MJS 06/18/03 Added TIMEPD;



  DO I=1 TO 8;             ** 8 Major groups **;
```

```
     MAJGRP=PUT(I,MAJOR.);

     DO J=1 TO &x;        ** Region/catchment **;

     REGCAT=PUT(J,ROWMAT.);
     RETAIN REGION;

     **RSG 01/2005 Change code to fit XSERVREG values**;
     IF SUBSTR(REGCAT,1,8) IN ('Benchmar','Overseas','OVERSEAS') OR
        SUBSTR(REGCAT,1,5) IN ('Pacif','Europ','Latin','North','South','West
','NORTH','SOUTH','WEST') OR
            REGCAT IN ('ARMY','AIR FORCE','NAVY','OTHER','JOINT SERVICE','USA MHS') THEN
REGION=REGCAT;


        DO K=1 TO 11;      ** 11 Benefits **;  /*** 04-11-09 MER ***/

          BENEFIT=PUT(K,BEN.);

          IF K=1 THEN DO;
              DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                  BENTYPE=PUT(L,GETNCARE.);   ***that replaced BENTYPE hard assignment;
                  %DO Q = 1 %TO &NUMQTR;   ***MJS 06/18/03 Moved loop inside L loop and changed
BENTYPE to TIMEPD;
                      TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                  %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
              END;
          END;
          ELSE IF K=2 THEN DO;
              DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                  BENTYPE=PUT(L,GETCAREQ.);   ***that replaced BENTYPE hard assignment;
                  %DO Q = 1 %TO &NUMQTR;   ***MJS 06/18/03 Moved loop inside L loop and changed
BENTYPE to TIMEPD;
                      TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                  %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
              END;
          END;
          ELSE IF K=3 THEN DO;
              DO L=1 TO 5;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                  BENTYPE=PUT(L,HOWWELL.);    ***that replaced BENTYPE hard assignment;
                  %DO Q = 1 %TO &NUMQTR;   ***MJS 06/18/03 Moved loop inside L loop and changed
BENTYPE to TIMEPD;
                      TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                  %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
              END;
          END;
          ELSE IF K=4 THEN DO;
              DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                  BENTYPE=PUT(L,CUSTSERV.);   ***that replaced BENTYPE hard assignment;
                  %DO Q = 1 %TO &NUMQTR;   ***MJS 06/18/03 Moved loop inside L loop and changed
BENTYPE to TIMEPD;
                      TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                  %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
              END;
          END;
          ELSE IF K=5 THEN DO;
              DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                  BENTYPE=PUT(L,CLMSPROC.);   ***that replaced BENTYPE hard assignment;
                  %DO Q = 1 %TO &NUMQTR;   ***MJS 06/18/03 Moved loop inside L loop and changed
BENTYPE to TIMEPD;
                      TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                  %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
              END;
          END;
          ELSE IF K=6 THEN DO;
              %DO Q = 1 %TO &NUMQTR;
                  BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                  TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
              %END;                        ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT after
this line;
          END;
          ELSE IF K=7 THEN DO;
              %DO Q = 1 %TO &NUMQTR;
```

```
                BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
            %END;                        ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT after
this line;
        END;
        ELSE IF K=8 THEN DO;
            %DO Q = 1 %TO &NUMQTR;
                BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
            %END;                        ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT after
this line;
        END;
        ELSE IF K=9 THEN DO;
            %DO Q = 1 %TO &NUMQTR;
                BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
            %END;                        ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT after
this line;
        END;
        ELSE IF K=10 THEN DO;
            DO L=1 TO 5;                   ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                BENTYPE=PUT(L,PREVCARE.);   ***that replaced BENTYPE hard assignment;
                %DO Q = 1 %TO &NUMQTR;   ***MJS 06/18/03 Moved loop inside L loop and changed
BENTYPE to TIMEPD;
                    TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
            END;
      END;
        ELSE IF K=11 THEN DO;            ***RSG 02/2005 Added for smoking scores.;
            DO M=1 TO 4;
                BENTYPE=PUT(M,SMOKEF.);
                %DO Q = 1 %TO &NUMQTR;
                    TIMEPD = "&&PERIOD&Q"; OUTPUT;
                %END;
            END;
        END;
      END;
    END;
  END;
RUN;
%MEND FAKE;
%FAKE;


/*** 12-13 MAB ***/
/*** Since quarterly files won't have catchment level data then delete ***/
DATA FAKE;
  SET FAKE;
  IF REGION=REGCAT;
RUN;

/*** 12-13 MAB ***/
/*** Need to create single benchmarks for ALL major groups ***/
DATA EXTRA;
  SET FAKE;
  IF MAJGRP="Prime Enrollees" AND REGION=REGCAT AND REGION^="Benchmark";
  MAJGRP="Benchmark";
RUN;
/*** Combine extra data with fake ***/
DATA FAKE;
  SET EXTRA FAKE;
RUN;

/*** Need to clean up data ***/
DATA OUT.FAKEQ;
  SET FAKE;

  /*** Need to set oddball records to missing ***/
  IF REGION="Benchmark" THEN SIG=.;
  if region=''|compress(regcat)='.' then delete;
```

```
  /*** Don't populate catchment areas for 4 major groups ***/
  *IF I IN(3,4,6,7) AND REGION^=REGCAT THEN DELETE;         /*** 12-13 MAB ***/

  DROP I K;

RUN;


PROC FREQ;
  TABLES MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG;   ***MJS 07/21/03 Added TIMEPD;
RUN;
```

G.5.B Q3FY2015\PROGRAMS\LOADWEB\MERGFINQ.SAS - Merge the final CAHPS and MPR Scores Databases into the WEB layout - Run Quarterly.

```
*************************************************************************
*
* PROGRAM:  MERGFINQ.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6077-410)
* PURPOSE:  Merge the final CAHPS and MPR Scores Databases
*           into the WEB layout preserving the order of the FAKEQ.SD2.
*
* WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from MERGFINL.SAS.
*
* INPUTS:   1) MPR and CAHPS Individual and Composite data sets with adjusted
*              scores, and benchmark data for quarterly DoD HCS.
*              - LOADMPRQ.sas7bdat - MPR Scores Database
*              - LOADCAHQ.sas7bdat - CAHPS Scores Database
*              - BENCHA04.sas7bdat - CAHPS Benchmark Database
*              - FAKEQ.sas7bdat    - WEB Layout in Column order
*
* OUTPUT:   1) MERGFINQ.sas7bdat - Combined Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*              and composite data sets
*
* MODIFIED:42) 11/03/2012 by Mike Rudacille - Updated for handling of
*              Joint Service facilities
*          43) 12/28/2012 by Aimee Valenzuela - Changed libname in2 and in3 for Q1FY2013.
*          44) 03/23/2013 by Mike Rudacille - Changed libname in2 and in3 for Q2FY2013.
*          45) 09/23/2013 by Amanda Kudis - Changed libname in2 and in3 for Q1FY2014.
*          46) 12/01/2014 By Matt Turbyfill, revised for the Macro Program.
                            Replaced RCTYPE with &PC.ReportCards
                            Replaced BCHTYPE with &PC.Benchmark
                            Changed IN2 to "CAHPS_ADULT&FOLDER.\Data"
                            Changed IN3 to "..\&RCTYPE\MPR_Adult&FOLDER.&FYYEAR."
                            Changed LOADCAHQ to ..\LoadWeb\LOADCAHQ.INC
*
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*  - STEP1Q.SAS      - Recode questions and generate CAHPS group files
*  - STEP2Q.SAS      - Calculate CAHPS individual adjusted scores for groups 1-7
*  - COMPOSIT.SAS    - Calculate composite adjusted scores for group 1-8
*  - PRVCOMPQ.SAS    - Calculate MPR individual and composite scores
*  - BENCHA01-04.SAS - Convert Benchmark Scores into WEB layout
*  - LOADCAHQ.SAS    - Convert Quarterly CAHPS Scores Database into WEB layout
*  - LOADMPRQ.SAS    - Convert Quarterly MPR Scores Database into WEB layout
*
* 2) The output file (MERGFINQ.SD2) will be run through the
*    MAKEHTMQ.SAS program to generate the WEB pages.
*
*************************************************************************
* Assign data libraries and options
*************************************************************************;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards                ***/
%LET RCTYPE = &PC.ReportCards;

/*** SELECT PROGRAM - Benchmark OR PurchasedBenchmark                    ***/
%LET BCHTYPE = &PC.Benchmark;

LIBNAME IN1  ".";
LIBNAME IN2  "CAHPS_ADULT&FOLDER.&FYYEAR.\Data";
LIBNAME IN3  "..\&RCTYPE\MPR_Adult&FOLDER.&FYYEAR.";
LIBNAME IN4  "..\&BCHTYPE\Data";
LIBNAME OUT  ".";
LIBNAME LIBRARY   "..\..\DATA\AFINAL\FMTLIB";

OPTIONS PS=79 LS=232 COMPRESS=YES NOCENTER;   ***MJS 07/23/03 Changed LS from 132;

%INCLUDE "..\LoadWeb\LOADCAHQ.INC";

*************************************************************************
* Construct ORDERing variable from WEB layout
```

```
*************************************************************************;
DATA ORDER;
   SET IN1.FAKEQ;
   ORDER = _N_;
   LENGTH KEY $200;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/09/03 Added TIMEPD;
   KEEP KEY ORDER;
RUN;

PROC SORT DATA=ORDER; BY KEY; RUN;

*************************************************************************
* Merge the Scores Databases
*************************************************************************;
DATA MERGFINQ;
   SET IN2.LOADCAHQ(IN=INCAHPQ)
       IN3.LOADMPRQ(IN=INMPRQ )
       IN4.BENCHA04(IN=INBENQ );
   SVCAHPQ = INCAHPQ;
   SVMPRQ  = INMPRQ;
   SVBENQ  = INBENQ;
   LENGTH KEY $200;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/09/03 Added TIMEPD;
   KEYLEN=LENGTH(KEY);
   KEYTEST=LENGTH(BENEFIT)+LENGTH(BENTYPE)+LENGTH(MAJGRP)+LENGTH(REGION)+LENGTH(TIMEPD);
   OUTPUT;
   IF INBENQ THEN DO;
      IF MAJGRP = "All Beneficiaries" THEN DO;
         DO REG = 1 TO 30; DROP REG;  /*JSO 08/24/2006, Changed Regions, 16 to 24*/ /*MER
11/03/12 24 to 30*/
               MAJGRP = "Benchmark";
               REGION = PUT(REG,SERVREGF.);
               REGCAT = PUT(REG,SERVREGF.);
               KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                     UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
                     UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/09/03 Added
TIMEPD;
               OUTPUT;
         END;
         DO SERV = 1 TO 5; DROP SERV;  /*RSG 02/2005 Add in serv affiliation*/ /*MER 11/03/12 4
to 5*/
               MAJGRP = "Benchmark";
               REGION = PUT(SERV,XSERVAFF.);
               REGCAT = PUT(SERV,XSERVAFF.);
               KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                     UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
                     UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
               OUTPUT;
         END;

     MAJGRP = "Benchmark";
     REGION = 'NORTH';
     REGCAT = 'NORTH';
         KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
               UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
               UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
         OUTPUT;

     MAJGRP = "Benchmark";
     REGION = 'Overseas Europe';
     REGCAT = 'Overseas Europe';
         KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
               UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
               UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
         OUTPUT;

     MAJGRP = "Benchmark";
     REGION = 'Overseas Pacific';
     REGCAT = 'Overseas Pacific';
         KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
```

```
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
          OUTPUT;

      MAJGRP = "Benchmark";
      REGION = 'Overseas Latin America';
      REGCAT = 'Overseas Latin America';
          KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
          OUTPUT;

      MAJGRP = "Benchmark";
      REGION = 'SOUTH';
      REGCAT = 'SOUTH';
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
          OUTPUT;

          MAJGRP = "Benchmark";
          REGION = 'WEST';
          REGCAT = 'WEST';
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
          OUTPUT;

          MAJGRP = "Benchmark";
          REGION = 'OVERSEAS';
          REGCAT = 'OVERSEAS';
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
          OUTPUT;

          MAJGRP = "Benchmark";
          REGION = 'USA MHS';
          REGCAT = 'USA MHS';
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
          OUTPUT;

       END;
    END;
    IF SCORE = . THEN DELETE;

RUN;

PROC SORT DATA=MERGFINQ; BY KEY; RUN;

*****************************************************************************
* Append ORDERing variable to the merged Scores database file
*****************************************************************************;
DATA MERGFINQ MISSING;
   MERGE MERGFINQ(IN=IN1) ORDER(IN=IN2);
   BY KEY;

   LENGTH FLAG $30;
   IF IN1 AND IN2 THEN FLAG = "IN SCORES DB AND LAYOUT";
   ELSE IF    IN1 THEN FLAG = "IN SCORES DB ONLY";
   ELSE IF    IN2 THEN FLAG = "IN LAYOUT ONLY";

   LENGTH SOURCE $30;
   IF SVCAHPQ = 1 THEN SOURCE = "CAHPS     ";
   IF SVMPRQ  = 1 THEN SOURCE = "MPR       ";
   IF SVBENQ  = 1 THEN SOURCE = "BENCHMARK ";

   IF IN1 AND NOT IN2 THEN OUTPUT MISSING; *Missing from layout;
   IF IN1 THEN OUTPUT MERGFINQ;
RUN;

*****************************************************************************
```

```
* Reorder file according to WEB layout
*************************************************************************;
PROC SORT DATA=MERGFINQ OUT=OUT.MERGFINQ; BY ORDER; RUN;

DATA FAKEQ;
   SET IN1.FAKEQ;
   ORDER = _N_;
RUN;

DATA LAYONLY;
   MERGE FAKEQ(IN=IN1) OUT.MERGFINQ(IN=IN2 KEEP=ORDER);
   BY ORDER;
   IF IN1 AND NOT IN2;
RUN;

TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6663-410)";
TITLE2 "Program Name: MERGFINQ.SAS By Keith Rathbun";
TITLE3 "Program Inputs: MPR and CAHPS Combined Scores data sets and WEB Layout";
TITLE4 "Program Outputs: MERGFINQ.sas7bdat - Merged Final Scores Database for input to
MAKEHTML.SAS";

TITLE5 "MERGFINQ.sas7bdat Data source counts";
PROC FREQ DATA=OUT.MERGFINQ;
TABLES SOURCE FLAG SVCAHPQ SVMPRQ SVBENQ
                   SVCAHPQ*SVMPRQ*SVBENQ
      /MISSING LIST;
RUN;

TITLE5 "MERGFINQ.sas7bdat Data attribute counts";
PROC FREQ DATA=OUT.MERGFINQ;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT TIMEPD   /*MJS 07/23/03 Added TIMEPD*/
       REGION*REGCAT
      /MISSING LIST;
RUN;

TITLE5 "LAYONLY Data attribute counts";
PROC FREQ DATA=LAYONLY;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT TIMEPD   /*MJS 07/23/03 Added TIMEPD*/
       REGION*REGCAT
      /MISSING LIST;
RUN;

TITLE5 "No matching record found in LAYOUT file (FAKEQ.sas7bdat)";
PROC PRINT DATA=MISSING;
VAR MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD;   ***MJS 07/23/03 Added TIMEPD;
RUN;
```

G.6 - Q3FY2015\PROGRAMS\LOADWEB\CONUS_Q.SAS - Generate CAHPS CONUS scores and perform significance tests - Run Quarterly.

```
***************************************************************************
*
*  PROGRAM:  CONUS_Q.SAS
*  TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6077-410)
*  PURPOSE:  Generate CAHPS CONUS scores and perform significance tests.
*
*  WRITTEN:  11/13/2000 BY KEITH RATHBUN, Adapted from CONUS_A.SAS.
*            Merged SIGNIF_A.SAS funtionality.
*
*  MODIFIED:47) 11/03/2012 By Mike Rudacille - Updated for handling of
*               Joint Service facilities
*           48) 12/28/2012 By Aimee Valenzuela - Changed %LET PERIOD1 - PERIOD4
*               Changed %LET LSTCONUS for Q1FY2013
*           49) 03/23/2013 By Mike Rudacille - Changed %LET PERIOD1 - PERIOD4
*               Changed %LET LSTCONUS for Q2FY2013
*           50) 09/23/2013 By Amanda Kudis - Changed %LET PERIOD1 - PERIOD4
*               Changed %LET LSTCONUS for fake version of Q4FY2013, and removed period 3
(Q4FY2013)
*               from being used to in trend calculations.
*           51) 12/01/2014 By Matt Turbyfill, revised for the Macro Program.
                                  Changed LSTCONUS to &LSTCONUS
                                  Changed PERIOD1-4 to &PERIOD1-4
                                  Changed EMPTY_PERIOD to &EMPTY_PERIOD
                                  In IN2.CONUS_Q step, rename BENEFIT to BENEFIT2, set
BENEFIT to the first 28 characters of BENEFIT2, and drop BENEFIT2.
                                  Set KEY to format $200. in IN2.CONUS_Q and FAKEq steps.
                                  Dropped KEY on the last two PROC PRINT steps.
*
*   INPUTS:  1) MERGFINQ.sas7bdat - Scores Database in WEB Layout
*            2) FAKEQ.sas7bdat - Scores Database WEB Layout
*            3) CONUS_Q.sas7bdat - Previous Quarters Combined CAHPS/MPR Scores Database in WEB
layout
*
*   OUTPUT:  1) TOTAL_Q.sas7bdat - Combined CAHPS/MPR Scores Database in WEB layout
*            2) LT30Q.sas7bdat - Records with <= 30 observations
*            3) CONUS_Q.sas7bdat - Current Quarters Combined CAHPS/MPR Scores Database in WEB
layout
*
*
*    NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - STEP1Q.SAS   - Recode questions and generate group files
*    - STEP2Q.SAS   - Calculate individual adjusted scores for group 1-7
*    - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
*    - LOADCAHPQ.SAS - Combine all questionnaire (CAHPS) scores together
*    - PRVCOMPQ.SAS - Calculate preventative measure scores for group1-8
*    - SMOKING_BMI.SAS     - Calculate healthy behaviors scores for group1-8
*    - LOADMPRQ.SAS    - Combined preventative and healthy behaviors scores
*    - MERGFINQ.SAS - Merge the final CAHPS and MPR Scores Databases
*
***************************************************************************
* Assign data libraries and options
***************************************************************************;

LIBNAME IN1  ".";
LIBNAME OUT  ".";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER MPRINT MLOGIC;

***************************************************************************;
* Define GLOBAL parameters for last CONUSQ.sas7bdat, rolling quarters, and
* input dataset name.
*
* IMPORTANT: Update these GLOBALS each quarter prior to rerunning program.
***************************************************************************;

%LET LSTCONUS = &LSTCONUS;

%LET PERIOD1 = &PERIOD1;
```

```
%LET PERIOD2 = &PERIOD2;
%LET PERIOD3 = &PERIOD3;
%LET PERIOD4 = &PERIOD4;

%LET DSN     = MERGFINQ;

%LET EMPTY_PERIOD  = &EMPTY_PERIOD.; *AMK 9/23/13 to handle quarter with no data, should be 0 if
data avilable for all 4 quarters;

*************************************************************************;
* Set up empty template file for data merge purposes and set first time flag
*************************************************************************;
DATA INIT;
   SET IN1.&DSN;
   DELETE;
RUN;
%LET FLAG = 0;
************************************************************************
*
* Process Macro Input Parameters:
*
* 1) BENTYPE = Benefit Type
* 2) MAJGRP = Major Group
* 3) TYPE = INDIVIDUAL or COMPOSITE
* 4) BENEFIT = COMPOSITE Benefit Type
*
*************************************************************************;
%MACRO PROCESS(BENTYPE=,MAJGRP=,TYPE=,BENEFIT=);
DATA TEMP;
   SET IN1.&DSN END=FINISHED;
   %IF "&TYPE" = "INDIVIDUAL" %THEN %DO;
       WHERE BENTYPE = "&BENTYPE" AND "&MAJGRP" = MAJGRP AND REGION = REGCAT AND
             /*SUBSTR(REGION,1,5) NOT IN("Bench","USA") AND*/
             /*SUBSTR(REGCAT,1,5) NOT IN("Bench","USA") AND*/
             SUBSTR(REGION,1,5) NE "Bench" AND SUBSTR(REGION,1,3) NE "USA" AND
             SUBSTR(REGCAT,1,5) NE "Bench" AND SUBSTR(REGCAT,1,3) NE "USA" AND
             REGION NOT IN ("ARMY","AIR FORCE","NAVY","OTHER","JOINT SERVICE");
   %END;
   %ELSE %IF "&TYPE" = "COMPOSITE" %THEN %DO;
       WHERE BENTYPE = &BENTYPE AND "&MAJGRP" = MAJGRP AND REGION = REGCAT AND
             BENEFIT = "&BENEFIT" AND
             /*SUBSTR(REGION,1,5) NOT IN("Bench","USA") AND*/
             /*SUBSTR(REGCAT,1,5) NOT IN("Bench","USA") AND*/
             SUBSTR(REGION,1,5) NE "Bench" AND SUBSTR(REGION,1,3) NE "USA" AND
             SUBSTR(REGCAT,1,5) NE "Bench" AND SUBSTR(REGCAT,1,3) NE "USA" AND
             REGION NOT IN ("ARMY","AIR FORCE","NAVY","OTHER","JOINT SERVICE");
   %END;
   %ELSE %DO;
       PUT "ERROR - Invalid Type = &TYPE";
   %END;

   IF SUBSTR(REGION,1,5) IN ('North','South') THEN DO;
      IF      SUBSTR(REGION,1,5)='North' THEN REGCON=1;
      ELSE IF SUBSTR(REGION,1,5)='South' THEN REGCON=2;
      TOTCON=1;
      IF      SUBSTR(REGION,7,4)='Army'       THEN SERVICE=1;
      ELSE IF SUBSTR(REGION,7,9)='Air Force'  THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,7,4)='Navy'       THEN SERVICE=3;
      ELSE IF SUBSTR(REGION,7,5)='Joint'      THEN SERVICE=5;
      ELSE                                         SERVICE=4;
   END;
   ELSE IF SUBSTR(REGION,1,4)='West' THEN DO;
      REGCON=3;
      TOTCON=1;
      IF      SUBSTR(REGION,6,4)='Army'       THEN SERVICE=1;
      ELSE IF SUBSTR(REGION,6,9)='Air Force'  THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,6,4)='Navy'       THEN SERVICE=3;
      ELSE IF SUBSTR(REGION,6,5)='Joint'      THEN SERVICE=5;
      ELSE                                         SERVICE=4;
   END;
   ELSE IF SUBSTR(REGION,1,6)='Europe' THEN DO;
      REGCON=4;
      TOTCON=2;
      IF      SUBSTR(REGION,8,4)='Army'       THEN SERVICE=1;
```

```
      ELSE IF SUBSTR(REGION,8,9)='Air Force'  THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,8,4)='Navy'       THEN SERVICE=3;
      ELSE IF SUBSTR(REGION,8,5)='Joint'      THEN SERVICE=5;
      ELSE                                         SERVICE=4;
   END;
      ELSE IF SUBSTR(REGION,1,7)='Pacific' THEN DO;
      REGCON=5;
      TOTCON=2;
      IF      SUBSTR(REGION,9,4)='Army'       THEN SERVICE=1;
      ELSE IF SUBSTR(REGION,9,9)='Air Force'  THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,9,4)='Navy'       THEN SERVICE=3;
      ELSE IF SUBSTR(REGION,9,5)='Joint'      THEN SERVICE=5;
      ELSE                                         SERVICE=4;
   END;
   ELSE IF SUBSTR(REGION,1,13)='Latin America' THEN DO;
      REGCON=6;
      TOTCON=2;
      IF      SUBSTR(REGION,15,4)='Army'      THEN SERVICE=1;
      ELSE IF SUBSTR(REGION,15,9)='Air Force' THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,15,4)='Navy'      THEN SERVICE=3;
      ELSE IF SUBSTR(REGION,15,5)='Joint'     THEN SERVICE=5;
      ELSE                                         SERVICE=4;
   END;


RUN;

*********************************************************************;
* RSG 01/2005 Calc. total Service Affiliation Scores       *;
*********************************************************************;
PROC SORT DATA=TEMP;
BY SERVICE;

DATA TEMP2;
   SET TEMP;
   BY SERVICE;
      length key $200;
   IF FIRST.SERVICE THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;     RETAIN SUMWGT1;
      SUMSE2 = 0;      RETAIN SUMSE2;
      SUMWGT2 = 0;     RETAIN SUMWGT2;
      N_OBS1 = 0;      RETAIN N_OBS1;
   END;

   IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
   IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
   IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
   IF N_OBS  NE . THEN N_OBS1 + N_OBS;


KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
     FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

   IF LAST.SERVICE THEN DO;

      IF SUMWGT1 NOTIN (.,0) THEN DO;
         SCORE   = SUMSCOR1/SUMWGT1;
         SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
      END;
      ELSE DO;
         SCORE   = .;
         SEMEAN  = .;
      END;

      N_OBS   = N_OBS1;
      N_WGT   = SUMWGT1;
      SOURCE  = "USA";
      FLAG    = "USA";
      IF SERVICE=1 THEN REGION = "ARMY";
      IF SERVICE=2 THEN REGION = "AIR FORCE";
      IF SERVICE=3 THEN REGION = "NAVY";
      IF SERVICE=4 THEN REGION = "OTHER";
      IF SERVICE=5 THEN REGION = "JOINT SERVICE";
```

```
      REGCAT  = REGION;
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
      OUTPUT;
   END;
RUN;

*********************************************************************;
* RSG 01/2005 Calc. Total Region scores                             *;
*********************************************************************;
PROC SORT DATA=TEMP;
BY REGCON;
DATA TEMP3;
   SET TEMP;
   BY REGCON;
      length key $200;
   IF FIRST.REGCON THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;     RETAIN SUMWGT1;
      SUMSE2 = 0;      RETAIN SUMSE2;
      SUMWGT2 = 0;     RETAIN SUMWGT2;
      N_OBS1 = 0;      RETAIN N_OBS1;
   END;

   IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
   IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
   IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
   IF N_OBS  NE . THEN N_OBS1 + N_OBS;

KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
     FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

   IF LAST.REGCON THEN DO;

      IF SUMWGT1 NOTIN (.,0) THEN DO;
         SCORE = SUMSCOR1/SUMWGT1;
         SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
      END;
      ELSE DO;
         SCORE   = .;
         SEMEAN  = .;
      END;
      N_OBS   = N_OBS1;
      N_WGT   = SUMWGT1;
      SOURCE  = "REGION";
      FLAG    = "REGION";
      IF REGCON=1 THEN REGION = "NORTH";
      IF REGCON=2 THEN REGION = "SOUTH";
      IF REGCON=3 THEN REGION = "WEST";
      IF REGCON=4 THEN REGION = "Overseas Europe";
      IF REGCON=5 THEN REGION = "Overseas Pacific";
      IF REGCON=6 THEN REGION = "Overseas Latin America";

      REGCAT  = REGION;
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
      OUTPUT;
   END;
RUN;

*********************************************************************;
* RSG 01/2005 Calc. Total CONUS Scores                              *;
* MER 01/2009 Changed CONUS to USA                                  *;
*********************************************************************;
PROC SORT DATA=TEMP;
BY TOTCON;
DATA TEMP4;
   SET TEMP END=FINISHED;
   BY TOTCON;
      length key $200;
   IF FIRST.TOTCON THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
```

```
      SUMWGT1 = 0;     RETAIN SUMWGT1;
      SUMSE2 = 0;      RETAIN SUMSE2;
      SUMWGT2 = 0;     RETAIN SUMWGT2;
      N_OBS1 = 0;      RETAIN N_OBS1;
   END;


      IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
      IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
      IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
      IF N_OBS  NE . THEN N_OBS1 + N_OBS;

   IF LAST.TOTCON THEN DO;




      IF SUMWGT1 NOTIN (.,0) THEN DO;
        SCORE   = SUMSCOR1/SUMWGT1;
        SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
      END;
      ELSE DO;
        SCORE   = .;
        SEMEAN  = .;
      END;
      N_OBS   = N_OBS1;
      N_WGT   = SUMWGT1;
      SOURCE  = "USA";
      FLAG    = "USA";
   IF TOTCON=1 THEN REGION = "USA MHS";
   IF TOTCON=2 THEN REGION = "OVERSEAS";
      REGCAT  = REGION;
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
      OUTPUT;
END;
KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
     FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

RUN;

%IF &FLAG = 0 %THEN %DO;
   DATA FINAL;
      SET INIT TEMP2 TEMP3 TEMP4;
   RUN;
%END;
%ELSE %DO;
   DATA FINAL;
      SET FINAL TEMP2 TEMP3 TEMP4;
   RUN;
%END;
%LET FLAG = 1;

%MEND;

*************************************************************************
* Create CONUS for Active Duty - Individual
*************************************************************************;
%PROCESS(BENTYPE=Claims Handled Correctly           ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous Customer Service         ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Information                ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting to See a Specialist        ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Treatment                  ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                  ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                      ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You               ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit             ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care               ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);

*************************************************************************
* Create CONUS for Active Duty Dependents - Individual
```

```
*************************************************************************;
%PROCESS(BENTYPE=Claims Handled Correctly           ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous Customer Service         ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Information                ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting to See a Specialist        ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Treatment                  ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                  ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                      ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You               ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit             ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care               ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);

*************************************************************************
* Create CONUS for Enrollees with Civilian PCM - Individual
*************************************************************************;
%PROCESS(BENTYPE=Claims Handled Correctly           ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous Customer Service         ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Information                ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting to See a Specialist        ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Treatment                  ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                  ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                      ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You               ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit             ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care               ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);

*************************************************************************
* Create CONUS for Enrollees with Military PCM - Individual
*************************************************************************;
%PROCESS(BENTYPE=Claims Handled Correctly           ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous Customer Service         ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Information                ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting to See a Specialist        ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Treatment                  ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                  ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
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```
%PROCESS(BENTYPE=Shows Respect                      ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You               ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit             ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care               ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);

***************************************************************************
* Create CONUS for Non-enrolled Beneficiaries - Individual
***************************************************************************;
%PROCESS(BENTYPE=Claims Handled Correctly           ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous Customer Service         ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Information                ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting to See a Specialist        ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Treatment                  ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                  ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                      ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You               ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit             ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care               ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);

***************************************************************************
* Create CONUS for Prime Enrollees - Individual
***************************************************************************;
%PROCESS(BENTYPE=Claims Handled Correctly           ,MAJGRP=Prime Enrollees, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Prime Enrollees, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous Customer Service         ,MAJGRP=Prime Enrollees, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Prime Enrollees, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Information                ,MAJGRP=Prime Enrollees, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting to See a Specialist        ,MAJGRP=Prime Enrollees, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Treatment                  ,MAJGRP=Prime Enrollees, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                  ,MAJGRP=Prime Enrollees, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                      ,MAJGRP=Prime Enrollees, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You               ,MAJGRP=Prime Enrollees, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit             ,MAJGRP=Prime Enrollees, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care               ,MAJGRP=Prime Enrollees, TYPE=INDIVIDUAL);

***************************************************************************
* Create CONUS for Retirees and Dependents - Individual
***************************************************************************;
%PROCESS(BENTYPE=Claims Handled Correctly           ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous Customer Service         ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Information                ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting to See a Specialist        ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Treatment                  ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                  ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                      ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
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%PROCESS(BENTYPE=Spends Time with You               ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit             ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care               ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);

***************************************************************************
* Create CONUS for All Beneficiaries - Individual
***************************************************************************;
%PROCESS(BENTYPE=Claims Handled Correctly           ,MAJGRP=All Beneficiaries, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=All Beneficiaries, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Courteous Customer Service         ,MAJGRP=All Beneficiaries, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=All Beneficiaries, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Information                ,MAJGRP=All Beneficiaries, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting to See a Specialist        ,MAJGRP=All Beneficiaries, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Getting Treatment                  ,MAJGRP=All Beneficiaries, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Listens Carefully                  ,MAJGRP=All Beneficiaries, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Shows Respect                      ,MAJGRP=All Beneficiaries, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Spends Time with You               ,MAJGRP=All Beneficiaries, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Routine Visit             ,MAJGRP=All Beneficiaries, TYPE=INDIVIDUAL);
%PROCESS(BENTYPE=Wait for Urgent Care               ,MAJGRP=All Beneficiaries, TYPE=INDIVIDUAL);

***************************************************************************
* Process Quarterly CONUS Composites
***************************************************************************
***************************************************************************
* Create CONUS for Claims Processing - Quarterly
***************************************************************************;
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty                , TYPE=COMPOSITE,BENEFIT=Claims
Processing);   ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to BENTYPE="Composite";
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=Claims
Processing);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Claims
Processing);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Claims
Processing);
%PROCESS(BENTYPE="Composite", MAJGRP=Non-enrolled Beneficiaries , TYPE=COMPOSITE,BENEFIT=Claims
Processing);
%PROCESS(BENTYPE="Composite", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=Claims
Processing);
%PROCESS(BENTYPE="Composite", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=Claims
Processing);
%PROCESS(BENTYPE="Composite", MAJGRP=All Beneficiaries          , TYPE=COMPOSITE,BENEFIT=Claims
Processing);

***************************************************************************
* Create CONUS for Customer Service - Quarterly
***************************************************************************;
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty                ,
TYPE=COMPOSITE,BENEFIT=Customer Service);   ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty Dependents     ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Civilian PCM,
TYPE=COMPOSITE,BENEFIT=Customer Service);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Military PCM,
TYPE=COMPOSITE,BENEFIT=Customer Service);
%PROCESS(BENTYPE="Composite", MAJGRP=Non-enrolled Beneficiaries ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
%PROCESS(BENTYPE="Composite", MAJGRP=Prime Enrollees            ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
%PROCESS(BENTYPE="Composite", MAJGRP=Retirees and Dependents    ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
%PROCESS(BENTYPE="Composite", MAJGRP=All Beneficiaries          ,
TYPE=COMPOSITE,BENEFIT=Customer Service);

***************************************************************************
* Create CONUS for Getting Care Quickly - Quarterly
***************************************************************************;
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty                , TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);   ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to BENTYPE="Composite";
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);
```

```
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);
%PROCESS(BENTYPE="Composite", MAJGRP=Non-enrolled Beneficiaries , TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);
%PROCESS(BENTYPE="Composite", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);
%PROCESS(BENTYPE="Composite", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);
%PROCESS(BENTYPE="Composite", MAJGRP=All Beneficiaries          , TYPE=COMPOSITE,BENEFIT=Getting
Care Quickly);

***************************************************************************
* Create CONUS for Getting Needed Care - Quarterly
***************************************************************************;
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty                , TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);   ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to BENTYPE="Composite";
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Non-enrolled Beneficiaries , TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);
%PROCESS(BENTYPE="Composite", MAJGRP=All Beneficiaries          , TYPE=COMPOSITE,BENEFIT=Getting
Needed Care);

***************************************************************************
* Create CONUS for Health Care - Quarterly
***************************************************************************;
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty                , TYPE=COMPOSITE,BENEFIT=Health
Care);   ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to BENTYPE="Composite";
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=Health
Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Health
Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Health
Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Non-enrolled Beneficiaries , TYPE=COMPOSITE,BENEFIT=Health
Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=Health
Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=Health
Care);
%PROCESS(BENTYPE="Composite", MAJGRP=All Beneficiaries          , TYPE=COMPOSITE,BENEFIT=Health
Care);

***************************************************************************
* Create CONUS for Health Plan - Quarterly
***************************************************************************;
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty                , TYPE=COMPOSITE,BENEFIT=Health
Plan);   ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to BENTYPE="Composite";
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=Health
Plan);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Health
Plan);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Health
Plan);
%PROCESS(BENTYPE="Composite", MAJGRP=Non-enrolled Beneficiaries , TYPE=COMPOSITE,BENEFIT=Health
Plan);
%PROCESS(BENTYPE="Composite", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=Health
Plan);
%PROCESS(BENTYPE="Composite", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=Health
Plan);
%PROCESS(BENTYPE="Composite", MAJGRP=All Beneficiaries          , TYPE=COMPOSITE,BENEFIT=Health
Plan);

***************************************************************************
```

```
* Create CONUS for How Well Doctors Communicate - Quarterly
*************************************************************************;
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty                , TYPE=COMPOSITE,BENEFIT=How
Well Doctors Communicate);   ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to BENTYPE="Composite";
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=How
Well Doctors Communicate);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=How
Well Doctors Communicate);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=How
Well Doctors Communicate);
%PROCESS(BENTYPE="Composite", MAJGRP=Non-enrolled Beneficiaries , TYPE=COMPOSITE,BENEFIT=How
Well Doctors Communicate);
%PROCESS(BENTYPE="Composite", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=How
Well Doctors Communicate);
%PROCESS(BENTYPE="Composite", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=How
Well Doctors Communicate);
%PROCESS(BENTYPE="Composite", MAJGRP=All Beneficiaries          , TYPE=COMPOSITE,BENEFIT=How
Well Doctors Communicate);

*************************************************************************
* Create CONUS for Primary Care Manager - Quarterly
*************************************************************************;
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty                , TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);   ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to BENTYPE="Composite";
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty Dependents     , TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Civilian PCM, TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Military PCM, TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);
%PROCESS(BENTYPE="Composite", MAJGRP=Non-enrolled Beneficiaries , TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);
%PROCESS(BENTYPE="Composite", MAJGRP=Prime Enrollees            , TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);
%PROCESS(BENTYPE="Composite", MAJGRP=Retirees and Dependents    , TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);
%PROCESS(BENTYPE="Composite", MAJGRP=All Beneficiaries          , TYPE=COMPOSITE,BENEFIT=Primary
Care Manager);

*************************************************************************
* Create CONUS for Specialty Care - Quarterly
*************************************************************************;
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty                ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);   ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
%PROCESS(BENTYPE="Composite", MAJGRP=Active Duty Dependents     ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Civilian PCM,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Enrollees with Military PCM,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Non-enrolled Beneficiaries ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Prime Enrollees            ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
%PROCESS(BENTYPE="Composite", MAJGRP=Retirees and Dependents    ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
%PROCESS(BENTYPE="Composite", MAJGRP=All Beneficiaries          ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);

*************************************************************************
* Extract ORDER and KEY from the WEB Layout file.  TEMPQ will be used
* as place holders for missing records.  FAKEQ will be used for adding
* new records.
*************************************************************************;
DATA FAKEQ;
   SET IN1.FAKEQ;
     length key $200;
   SIG = .;
   SCORE = .;
   ORDER = _N_;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
```

```
RUN;
PROC SORT DATA=FAKEQ OUT=TEMPQ;       BY KEY; RUN;
PROC SORT DATA=FAKEQ(KEEP=ORDER KEY); BY KEY; RUN;

***************************************************************************
* Append BENCHMARK records to CAHPS records and perform significance tests
***************************************************************************;
DATA BENCHMRK(KEEP=MAJGRP BENEFIT BENTYPE SEMEAN SCORE);
   SET IN1.&DSN;
   WHERE SUBSTR(REGION,1,5) = "Bench" AND SVMPRQ = 0;
RUN;
Data abnchmrk(keep=benefit bentype ascore);
set benchmrk;
where upcase(majgrp)='ALL BENEFICIARIES';
rename score=ascore;
run;
proc sort; by benefit bentype;
proc sort data=benchmrk; by benefit bentype;
data benchmrk;
merge benchmrk abnchmrk; by benefit bentype;run;
PROC SORT DATA=BENCHMRK; BY MAJGRP BENEFIT BENTYPE; RUN;

PROC SORT DATA=FINAL; BY KEY; RUN;

DATA CONUS_Q;
   MERGE FINAL(IN=IN1) FAKEQ(IN=IN2);
   BY KEY;
   IF IN1;
RUN;
PROC SORT DATA=CONUS_Q; BY MAJGRP BENEFIT BENTYPE; RUN;

***************************************************************************
* Perform significance tests for CONUS scores
***************************************************************************;
DATA SIGTEST1;
   MERGE CONUS_Q(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE;
   length key $200;
   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   IF N_OBS > 1 THEN TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1)); /** RSG 06/22/2004 - PUT CONDITION
TO AVOID DF=0 WHICH CAUSES ERROR FOR PROBT FUNCTION **/
   ELSE TEST = .; /** RSG 06/22/2004 - ADDED FOR CASES WITH N_OBS = 1 OR LESS SINCE PROBT CAN'T
BE PERFORMED AND WOULD RESULT IN TEST = MISSING ANYWAY **/
   SIG = 0;
   IF TEST < 0.05 AND TEST NE . THEN SIG = 1; /** RSG 06/22/2004 - ADDED CONDITION "TEST NE ."
IN CASE MISSING IS CONSIDERED LESS THAN 0.05 **/
   IF SCORE < BSCORE THEN SIG = -SIG;


   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
   SOURCE = "USA_Q";
   FLAG   = "USA_Q";
   IF SIN;
   score=score+ascore-bscore;
RUN;
PROC SORT DATA=SIGTEST1; BY KEY; RUN;

***************************************************************************
* Extract CAHPS scores to perform significance tests
***************************************************************************;
DATA CAHPS MPR bench;
   SET IN1.&DSN;
   ************************************************************************
   * Significance tests have already been performed for MPR scores,
   * so remove from file.
   ************************************************************************;
   IF SVMPRQ = 1 THEN OUTPUT MPR;
   IF SVMPRQ = 0 THEN do;
    if majgrp ne 'Benchmark' then OUTPUT CAHPS;
    else output bench; end;
RUN;
```

```
PROC SORT DATA=CAHPS;
   BY MAJGRP BENEFIT BENTYPE;
RUN;

*************************************************************************
* Perform significance tests for CAHPS scores
*************************************************************************;
DATA SIGTEST2;
   MERGE CAHPS(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE;
   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   IF N_OBS > 1 THEN TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));  /** RSG 06/22/2004 PUT N_OBS > 1
CONDITION TO AVOID ERRORS BECAUSE PROBT CAN NOT HANDLE DF=0 **/
   ELSE TEST = .;
   SIG = 0;
   IF N_OBS >= 30 AND TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;
   IF SIN;
   score=score+ascore-bscore;
   RUN;
proc sort data=bench; by majgrp benefit bentype;
data sigtest2;
set sigtest2 bench; by majgrp benefit bentype;
PROC SORT DATA=SIGTEST2; BY KEY; RUN;

*************************************************************************
* When NOT 1st quarter: Get records from previous quarters
*************************************************************************;
%MACRO LASTQTR;
   ************************************************************************
   * Input composite records from previous quarters.
   ************************************************************************;

   LIBNAME IN2 "&LSTCONUS";
   DATA LASTQTR (drop=key2 BENEFIT2); /*RSG 10/2005 - KEY2 WAS CREATED AT END OF PROG TO HELP
                              SET TREND TO MISSING FOR SCORES MISSING IN ANY QUARTERS
                              THIS SHOULD BE DROPPED AND RESET AT THE END OF PROG*/
     SET IN2.CONUS_Q (RENAME = (BENEFIT = BENEFIT2) DROP=KEY);
   FORMAT BENEFIT $28.;/*The longest entry in BENEFIT is "How Well Doctors Communicate", which
is 28 characters long.*/
  FORMAT KEY $200.;
  BENEFIT = BENEFIT2;


/*** Change BENEFIT "Heathly Behavior" to Healthy "Behaviors" JSO 02/16/2007 ***/
      IF BENEFIT = 'Healthy Behavior' THEN BENEFIT = 'Healthy Behaviors';

/*** Change SOURCE and FLAG from "CONUS_Q" to "USA_Q" MER 01/29/2009 ***/
/*** Change REGION and REGCAT from "CONUS MHS to USA MHS" MER 01/29/2009 ***/
      IF SOURCE = 'CONUS_Q' THEN SOURCE = 'USA_Q';
      IF FLAG = 'CONUS_Q' THEN FLAG = 'USA_Q';
      IF REGION = 'CONUS MHS' THEN REGION = 'USA MHS';
      IF REGCAT = 'CONUS MHS' THEN REGCAT = 'USA MHS';

      IF timepd IN ("&PERIOD1","&PERIOD2","&PERIOD3") AND
        (REGION = REGCAT) AND
         BENEFIT IN ("Getting Needed Care",
                     "Getting Care Quickly",
                     "How Well Doctors Communicate",
                     "Customer Service",
                     "Claims Processing",
                     "Health Care",
                     "Health Plan",
                     "Primary Care Manager",
                     "Specialty Care",
                     "Preventive Care",
                     "Healthy Behaviors") & TIMEPD NE "Trend";


     KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
```

```
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));

   RUN;
%MEND LASTQTR;
%LASTQTR;

PROC SORT DATA=LASTQTR(DROP=ORDER); BY KEY; RUN;

DATA LASTQTR;
   MERGE TEMPQ(IN=IN1) LASTQTR(IN=IN2);
   BY KEY;
   IF IN1 AND IN2;
RUN;

PROC SORT DATA=MPR; BY KEY; RUN;



*************************************************************************
* Combine previously created records with the new file
*************************************************************************;
DATA COMBINE OUT.LT30Q;
   SET SIGTEST1 SIGTEST2 LASTQTR MPR;
   BY KEY;
   if timepd="&period1" then period=1;   ***MJS 07/08/03 Changed from bentype="&period1";
   if timepd="&period2" then period=2;   ***MJS 07/08/03 Changed from bentype="&period2";
   if timepd="&period3" then period=3;   ***MJS 07/08/03 Changed from bentype="&period3";
   if timepd="&period4" then period=4;   ***MJS 07/08/03 Changed from bentype="&period4";
   ***********************************************************************
   * Remove N_OBS < 30 OR N_WGT < 200
   ***********************************************************************;
   IF (N_OBS < 30 OR N_WGT < 200) AND (MAJGRP NE "Benchmark") AND
      (REGION NE "Benchmark")
      THEN OUTPUT OUT.LT30Q;
   ELSE OUTPUT COMBINE;
RUN;

data trend;
set combine;
where period notin (.,&EMPTY_PERIOD.) ; *AMK 9/23/13 ADDED EMPTY PERIOD;
if period<4|benefit="Preventive Care" then score=score/100;

proc sort data=trend;
by majgrp region regcat benefit bentype period;
run;

data avg(keep=majgrp region regcat benefit t_obs a_period a_score twgt bentype) ;
set trend;   by majgrp region regcat benefit bentype period;
if majgrp="Benchmark"|region="Benchmark" then n_wgt=1;
if first.majgrp|first.region|first.regcat|first.benefit|first.bentype then do;
t_obs=0;
t_score=0;
twgt=0;
t_period=0;
end;
t_obs+n_obs;
t_Score+n_wgt*score;
twgt+n_wgt;
t_period+period*n_wgt;
 if last.majgrp|last.region|last.regcat|last.benefit|last.bentype then do;
    if twgt notin (.,0) then do;
       a_score=t_score/twgt;
       a_period=t_period/twgt;
    end;
    else do;
       a_score=.;
       a_period=.;
    end;
    output;
 end;
RUN;

data trend2(drop=score) btrend(keep=majgrp benefit bentype trend serr);
merge trend avg;  by majgrp region regcat benefit bentype;
```

```
if majgrp="Benchmark"|region="Benchmark" then n_wgt=1;
if first.majgrp|first.region|first.regcat|first.benefit|first.bentype then do;
t_score=0;
t_se=0;
t_period=0;
end;
t_se+((n_wgt**2)*(semean**2));
t_score+n_wgt*(score-a_score)*(period-a_period);
t_period+n_wgt*(period-a_period)**2;
if last.majgrp|last.region|last.regcat|last.benefit|last.bentype then do;
if t_period ne 0 then do;   /* RSG 06/22/2004 Added to avoid division by zero*/
   trend=t_score/t_period;
   serr=sqrt(t_se/(t_period*twgt));
end;
else do;
   trend=.;
   serr=.;
end;
if region="Benchmark"|majgrp="Benchmark" then output btrend;
output trend2;
end;
proc sort data=trend2; by majgrp benefit bentype;RUN;
proc sort data=btrend; by majgrp benefit bentype;
data trend3(rename=(trend=score));
merge trend2 btrend(rename=(trend=btrend serr=bserr));
by majgrp benefit bentype;
   length key $200;
if ^(region="Benchmark"|majgrp="Benchmark") then do;
ttrend=trend-btrend;
serr=sqrt((serr**2)+(bserr**2));
sig=0;
if serr > 0 and t_obs notin (.,0) then test= 2*(1-probt(abs(ttrend/serr),t_obs));  /* RSG
06/22/2004 Added to avoid division by zero*/
else test = .;
if test<.05 & test ne . then sig=1;
if sig=1 & ttrend<0 then sig=-1;
end;
timepd="Trend";
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
run;

proc sort data=trend3(drop=t_obs twgt a_score a_period t_score t_se t_period serr
 bserr btrend ttrend order); by key;
 data trend4 ;
 merge trend3(in=din) fakeq(in=cin); by key;
 if din;
 RUN;


data combine2;
set combine trend4;RUN;

proc sort; by key;
data combine3 dupe;
set combine2; by key;
if ^(first.key & last.key) then output dupe;
output combine3;
proc print data=dupe;run;

/* RSG 06/2005 - set trend to missing for component/composite
   scores with missing scores in any of the quarter*/
/*AMK 9/23/13 - keep trends if missing data for an entire quarter*/
data misses (keep=key2) all;
set combine3;
length key2 $200.;
KEY2 = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION));
if score = . and period ne &EMPTY_PERIOD. then output misses; *AMK 9/23/13 ADDED EMPTY PERIOD;
output all;
run;
proc sort data=misses;
```

```
by key2;
proc sort data=all;
by key2;
run;

data combine4;
merge all (in=a) misses (in=b);
by key2;
if a and b then do;
  if timepd = "Trend" then score = .;
end;
run;

*************************************************************************
* Create place holders for missing records
*************************************************************************;
DATA FAKEONLY;
   MERGE COMBINE4(IN=IN1) TEMPQ(IN=IN2);
   BY KEY;
   SOURCE = "FAKE ONLY";
   FLAG   = "FAKE ONLY";
   IF IN2 AND NOT IN1;

RUN;

*************************************************************************
* Combine all of the missing records with the existing records to generate
* the complete WEB layout file.
*************************************************************************;
DATA CONUS_Q;
   SET FAKEONLY COMBINE4;
   BY KEY;
   *********************************************************************
   * Convert CAHPS Composites and Individual to 1-100 scale
   *********************************************************************;
   IF timepd="Trend" OR (timepd="&PERIOD4" & benefit ne "Preventive Care")
      then
        SCORE = SCORE*100;

       IF TIMEPD = "&&PERIOD&EMPTY_PERIOD" THEN DO;
              SCORE = .S;
              N_OBS = 30;
              N_WGT = 200;
       END;
RUN;

PROC SORT DATA=CONUS_Q; BY ORDER; RUN;

DATA FAKEQ;
     length key $200;
   SET IN1.FAKEQ;
   SIG = .;
   SCORE = .;
   ORDER = _N_;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/31/03 Added TIMEPD;

RUN;
PROC SORT DATA=FAKEQ OUT=TEMPQ;       BY KEY; RUN;
PROC SORT DATA=FAKEQ(KEEP=ORDER KEY); BY KEY; RUN;

PROC SORT DATA=CONUS_Q out=OUT.CONUS_Q;
BY KEY;
RUN;

DATA FAKEONLY;
   MERGE OUT.CONUS_Q(IN=IN1) TEMPQ(IN=IN2);
   BY KEY;
   SOURCE = "FAKE ONLY";
   FLAG   = "FAKE ONLY";
   IF IN2 AND NOT IN1;
RUN;
```

```
DATA TOTAL_Q;
   SET FAKEONLY OUT.CONUS_Q;
   BY KEY;
   IF MAJGRP="All Beneficiaries" then MAJGRP="All Users";
   IF MAJGRP="Non-enrolled Beneficiaries" then MAJGRP="Standard/Extra Users";
   IF BENEFIT="Primary Care Manager" THEN BENEFIT="Personal Doctor";   /*MJS 02/05/2003*/
   /* 11/14/2005 RSG - ADDED IN THESE CODE TO CAPITALIZE ALL WORDS IN TITLE */
   /*IF BENTYPE = "Problems Getting Referral to Specialist       "
      THEN BENTYPE = "Problems Getting Referral To Specialist  ";
   IF BENTYPE = "Delays in Care while Awaiting Approval        "
      THEN BENTYPE = "Delays In Care While Awaiting Approval   ";
   IF BENTYPE = "Advice over Telephone                        "
      THEN BENTYPE = "Advice Over Telephone                    ";
   IF BENTYPE = "Wait for Routine Visit                        "
      THEN BENTYPE = "Wait For Routine Visit                   ";
   IF BENTYPE = "Wait for Urgent Care                          "
      THEN BENTYPE = "Wait For Urgent Care                     ";
   IF BENTYPE = "Wait More than 15 Minutes Past Appointment    "
      THEN BENTYPE = "Wait More Than 15 Minutes Past Appointment";
   IF BENTYPE = "Explains so You can Understand                "
      THEN BENTYPE = "Explains So You Can Understand           ";
   IF BENTYPE = "Spends Time with You                          "
      THEN BENTYPE = "Spends Time With You                     ";
   IF BENTYPE = "Courteous and Respectful                      "
      THEN BENTYPE = "Courteous And Respectful                 ";
   IF BENTYPE = "Problem Getting Help from Customer Service    "
      THEN BENTYPE = "Problem Getting Help From Customer Service";
   IF BENTYPE = "Problem with Paperwork                        "
      THEN BENTYPE = "Problem With Paperwork                   ";
   IF BENTYPE = "Claims Handled in a Reasonable Time           "
      THEN BENTYPE = "Claims Handled In A Reasonable Time      ";*/
   IF substr(region,1,5) in ('Latin','Europ','Pacif')|Region='Overseas Latin America'
    then delete;
   IF REGION IN ("South Joint Service","West Joint Service","Europe Joint Service",
                 "Pacific Joint Service","Latin America Joint Service") THEN DELETE;

RUN;

PROC SORT DATA=TOTAL_Q OUT=OUT.TOTAL_Q; BY ORDER; RUN;

TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6401-904)";
TITLE2 "Program Name: CONUS_Q.SAS By Keith Rathbun";
TITLE3 "Program Inputs: MERGFINQ.sas7bdat - Scores Database in WEB Layout";
TITLE4 "Program Outputs: TOTAL_Q.sas7bdat - USA Scores Database in WEB layout";

PROC FREQ;
TABLES SIG FLAG SOURCE BENEFIT BENTYPE MAJGRP REGION REGCAT TIMEPD   /*MJS 07/08/03 Added
TIMEPD*/
       REGION*REGCAT
      /MISSING LIST;
RUN;

*AMK - check empty dataset and trend;
PROC PRINT DATA=TOTAL_Q (DROP = KEY OBS=30);
WHERE TIMEPD="Trend";
RUN;
PROC PRINT DATA=TOTAL_Q (DROP = KEY OBS=30);
WHERE TIMEPD="&PERIOD3.";
RUN;
```

G.7 Q3FY2015\PROGRAMS\LOADWEB\CreateTotal_qp4.sas - Combines the regular totalq and purchase totalq into one dataset - Run Quarterly.

```
/*******************************************************************************/
/*** Project: 6244 DOD                                                       ***/
/*** Program: CreateTotal_qp&PERIOD.sas                                      ***/
/*** Purpose: Add from Purchase Care's Totalq data, Enrollees with Civilian PCM   ***/
/***          to the Adult Beneficiary's Totalq data.  New data will be use to    ***/
/***          populate the Purchase Care's section of the html reports.          ***/
/*** Author : Justin Oh 08/06/2008                                           ***/
/*** Input  : ..currentPeriod\PurchasedLoadweb\total_q                       ***/
/***          ..currentPeriod\Loadweb\total_q                                ***/
/*** Output : .\total_q                                                      ***/
/*** Modify :                                                                ***/
/*** B-4-Run: Change the %LET statements at the top of the program.          ***/
/*******************************************************************************/
OPTIONS COMPRESS=YES;

/*** Reference quarter's period                                              ***/
%LET PERIOD = 4;

/*** Adult Beneficiary and Purchase Care total_q.sas7bdat locations          ***/
LIBNAME TOTQ_P '..\PurchasedLoadweb';
LIBNAME TOTQ_A '.';
LIBNAME TOTQ_X '.';

/*** Keep only Enrollees with Civilian PCM, used for the Purchased Care group     ***/
DATA total_pc;
   SET TOTQ_P.total_q;
   IF MAJGRP = 'Enrollees with Civilian PCM';
   IF MAJGRP = 'Enrollees with Civilian PCM' THEN MAJGRP = 'Purchased Care Users';
RUN;
/*** Add Purchase Care's renamed MAJGRP to create a final total_q file       ***/
DATA TOTQ_X.total_qp&PERIOD;
   SET TOTQ_A.total_q total_pc;
RUN;

/********************************** END OF PROGRAM **********************************/
```

G.8 Q3FY2015\PROGRAMS\LOADWEB\MAKEHTMQ.SAS - Generate HTML and XLS files for TRICARE Beneficiary Reports - Run Quarterly.

```
*===================================================================;
*   Programmer:  Mark A. Brinkley                                   ;
*        Title:  MAKEHTMQ.SAS                                       ;
*       Client:  6077-410                                           ;
*         Date:  06-01-2001                                         ;
*                                                                   ;
*      Purpose:  This program is designed to create                 ;
*                 report cards for the 2000 DOD project             ;
*                                                                   ;
*                                                                   ;
*  Input files:  TOTAL_QP4.sas7bdat                                 ;
* Output files:  HTML\                                              ;
*                  1269*3 F*.HTM Files (Frame version)              ;
*                  1269  P*.HTM Files (Printer friendly - no frames) ;
*                    P*.XLS Files (Excel files)                     ;
*                 -------------------                               ;
*                                                                   ;
*                                                                   ;
*                                                                   ;
*   ÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!   ;
*                                                                   ;
*     IF YOU MODIFY THIS PROGRAM THEN PLEASE INITIAL AND DOCUMENT   ;
*     YOUR CHANGES.  THOSE FAILING TO DO THIS WILL BE SEVERELY      ;
*     BEATEN.                                                       ;
*                                                                   ;
*   ÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!   ;
*                                                                   ;
*                                                                   ;
*                                                                   ;
* Modifications:                                                    ;
* 11-01-2000 - JSykes added pieces to create Excel Spreadsheets     ;
* 07-01-2001 - MAB modified for qtr 2                               ;
* 10-25-2001 - C.Rankin moved link to printer friendly version      ;
*              from frame, created macro variable to include        ;
*              third row of subbenefit heading                      ;
* 11-01-2001 - D.Beahm changed splitpercent to splitpixel and adjusted;
*              the pixel size of the top frame to prevent scrolling ;
*              she also added a <BR> before the printer icon to make ;
*              sure it appears on it's own line                     ;
* 12-21-2001 - D.Beahm changed column widths for frame page a so that ;
*              the column headers would line up with the data in frame;
*              page b. Also revised Excel code so benchmarks for the ;
*              majorgrp are shaded dark red instead of blue         ;
* 04-18-2002 - Quarterly report cards will now show a rolling 4     ;
*              quarters of data for the trend. DKB updated the period ;
*              BENTYPE references to account for this, this will need ;
*              to be done each quarter. Also revised footnote       ;
*              to indicate that this is the 2002 Survey of Health Care;
*              Beneficiaries. This reflects a change from previous  ;
*              years, the survey year now refers to the processing  ;
*              year instead of the year for which data was collected. ;
*              Also changed image reference from QTR to COL, these  ;
*              new names for the qtr images reflects the column they ;
*              are in instead of the quarter they represent         ;
* 06-19-2002 - Mark Brinkley                                        ;
*                 Updated for Q2_2002                               ;
*                 Changed macro var PERIOD to CURRENTPERIOD         ;
*                 Added macro vars PERIOD1-PERIOD3                  ;
* 07-29-2002 - Daniele Beahm                                        ;
*                 Added links to trend pages. Clicking on the fielding;
*                 Period now takes you to the component page for that ;
*                 period and clicking on the Trend column header now ;
*                 takes you to the Trend section of the help file   ;
* 02-04-2003 - Mike Scott                                           ;
*                 Changed "Primary Care Manager" to "Personal Doctor" ;
* 02-10-2003 - Mike Scott                                           ;
*                 Inserted LENGTH HREF $ 250 statements before      ;
*                 href = "string" statements so that href wouldn't be ;
*                 set by default                                    ;
* 02-14-2003 - Mike Scott                                           ;
```

```
*                Added code to avoid scores > 100                    ;
* 04-30-2003 - Mike Scott                                            ;
*                Changed Preventive Care columns from 5 to 6 to      ;
*                accommodate Cholesterol Testing.                    ;
* 05-01-2003 - Mike Scott                                            ;
*                Updated periods for Q1 2003, and changed "2001 and  ;
*                2002" to "2002 and 2003" and "2002 Health Care      ;
*                Survey" to "2003 Health Care Survey".               ;
* 05-04-2003 - Mike Scott                                            ;
*                Removed Civilian PCM (var1=3 or majgrp=3), and      ;
*                changed 4-8 references to 3-7.                      ;
* 05-06-2003 - Mike Scott                                            ;
*                Changed 7-0-0 to 8-0-0.                             ;
* 05-13-2003 - Mike Scott                                            ;
*                Changed two widths.                                 ;
* 05-14-2003 - Mike Scott                                            ;
*                Changed columns from 2-12 to 1-11 which is          ;
*                controlled by var3 - decreased var3's by 1 and      ;
*                decreased K loops by 1.                             ;
* 07-03-2003 - Mike Scott                                            ;
*                Incorporated TIMEPD variable into program to run    ;
*                with Q1 2003 TOTAL_Q rerun to include TIMEPD        ;
*                variable.                                           ;
* 07-30-2003 - Mike Scott                                            ;
*                Added else do section to correct header.            ;
* 07-31-2003 - Mike Scott                                            ;
*                Updated periods for Q2 2003.                        ;
* 08-01-2003 - Mike Scott                                            ;
*                Added code so periods would print on var3=7,8,9,10. ;
* 08-07-2003 - Regina Gramss                                         ;
*                Changed program to create additional trend pages    ;
*                for each sub-benefit: pages are now named with 4    ;
*                numbers (var4 has been added to all file name       ;
*                references) to compensate for additional layer      ;
*                of pages. All file references have been changed     ;
*                to include var4.                                    ;
* 01-28-2004 - Mike Scott                                            ;
*                Changed back to html being generated in HTML        ;
*                directory below directory where MAKEHTMQ is being   ;
*                run.                                                ;
* 01-29-2004 - Mike Scott                                            ;
*                Commented out LENGTH HREF $ 250 statements, since   ;
*                HREF was already declared.                          ;
* 02-11-2004 - Mike Scott                                            ;
*                Changed all lengths to 100 that were less than 100. ;
* 03-24-2004 - Mike Scott                                            ;
*                Updated for Q1 2004.  Changed hard-coded years in   ;
*                footnotes stating source to macro variables.        ;
* 05-07-2004 - Mike Scott - Changed "Wait More than 15 Minutes Past  ;
*              Appointment" to "Wait in Doctor's Office" and         ;
*              "Problems Getting Referral to Specialist" to "Problems ;
*              Getting to See Specialist".  NAed out trends for the  ;
*              composites Getting Needed Care, Getting Care Quickly, ;
*              and Customer Service and for the questions Problems   ;
*              Getting Personal Doctor/Nurse (GNC), Wait in Doctor's ;
*              Office (GCQ), and Problem with Paperwork (CS).        ;
* 02-16-2004 - Mike Scott - Moved initial data read-in outside macro ;
*              loop to speed up program.                             ;
* 06-22-2004 - Regina Gramss - Updated for Q2 2004 run.              ;
* 08-02-2004 - Regina Gramss - removed lines that replaced trend     ;
*              with NA                                               ;
* 10-07-2004 - Regina Gramss - Adjusted for XTNEXREG                 ;
* 02-14-2005 - Mark Brinkley - added 12th benefit SMOKING            ;
* 05-10-2005 - Regina Gramss - deleted chol testing under Prevention ;
*              and added BMI for Healthy Behaviors (which replaced   ;
*              Smoking Cessation)                                    ;
* 07-29-2005 - Regina Gramss - updated for Q2 2005 - changed period  ;
*              values to quarter, cy values (vs. dates)              ;
* 10-31-2005 - Regina Gramss - updated for Q3 2005                   ;
* 12-28-2005 - Regina Gramss - updated for Q4 2005                   ;
* 05-11-2006 - Lucy Lu - updated for Q2 FY 2006                      ;
*              change made:  change macro variables SRCYR1 to SRFYR1 ;
*                                                   SRCYR2 to SRFYR2 ;
* 02-09-2007 - Justin Oh - condensed %if statement for bottom_notes  ;
```

```
*                          macro.                                        ;
* 02-15-2007 - Justin Oh - added bottom_notes_xls to condensed %if    :
*              statements for xls outputs in three places              ;
* 02-01-2009 - Mike Rudacille - changed CONUS to USA                   ;
* 11-09-2012 - Mike Rudacille - added handling of 2 new servreg        ;
*              categories (JOINT SERVICE, North Joint Service)         ;
* 09-23-2013 - Amanda Kudis - made changes to handle no data           ;
*              for Q4FY2013                                            ;
* 03-18-2015 - Matt Turbyfill - updated for Q1 2015.  Changed file    ;
*                        paths from L drive to N drive.                        ;
*                                                                      ;
*                                                                      ;
* NOTE: Update only SRFYR1, SRFYR2, PERIOD1/2/3, and CURRENTPERIOD.   ;
*=====================================================================;

%LET SRFYR1 = 2014;   *** Previous year;   /*MJS 03/24/04 Added macro variables*/
%LET SRFYR2 = 2015;   *** Current year;

/*** Added macro variables for previous periods (MAB 6-19-2002) ***/
%LET PERIOD1 = July 2014;
%LET PERIOD2 = October 2014;
%LET PERIOD1 = January 2014;

/*** Change name of macro variable from PERIOD (MAB 6-19-2002) ***/
%LET CURRENTPERIOD = April 2015;   /** Current Period of these reports **/
%LET MAILPERIOD = April 2015;   /** Current Period of these reports **/
%LET QTRS=4; /** Qtr of these reports    **/
%LET QTRNO=0;   /**LLU 5/15/06. ne 1 indicates the data is from current year and preceding year,
1 is from current year only*/

/*** Added macro variables for DDE/Excel fix (MER 05-03-2010) ***/
%LET CURRQTR = Q3FY2015;


OPTIONS NOXWAIT;        /* 2000/11: added noxwait*/


%LET HTMLSP=%NRSTR( );     /**DANIELE CHANGED %STR( ) TO %NRSTR( )**/
%LET QUOTE=%STR("");
%LET OUTDIR=html;                /** Directory to put HTML files **/  /*MJS 01/28/04 Set to
HTML*/
%LET IMGDIR=images;              /** Directory with images **/
%LET TARGET=target='_parent';    /** HTML code for frames targeting **/
%LET OUTXLS=1;                   /** 1=Make XLS file/0=Don't   Added 1-24 MAB **/
%LET fontface=%STR(Arial,Helvetica,Swiss,Geneva);
%LET hdcolr=%STR('white');
%LET BLUE=%STR('#663300');       /** This is really dark red **/
%LET GREEN=%STR('#009933');
%LET RED=%STR('#cc0000');
%LET GRAY=%STR('white');
%LET LOGO=%STR('images\tricare_side_35_new.gif');
%LET HELP_BUT=%STR('images\help75.gif');
%LET HOME_BUT=%STR('images\home75.gif');
%LET BACK_BUT=%STR('images\back75.gif');
%LET NUMBER_HTML_FILES=0;        /** Keep count of HTML files created **/

%LET SUB_HEAD=0;                 /** Macro variable for sub-benfit heading **/
                                 /** 1=headings, 0=no headings            **/

/*******************************************************/
/***** Macro for putting notes at bottom of table   *****/
/*******************************************************/
%MACRO BOTTOM_NOTES();           /** Modified %if condition at the QTRNO level to minimize
duplicate codes **/
                                 /** Deleted previously commented out per page bottom notes.
JSO 02/09/07  **/
      PUT "<tr>";

   %IF &QTRNO NE 1 %THEN %DO;
      PUT "    <td colspan='&columns.'><font face='Arial,Helvetica,Swiss,Geneva'
size='2'>Source: Health Care Surveys of DoD Beneficiaries conducted in &SRFYR1 and
&SRFYR2.</font>";   ***MJS 03/24/04 Changed hard-coded year to macro variable;
   %END;
   %ELSE %DO;
```

```
      PUT "    <td colspan='&columns.'><font face='Arial,Helvetica,Swiss,Geneva'
size='2'>Source: &SRFYR2 Health Care Survey of DOD Beneficiaries</font>";   ***MJS 03/24/04
Changed hard-coded year to macro variable;
   %END;

      PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#009933'><br>";
      PUT "    <b>Indicates score significantly exceeds benchmark</b></font><b>&htmlsp.<br>";
      PUT "    </b><font face='Arial,Helvetica,Swiss,Geneva' size='2'
color='#cc0000'><i>Indicates score significantly falls short of benchmark</i></font><br>";
      PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>NA Indicates not
applicable</font><br>";

   /* MER 10/24/2009 Fix no longer needed */
   /*%if &var3 = 4 and &seppage = 2 %then %do;
      PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>* Indicates scores not
available for that quarter</font><br>";
   %end;*/

      PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>*** Indicates suppressed due
to small sample size</font><br>";

   /*AMK 9/23/2013 No Q4FY2013 Data*/
       PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>S Indicates no Q4FY2014 data
available as a result of sequestration</font><br>";

   /* MER 05/14/2010 Fix no longer needed */
   /*%if &var3 = 0 %then %do;
      PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'># Indicates <a
href='..\html\help.htm#transition' &target.>change</a> to composite</font><br>";
   %end;
   %else %if &var3 = 1 or &var3 = 3 or (&var3 = 11 and &seppage = 1) %then %do;
      PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'># Indicates <a
href='..\html\help.htm#transition' &target.>change</a> to questions</font><br>";
   %end;*/

      PUT "    <center><a href='&hrefxls.'><img src='&imgdir.\excel.gif' border=0>Download
Page</a></center>";
      PUT "</td></tr>";

%MEND BOTTOM_NOTES;

%MACRO BOTTOM_NOTES_XLS();        /** Added BOTTOM_NOTES_XLS macro to substitute 3 separate
duplicate codes.        **/
                                  /** Big difference between BOTTOM_NOTES macro is the special
fonts. JSO 02/15/07  **/
     %if &outxls.=1 %then %do;
        FILE XLSDATA;
        PUT; PUT;
        %if &var3.=0 %then %do;
           PUT "Source: &SRFYR2 Health Care Survey of DOD Beneficiaries";
        %end;
        %else %do;
           %IF &QTRNO NE 1 %THEN %DO;
              PUT "Source: Health Care Surveys of DoD Beneficiaries conducted in &SRFYR1 and
&SRFYR2";
           %END;
           %ELSE %DO;
              PUT "Source: &SRFYR2 Health Care Survey of DOD Beneficiaries";
           %END;
        %end;
           PUT "Indicates score significantly exceeds benchmark";
           PUT "Indicates score significantly falls short of benchmark";
           PUT "NA Indicates not applicable";
        /* MER 10/24/2009 Fix no longer needed */
        /*%if &var3 = 4 and &seppage = 2 %then %do;
           PUT "* Indicates scores were not available that quarter";
        %end;*/
           PUT "*** Indicates suppressed due to small sample size";
        /*AMK 9/23/2013 No Q4FY2013 Data*/
           PUT "S Indicates no Q4FY2014 data available as a result of sequestration";
        /* MER 05/14/2010 Fix no longer needed */
        /*%if &var3 = 0 %then %do;
           PUT "# Indicates change to composite";
        %end;
```

```
        %else %if &var3 = 1 or &var3 = 3 or (&var3 = 11 and &seppage = 1) %then %do;
           PUT "# Indicates change to questions";
        %end;*/
     %end;

%MEND BOTTOM_NOTES_XLS;

/*******************************************************/
/***** Macro for adding in link row to trends data  *****/
/*******************************************************/

/*** Macro variable with Javascript to go back ***/
%LET GOBACK=%STR(<script>document.write(&quote.<a href='javascript:history.go(-1)'
target='_parent'>&quote.);
document.write(&quote.<img src='images\\back75.gif' border='0' alt='Go to previous
page'>&quote.);document.write(&quote.</a>&quote.);</script>);

LIBNAME SRC1  '.'  ACCESS=READONLY;
OPTIONS LS=210;

/*******************************************************************/
/****   Macro to create html pages                                 ****/
/****          var1=major group                                    ****/
/****          var2=region                                         ****/
/****          var3=benefit                                        ****/
/****          var4=trend                                          ****/
/****       seppage=0/no separate pages for qtrly trends           ****/
/****               1/1st separate page                            ****/
/****               2/2nd separate page                            ****/
/*******************************************************************/
/** RSG 08/07/03 - added var4 to add extra dimension of page numbers for
    sub benefit trend pages**/

/** Load in data **/   ***MJS 05/13/04;
DATA PRE_SUBSET;
  SET SRC1.TOTAL_QP4;

  /* MBT 04/17/2015 - Now removing commas */
  TIMEPD = COMPRESS(TIMEPD, ',');

  IF TIMEPD = "&CURRENTPERIOD" THEN TIMEPD = "&MAILPERIOD";
  IF TIMEPD = "October 2014" THEN TIMEPD = "December 2014";

  /* MER 4/30/11 - Set scores for Counselled To Quit = N/A for April and July, 2010 for trends
pages */
  /*               Also set Trend to N/A
*/
  /*IF BENEFIT = "Healthy Behaviors" AND BENTYPE = "Counselled To Quit" AND
     TIMEPD IN ("April, 2010", "July, 2010", "Trend") THEN SCORE = .A;*/


  IF BENEFIT="Total" THEN DELETE;  /*** MAB testing 2/11/2005 ***/

  /* MER 08/27/09 Temporary fix for Q3FY2009 */
  /*IF (BENEFIT="Customer Service" AND TIMEPD="Trend") THEN SCORE=.;*/

  IF SCORE>100 then SCORE=100;                                      ***MJS ADDED 2/14/2003 to
avoid scores > 100;
  IF (TIMEPD="Trend" and -.5<SCORE<0) THEN SCORE=ABS(SCORE);       ***DKB ADDED 8/13/2002 to
avoid negative zero values;
  IF TIMEPD="Trend" THEN TIMEPD="Est. Quarterly Rate of Change";   ***DKB ADDED 8/12/2002 to
rename Trend column;

  IF BENTYPE="Wait More Than 15 Minutes Past Appointment" THEN     /*MJS 5/7/04 Changed label*/
    BENTYPE="Wait In Doctor`s Office";
  IF BENTYPE="Problems Getting Referral To Specialist" THEN        /*MJS 5/7/04 Changed label*/
    BENTYPE="Problems Getting To See Specialist";
  IF BENTYPE="Percent Normal Weight" THEN
    BENTYPE="Percent Not Obese";                                    /* RSG 09/20/2005 Changed
label*/

  /**RSG 01/2005 CREATE SERVICE FIELD TO ORDER REGION BY SERVICE AFFILIATION, ALSO
     CHANGE CONUS SERVICE AFFILIATION TO LOWER CASE*/
```

```
     IF MAJGRP = "Benchmark" THEN LINEUP=1;
     ELSE IF MAJGRP = "Prime Enrollees" THEN LINEUP=2;
     ELSE IF MAJGRP = "Enrollees with Military PCM" THEN LINEUP=3;
     ELSE IF MAJGRP = "Enrollees with Civilian PCM" THEN LINEUP=4; ***JSO 11/07/07 Added
Civilian PCM;
     ELSE IF MAJGRP = "Standard/Extra Users" THEN LINEUP=5;
     ELSE IF MAJGRP = "Purchased Care Users" THEN LINEUP=6;        ***JSO 07/28/08 Added
Purchased Care Users;
     ELSE IF MAJGRP = "Active Duty" THEN LINEUP=7;
     ELSE IF MAJGRP = "Active Duty Dependents" THEN LINEUP=8;
     ELSE IF MAJGRP = "Retirees and Dependents" THEN LINEUP=9;
     ELSE IF MAJGRP = "All Users" THEN LINEUP=10;

     IF REGION = "Benchmark" THEN LINEUP2=1;
     ELSE IF UPCASE(REGION) = 'USA MHS' THEN DO;
        LINEUP2=2;
        REGION = 'US MHS';
        REGCAT = 'US MHS';
     END;
     ELSE IF UPCASE(REGION) = 'ARMY' THEN LINEUP2=3;
     ELSE IF UPCASE(REGION) = 'NAVY' THEN LINEUP2=4;
     ELSE IF UPCASE(REGION) = 'AIR FORCE' THEN LINEUP2=5;
     ELSE IF UPCASE(REGION) = 'OTHER' THEN LINEUP2=6;
     ELSE IF UPCASE(REGION) = 'JOINT SERVICE' THEN LINEUP2=7;
     ELSE IF UPCASE(REGION) = 'NORTH' THEN LINEUP2=8;
     ELSE IF UPCASE(REGION) = 'NORTH ARMY' THEN LINEUP2=9;
     ELSE IF UPCASE(REGION) = 'NORTH NAVY' THEN LINEUP2=10;
     ELSE IF UPCASE(REGION) = 'NORTH AIR FORCE' THEN LINEUP2=11;
     ELSE IF UPCASE(REGION) = 'NORTH OTHER' THEN LINEUP2=12;
     ELSE IF UPCASE(REGION) = 'NORTH JOINT SERVICE' THEN LINEUP2=13;
     ELSE IF UPCASE(REGION) = 'SOUTH' THEN LINEUP2=14;
     ELSE IF UPCASE(REGION) = 'SOUTH ARMY' THEN LINEUP2=15;
     ELSE IF UPCASE(REGION) = 'SOUTH NAVY' THEN LINEUP2=16;
     ELSE IF UPCASE(REGION) = 'SOUTH AIR FORCE' THEN LINEUP2=17;
     ELSE IF UPCASE(REGION) = 'SOUTH OTHER' THEN LINEUP2=18;
     ELSE IF UPCASE(REGION) = 'WEST' THEN LINEUP2=19;
     ELSE IF UPCASE(REGION) = 'WEST ARMY' THEN LINEUP2=20;
     ELSE IF UPCASE(REGION) = 'WEST NAVY' THEN LINEUP2=21;
     ELSE IF UPCASE(REGION) = 'WEST AIR FORCE' THEN LINEUP2=22;
     ELSE IF UPCASE(REGION) = 'WEST OTHER' THEN LINEUP2=23;
     ELSE IF UPCASE(REGION) = 'OVERSEAS' THEN LINEUP2=24;
     ELSE IF UPCASE(REGION) = 'OVERSEAS EUROPE' THEN LINEUP2=25;
     ELSE IF UPCASE(REGION) = 'OVERSEAS PACIFIC' THEN LINEUP2=26;


RUN;   ***MJS 07/03/03 Changed BENTYPE to TIMEPD;

PROC SORT;
BY LINEUP LINEUP2;
RUN;

%MACRO MKHTML(var1,var2,var3,seppage,var4);


/*** Determine some macro variables ***/
%if &prefix=f %then %do;
  %let width1=640;
  %let width2=640;
  %let border=0;
%end;
%else %do;
  %let width1=90%;
  %let width2=85%;
  %let border=1;
%end;



%let number_html_files=%EVAL(1+&number_html_files.);


/** Load in data **/
DATA SUBSET;
  SET PRE_SUBSET;
```

```
  LENGTH FILEOUT1 $ 100;   /*MJS 02/11/04*/
  LENGTH FILEOUT2 $ 100;
  LENGTH FILEOUT3 $ 100;


  /*** VAR1 indicated major group ***/
  %if &var1.=0 %then %let major=%STR();
  %if &var1.=1 %then %let major=%STR(Prime Enrollees);
  %if &var1.=2 %then %let major=%STR(Enrollees with Military PCM);
  %if &var1.=3 %then %let major=%STR(Enrollees with Civilian PCM);   ***JSO 10/31/07 Added
Civilian PCM;
  %if &var1.=4 %then %let major=%STR(Standard/Extra Users);          ***(var1.=3), and changed
3-7 back to 4-8;
  %if &var1.=5 %then %let major=%STR(Purchased Care Users);          ***JSO 07/28/08 Added
Purchased Care Users;
  %if &var1.=6 %then %let major=%STR(Active Duty);
  %if &var1.=7 %then %let major=%STR(Active Duty Dependents);
  %if &var1.=8 %then %let major=%STR(Retirees and Dependents);
  %if &var1.=9 %then %let major=%STR(All Users);


  %if &var1.=0 %then %do;
     /* RSG 02/2005 - CONUS WILL NOW BE PART OF REGION LIST SO COMMENT OUT NEXT SECTION*/
     /* %if &var2.^=99 %then %do;
        IF SUBSTR(REGION,1,3)="USA" THEN DELETE;
     %end;*/

     %let comma=%STR();
     %let grpmsg=%STR();
  %end;
  %else %do;
     IF MAJGRP="&major.";    /*** Subset data by major group ***/
     %let comma=%STR(,);
     %let grpmsg=%STR(Click below to view this table by other groups);
  %end;



   /*** Create macro variables to refer to Component or Trend pages ***/
   %if &seppage.=2 %then %do;
      %let q=q;
      %let unq=;
      %let click_alt=Click for Component data;
      %let click_image=component.gif;
   %end;
   %else %do;
      %let q=;
      %let unq=q;
      %let click_alt=Click for Trend data;
      %let click_image=trend.gif;
   %end;


   FILEOUT1=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.-&var4.&q..htm");    /** Main html
**/
   FILEOUT2=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.-&var4.&q.a.htm");   /** Header html
**/
   FILEOUT3=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.-&var4.&q.b.htm");   /** Data html
**/
    /*** Added &var4 to all file names for additional sub-benefit trend pages
         08-07-2003 RSG ***/
      /*MJS 01/28/04 Added &outdir.\ to above filenames*/

    /*** Added 07-12-2001 MAB  If creating Excel then don't create HTML ***/
    %if &outxls.=1 %then %do;
      %let fileout1= NUL;
      %let fileout2= NUL;
      %let fileout3= NUL;
    %end;
    %else %do;
      call symput('fileout1',FILEOUT1);
      call symput('fileout2',FILEOUT2);
      call symput('fileout3',FILEOUT3);
    %end;
```

```
  /*-------------------------*/
  /* 2000/11: begin xls code */
  /*-------------------------*/

  /*MJS 01/28/04 Added &outdir.\ to filename*/
  FILEOUTX=COMPRESS("&outdir.\p&var1.-&var2.-&var3.-&var4.&q..xls");          /* create run-
specific xls file */
  CALL SYMPUT('fileoutX',FILEOUTX);                                  /* via global macro vars
*/
  %if &seppage. ne 2 %then %do;
     /* MER 05/14/2010 Fix no longer needed */
     /*%if &var3 = 0 or &var3 = 1 or &var3 = 3 or &var3 = 11 %then %do;
        TEMPLATE=COMPRESS("Templates\Template&var3._trans.xls");
     %end;
     %else %do;
        TEMPLATE=COMPRESS("Templates\Template&var3..xls");
     %end;*/
     TEMPLATE=COMPRESS("Templates\Template&var3..xls");
  %end;
  /* MER 10/24/2009 Fix no longer needed */
  /*%else %if &var3 = 4 %then %do;
     TEMPLATE=COMPRESS("Templates\Template_trend2.xls");
  %end;*/
  /* MER 05/14/2010 Fix no longer needed */
  /*%else %if &var3 = 1 or &var3 = 3 %then %do;
     TEMPLATE=COMPRESS("Templates\Template_trend_trans.xls");
  %end;*/
  %else %do;
     TEMPLATE=COMPRESS("Templates\Template_trend.xls");
  %end;
  CALL SYMPUT('template',TEMPLATE);                                  /* identify which template
xls file */
  /*-------------------------*/
  /* 2000/11: end xls code   */
  /*-------------------------*/


  /*** VAR3 dictates type of benefit heading ***/
  %if &var3=0 %then %do;
    %let headvar=BENEFIT;
  %end;
  %else %do;           /*MJS 07/30/03 Added else do - was %else %let headvar=BENTYPE;*/
    %if &seppage.=2 or &var3=6 or &var3=7 or &var3=8 or &var3=9 %then %let headvar=TIMEPD;
/*MJS 08/01/03 Added &var3 code*/
    %else %let headvar=BENTYPE;
  %end;

  /*** clean up headvar variable ***/
  /***IF BENTYPE="Trend" THEN BENTYPE="Trend<BR>% change";***/

  /*** Link to XLS file ***/
  HREFXLS=COMPRESS("p&var1.-&var2.-&var3.-&var4.&q..xls");
  call symput('hrefxls',HREFXLS);
RUN;


/*** Subset data by region ***/
DATA SUBSET2;
  SET SUBSET;

  %if &var2.=0 %then %do;    /** 0 = All regions **/
     IF REGION=REGCAT;       /** Just do All Region table **/
      %let sub_regs=%STR(All Regions);
  %end;

  %else %if &var2.=1 %then %do;
     IF UPCASE(REGION)="US MHS"; /* MER 08/27/09 changed to US MHS */
      %let sub_regs=%STR(US MHS);
  %end;
  %else %if &var2.=2 %then %do;
     IF UPCASE(REGION)="ARMY";
```

```
    %let sub_regs=%STR(ARMY);
%end;
%else %if &var2.=3 %then %do;
   IF UPCASE(REGION)="NAVY";
    %let sub_regs=%STR(NAVY);
%end;
%else %if &var2.=4 %then %do;
   IF UPCASE(REGION)="AIR FORCE";
    %let sub_regs=%STR(AIR FORCE);
%end;
%else %if &var2.=5 %then %do;
   IF UPCASE(REGION)="OTHER";
    %let sub_regs=%STR(OTHER);
%end;
%else %if &var2.=6 %then %do;
   IF UPCASE(REGION)="JOINT SERVICE";
    %let sub_regs=%STR(JOINT SERVICE);
%end;
%else %if &var2.=7 %then %do;
   IF UPCASE(REGION)="NORTH";
    %let sub_regs=%STR(NORTH);
%end;
%else %if &var2.=8 %then %do;
   IF UPCASE(REGION)="NORTH ARMY";
    %let sub_regs=%STR(North Army);
%end;
%else %if &var2.=9 %then %do;
   IF UPCASE(REGION)="NORTH NAVY";
    %let sub_regs=%STR(North Navy);
%end;
%else %if &var2.=10 %then %do;
   IF UPCASE(REGION)="NORTH AIR FORCE";
    %let sub_regs=%STR(North Air Force);
%end;
%else %if &var2.=11 %then %do;
   IF UPCASE(REGION)="NORTH OTHER";
    %let sub_regs=%STR(North Other);
%end;
%else %if &var2.=12 %then %do;
   IF UPCASE(REGION)="NORTH JOINT SERVICE";
    %let sub_regs=%STR(North Joint Service);
%end;
%else %if &var2.=13 %then %do;
   IF UPCASE(REGION)="SOUTH";
    %let sub_regs=%STR(SOUTH);
%end;
%else %if &var2.=14 %then %do;
   IF UPCASE(REGION)="SOUTH ARMY";
    %let sub_regs=%STR(South Army);
%end;
%else %if &var2.=15 %then %do;
   IF UPCASE(REGION)="SOUTH NAVY";
    %let sub_regs=%STR(South Navy);
%end;
%else %if &var2.=16 %then %do;
   IF UPCASE(REGION)="SOUTH AIR FORCE";
    %let sub_regs=%STR(South Air Force);
%end;
%else %if &var2.=17 %then %do;
   IF UPCASE(REGION)="SOUTH OTHER";
    %let sub_regs=%STR(South Other);
%end;
%else %if &var2.=18 %then %do;
   IF UPCASE(REGION)="WEST";
    %let sub_regs=%STR(WEST);
%end;
%else %if &var2.=19 %then %do;
   IF UPCASE(REGION) = "WEST ARMY";
    %let sub_regs=%STR(West Army);
%end;
%else %if &var2.=20 %then %do;
   IF UPCASE(REGION) = "WEST NAVY";
    %let sub_regs=%STR(West Navy);
%end;
```

```
  %else %if &var2.=21 %then %do;
     IF UPCASE(REGION) = "WEST AIR FORCE";
      %let sub_regs=%STR(West Air Force);
  %end;
  %else %if &var2.=22 %then %do;
     IF UPCASE(REGION) = "WEST OTHER";
      %let sub_regs=%STR(West Other);
  %end;
  %else %if &var2.=23 %then %do;
     IF UPCASE(REGION) = "OVERSEAS";
      %let sub_regs=%STR(OVERSEAS);
  %end;
  %else %if &var2.=24 %then %do;
     IF UPCASE(REGION) = "OVERSEAS EUROPE";
      %let sub_regs=%STR(Overseas Europe);
  %end;
  %else %if &var2.=25 %then %do;
     IF UPCASE(REGION) = "OVERSEAS PACIFIC";
      %let sub_regs=%STR(Overseas Pacific);
  %end;

RUN;


/*** Subset data by Benefit ***/
DATA SUBSET3;
  SET SUBSET2;

  %if &var3.=0 %then %do;   /** 0=All Benefits **/
     IF BENTYPE="Composite" and TIMEPD="&MAILperiod.";   ***MJS 07/03/03 Changed from IF
BENTYPE="&currentperiod.";
  %end;
  %else %if &var3.=1 %then %do;   ***MJS 4/23/03 Changed 2 to 1;
     IF BENEFIT="Getting Needed Care";

     /*** # of columns for this benefit table ***/
     %let columns=%EVAL(3+&qtrs.); ***MER ADDED 3+ instead of 5+ 4/21/09;
  %end;
  %else %if &var3.=2 %then %do;   ***MJS 4/23/03 Changed 3 to 2;
     IF BENEFIT="Getting Care Quickly";
     %let columns=%EVAL(3+&qtrs.); ***MER ADDED 3+ instead of 5+ 4/21/09;
  %end;
  %else %if &var3.=3 %then %do;   ***MER 4/21/09 Changed 4 to 3;
     IF BENEFIT="How Well Doctors Communicate";
     %let columns=%EVAL(5+&qtrs.);
  %end;
  %else %if &var3.=4 %then %do;   ***MER 4/21/09 Changed 5 to 4;
     IF BENEFIT="Customer Service";
     %let columns=%EVAL(3+&qtrs.); ***MER ADDED 3+ instead of 4+ 4/21/09;
  %end;
  %else %if &var3.=5 %then %do;   ***MER 4/21/09 Changed 6 to 5;
     IF BENEFIT="Claims Processing";
     %let columns=%EVAL(3+&qtrs.);
  %end;
  %else %if &var3.=6 %then %do;   ***MER 4/21/09 Changed 7 to 6;
     IF BENEFIT="Health Plan";
     %let columns=%EVAL(2+&qtrs.);      ***DKB ADDED 2+ instead of 1+ for Trend 5/3/2002;
  %end;
  %else %if &var3.=7 %then %do;   ***MER 4/21/09 Changed 8 to 7;
     IF BENEFIT="Health Care";
     %let columns=%EVAL(2+&qtrs.);      ***DKB ADDED 2+ instead of 1+ for Trend 5/3/2002;
  %end;
  %else %if &var3.=8 %then %do;   ***MER 4/21/09 Changed 9 to 8;
     IF BENEFIT="Personal Doctor";      ***MJS 02/04/2003;
     %let columns=%EVAL(2+&qtrs.);      ***DKB ADDED 2+ instead of 1+ for Trend 5/3/2002;
  %end;
  %else %if &var3.=9 %then %do;   ***MER 4/21/09 Changed 10 to 9;
     IF BENEFIT="Specialty Care";
     %let columns=%EVAL(2+&qtrs.);      ***DKB ADDED 2+ instead of 1+ for Trend 5/3/2002;
  %end;
  %else %if &var3.=10 %then %do;  ***MER 4/21/09 Changed 11 to 10;
     IF BENEFIT="Preventive Care";   ***MJS 04/30/03 Changed from 5+ to 6+ because Cholesterol
Testing was added;
```

```
     %let columns=%EVAL(5+&qtrs.);   ***DKB CHANGED FROM 6+ to 5+ because removed flu shot
5/7/02;
  %end;
  %else %if &var3.=11 %then %do;  ***MER 4/21/09 Changed 12 to 11;
     IF BENEFIT="Healthy Behaviors";
     %let columns=%EVAL(4+&qtrs.);
  %end;

  /*** Set macro variable ***/
  %if &var3.=0 %then %do;
      %let sub_ben=%STR(&mailperiod. Composite Scores);
      %let columns=12;   ***MER 4/21/09 Changed from 13 to 12;
  %end;
  %else %do;
    call symput('sub_ben',BENEFIT);
  %end;


  /*** Determine number of columns for sub-benefits  ***/
  /*** Equals cols - (x for qtrs  - 1 for stub column) ***/
  %let subcols=%EVAL(&columns.-&qtrs.-2);               ***DKB CHANGED FROM -1 to -2 5/3/2002;

  /*** Determine number of columns less 1st (stub) column ***/
  %let columns_less1=%EVAL(&columns.-1);

RUN;



/*** Added 4-3-01 MAB ***/
DATA SUBSET4;
  SET SUBSET3;

  WIDTH_COL1=120; /** Set width of column 1 **/

  IF BENTYPE="Composite" THEN WIDTH3=90;  ***DKB ADDED TREND and changed width3 from 120 to 90
4/30/2002***;
  ELSE WIDTH3=90;                         ***MJS 07/03/03 Changed from BENTYPE IN any period and
Est. Quarterly Rate of Change;

  /** Deal with some special cases **/
  IF BENEFIT="Preventive Care" THEN DO;
      IF BENTYPE="Composite" THEN WIDTH3=.;    ***DKB ADDED TREND 4/30/2002***;
      ELSE WIDTH3=80;                          ***MJS 07/03/03 Changed from BENTYPE IN any
period and Est. Quarterly Rate of Change;
  END;
  %if &prefix.=p %then %do;
     WIDTH3=.;
  %end;

  %else %if &var3.=0 %then %do;
/*     WIDTH_COL1=.;
     WIDTH3=40;*/
/* MER 05/02/09 new values for V4 frames */
     WIDTH_COL1=80;
     /* MER 05/02/09 */
     %if &var2.=0 %then %do;
        WIDTH3=44;
     %end;
     %else %do;
        WIDTH3=43;
     %end;
  %end;


        /*** Added 5-7-2001 mab ***/

RUN;

/*****************************************************************/
/****  Put out Header rows of table                          ****/
/*****************************************************************/
DATA HTML;
  SET SUBSET4;
```

```
  LENGTH HREFBACK $100;   /*MJS 02/11/04*/

  IF REGION IN("Benchmark") OR MAJGRP IN("Benchmark");

  /** Determine where back button should link to **/
  %if &var1.=0 %then %do;
     HREFBACK=COMPRESS("&prefix.8-0-0-0.htm");   ***MJS 05/06/03 Changed 8-0-0 to 7-0-0;
                                                 ***JSO 11/12/07 Changed 7-0-0 to 8-0-0;
  %end;
  %else %do;
     HREFBACK=COMPRESS("&prefix.&var1.-0-0-0.htm");
  %end;

  /*** Create macro variable date with today's date ***/
  DATETIME=DATETIME();
  CALL SYMPUT ('DATETIME',left(put(datetime,datetime20.)));
  DROP DATETIME;

RUN;

/*** ÛÛ FRAMES SECTION ÛÛ ***/
%if &prefix=f %then %do;

    /*** Make frameset page split frames smaller on all ratings pages ***/

   %if &var3.=0 %then %do;
         %let splitpixel=228;
    %end;
    %else %if &var3.=1 OR &var3.=2 %then %do;   ***MJS 4/23/03 Changed 2&3 to 1&2;
         %let splitpixel=211;
    %end;
    %else %if &var3.=5 OR &var3.=11 %then %do;  ***MER 4/21/09 Changed 6&12 to 5&11;
         %let splitpixel=181;
    %end;
    %else %if &var3.=3 %then %do;   ***MER 4/21/09 Changed 4 to 3;
         %let splitpixel=196;
    %end;
    %else %if &var3.=4 %then %do;   ***MER 4/21/09 Changed 5 to 4;
         %let splitpixel=221;
    %end;
    %else %if &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;
         %let splitpixel=158;   ***MER 4/21/09 Changed 7/8/9/10 to 6/7/8/9;
    %end;
    %else %if &var3.=10 %then %do;   ***MER 4/21/09 Changed 11 to 10;
         %let splitpixel=192;
    %end;

    %if &SEPPAGE.=2 %then %do;
         %let splitpixel=157;
    %end;


   /*** Create frameset page HTML page ***/
   DATA _NULL_;
     FILE "&FILEOUT1.";
     PUT "<html><head><title>";
     PUT "&major.&comma. &sub_ben., &sub_regs.";
     PUT "</title></head>";
     PUT "<frameset rows='&splitpixel.,*'>";
      %if &seppage.=2 %then %do;
        PUT "   <frame src='f&var1.-&var2.-&var3.-&var4.qa.htm'  MARGINHEIGHT='0'
MARGINWIDTH='0'>";
        PUT "   <frame src='f&var1.-&var2.-&var3.-&var4.qb.htm'  MARGINHEIGHT='0'
MARGINWIDTH='0'>";
      %end;
      %else %do;
        PUT "   <frame src='f&var1.-&var2.-&var3.-&var4.a.htm'  MARGINHEIGHT='0'
MARGINWIDTH='0'>";
        PUT "   <frame src='f&var1.-&var2.-&var3.-&var4.b.htm'  MARGINHEIGHT='0'
MARGINWIDTH='0'>";
      %end;


     PUT "</frameset></html>";
```

```
   RUN;


   /*** Since done making frameset page then assign fileout1 = frame 1 ***/
   %let fileout1=&fileout2.;
   %if &seppage.=1 %then %do;
       %let fileout1=&fileout2.;
    %end;
    %else %if &seppage.=2 %then %do;
       %let fileout1=&fileout2.;
    %end;

%end;


/*** Initialize HTML page ***/
DATA _NULL_;
  FILE "&FILEOUT1.";

  PUT "<! Created &datetime.>";
  PUT "<html><head><title>";
  PUT "&major.&comma. &sub_ben., &sub_regs.";
  PUT "</title></head>";
  PUT "<body bgcolor='#999999' text='#000099' link='#660066' alink='#660066' vlink='#996699'>";

  /*** link to printer friendly version moved, 10/25/2001 C.Rankin ***/


RUN;

/*-------------------------*/
/* 2000/11: begin xls code */
/*-------------------------*/
%if &outxls.=1 %then %do;
  options noxsync noxwait mprint;
  /* Build macro variable for PUT statements used to */
  /* open template and save to run-specific worksheet */
  %LET stmt = ;
  %LET stmt2 = ;
  DATA _NULL_;
     single = "'";
     double = '"';

     length stmt $300.;
     length stmt2 $300.;

     stmt = "PUT
"||single||"[open("||double||"N:\Project\40309_HCS\DC1\HCSDB\&CURRQTR.\Programs\LoadWeb\&templat
e."||double||")]"||single;
     stmt2 = "PUT
"||single||"[save.as("||double||"N:\Project\40309_HCS\DC1\HCSDB\&CURRQTR.\Programs\LoadWeb\&file
outX."||double||")]"||single;

     call symput('stmt',left(trim(stmt)));
     call symput('stmt2',left(trim(stmt2)));
  RUN;
  /* open Excel */
  FILENAME SAS2XL DDE 'excel|system';
  DATA _NULL_;
     length fid rc start stop time 8;
     fid=fopen('SAS2XL','s');
     if (fid le 0) then do;
        rc=system('start excel');
        start=datetime();
        stop=start+100;
        do while (fid le 0);
           fid=fopen('SAS2XL','s');
           time=datetime();
           if (time ge stop) then fid=1;
        end;
     end;
     rc=fclose(fid);
  RUN;
  /* open xls template and save as run-specific worksheet */
```

```
  DATA _NULL_;
     FILE SAS2XL;
     &stmt;
     &stmt2;
  RUN;

  FILENAME XLSTITLE DDE 'excel|Sheet1!R1C1:R2C20' NOTAB;        /* xls rows 1 & 2 (titles)
*/
  FILENAME XLSDATA DDE 'excel|Sheet1!R6C1:R100C20' NOTAB;       /* xls rows 6+ (body of table)
*/
%end;
/*-------------------------*/
/* 2000/11: end xls code   */
/*-------------------------*/




/*ÛÛÛ
```

```
              /**RSG 02/2005 add in a dummy gif to align titles and comment out extra cell**/
              /**PUT "<td width=70>&htmlsp.</td>";**/
              PUT "<td width=40 colspan=1><IMG SRC='&imgdir.\dummy.gif' ALT=' ' BORDER=0></td>";
              PUT "<td width=80 colspan=2><IMG SRC='&imgdir.\eoa.gif'ALT='Ease of Access'
BORDER=0></td>";
              PUT "<td width=185 colspan=3><IMG SRC='&imgdir.\com_cus_ser.gif'
ALT='Communication and Customer Service' BORDER=0></td>";
              PUT "<td width=160 colspan=4><IMG SRC='&imgdir.\ratings0.gif' ALT='Ratings'
BORDER=0></td>";
              PUT "<td width=50 colspan=1><IMG SRC='&imgdir.\prevention.gif' ALT='Prevention'
BORDER=0></td>";
              PUT "<td width=80 colspan=1><IMG SRC='&imgdir.\healthy.gif' ALT='Healthy
Behaviors' BORDER=0></td>";
              PUT "</tr>";
              PUT "<tr bgcolor= &hdcolr.>";
          %end;
          %else %do;
              PUT "<tr bgcolor= &hdcolr.>";
              PUT "<td>&htmlsp.</td>";

              /*** MAB rearranged 2/11/2005 ***/
              PUT "<td align='center' valign='bottom' colspan=2><font face='&fontface.'
size='2'><b>Ease of Access</b></font></td>";
              PUT "<td align='center' valign='bottom' colspan=3><font face='&fontface.'
size='2'><b>Communication and Customer Service</b></font></td>";
              PUT "<td align='center' valign='bottom' colspan=4><font face='&fontface.'
size='2'><b>Ratings</b></font></td>";
              PUT "<td align='center' valign='bottom' colspan=1><font face='&fontface.'
size='2'><b>Prevention</b></font></td>";
              PUT "<td align='center' valign='bottom' colspan=1><font face='&fontface.'
size='2'><b>Behaviors</b></font></td>";
              PUT "</tr>";
              PUT "<tr bgcolor= &hdcolr.>";
          %end;


         /*** Print out 1st column of 4th row ***/
         /*** ÛÛ FRAMES SECTION ÛÛ ***/
         %if &prefix=f %then %do;
             *PUT "<td width=80>&htmlsp.</td>";
             /* MER 05/02/09 trying new values for V4 frames */
             PUT "<td width=125>&htmlsp.</td>";
             /**RSG 02/2005 Added in dummy gif to align title**/
         /*    PUT "<td align='center' valign='bottom'><IMG SRC='&imgdir.\dummy.gif'ALT=' '
BORDER=0>";*/
         %end;
         %else %do;
             PUT "<td width='8%'><font face='&fontface.'>&htmlsp.</font></td>";
         %end;



         /*** MAB 2/11/2005 ***/
         bennum=1;  /** index to all 11 benefits **/



         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSTITLE;
           PUT "&major.&comma. &sub_regs.";
           PUT "%cmpres('&sub_ben.')";
         %end;
         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
  END;

   FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */

   /*** Put Benefits across columns (Continuation of 4th row) ***/
   HREF=COMPRESS("..\html\&prefix.&var1.-&var2.-"||bennum||"-&var4..htm");
```

```
   /** If TOTAL benefit then don't have HREF **/
   /*** ÛÛ FRAMES SECTION ÛÛ ***/
   %if &prefix=f %then %do;
     /* MER 05/14/2010 Fix no longer needed */
     /*IF BENNUM=1 OR BENNUM=2 OR BENNUM=3 OR BENNUM=4 OR BENNUM=11 THEN DO;
        IMAGE=COMPRESS("&imgdir.\image0_"||bennum||"_trans.gif");
     END;
     ELSE DO;
        IMAGE=COMPRESS("&imgdir.\image0_"||bennum||".gif");
     END;*/
     IMAGE=COMPRESS("&imgdir.\image0_"||bennum||".gif");
     IF BENNUM=0 THEN PUT "<td align='center' valign='bottom'><IMG SRC='&imgdir.\image0_0.gif'
alt='Total' BORDER=0></td>";
     ELSE PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG
SRC='" IMAGE "' alt='" BENEFIT "' BORDER=0></a></td>";

   %end;
   %else %do;
     IF BENNUM=0 THEN PUT "<td width='8%' align='center' valign='bottom'><font
face='&fontface.'size='1'>" &HEADVAR. "</font></td>";
     /* MER 05/14/2010 Fix no longer needed */
     /*ELSE IF BENNUM<5 OR BENNUM=11 THEN PUT "<td width='8%' align='center'
valign='bottom'><font face='&fontface.'size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR.
+(-1) "<b>#</b></a></font></td>";*/
     ELSE PUT "<td width='8%' align='center' valign='bottom'><font face='&fontface.'size='1'><a
href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
   %end;


  bennum+1;


  IF EOF THEN DO;
    PUT "</tr>";
    /***  2-2 MAB removed scale row ***/
  END;

RUN;
%end;

/*ÛÛÛ
```

```
         /*** 4-17 MAB added JS code to go back ***/
         PUT "&goback.";

         PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";
         PUT "          &htmlsp. &htmlsp.";
         PUT "          <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
         PUT "    </td>";
         PUT "</tr>";

         /** MF Changes ROW 2 **/
         /** Modified 2-2 MAB to better align title **/
         PUT "<tr>";
         PUT "        <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
         PUT "                <font face='&fontface.' color='#3333cc' size='5'><b>&major.&comma.
&sub_regs. <br>";

         /*** If ratings then don't display reference period ***/
         %if &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;
                        ***MER 4/21/09 Changed 7/8/9/10 to 6/7/8/9;
               PUT "                &sub_ben.</b></font>";
         %end;
         %else %do;
               PUT "                &sub_ben.<BR>&mailperiod.</b></font>";
         %end;


         PUT "        </td>";
         PUT "</tr>";


         /*** Sub_head macro variable added C.Rankin 10/25/2001  ***/

         %if &sub_head.=1 %then %do;
            /** 3rd Row ***/
            /** ÛÛ FRAMES SECTION ÛÛ ***/
            %if &prefix=f %then %do;
                 PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                 /*** If sub-benefits then output sub-benefit columns ***/
                 %if &subcols.^=0 %then %do;
                   IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
                   PUT "<td align='center' valign='bottom' colspan=&subcols.><IMG SRC=" IMAGE "
alt='" BENEFIT "' BORDER=0></td>";
                   PUT "<td align='center' valign='bottom' colspan=&qtrs.><IMG
SRC='&imgdir.\composite.gif' ALT='Composite' BORDER=0></td></tr>";
                 %end;
                 %else %do;
                   PUT "<td align='center' valign='bottom' colspan=&qtrs.><IMG
SRC='&imgdir.\border_rating.gif' ALT='Ratings' BORDER=0></td></tr>";
                 %end;
            %end;
            %else %do;
                 PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                 /*** If sub-benefits then output sub-benefit columns ***/
                 %if &subcols.^=0 %then %do;
                   PUT "<td align='center' valign='bottom' colspan=&subcols.><font
face='&fontface.'><b>&sub_ben.<br>components</b></font></td>";
                   PUT "<td align='center' valign='bottom' colspan=&qtrs.><font
face='&fontface.'><b>Composite</b></font></td></tr>";
                 %end;
                 %else %do;
                   PUT "<td align='center' valign='bottom' colspan=&qtrs.><font
face='&fontface.'><b>Ratings</b></font></td></tr>";
                 %end;
            %end;
         %end;


         /*** 4th Row start (column 1) ***/
         /*** ÛÛ FRAMES SECTION ÛÛ ***/
         %if &prefix=f %then %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
```

```
          PUT "<td align='center' valign='bottom'><img src='&imgdir.\blank_120_50.gif'
border=0></td>";
        %end;
        %else %do;
          PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
          PUT "<td width='10%'>&htmlsp.</td>";
        %end;



        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSTITLE;
          PUT "&major.&comma. &sub_regs.";
          PUT "%cmpres('&sub_ben.')";
        %end;
        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
  END;

  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  /*** Print out column headings ***/

      HREF=COMPRESS("..\html\help.htm#q&var3.");
      HREF1=COMPRESS("..\html\help.htm#trend");   /*7-29-2002 DKB ADDED LINK FOR TREND SECTION
OF HELP FILE*/




  /*** 4th Row (columns 2+) ***/
  /*** If quarter column then HREF link is different ****/
  /*** ÛÛ FRAMES SECTION ÛÛ ***/
  %if &prefix=f %then %do;
     IF _N_>&subcols. THEN IMAGE=COMPRESS("&imgdir.\col"||_N_-&subcols.||".gif");
*DKB CHANGED IMAGE NAME FROM QTR TO COL;
     ELSE IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");

     /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE */   ***MJS 07/03/03 Changed
BENTYPE to TIMEPD;
     IF TIMEPD NE "Est. Quarterly Rate of Change" THEN PUT "<td align='center'
valign='bottom'><a href="" HREF +(-1) "" &target.><IMG SRC='" IMAGE "' alt='" TIMEPD "'
BORDER=0></a></td>";
     ELSE PUT "<td align='center' valign='bottom'><a href="" HREF1 +(-1) "" &target.><IMG
SRC='" IMAGE "' alt='" TIMEPD "' BORDER=0></a></td>";
  %end;
  %else %do;
     /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE */   ***MJS 07/03/03 Changed
BENTYPE to TIMEPD;
    IF TIMEPD NE "Est. Quarterly Rate of Change" THEN PUT "<td width='10%' align='center'
valign='bottom'><font face='&fontface.' size='1'><a href="" HREF +(-1) "" &target.>" &HEADVAR.
"</a></font></td>";
     ELSE PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.'
size='1'><a href="" HREF1 +(-1) "" &target.>" &HEADVAR. "</a></font></td>";
  %end;


  IF EOF THEN DO;
    PUT "</font></tr>";
    /***  2-2 MAB removed scale row ***/
  END;

RUN;
%end;

/*ÛÛÛ
```

```
/*** 8-7-2003 Mark Brinkley ***/
DATA HTML2;
  SET HTML;
  IF TIMEPD="&MAILperiod.";
RUN;

/*** Remove qtrs from column counts ***/
%let columns=%EVAL(&columns.-&qtrs.);

/*** Do sub-benefit page without any qtrly info ***/
DATA _NULL_;
  SET HTML2 END=EOF;


  /*** Since spliting up table need to delete some records ***/
  /*** Modified 2-2 MAB to deal with new period values **/
  IF BENTYPE="Composite" THEN DELETE; ***DKB ADDED TREND 4/30/2002***;
                                      ***MJS 07/03/03 Changed from BENTYPE IN any period and
Est. Quarterly Rate of Change;

  FILE "&FILEOUT1." MOD ;

  COLUMNS=&columns.;
  SPAN2=ROUND(COLUMNS/2,1);
  SPAN1=COLUMNS-SPAN2;


  IF _N_=1 THEN DO;

        FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */


         /** MF Changes ROW 1 **/
         PUT "<center><table border='&border.' cellpadding='2' cellspacing='0' bgcolor='#D8D8D8'
width='&width2.'>";
         PUT "<tr bgcolor='white'>";
         PUT "    <td colspan=""" SPAN1 +(-1) """ valign='top' bgcolor='#999999'><img border='0'
height='25' width='242' src=&logo.></td>";
         PUT "    <td colspan=""" SPAN2 +(-1) """ align='right' valign='bottom'
bgcolor='#999999'>";
         PUT "          <div align='right'>";
         /** RSG - 09/02/03 Second set of trend pages need to refer to var4=0 pages **/
         PUT "          <a href='..\html\&prefix.&var1.-&var2.-&var3.-0&unq..htm' &target.><img
src='&imgdir.\&click_image.' alt='&click_alt.' border=0></a>&htmlsp.";
         PUT "          <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp. ";

                  /*** 4-17 MAB added JS code to go back ***/
         PUT "&goback.";
         PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";
         PUT "          &htmlsp. ";
         PUT "          <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
         PUT "    </td>";
         PUT "</tr>";

         /** MF Changes ROW 2 **/
         /** Modified 2-2 MAB to better align title **/
         PUT "<tr>";
         PUT "        <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
         PUT "                <font face='&fontface.' color='#3333cc' size='5'><b>&major.&comma.
&sub_regs. <br>";


         PUT "                 &sub_ben.<BR>&mailperiod.</b></font>";



         PUT "        </td>";
         PUT "</tr>";
```

```
         /*** Sub_head macro variable added C.Rankin 10/25/2001  ***/

         %if &sub_head.=1 %then %do;
            /*** 3rd Row ***/
            /*** ÛÛ FRAMES SECTION ÛÛ ***/
            %if &prefix=f %then %do;
               PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
               IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
               PUT "<td align='center' valign='bottom' colspan=&subcols.><IMG SRC=" IMAGE "
alt='" BENEFIT "' BORDER=0></td>";
            %end;
            %else %do;
               PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
               PUT "<td align='center' valign='bottom' colspan=&subcols.><font
face='&fontface.'><b>&sub_ben.<br>components</b></font></td>";
            %end;
         %end;

         /*** 4th Row start (column 1) ***/
         /*** ÛÛ FRAMES SECTION ÛÛ ***/
         %if &prefix=f %then %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td align='center' valign='bottom'><img src='&imgdir.\blank_130_50.gif'
border=0></td>";
         %end;
         %else %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td width='10%'>&htmlsp.</td>";
         %end;


  qnum=1; /**RSG 08/07/03 Added as counter to use to for link to the trend pages**/

         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSTITLE;
           PUT "&major.&comma. &sub_regs.";
           PUT "%cmpres('&sub_ben.')";
         %end;
         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
  END;

  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  /*** Print out column headings ***/

  /*HREF=COMPRESS("help.htm#q&var3.");   */

  HREF=COMPRESS("..\html\&prefix.&var1.-&var2.-&var3.-"||qnum||"&unq..htm");
    *** RSG 08/07/03 Use qnum counter to refer to subbenefit trend pages;

****************************************;
  /*** 4th Row (columns 2+) ***/
  /*** If quarter column then HREF link is different ****/
  /*** ÛÛ FRAMES SECTION ÛÛ ***/
  %if &prefix=f %then %do;
     /* MER 05/14/2010 Fix no longer needed */
     /*%if &var3 = 1 or &var3 = 3  %then %do;
    IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||"_trans.gif");
     %end;
     %else %if &var3 = 11 %then %do;
        IF _N_ < 3 THEN IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||"_trans.gif");
        ELSE IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");
     %end;
     %else %do;
    IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");
     %end;*/
     IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");
     PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG SRC='"
IMAGE "' alt='" BENTYPE "' BORDER=0></a></td>";
```

```
  %end;
  %else %do;
     /* MER 05/14/2010 Fix no longer needed */
     /*%if &var3 = 1 or &var3 = 3 %then %do;
        PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.' size='1'><a
href="" HREF +(-1) "" &target.>" &HEADVAR. "<b>#</b></a></font></td>";
     %end;
     %else %if &var3 = 11 %then %do;
        IF _N_ < 3 THEN PUT "<td width='10%' align='center' valign='bottom'><font
face='&fontface.' size='1'><a href="" HREF +(-1) "" &target.>" &HEADVAR.
"<b>#</b></a></font></td>";
        ELSE PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.'
size='1'><a href="" HREF +(-1) "" &target.>" &HEADVAR. "</a></font></td>";
     %end;
     %else %do;
        PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.' size='1'><a
href="" HREF +(-1) "" &target.>" &HEADVAR. "</a></font></td>";
     %end;*/
     PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.' size='1'><a
href="" HREF +(-1) "" &target.>" &HEADVAR. "</a></font></td>";
  %end;

  qnum+1; *** RSG 08/07/03 Added to increase the counter;

  IF EOF THEN DO;
    PUT "</font></tr>";
    /***  2-2 MAB removed scale row ***/
  END;


RUN;
%end;

/*ÛÛÛ
```

```
                IF BENTYPE = "Listens Carefully";
            %end;
            %else %if &var4. = 2 %then %do;
                IF BENTYPE = "Explains so You Can Understand";
            %end;
            %else %if &var4. = 3 %then %do;
                IF BENTYPE = "Shows Respect";
            %end;
            %else %if &var4. = 4 %then %do;
                IF BENTYPE = "Spends Time with You";
            %end;
        %end;
        %else %if &var3. = 4 %then %do;
            %if &var4. = 1 %then %do;
                IF BENTYPE = "Getting Information";
            %end;
            %else %if &var4. = 2 %then %do;
                IF BENTYPE = "Courteous Customer Service";
            %end;
        %end;
        %else %if &var3. = 5 %then %do;
            %if &var4. = 1 %then %do;
                IF BENTYPE = "Claims Handled in a Reasonable Time";
            %end;
            %else %if &var4. = 2 %then %do;
                IF BENTYPE = "Claims Handled Correctly";
            %end;
        %end;
        %else %if &var3. = 10 %then %do;
            %if &var4. = 1 %then %do;
                IF BENTYPE = "Mammography";
            %end;
            %else %if &var4. = 2 %then %do;
                IF BENTYPE = "Pap Smear";
            %end;
            %else %if &var4. = 3 %then %do;
                IF BENTYPE = "Hypertension";
            %end;
            %else %if &var4. = 4 %then %do;
                IF BENTYPE = "Prenatal Care";
            %end;
        %end;
        %else %if &var3. = 11 %then %do;    /*** MAB Added 2/11/2005 ***/
            %if &var4. = 1 %then %do;
                IF BENTYPE = "Non-Smoking Rate";
            %end;
            %else %if &var4. = 2 %then %do;
                IF BENTYPE = "Counselled To Quit";
            %end;
                        %else %if &var4. = 3 %then %do;
                                IF BENTYPE = "Percent Not Obese";
                        %end;
        %end;
        call symput('sub2_ben',BENTYPE); **create macro var to use in sub-benefit
                                          trend pages (below) - RSG 08/07/03;
  %end;


RUN;                        ***MJS 07/03/03 Changed from BENTYPE IN any period and Est.
Quarterly Rate of Change;

DATA _NULL_;
  SET JUSTQTR END=EOF;
  *LENGTH HREF $ 250;   /*MJS 01/29/04 Commented out statement*/

  FILE "&FILEOUT1." MOD ;

  COLUMNS=&columns.;
  SPAN2=ROUND(COLUMNS/2,1);
  SPAN1=COLUMNS-SPAN2;

  IF _N_=1 THEN DO;

        FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
```

```
         /** MF Changes ROW 1 **/
         PUT "<center><table border='&border.' cellpadding='2' cellspacing='0' bgcolor='#D8D8D8'
width='&width2.'>";
         PUT "<tr bgcolor='white'>";
         PUT "    <td colspan=""" SPAN1 +(-1) """ valign='top' bgcolor='#999999'><img border='0'
height='25' width='242' src=&logo.></td>";
         PUT "    <td colspan=""" SPAN2 +(-1) """ align='right' valign='bottom'
bgcolor='#999999'>";
         PUT "          <div align='right'>";
         PUT "          <a href='..\html\&prefix.&var1.-&var2.-&var3.-0&unq..htm' &target.><img
src='&imgdir.\&click_image.' alt='&click_alt.' border=0></a>&htmlsp.";
         PUT "          <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp. &htmlsp.";

         /*** 4-17 MAB added JS code to go back ***/
         PUT "&goback.";

         PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";
         PUT "          &htmlsp.";
         PUT "          <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
         PUT "    </td>";
         PUT "</tr>";

         /** MF Changes ROW 2 **/
         /** Modified 2-2 MAB to better align title **/
         PUT "<tr>";
         PUT "        <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
         PUT "                <font face='&fontface.' color='#3333cc' size='5'><b>&major.&comma.
&sub_regs. <br>";

         /*** Since trend data don't display reference period ***/
         PUT "                 &sub_ben.</b></font><br>";
         /*** For trend data for each benefit type, display benefit type - RSG 08/07/03***/
         %if &var4. ne 0 %then %do;
         PUT "                <font face='&fontface.' color='#3333cc' size='4'><b>";
         PUT "                 &sub2_ben.</b></font>";
         %end;
         PUT "        </td>";
         PUT "</tr>";


         /*** 3rd Row ***/
         /*** ÛÛ FRAMES SECTION ÛÛ ***/
         /**PUT "<td></td>"**/



         /*** 4th Row start (column 1) ***/
         /*** ÛÛ FRAMES SECTION ÛÛ ***/
         %if &prefix=f %then %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td align='center' valign='bottom'><img src='&imgdir.\blank_130_50.gif'
border=0></td>";
         %end;
         %else %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td width='10%'>&htmlsp.</td>";
         %end;



         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSTITLE;
           PUT "&major.&comma. &sub_regs.";
           %if &var4. = 0 %then %do;
            PUT "%cmpres('&sub_ben.')";
           %end;
```

```
          %else %do;
           PUT "%CMPRES('&sub_ben.&comma. &sub2_ben.')";
          %end;
        %end;
        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
  END;

  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  /*** Print out column headings ***/


      LENGTH HREFf1 $250;
      LENGTH HREFf2 $250;
      LENGTH HREFf3 $250;
      LENGTH HREFf4 $250;

      LENGTH HREFp1 $250;
      LENGTH HREFp2 $250;
      LENGTH HREFp3 $250;
      LENGTH HREFp4 $250;

      LENGTH HREF5  $250;


      ****7-29-2002 DKB ADDED LINKS TO COMPONENT PAGES OF PREVIOUS QUARTERS FROM TREND PAGE****;
      ************************THIS WILL NEED TO BE UPDATED EACH QUARTER**********************;

       ***FRAMES***;
       HREFf1=COMPRESS("..\Period1\f&var1.-&var2.-&var3.-0.htm");
       HREFf2=COMPRESS("..\Period2\f&var1.-&var2.-&var3.-0.htm");
       HREFf3=COMPRESS("..\Period3\f&var1.-&var2.-&var3.-0.htm");
       HREFf4=COMPRESS("f&var1.-&var2.-&var3.-0.htm");

       ***NO FRAMES***;
       HREFp1=COMPRESS("..\Period1\p&var1.-&var2.-&var3.-0.htm");
       HREFp2=COMPRESS("..\Period2\p&var1.-&var2.-&var3.-0.htm");
       HREFp3=COMPRESS("..\Period3\p&var1.-&var2.-&var3.-0.htm");
       HREFp4=COMPRESS("p&var1.-&var2.-&var3.-0.htm");

       ****HELP FILE FOR TREND COLUMN***;
       HREF5=COMPRESS("..\html\help.htm#trend");    /*7-29-2002 DKB ADDED LINK FOR TREND SECTION
OF HELP FILE*/

    ******************************************************;

       /* MER 05/09/2009 Temporary fix for V4 transition
          No Customer Service composite for April and July, 2008 */
       /* MER 08/06/2009 Modified for Q3FY2009 to handle July, 2008 only */
       /* MER 10/24/2009 Fix no longer needed */
       /*%if &var3.=4 %then %do;
          HREFf1=HREF5;
          HREFf2=HREF5;
          HREFp1=HREF5;
          HREFp2=HREF5;
       %end;*/

  /*** 4th Row (columns 2+) ***/
  /*** If quarter column then HREF link is different ****/
  /*** ÛÛ FRAMES SECTION ÛÛ ***/

       *LENGTH HREF $250;

  %if &prefix=f %then %do;
    /* MER 10/24/2009 Fix no longer needed */
    /*%if &var3.=4 and &seppage.=2 %then %do;
       IF TIMEPD = "April, 2008" OR TIMEPD = "July, 2008" THEN DO;
          IMAGE=COMPRESS("&imgdir.\col"||_N_||"_R.gif");
       END;
       ELSE DO;
          IMAGE=COMPRESS("&imgdir.\col"||_N_||".gif");
       END;
    %end;*/
```

```
    /* MER 05/14/2010 Fix no longer needed */
    /*%if &var3.=1 or &var3.=3 %then %do;
       IF TIMEPD = "Est. Quarterly Rate of Change" THEN DO;
          IMAGE=COMPRESS("&imgdir.\col"||_N_||"_trans.gif");
       END;
       ELSE DO;
          IMAGE=COMPRESS("&imgdir.\col"||_N_||".gif");
       END;
    %end;
    %else %do;
       IMAGE=COMPRESS("&imgdir.\col"||_N_||".gif");  *DKB CHANGED IMAGE NAME FROM QTR TO COL;
    %end;*/
    IMAGE=COMPRESS("&imgdir.\col"||_N_||".gif");  *DKB CHANGED IMAGE NAME FROM QTR TO COL;

    IF _N_=1 THEN HREF=HREFf1;
    ELSE IF _N_=2 THEN HREF=HREFf2;
    ELSE IF _N_=3 THEN HREF=HREFf3;
    ELSE IF _N_=4 THEN HREF=HREFf4;
    ELSE IF _N_=5 THEN HREF=HREF5;
      if timepd ne "Est. Quarterly Rate of Change*" and score ne .s then
        PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG SRC='"
IMAGE "' alt='" TIMEPD "' BORDER=0></a></td>";
         else if timepd ne "Est. Quarterly Rate of Change*" then
        PUT "<td align='center' valign='bottom'><a &target.><IMG SRC='" IMAGE "' alt='" TIMEPD
"' BORDER=0></a></td>";
      else do;
        IMAGE=COMPRESS("&imgdir.\col"||_N_||"_R.gif");
        PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG SRC='"
IMAGE "' alt='" TIMEPD "' BORDER=0></a></td>";
      end;
  %end;
  %else %do;
    IF _N_=1 THEN HREF=HREFp1;
    ELSE IF _N_=2 THEN HREF=HREFp2;
    ELSE IF _N_=3 THEN HREF=HREFp3;
    ELSE IF _N_=4 THEN HREF=HREFp4;
    ELSE IF _N_=5 THEN HREF=HREF5;

    /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE*/

    /* MER 10/24/09 Fix no longer needed */
    /*%if &var3.=4 and &seppage.=2 %then %do;
       IF TIMEPD = "April, 2008" OR TIMEPD = "July, 2008" THEN DO;
          PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "<b>*</b></a></font></td>";
       END;
       ELSE DO;
          PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
       END;
    %end;*/
    /* MER 05/14/2010 Fix no longer needed */
    /*%if &var3.=1 or &var3.=3 %then %do;
       IF TIMEPD = "Est. Quarterly Rate of Change" THEN DO;
          PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "<b>#</b></a></font></td>";
       END;
       ELSE DO;
          PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
       END;
    %end;
    %else %do;
       PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.' size='1'><a
href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
    %end;*/
        IF SCORE NE .S THEN
    PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.' size='1'><a
href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
        ELSE
    PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.' size='1'><a
&target.>" &HEADVAR. "</a></font></td>";
%end;
```

```
  IF EOF THEN DO;
    PUT "</font></tr>";
    /***  2-2 MAB removed scale row ***/
  END;

RUN;

%end;

/*** ÛÛ FRAMES SECTION ÛÛ ***/
%if &prefix=f %then %do;
  /*** Close out header HTML page ***/
  DATA _NULL_;
    FILE "&FILEOUT1." MOD;

    PUT "</center></table>";
    PUT "</body></html>";
  RUN;


  /*** Since done making frame 1 page then assign fileout1 = frame 2 ***/
  %let fileout1=&fileout3.;

  /*** Initialize out data HTML page ***/
  DATA _NULL_;
    FILE "&FILEOUT3.";

    PUT "<! Created &datetime.>";
    PUT "<html>";
    PUT "<body bgcolor='#999999' text='#000099' link='#660066' alink='#660066'
vlink='#996699'>";
    PUT "<center><table border='1' cellpadding='2' cellspacing='0' bgcolor='#D8D8D8'
cols=&columns. width=640>";
  RUN;



%end;




/*************************************/
/****  Put out rest of table      ****/
/****  Colored scores and Stub    ****/
/*************************************/
%if &seppage.=0 OR &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;
                                ***MER 4/21/09 Changed 7/8/9/10 to 6/7/8/9;
DATA HTML3;
  SET SUBSET4;
RUN;
%end;
%else %if &seppage.=1 %then %do;
DATA HTML3;
  SET SUBSET4;

  /*** 8-7-2003 Mark Brinkley ***/
  IF TIMEPD="&MAILperiod.";

  /*** Since spliting up table need to delete some records ***/
  /*** Modified 2-2 MAB to deal with new period values **/
  IF BENTYPE="Composite" THEN DELETE;   ***DKB ADDED TREND 5/2/2002***;
RUN;                                    ***MJS 07/03/03 Changed from BENTYPE IN any period and
Est. Quarterly Rate of Change;
%end;
%else %if &seppage.=2 %then %do;

DATA HTML3;
  SET SUBSET4;
  /*** Since spliting up table need to delete some records ***/
  /*** Modified 2-2 MAB to deal with new period values **/
*  IF BENTYPE="Composite";   ***DKB ADDED TREND 5/2/2002***;
```

```
*** RSG ADDED VAR4 CONDITIONS FOR SUB-BENEFIT TREND PAGES 08/07/03;
%if &var4. = 0 %then %do;
      IF BENTYPE="Composite";
%end;
%else %if &var4. ne 0 and BENTYPE ne "Composite" %then %do;
      %if &var3. = 1 %then %do;
          %if &var4. = 1 %then %do;
              IF BENTYPE = "Getting to See a Specialist";
          %end;
          %else %if &var4. = 2 %then %do;
              IF BENTYPE = "Getting Treatment";
          %end;
      %end;
      %else %if &var3. = 2 %then %do;
          %if &var4. = 1 %then %do;
              IF BENTYPE = "Wait for Routine Visit";
          %end;
          %else %if &var4. = 2 %then %do;
              IF BENTYPE = "Wait for Urgent Care";
          %end;
      %end;
      %else %if &var3. = 3 %then %do;
          %if &var4. = 1 %then %do;
              IF BENTYPE = "Listens Carefully";
          %end;
          %else %if &var4. = 2 %then %do;
              IF BENTYPE = "Explains so You Can Understand";
          %end;
          %else %if &var4. = 3 %then %do;
              IF BENTYPE = "Shows Respect";
          %end;
          %else %if &var4. = 4 %then %do;
              IF BENTYPE = "Spends Time with You";
          %end;
      %end;
      %else %if &var3. = 4 %then %do;
          %if &var4. = 1 %then %do;
              IF BENTYPE = "Getting Information";
          %end;
          %else %if &var4. = 2 %then %do;
              IF BENTYPE = "Courteous Customer Service";
          %end;
      %end;
      %else %if &var3. = 5 %then %do;
          %if &var4. = 1 %then %do;
              IF BENTYPE = "Claims Handled in a Reasonable Time";
          %end;
          %else %if &var4. = 2 %then %do;
              IF BENTYPE = "Claims Handled Correctly";
          %end;
      %end;
      %else %if &var3. = 10 %then %do;
          %if &var4. = 1 %then %do;
              IF BENTYPE = "Mammography";
          %end;
          %else %if &var4. = 2 %then %do;
              IF BENTYPE = "Pap Smear";
          %end;
          %else %if &var4. = 3 %then %do;
              IF BENTYPE = "Hypertension";
          %end;
          %else %if &var4. = 4 %then %do;
              IF BENTYPE = "Prenatal Care";
          %end;
      %end;
      %else %if &var3. = 11 %then %do;    /*** MAB Added 2/11/2005 ***/
          %if &var4. = 1 %then %do;
              IF BENTYPE = "Non-Smoking Rate";
          %end;
          %else %if &var4. = 2 %then %do;
              IF BENTYPE = "Counselled To Quit";
          %end;
          %else %if &var4. = 3 %then %do;
```

```
                IF BENTYPE = "Percent Not Obese";
            %end;
        %end;
  %end;

RUN;                        ***MJS 07/03/03 Changed from BENTYPE IN any period and Est.
Quarterly Rate of Change;
%end;

/*ÛÛÛÛ ALL MAJGRPS ÛÛÛÛ*/
%if &var1.=0 %then %do;

DATA HTML4;
  SET HTML3 END=EOF;
  *LENGTH HREF $ 250;   /*MJS 01/29/04 Commented out statement*/


  IF MAJGRP="Prime Enrollees" THEN MAJNUM=1;
  IF MAJGRP="Enrollees with Military PCM"  THEN MAJNUM=2;
  IF MAJGRP="Enrollees with Civilian PCM" THEN MAJNUM=3;
  IF MAJGRP="Standard/Extra Users" THEN MAJNUM=4;   ***JSO 10/31/07  Added Civilian PCM;
  IF MAJGRP="Purchased Care Users" THEN MAJNUM=5;   ***JSO 07/28/08  Purchased Care Users;
  IF MAJGRP="Active Duty" THEN MAJNUM=6;            ***(MAJNUM=3), and changed 3-7 bacl to 4-8;
  IF MAJGRP="Active Duty Dependents" THEN MAJNUM=7;
  IF MAJGRP="Retirees and Dependents" THEN MAJNUM=8;
  IF MAJGRP="All Users" THEN MAJNUM=9;


  /*** HREF link to another page ***/
/*  HREF=COMPRESS("..\html\&prefix."||MAJNUM||"-0-&var3.-&var4.&q..htm");
    RSG 02/2005 - changed for period1-3, link goes to that period component page*/
    HREF=COMPRESS("&prefix."||MAJNUM||"-0-&var3.-&var4.&q..htm");
  /*** MAB 7-12-2001 updated to reference trend page if needed ***/


  /**RSG 02/2005 - CONUS TREATED AS REGION, COMMENT OUT CODE**/
  /*%if &var2.^=17 and &var2.^=18 and &var2.^=19 and &var2.^=20 %then %do;
     IF SUBSTR(REGION,1,3)="USA" THEN DELETE;
  %end;*/


  LENGTH HREFQ LMAJGRP $ 100;   /*MJS 02/11/04*/
  RETAIN LMAJGRP;

  IF _N_=1 THEN DO;
     LMAJGRP=" ";
     ROW=0;


    /*** Add links to trend data 7.6.2001 MAB ***/
    %let columns_less1=%EVAL(&columns.-1);
    %if &seppage.=0 %then %do;
          FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
          PUT "<tr bgcolor= &gray.><td width='" WIDTH_COL1 "'><font face='&fontface.'
size='2'><b>Trends</b></font></td>";
          /**RSG 02/2005 Comment out next line because total score is removed **/
/*          PUT "<td width='" WIDTH3 "'>&htmlsp.</td>";          */

          %do i=1 %to 11;   ***MER 04/21/09 Changed 12 to 11 for 11 Benefits;
             %if &i.^=6 AND &i.^=7 AND &i.^=8 AND &i.^=9 %then %do;   ***MER 04/21/09 Changed
7,8,9,10 to 6,7,8,9;
                HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0q.htm");  /*** href to 2nd
html file ***/
             %end;
             %else %do;
                HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0.htm");  /*** href to 2nd
html file ***/
             %end;

             PUT "<td width='" WIDTH3 "'><a href='" HREFQ "' &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
          %end;
          PUT "</tr>";
    %end;
```

```
  END;



  IF LMAJGRP^=MAJGRP THEN DO;             /*** Start new row ***/
        FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
        ROW+1;
        IF LMAJGRP^=" " THEN PUT "</tr>";  /*** terminate previous row ***/


        /*** Column 1 / Row 1 ***/
        /*** ÛÛ FRAMES SECTION ÛÛ ***/
        %if &prefix=f %then %do;
            IF MAJGRP IN("Benchmark") THEN PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" MAJGRP "</font></b></td>";    /*** no HREF links ***/
        %end;
        %else %do;
            IF MAJGRP IN("Benchmark") THEN PUT "<tr><td><b><font face='&fontface.' size='2'>"
MAJGRP "</font></b></td>";                            /*** no HREF links ***/
        %end;

        /*** Column 1 / Row 2+ ***/

        ELSE IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href="""" HREF +(-1) """ &target.> " MAJGRP " </a></font></td>";   /** Shade row **/
        ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href="""" HREF +(-1) """ &target.>
" MAJGRP " </a></font></td>";


        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSDATA;
           IF LMAJGRP^=" " THEN           PUT " ";
           IF REGION IN("Benchmark") THEN PUT REGION '09'x @@;   /* '09'x ensures text string is
put into one cell */
           ELSE IF MOD(ROW,2)=0 THEN      PUT MAJGRP '09'x @@;   /* rather than spanning across
cells              */
           ELSE                           PUT MAJGRP '09'x @@;
         %end;
        /*-------------------------*/
        /* 2000/11: end xls code   */
        /*-------------------------*/

        LMAJGRP=MAJGRP;
  END;


  /*** Column 2+ ***/
  /*********************************************/
  /**** Need to output different formats    ****/
  /*********************************************/
  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */


  IF MAJGRP IN("Benchmark") THEN DO;
       IF SCORE=. THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.A THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.S THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>S<!CODE= " +(-1) ORDER Z5.  "></font></b></td>"; /*AMK
9/23/2013 No Q4FY2013 Data*/
       ELSE PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.
"></font></b></td>";
  END;
  ELSE DO;
    IF SCORE=. THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>***<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
```

```
    ELSE IF SCORE=.A THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NA<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.S THEN DO;   /*AMK 9/23/2013 No Q4FY2013 Data*/
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>S<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE DO;
        IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2' color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=-1 THEN PUT "<td align='center' valign='bottom'><i><font face='&fontface.'
size='2' color=&red.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></i></td>";
        ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>" SCORE
3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></td>";
    END;
  END;



  /*-------------------------*/
  /* 2000/11: begin xls code */
  /*-------------------------*/
  %if &outxls.=1 %then %do;
    FILE XLSDATA;
    IF MAJGRP IN("Benchmark") THEN DO;   /** Replaced 1-22 mab **/
         IF SCORE=. THEN        PUT "***" '09'x @@;
         ELSE IF SCORE=.A THEN  PUT "NA"  '09'x @@;
         ELSE IF SCORE=.S THEN  PUT "S"   '09'x @@;   /*AMK 9/23/2013 No Q4FY2013 Data*/
         ELSE                   PUT SCORE 3.0 '09'x @@;
    END;
    ELSE DO;
      IF SCORE=. THEN DO;
          PUT "***" '09'x @@;
      END;
      ELSE IF SCORE=.A THEN DO;
          PUT "NA" '09'x @@;
      END;
      ELSE IF SCORE=.S THEN DO;     /*AMK 9/23/2013 No Q4FY2013 Data*/
          PUT "S"  '09'x @@;
      END;
      ELSE DO;
          IF SIG=1 THEN       PUT SCORE 3.0 '09'x @@;
          ELSE IF SIG=. THEN  PUT "***" '09'x @@;
          ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
          ELSE IF SIG=-1 THEN PUT SCORE 3.0 '09'x @@;
          ELSE                PUT SCORE 3.0 '09'x @@;
      END;
    END;
  %end;
  /*-------------------------*/
  /* 2000/11: end xls code   */
  /*-------------------------*/

  IF EOF THEN DO;
     FILE "&FILEOUT1." MOD ;                        /* 2000/11: to refer back to htm file */
     PUT "</tr>";  /*** terminate last row ***/

     %BOTTOM_NOTES;  /** Macro with bottom notes **/


    /*-------------------------*/
    /* 2000/11: begin xls code */
    /*-------------------------*/

     %BOTTOM_NOTES_XLS;  /** Macro with bottom notes for XLS **/

    /*-------------------------*/
    /* 2000/11: end xls code   */
    /*-------------------------*/
```

```
  END;
RUN;
%end;




/*ÛÛÛÛ All Regions ÛÛÛÛ*/
%if &var2.=0 %then %do;
DATA HTML4;
  SET HTML3 END=EOF;
  *LENGTH HREF $ 250;   /*MJS 01/29/04 Commented out statement*/

  LENGTH LREGION HREFQ $ 100;   /*MJS 02/11/04*/
  RETAIN LREGION;

  IF _N_=1 THEN DO;
     LREGION=" ";
     REGNUM=1;
     ROW=0;


    /*** Add links to trend data 7.6.2001 MAB ***/
    %let columns_less1=%EVAL(&columns.-1);
    %if &seppage.=0 %then %do;
          FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
          PUT "<tr bgcolor= &gray.><td width='" WIDTH_COL1 "'><font face='&fontface.'
size='2'><b>Trends</b></font></td>";
          /**RSG 02/2005 Commented out next line because no longer have TOTAL score**/
/*          PUT "<td width='" WIDTH3 "'>&htmlsp.</td>";          */

           %do i=1 %to 11;   ***MER 04/21/09 changed 12 to 11 since we now have 11 benefits;
             %if &i.^=6 AND &i.^=7 AND &i.^=8 AND &i.^=9 %then %do;   ***MER 04/21/09 Changed
from 7,8,9,10 to 6,7,8,9;
                 HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0q.htm");  /*** href to 2nd
html file ***/
             %end;
             %else %do;
                 HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0.htm");  /*** href to 2nd
html file ***/
             %end;

             PUT "<td width='" WIDTH3 "'><a href='" HREFQ "' &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
          %end;
          PUT "</tr>";
    %end;


END;


  IF LREGION^=REGION THEN DO;              /*** Start new row ***/
        FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
        ROW+1;
        IF LREGION^=" " THEN PUT "</tr>";  /*** terminate previous row ***/


        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF LREGION^=" " THEN PUT " ";          /*** terminate previous row ***/
          FILE "&FILEOUT1." MOD ;                /* 2000/11: to refer back to htm file */
        %end;
        /*-------------------------*/
        /* 2000/11: end xls code   */
        /*-------------------------*/
```

```
        /*** Column 1 / Row 1 ***/
        /*** ÛÛ FRAMES SECTION ÛÛ ***/
        %if &prefix=f %then %do;
           IF REGION IN("Benchmark") THEN PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";  /*** no HREF links ***/
        %end;
        %else %do;
           IF REGION IN("Benchmark") THEN PUT "<tr><td><b><font face='&fontface.' size='2'>"
REGCAT "</font></b></td>";  /*** no HREF links ***/
        %end;
        ELSE DO;   /*** HREF links for each region ***/


          /*HREF=COMPRESS("..\html\&prefix.0-"||REGNUM||"-&var3.-&var4.&q..htm");
            RSG 02/2005 - Changed link so period1-3 will link to appropriate component page*/
            HREF=COMPRESS("&prefix.0-"||REGNUM||"-&var3.-&var4.&q..htm");

          /*** MAB 7-12-2001 updated to reference trend page if needed ***/



          /*** Certain major groups are not large enough to show ***/
          /*** catchment level detail. so don't add HREF link here  ***/
          /*** Remove since qtrs not going down to catchment level ***/
          /**%if &var1.=3 or &var1.=5 or &var1.=6  %then %do;   ***MJS 05/04/03 Removed Civilian
PCM (&var1.=3), and changed 4,6,7 to 3,5,6;
            IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font  face='&fontface.' size='2'>
" REGCAT " </font></td>";    Shade row
            ELSE PUT "<tr><td><font  face='&fontface.' size='2'> " REGCAT " </font></td>";
            %end;
            %else %do;
            IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font  face='&fontface.'
size='2'><a href="""  HREF +(-1) """> " REGCAT " </a></font></td>";   Shade row
            ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href="""  HREF +(-1) """> "
REGCAT " </a></font></td>";
            %end;**/

          /*** Column 1 / Row 2+ ***/
          %if &prefix=f %then %do;
             if regcat = "NORTH" or regcat = "SOUTH" or regcat="WEST" or
                 regcat = "OVERSEAS" or regcat="US MHS" then do; /* MER 08/27/09 changed to US
MHS */
                 IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><b><font face='&fontface.'
size='2'><a href="""  HREF +(-1) """ &target.> " REGCAT " </a></b></font></td>"; /** Shade row
**/
                 ELSE PUT "<tr><td><b><font face='&fontface.' size='2'><a href="""  HREF +(-1)
""" &target.> " REGCAT " </a></b></font></td>";
             end;
             else do;
                 IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href="""  HREF +(-1) """ &target.> " REGCAT " </a></font></td>"; /** Shade row **/
                 ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href="""  HREF +(-1) """
&target.> " REGCAT " </a></font></td>";
             end;
          %end;
          %else %do;
             if regcat = "NORTH" or regcat = "SOUTH" or regcat="WEST" or
                 regcat = "OVERSEAS" or regcat="US MHS" then do; /* MER 08/27/09 changed to US
MHS */
                 IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><b><font  face='&fontface.'
size='2'><a href="""  HREF +(-1) """ &target.> " REGCAT " </a></b></font></td>"; /** Shade row
**/
                 ELSE PUT "<tr><td><b><font face='&fontface.' size='2'><a href="""  HREF +(-1)
""" &target.> " REGCAT " </a></b></font></td>";
             end;
             else do;
                 IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font  face='&fontface.'
size='2'><a href="""  HREF +(-1) """ &target.> " REGCAT " </a></font></td>"; /** Shade row **/
                 ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href="""  HREF +(-1) """
&target.> " REGCAT " </a></font></td>";
             end;
          %end;
```

```
          REGNUM+1;

          /**RSG 02/2005 Conus treated as Region, comment out code**/
          /**IF SUBSTR(REGION,1,3) = "USA" THEN DO;
             REGNUM=ORIGNUM;
          END;**/

        END;

        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF REGION IN("Benchmark") THEN  PUT REGCAT '09'x @@;   /* no logic difference */
          ELSE DO;
            IF MOD(ROW,2)=0 THEN          PUT REGCAT '09'x @@;   /* just presentation difference
in htm */
            ELSE                          PUT REGCAT '09'x @@;   /* keeping as is to preserve
htm code structure */
          END;
        %end;
        /*-------------------------*/
        /* 2000/11: end xls code   */
        /*-------------------------*/

        LREGION=REGION;
  END;


  /*** Column 2+ ***/
  /*********************************************/
  /**** Need to output different formats    ****/
  /*********************************************/
  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  IF REGION IN("Benchmark") THEN DO;     /*** no significance ***/
       IF SCORE=. THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.A THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.S THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>S<!CODE= " +(-1) ORDER Z5.  "></font></b></td>"; /*AMK
9/23/2013 No Q4FY2013 Data*/
       ELSE PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.
"></font></b></td>";
  END;
  ELSE DO;
    IF SCORE=. THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>***<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.A THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NA<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.S THEN DO; /*AMK 9/23/2013 No Q4FY2013 Data*/
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>S<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE DO;
        IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2' color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=-1 THEN PUT "<td align='center' valign='bottom'><i><font face='&fontface.'
size='2' color=&red.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></i></td>";
        ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>" SCORE
3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></td>";
    END;
  END;
```

```
  /*-------------------------*/
  /* 2000/11: begin xls code */
  /*-------------------------*/
  %if &outxls.=1 %then %do;
    FILE XLSDATA;
    IF REGION IN("Benchmark") THEN DO;
         IF SCORE=. THEN       PUT "***" '09'x @@;
         ELSE IF SCORE=.A THEN PUT "NA"  '09'x @@;
         ELSE IF SCORE=.S THEN PUT "S"   '09'x @@;/*AMK 9/23/2013 No Q4FY2013 Data*/
         ELSE                  PUT SCORE 3.0 '09'x @@;
    END;
    ELSE DO;
      IF SCORE=. THEN DO;
          PUT "***" '09'x @@;
      END;
      ELSE IF SCORE=.A THEN DO;
          PUT "NA" '09'x @@;
      END;
      ELSE IF SCORE=.S THEN DO; /*AMK 9/23/2013 No Q4FY2013 Data*/
          PUT "S"  '09'x @@;
      END;
      ELSE DO;
          IF SIG=1 THEN       PUT SCORE 3.0 '09'x @@;
          ELSE IF SIG=. THEN  PUT "***" '09'x @@;
          ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
          ELSE IF SIG=-1 THEN PUT SCORE 3.0 '09'x @@;
          ELSE                PUT SCORE 3.0 '09'x @@;
      END;
    END;
  %end;
  /*-------------------------*/
  /* 2000/11: end xls code   */
  /*-------------------------*/



  IF EOF THEN DO;
     FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
     PUT "</tr>";  /*** terminate last row ***/


     %BOTTOM_NOTES;  /** Macro with bottom notes **/


     /*-------------------------*/
     /* 2000/11: begin xls code */
     /*-------------------------*/

     %BOTTOM_NOTES_XLS;  /** Macro with bottom notes for XLS **/

     /*-------------------------*/
     /* 2000/11: end xls code   */
     /*-------------------------*/

  END;

RUN;

%end;





/*ÛÛÛÛ Single Regions ÛÛÛÛ*/
/* This code is not applicable for the 2000 report cards */
/*  since not enough data to display sub-region info. */
/*  Will leave in code in case this changes */
%if &var2.^=0 AND &var1.^=0 %then %do;
DATA HTML4;
  SET HTML3 END=EOF;
```

```
  LENGTH LREGCAT $ 100 /*HREF $ 250*/;   /*MJS 01/29/04 Commented out HREF statement*/
  RETAIN LREGCAT;                        /*MJS 02/11/04*/

  IF _N_=1 THEN DO;
     LREGCAT=" ";
     ROW=0;
  END;


  IF LREGCAT^=REGCAT THEN DO;              /*** Start new row ***/
        FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
        ROW+1;
        IF LREGCAT^=" " THEN PUT "</tr>";  /*** terminate previous row ***/
        IF REGCAT IN("Benchmark") THEN PUT "<tr><td><b><font face='&fontface.' size='2'>" REGCAT
"</font></b></td>";
        ELSE IF SUBSTR(REGCAT,1,2) = "US" THEN PUT "<tr bgcolor= &gray.><td><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";
        ELSE IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'>" REGCAT "</font></td>";   /** Shade row **/
        ELSE PUT "<tr><td><font face='&fontface.' size='2'>" REGCAT "</font></td>";

        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF LREGCAT^=" " THEN PUT " ";
          IF REGCAT IN("Benchmark") THEN      PUT REGCAT '09'x @@;         /* no logic
difference */
          ELSE IF SUBSTR(REGCAT,1,2) = "US") THEN PUT REGCAT '09'x @@;
          ELSE IF MOD(ROW,2)=0 THEN           PUT REGCAT '09'x @@;         /* just presentation
difference in htm */
          ELSE                                PUT REGCAT '09'x @@;         /* keeping as is to
preserve htm code structure */
        %end;
        /*-------------------------*/
        /* 2000/11: end xls code   */
        /*-------------------------*/


        LREGCAT=REGCAT;

  END;



  /*********************************************/
  /**** Need to output different formats    ****/
  /*********************************************/
  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  IF REGION IN("Benchmark") THEN DO;     /*** no significance ***/
       IF SCORE=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.S THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
color=&blue. size='2'>S<!CODE= " +(-1) ORDER Z5.  "></font></b></td>"; /*AMK 9/23/2013 No
Q4FY2013 Data*/
       ELSE PUT "<td align='center' valign='bottom'><b><font face='&fontface.' color=&blue.
size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
  END;
  ELSE DO;
    IF SCORE=. THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>***<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.A THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NA<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.S THEN DO;     /*AMK 9/23/2013 No Q4FY2013 Data*/
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>S<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
```

```
    ELSE DO;
        IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2' color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=-1 THEN PUT "<td align='center' valign='bottom'><i><font face='&fontface.'
size='2' color=&red.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></i></td>";
        ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>" SCORE
3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></td>";
    END;
  END;

  /*-------------------------*/
  /* 2000/11: begin xls code */
  /*-------------------------*/
  %if &outxls.=1 %then %do;
    FILE XLSDATA;
    IF REGION IN("Benchmark") THEN DO;
         IF SCORE=. THEN        PUT "***" '09'x @@;
         ELSE IF SCORE=.A THEN  PUT "NA"  '09'x @@;
         ELSE IF SCORE=.S THEN  PUT "S"   '09'x @@;/*AMK 9/23/2013 No Q4FY2013 Data*/
         ELSE                   PUT SCORE 3.0 '09'x @@;
    END;
    ELSE DO;
      IF SCORE=. THEN DO;
          PUT "***" '09'x @@;
      END;
      ELSE IF SCORE=.A THEN DO;
          PUT "NA" '09'x @@;
      END;
      ELSE IF SCORE=.S THEN DO; /*AMK 9/23/2013 No Q4FY2013 Data*/
          PUT "S"  '09'x @@;
      END;
      ELSE DO;
          IF SIG=1 THEN       PUT SCORE 3.0 '09'x @@;
          ELSE IF SIG=. THEN  PUT "***" '09'x @@;
          ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
          ELSE IF SIG=-1 THEN PUT SCORE 3.0 '09'x @@;
          ELSE                PUT SCORE 3.0 '09'x @@;
      END;
    END;
  %end;
  /*-------------------------*/
  /* 2000/11: end xls code   */
  /*-------------------------*/


  IF EOF THEN DO;
     FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
     PUT "</tr>";  /*** terminate last row ***/

     %BOTTOM_NOTES;  /** Macro with bottom notes **/


     /*-------------------------*/
     /* 2000/11: begin xls code */
     /*-------------------------*/

     %BOTTOM_NOTES_XLS;  /** Macro with bottom notes for XLS **/

     /*-------------------------*/
     /* 2000/11: end xls code   */
     /*-------------------------*/

  END;

RUN;
%end;



/************************************/
```

```
/****  Print out footer info      ****/
/*************************************/
DATA _NULL_;
    FILE "&FILEOUT1." MOD ;
    LENGTH HREF $250;


    /** Determine where back button should link to **/
    %if &var1.=0 %then %do;
       HREFBACK=COMPRESS("&prefix.8-0-0-0.htm");   ***MJS 05/14/03 Changed 8 to 7;
    %end;
    %else %do;
       HREFBACK=COMPRESS("&prefix.&var1.-0-0-0.htm");
    %end;

    /*HERE!*/

    /** MF Changes **/
    PUT "<tr>";
    PUT "   <td colspan='&columns.'>";
    PUT "      <center>";
    PUT "         <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp.&htmlsp.";
             /*** 7-17 MAB added JS code to go back ***/
    PUT "&goback.";
    PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";

    PUT "         <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a><br>";
    PUT "         <font face='Arial,Helvetica,Swiss,Geneva' size='2'><b>&grpmsg.<br>";
    PUT "         </b></font>";



    majgrp1=COMPRESS("&prefix.1-&var2.-&var3.-&var4.&q..htm");
    majgrp2=COMPRESS("&prefix.2-&var2.-&var3.-&var4.&q..htm");
    majgrp3=COMPRESS("&prefix.3-&var2.-&var3.-&var4.&q..htm");   ***JSO 10/31/07 Added Civilian
PCM;
    majgrp4=COMPRESS("&prefix.4-&var2.-&var3.-&var4.&q..htm");   ***(majgrp3), and changed 3-7
back to 4-8;
    majgrp5=COMPRESS("&prefix.5-&var2.-&var3.-&var4.&q..htm");   ***JSO 07/28/08 Added Purchased
Care Users;
    majgrp6=COMPRESS("&prefix.6-&var2.-&var3.-&var4.&q..htm");
    majgrp7=COMPRESS("&prefix.7-&var2.-&var3.-&var4.&q..htm");
    majgrp8=COMPRESS("&prefix.8-&var2.-&var3.-&var4.&q..htm");
    majgrp9=COMPRESS("&prefix.9-&var2.-&var3.-&var4.&q..htm");


     /*** Certain major groups are not large enough to show ***/
     /*** catchment level detail. So if we are in html file ***/
     /*** which has this detail then don't link to a html   ***/
     /*** file which doesn't exist                          ***/

    %if &var1.^=0 %then %do;
      %if &var1.^=4 and &var1.^=6 and &var1.^=7 and &var2.^=0 %then %do;   ***JSO 10/31/07 Added
Civilian PCM (&var1.^=3), changed 3,5,6 back to 4,6,7;
                                                                          ***and changed MAJGRP
4&7 below back to 5&8;
         PUT "<a href=""" MAJGRP1 +(-1) """ &target.><font face='&fontface.' size='2'>Prime
Enrollees</font></a>&htmlsp.&htmlsp.";
         PUT "<a href=""" MAJGRP2 +(-1) """ &target.><font face='&fontface.' size='2'>Enrollees
with Military PCM</font></a>&htmlsp.&htmlsp.";
         PUT "<a href=""" MAJGRP6 +(-1) """ &target.><font face='&fontface.' size='2'>Active
Duty</font></a>&htmlsp.&htmlsp.";
         PUT "<a href=""" MAJGRP9 +(-1) """ &target.><font face='&fontface.' size='2'>All
Users</font></a>";

      %end;
      %else %do;

        PUT "<a href=""" MAJGRP1 +(-1) """ &target.><font face='&fontface.' size='2'>Prime
Enrollees</font></a>&htmlsp.&htmlsp.";
```

```
        PUT "<a href=""" MAJGRP2 +(-1) """ &target.><font face='&fontface.' size='2'>Enrollees
with Military PCM</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP3 +(-1) """ &target.><font face='&fontface.' size='2'>Enrollees
with Civilian PCM</font></a>&htmlsp.&htmlsp.";   ***JSO 10/31/07 Added Civilian PCM;
        PUT "<a href=""" MAJGRP4 +(-1) """ &target.><font face='&fontface.'
size='2'>Standard/Extra Users</font></a>&htmlsp.&htmlsp.";          ***(MAJGRP5), and changed 3-
7 back to 4-8;
        PUT "<a href=""" MAJGRP5 +(-1) """ &target.><font face='&fontface.' size='2'>Purchased
Care Users</font></a>&htmlsp.&htmlsp.";          ***JSO 07/28/08 Added Purchased Care Users;
        PUT "<br>";
        PUT "<a href=""" MAJGRP6 +(-1) """ &target.><font face='&fontface.' size='2'>Active
Duty</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP7 +(-1) """ &target.><font face='&fontface.' size='2'>Active Duty
Dependents</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP8 +(-1) """ &target.><font face='&fontface.' size='2'>Retirees
and Dependents</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP9 +(-1) """ &target.><font face='&fontface.' size='2'>All
Users</font></a>";

      %end;
    %end;

   /*** link to printer friendly version moved C.Rankin 10/25/2001 ***/

   /*** 4-17 MAB added  ***/
   /*** If creating frames need link to printer friendly version of file ***/
   /***DANIELE ADDED BR STATEMENT ON 11/1/01 SO PRINTER ICON WOULD SHOW UP ON SEPARATE LINE ***/
   %if &prefix=f %then %do;
      HREFP=COMPRESS("p&var1.-&var2.-&var3.-&var4.&q..htm");
      PUT "    <BR><font face='Arial,Helvetica,Swiss,Geneva' size='1'><a href='" HREFP "'
&target.><img src='&imgdir.\printer.gif' alt='Printer Friendly Page' border=0>Printer Friendly
Page</a></font>";
   %end;



RUN;


/*** Close HTML page ***/
DATA _NULL_;
  FILE "&FILEOUT1." MOD ;

  PUT "</center></td></tr></table>";
  PUT "</body></html>";

RUN;



/*--------------------------------*/
/* 2000/12: begin xls color code */
/*--------------------------------*/
%if &outxls.=1 %then %do;

  /* Align 2 titles */
  DATA _NULL_;
     FILE SAS2XL;
     CELL=COMPRESS("[SELECT(""R1C1:R1C"||&columns.||""")]"); PUT CELL;
     PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns **/
     CELL=COMPRESS("[SELECT(""R2C1:R2C"||&columns.||""")]"); PUT CELL;
     PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns **/
  RUN;

  DATA _NULL_;
    FILE SAS2XL;
    SET HTML4(DROP=ROW) END=EOF;

    RETAIN ROW COLUMN;


    /*** Need to initialize row and column pointers ***/
    IF _N_=1 THEN DO;
      ROW=6;
```

```
      COLUMN=1;
    END;

    /*** Increment Row and Column pointers ***/
/*    COLUMN=COLUMN+1;
    IF &var3.in (0,6,7,8,9) and COLUMN>&columns. THEN DO;   ***MER 4/21/09 Changed 7/8/9/10 to
6/7/8/9;
       ROW=ROW+1;
       COLUMN=2;
    END;
    ELSE IF COLUMN>&columns.+1 THEN DO;
       ROW=ROW+1;
       COLUMN=2;
    END;
*** RSG/MAB - 10/13/03 - changes for new template format */

   COLUMN=COLUMN+1;
    IF COLUMN>&columns. THEN DO;
       ROW=ROW+1;
       COLUMN=2;
    END;


    CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
    PUT CELL;

    /** Before color cell center data **/
    PUT '[ALIGNMENT(3, False, 3,0, False)]';


    IF REGION IN("Benchmark") OR MAJGRP IN("Benchmark") THEN PUT
'[FORMAT.FONT("Arial",10,True,False,False,False,9)]';  /*** BOLD & DARK RED ***/
    ELSE IF SCORE NOT IN(.,.A) THEN DO;
      IF SIG=1 THEN PUT '[FORMAT.FONT("Arial",10,True,False,False,False,10)]';          /***
BOLD & GREEN ***/
      ELSE IF SIG=-1 THEN PUT '[FORMAT.FONT("Arial",10,False,True,False,False,3)]';     /*** RED
***/
      ELSE PUT '[FORMAT.FONT("Arial",10,False,False,False,False,5)]';    /*** BLUE ***/
    END;


    /*** If last record then output footer ***/
    IF EOF THEN DO;
       ROW=ROW+3; COLUMN=1;
       CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
       PUT CELL;
       PUT '[FORMAT.FONT("Arial",10,True,False,False,False,10)]';          /*** BOLD & GREEN
***/
       ROW=ROW+1;
       CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
       PUT CELL;
       PUT '[FORMAT.FONT("Arial",10,False,True,False,False,3)]';     /*** RED ***/
    END;
  RUN;

  DATA _NULL_;
    FILE SAS2XL;
    PUT '[CLOSE(true)]';
  RUN;
%end;
/*--------------------------------*/
/* 2000/12: end xls color code   */
/*--------------------------------*/




%MEND MKHTML;
/*ÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛ*/
/*ÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛ*/
/*

%LET PREFIX=p;
%LET OUTXLS=0;
```

```
%MKHTML(0,21,2,2,0);
%MKHTML(1,0,1,2,0);
%MKHTML(1,0,2,2,0);
%MKHTML(1,0,4,2,0);
%MKHTML(2,0,2,2,0);
%MKHTML(2,0,4,2,0);
%MKHTML(3,0,11,2,0);
%MKHTML(3,0,2,2,0);
%MKHTML(3,0,4,2,0);
%MKHTML(4,0,1,2,0);
%MKHTML(4,0,2,2,0);
%MKHTML(6,0,11,2,0);
*/



*********************************************;
**** Create macros to call MKHTML macro  ****;
*********************************************;

/*** Create 8 HTML pages (8 Majgrps / All Regions / All Benefits)***/
%MACRO DOALL1();
            %MKHTML(1,0,0,0,0);
            %MKHTML(2,0,0,0,0);
            %MKHTML(6,0,0,0,0);
            %MKHTML(9,0,0,0,0);
            %MKHTML(3,0,0,0,0);   ***JSO 10/31/07 Added Civilian PCM (Majgrp 3), and changed 3-7
back to 4-8;
            %MKHTML(4,0,0,0,0);
            %MKHTML(5,0,0,0,0);   ***JSO 07/28/08 Added Purchased Care Users;
            %MKHTML(7,0,0,0,0);
            %MKHTML(8,0,0,0,0);
%MEND DOALL1;



/*** Create 322 HTML pages (8 Majgrps / All Regions / 12 Benefits)***/
%MACRO DOALL2();
   %DO J=1 %TO 9;                                            /*** JSO Changed 8 to 9
07/28/2008 ***/
      %DO K=1 %TO 11;      * 11 Sub-benefits ;           /*** MER Changed 12 to 11 04/21/2009
***/
         %MKHTML(&J.,0,&K.,1,0);  ***RSG 08/07/03 Add var4 part of new page numbers;

         /*** Call macro for 2nd page (except for ratings benefits) ***/
         %if &k.^=6 AND &k.^=7 AND &k.^=8 AND &k.^=9 %then %do;
            %IF &K. = 3 OR &K. = 10 %THEN %DO L= 0 %TO 4; ***RSG 08/07/03 There are different
number of
                                     sub-benefits trend pages for each benefit so need a
counter "L"
                                     to do different number of pages for each benefit;
               %MKHTML(&J.,0,&K.,2,&L.);
            %END;
            %ELSE %IF &K. = 1 OR &K. = 2 OR &K. = 4 OR &K. = 5 %THEN %DO L = 0 %TO 2;
               %MKHTML(&J.,0,&K.,2,&L.);
            %END;
            %ELSE %IF &K. = 11 %THEN %DO L = 0 %TO 3;
               %MKHTML(&J.,0,&K.,2,&L.);
            %END;
         %end;
      %END;

   %END;
%MEND DOALL2;



 /*** Create 25 HTML pages (All Majgrps / 25 Regions / All Benefits) ***/
%MACRO DOALL3();
      %DO J=1 %TO 25;
           %MKHTML(0,&J.,0,0,0);
      %END;
%MEND DOALL3;
```

```
 /*** Need to populate new table for all majgrps ***/
/*** Create 1150 HTML pages (All Majgrps / 25 Regions / 12 Benefits) ***/
%MACRO DOALL4();
   %DO J=1 %TO 25;
      %DO K=1 %TO 11;
         %MKHTML(0,&J.,&K.,1,0);
         /*** Call macro for 2nd page (except for ratings benefits) ***/
         %if &k.^=6 AND &k.^=7 AND &k.^=8 AND &k.^=9 %then %do;
            %IF &K. = 3 OR &K. = 10 %THEN %DO L = 0 %TO 4; ***RSG 08/07/03 Counter "L" for
different number;
               %MKHTML(0,&J.,&K.,2,&L.);                                    *of sub-benefit trend
pages for each benefit;
            %END;
            %ELSE %IF &K. = 1 OR &K. = 2 OR &K. = 4 OR &K. = 5 %THEN %DO L = 0 %TO 2;
               %MKHTML(0,&J.,&K.,2,&L.);
            %END;
            %ELSE %IF &K. = 11 %THEN %DO L = 0 %TO 3;
               %MKHTML(0,&J.,&K.,2,&L.);
            %END;
         %end;
      %END;
   %END;
%MEND DOALL4;



/*** Create 4 HTML pages (All Majgrps / 4 Region-ConusMHS / All Benefits) ***/
/** RSG 02/2005 - CONUS TREATED AS ANOTHER REGION**/
/*%MACRO DOALL5();
         %DO K=17 %TO 20;
            %MKHTML(0,&K.,0,0,0);
         %END;
%MEND DOALL5;


%MACRO DOALL6();
       %DO J = 17 %TO 20;
         %DO K=1 %TO 12;   ***MJS 4/23/03 Changed 2 to 1 and 12 to 11;
            %MKHTML(0,&J.,&K.,1,0);
            /*** Call macro for 2nd page (except for ratings benefits) ***/
/*            %if &k.^=7 AND &k.^=8 AND &k.^=9 AND &k.^=10 %then %do;
                %IF &K. = 1 OR &K. = 2 OR &K. = 4 %THEN %DO L = 0 %TO 4; ***RSG 08/07/03 counter
for sub-benefit trend pages;
                    %MKHTML(0,&J.,&K.,2,&L.);            ***MJS 4/23/03 Changed 8/9/10/11 to
7/8/9/10;
                %END;
                %ELSE %IF &K. = 3 OR &K. = 6 OR &K.=12 %THEN %DO L = 0 %TO 2;
                    %MKHTML(0,&J.,&K.,2,&L.);
                %END;
                %ELSE %IF &K. = 5 %THEN %DO L = 0 %TO 3;
                    %MKHTML(0,&J.,&K.,2,&L.);
                %END;
                %ELSE %IF &K. = 11 %THEN %DO L = 0 %TO 5;
                    %MKHTML(0,&J.,&K.,2,&L.);
                %END;
            %end;
         %END;
      %end;

%MEND DOALL6;
*/


/*** Run macro to create Printer Friendly HTML files (non-frames) ***/


%LET PREFIX=p;
%LET OUTXLS=0;
%DOALL1;
%DOALL2;
%DOALL3;
```

```
%DOALL4;


/*** Run macro to create Excel files ONLY ***/

%LET PREFIX=p;
%LET OUTXLS=1;
%DOALL1;
%DOALL2;
%DOALL3;
%DOALL4;


/*** Run macro to create Frame HTML files ***/

%LET PREFIX=f;
%LET OUTXLS=0;
%DOALL1;
%DOALL2;
%DOALL3;
%DOALL4;





%PUT "&number_html_files. HTML files created.";



*************************************************************************;
*************************************************************************;
*************************************************************************;
*************************************************************************;
*************************************************************************;
*************************************************************************;
*************************************************************************;
```

G.9.A ReportCards\CAHPS_Adult2015\STEP1Q.SAS - Create and recode variables used in Adult Beneficiary Reports - Annual.

```
***************************************************************************
*
*  PROJECT:  DoD - Quarterly Adult Report Cards
*  PROGRAM:  STEP1Q.SAS
*  PURPOSE:  Create Dummy and Recode Variables used in Adult Report Card
*                  Create a Female dummy variable
*                  Create an Education dummy variable
*                  Create 15 region dummies combining regions.
*                         7 & 8 into region 8. That is, there
*                         isn't a region 7 dummy.
*                  Create 7 age dummy variables.
*
*            We require the most desired code to be the highest value.
*            Recode the dependent variables into:
*                  1 - the least desirable value
*                  2 - the 2nd least desirable value
*                  3 - the most desirable value
*                  . - missing
*
*            Create 7 variables GROUP1 - GROUP7
*                 IF (XINS_COV IN (1,2,6) AND H09004>=2) THEN GROUP1 = 1
*                 IF (XENR_PCM IN (1,2,6) AND H09004>=2) THEN GROUP2 = 1
*                 IF (XENR_PCM = 3,7      AND H09004>=2) THEN GROUP3 = 1
*                 IF XINS_COV IN (3)                     THEN GROUP4 = 1
*                          /*JSO 08/24/2006, Deleted 4,5*/
*                 IF XBNFGRP = 1                         THEN GROUP5 = 1
*                 IF XBNFGRP = 2                         THEN GROUP6 = 1
*                 IF XBNFGRP IN (3,4)                    THEN GROUP7 = 1
*                 GROUP8 is output for all beneficiaries
*
*  MODIFIED:45) November 11, 2012 By Mike Rudacille, Updated for handling of Joint Service
facilities
*           46) December 1, 2014 By Matt Turbyfill, revised for the Macro Program.
                                   Replaced RCTYPE with &PC.ReportCards
                                   Changed HCSyyq_2 to &DATAFILE.
                                   Changed H14 and R14 to H&FY. And R&FY.
                                   Changed numerous INCLUDE and FILE references to
..\..\ReportCards\CAHPS_Adult&FYYEAR.
*
*  INPUTS:   1) HCSyyq_1 - DoD Quarterly HCS Database
*
*  OUTPUTS:  1) GROUP1-8.sas7bdat - DoD Quarterly GROUP files as defined above
*
*  INCLUDES: 1) CONVERT.SAS - Convert item responses to proportional
*                             values for consistency w/ TOPS
*
*  NOTES:    1) Groups 1-3 modified 10/09/2000
*
*            2) In Q1_2002, S02S01 was renamed and recoded to H00077 (health
*               status variable for 2000).  H02077 was the Hispanic/Latino
*               variable.  In Q2_2002, H02077 is health status, and H02079
*               is the Hispanic/Latino variable.  To make the Quarter 2 data
*               file (HSC022_1.sd2) more consistent with the Quarter 1 file,
*               the health status variable which was H02077 is now H04075,
*               and the Hispanic/Latino variable which was H02079 is now
*               H02077.
*
***************************************************************************;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards                ***/
%LET RCTYPE = &PC.ReportCards;

OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR NOOVP COMPRESS=YES;
LIBNAME OUT "DATA";
LIBNAME IN1  "..\..\..\Data";
LIBNAME LIBRARY  "..\..\..\Data\fmtlib";

%LET WGT= CFWT;

TITLE1    'Program Saved as: STEP1Q.SAS';
```

```
proc format;
     value servreg 1 = 'North Army'
                   2 = 'North Air Force'
                   3 = 'North Navy'
                   4 = 'North Other'
                   5 = 'North Joint Service'
                   6 = 'South Army'
                   7 = 'South Air Force'
                   8 = 'South Navy'
                   9 = 'South Other'
                  10 = 'South Joint Service'
                  11 = 'West Army'
                  12 = 'West Air Force'
                  13 = 'West Navy'
                  14 = 'West Other'
                  15 = 'West Joint Service'
                  16 = 'Europe Army'
                  17 = 'Europe Air Force'
                  18 = 'Europe Navy'
                  19 = 'Europe Other'
                  20 = 'Europe Joint Service'
                  21 = 'Pacific Army'
                  22 = 'Pacific Air Force'
                  23 = 'Pacific Navy'
                  24 = 'Pacific Other'
                  25 = 'Pacific Joint Service'
                  26 = 'Latin America Army'
                  27 = 'Latin America Air Force'
                  28 = 'Latin America Navy'
                  29 = 'Latin America Other'
                  30 = 'Latin America Joint Service';

DATA ENTIRE;
   SET IN1.&DATAFILE.(KEEP=
                MPRID
                FIELDAGE   /*MJS 01/26/04*/
                XTNEXREG
                SERVAFF    /*KRR 04/09/04*/
                DBENCAT    /*JSO 04/26/2007, added for reservists logic*/
                USA
                ENBGSMPL
                SREDA
                XSEXA
                      XCATCH
                XBNFGRP
                STRATUM    /*KRR 04/03/2006, changed from ADJ_CELL*/
                XINS_COV
                XENR_PCM
                XOCONUS    /*JSO 08/24/2006, Overseas Region Indicator*/
                &WGT
                QUARTER
                /* Getting Needed Care */
                H&FY.033
                H&FY.029
                /* Getting Care Quickly */
                H&FY.007
                H&FY.010
                /* How Well Doctors Communicate */
                H&FY.021
                H&FY.022
                H&FY.023
                H&FY.024
                /* Customer Service */
                H&FY.041
                H&FY.042
                /* Claims Processing */
                H&FY.046
                H&FY.047  /****************************/
                H&FY.065  /* Health Status            */
                H&FY.018  /* Health Care Rating       */
                H&FY.048  /* Health Plan Rating       */
                H&FY.027  /* Personal Doctor Rating   */
```

```
                H&FY.031  /* Specialist Rating         */
                H&FY.003  /* Health Plan Used          *//*JSO 04/26/2007, added for reservists
logic*/
                H&FY.004  /* How Long in Health Plan   */
                        /****************************/
               );
    FORMAT _ALL_;


    IF SERVAFF='A' THEN XSERVAFF=1;              *Army;
       ELSE IF SERVAFF='F' THEN XSERVAFF=2;      *Air Force;
       ELSE IF SERVAFF='N' THEN XSERVAFF=3;      *Navy;
       ELSE XSERVAFF=4;                          *Other;

    IF PUT(XCATCH, JOINTSRV.)='1' THEN XSERVAFF=5; *Joint Service;

    IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

    IF XTNEXREG = . THEN DELETE;  /* RSG 02/2005 USE CACSMPL TO DELETE MISSING FIELDS*/

    IF XINS_COV NOT IN(1,2,3,6,9,10,13,14) THEN DELETE;  /*JSO 07/30/2007, Added 9*/ /*MER
10/07/11 Added 10 and 11 */
                                                          /*AMK 6/17/14 removed 11, added 13/14*/

    NXNS_COV = XINS_COV;              /*JSO 04/26/2007 added for reservists logic*/
                                      /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
    IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
    IF DBENCAT IN('GRD','IGR') AND H&FY.003 = 3 THEN DO;
       NXNS_COV = 3;
       XENR_PCM = .;
    END;
                        /* Note:  use tmp_cell in step2q.sas */
    LENGTH TMP_CELL XSERVREG 8;
    TMP_CELL = STRATUM; /*KRR 04/03/2006, changed from ADJ_CELL*/

    IF XTNEXREG = 1 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 1;
       ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
       ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
       ELSE IF XSERVAFF = 4 THEN XSERVREG = 4;
       ELSE XSERVREG = 5;
    END;

    IF XTNEXREG = 2 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 6;
       ELSE IF XSERVAFF = 2 THEN XSERVREG = 7;
       ELSE IF XSERVAFF = 3 THEN XSERVREG = 8;
       ELSE IF XSERVAFF = 4 THEN XSERVREG = 9;
       ELSE XSERVREG = 10;
    END;

    IF XTNEXREG = 3 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 11;
       ELSE IF XSERVAFF = 2 THEN XSERVREG = 12;
       ELSE IF XSERVAFF = 3 THEN XSERVREG = 13;
       ELSE IF XSERVAFF = 4 THEN XSERVREG = 14;
       ELSE XSERVREG = 15;
    END;

    IF XTNEXREG = 4 THEN DO; /*JSO 08/24/2006, Changed Overseas Regions*/
       IF XOCONUS = 1 THEN DO;
          IF      XSERVAFF = 1 THEN XSERVREG = 16;
          ELSE IF XSERVAFF = 2 THEN XSERVREG = 17;
          ELSE IF XSERVAFF = 3 THEN XSERVREG = 18;
          ELSE IF XSERVAFF = 4 THEN XSERVREG = 19;
          ELSE                      XSERVREG = 20;
       END;
       IF XOCONUS = 2 THEN DO;
          IF      XSERVAFF = 1 THEN XSERVREG = 21;
          ELSE IF XSERVAFF = 2 THEN XSERVREG = 22;
          ELSE IF XSERVAFF = 3 THEN XSERVREG = 23;
          ELSE IF XSERVAFF = 4 THEN XSERVREG = 24;
          ELSE                      XSERVREG = 25;
       END;
```

```
       IF XOCONUS = 3 THEN DO;
          IF      XSERVAFF = 1 THEN XSERVREG = 26;
          ELSE IF XSERVAFF = 2 THEN XSERVREG = 27;
          ELSE IF XSERVAFF = 3 THEN XSERVREG = 28;
          ELSE IF XSERVAFF = 4 THEN XSERVREG = 29;
          ELSE                      XSERVREG = 30;
       END;
    END;

    IF XSERVREG = . THEN DELETE;  /* MER 11/10/10 - Deletes records with imputed TNEXREG = 'O'
*/
                                  /* and missing XOCONUS.  (Only applies to CACSMPL = 9904)
*/

    /* MER 7/27/12 - New logic for handling out of catchment OCONUS */
    IF XCATCH = 9904 THEN DO;
       IF XSERVREG <=5 THEN XCATCH=9901;
       ELSE IF XSERVREG <=10 THEN XCATCH=9902;
       ELSE IF XSERVREG <=15 THEN XCATCH=9903;
       ELSE IF XSERVREG <=20 THEN XCATCH=9905;
       ELSE IF XSERVREG <=25 THEN XCATCH=9906;
       ELSE IF XSERVREG <=30 THEN XCATCH=9907;
    END;


RENAME XCATCH=CACSMPL;
    WRWT=&WGT;

RUN;

*--------------------------------------------------;
* create variable names for catchment area dummies ;
*--------------------------------------------------;

*  create a file of catchment areas (UNIQUE) using the sort to drop;
*  all duplicate catchment areas leaving one record per;
*  unique catctment area code;
PROC SORT DATA=ENTIRE OUT=UNIQUE(KEEP=CACSMPL) NODUPKEY;
   BY CACSMPL;
RUN;

*  create a file (FILEA) with catchment areas codes and a catchment;
*  name consisting of "CAT" concatenated with a 4 digit number;
*  created by ting of "CAT" concatenated with a 4 digit number;
DATA FILEA (RENAME=(CACSMPL=START SERIAL=LABEL));
   SET UNIQUE;
   SERIAL+1;
   LENGTH FMTNAME $7 DUMNAME $7;
   FMTNAME='CACLOOK';
   DUMNAME= 'CAT' || PUT(CACSMPL, Z4.);
RUN;

PROC PRINT DATA=FILEA;
     TITLE2 '1 record per catchment area (use this file to create a format)';
RUN;

* create a format statement to be used to create CATINDX;
PROC FORMAT CNTLIN=FILEA;  RUN;

* create an include file for a complete set of catchment areas.
* Write out to a file (CDUMFILE.INC) of the catchment dummy variables;
DATA _NULL_;
   SET FILEA END=EOF;
   FILE "..\..\ReportCards\CAHPS_Adult&fyyear.CDUMFILE.INC";
   IF _N_ = 1 THEN DO;
      PUT @10  "ARRAY CATDUMS(*) 4";
   END;
   PUT    @15   DUMNAME $7.;

   IF EOF  THEN  PUT @10 ";";
RUN;
```

```
*************************************************************************
* Create AGE, FEMALE and GROUP (Beneficiary/Enrollment)
* subsets. Create the region dummies.  Recode region 7 to region 8.
*************************************************************************;
DATA ENTIRE;
   SET ENTIRE;
   LENGTH DEFAULT = 4;
   IF FIELDAGE NE "  " THEN DO;   /*MJS 01/26/04*/
      AGE1824=0;
      AGE2534=0;
      AGE3544=0;
      AGE4554=0;
      AGE5564=0;
      AGE6574=0;
      AGE75UP=0;
      IF      ( '018' <= FIELDAGE <= '024' ) THEN AGE1824=1;   /*MJS 01/26/04*/
      ELSE IF ( '025' <= FIELDAGE <= '034' ) THEN AGE2534=1;
      ELSE IF ( '035' <= FIELDAGE <= '044' ) THEN AGE3544=1;
      ELSE IF ( '045' <= FIELDAGE <= '054' ) THEN AGE4554=1;
      ELSE IF ( '055' <= FIELDAGE <= '064' ) THEN AGE5564=1;
      ELSE IF ( '065' <= FIELDAGE <= '074' ) THEN AGE6574=1;
      ELSE IF (          FIELDAGE  > '074' ) THEN AGE75UP=1;
   END;

   ***********************************************************************
   * Create the FEMALE dummy variable.
   ***********************************************************************;
   IF XSEXA = 2 THEN
      FEMALE = 1;
   ELSE
      FEMALE = 0;

   ***********************************************************************
   * Create the beneficiary group/enrollment group subsets.
   ***********************************************************************;
   GROUP1 = 0;
   GROUP2 = 0;
   GROUP3 = 0;
   GROUP4 = 0;
   GROUP5 = 0;
   GROUP6 = 0;
   GROUP7 = 0;
   GROUP8 = 1;     * EVERYONE;

   IF (NXNS_COV IN (1,2,6,13)  AND H&FY.004>=2) THEN GROUP1 = 1;/*AMK 6/17/14 added 13*/
   IF (XENR_PCM IN (1,2,6)  AND H&FY.004>=2) THEN GROUP2 = 1;
   /* JSO 04/05/2007 conditions to run RC type */
   IF "&RCTYPE" = 'ReportCards' AND (XENR_PCM IN (3,7) AND H&FY.004>=2) THEN GROUP3 = 1;
   ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND ((XENR_PCM IN (3,7) AND H&FY.004>=2) OR
NXNS_COV IN (3,9,10,14)) THEN GROUP3 = 1;/*AMK 6/17/14 added 14*/
   IF NXNS_COV IN  (3,9,10,14)    THEN GROUP4 = 1; /*JSO 08/24/2006, Deleted 4,5*//*JSO
07/30/2007, Added 9*/ /* MER 10/07/11 Added 10 */
   IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN GROUP5 = 1;
                                             /*JSO 07/30/2007, added DBENCAT conditions*/
   IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN GROUP6 = 1;
                                             /*JSO 07/30/2007, added DBENCAT conditions*/
   IF XBNFGRP IN (3,4)      THEN GROUP7 = 1;

   ***********************************************************************
   * Recode variables with Never, Sometimes, Usually and Always:
   *    Recode Never & Sometimes (1 & 2) to 1.
   *    Recode Usually (3) to 2.
   *    Recode Always (4) to 3.
   ***********************************************************************;

   IF H&FY.007 = 1      THEN R&FY.007 = 1;
   ELSE IF H&FY.007 = 2 THEN R&FY.007 = 1;
   ELSE IF H&FY.007 = 3 THEN R&FY.007 = 2;
   ELSE IF H&FY.007 = 4 THEN R&FY.007 = 3;
   ELSE IF H&FY.007 < 0 THEN R&FY.007 = .;

   IF H&FY.010 = 1      THEN R&FY.010 = 1;
   ELSE IF H&FY.010 = 2 THEN R&FY.010 = 1;
   ELSE IF H&FY.010 = 3 THEN R&FY.010 = 2;
```

```
ELSE IF H&FY.010 = 4 THEN R&FY.010 = 3;
ELSE IF H&FY.010 < 0 THEN R&FY.010 = .;

IF H&FY.021 = 1      THEN R&FY.021 = 1;
ELSE IF H&FY.021 = 2 THEN R&FY.021 = 1;
ELSE IF H&FY.021 = 3 THEN R&FY.021 = 2;
ELSE IF H&FY.021 = 4 THEN R&FY.021 = 3;
ELSE IF H&FY.021 < 0 THEN R&FY.021 = .;

IF H&FY.022 = 1      THEN R&FY.022 = 1;
ELSE IF H&FY.022 = 2 THEN R&FY.022 = 1;
ELSE IF H&FY.022 = 3 THEN R&FY.022 = 2;
ELSE IF H&FY.022 = 4 THEN R&FY.022 = 3;
ELSE IF H&FY.022 < 0 THEN R&FY.022 = .;

IF H&FY.023 = 1      THEN R&FY.023 = 1;
ELSE IF H&FY.023 = 2 THEN R&FY.023 = 1;
ELSE IF H&FY.023 = 3 THEN R&FY.023 = 2;
ELSE IF H&FY.023 = 4 THEN R&FY.023 = 3;
ELSE IF H&FY.023 < 0 THEN R&FY.023 = .;

IF H&FY.024 = 1      THEN R&FY.024 = 1;
ELSE IF H&FY.024 = 2 THEN R&FY.024 = 1;
ELSE IF H&FY.024 = 3 THEN R&FY.024 = 2;
ELSE IF H&FY.024 = 4 THEN R&FY.024 = 3;
ELSE IF H&FY.024 < 0 THEN R&FY.024 = .;

IF H&FY.029 = 1      THEN R&FY.029 = 1;
ELSE IF H&FY.029 = 2 THEN R&FY.029 = 1;
ELSE IF H&FY.029 = 3 THEN R&FY.029 = 2;
ELSE IF H&FY.029 = 4 THEN R&FY.029 = 3;
ELSE IF H&FY.029 < 0 THEN R&FY.029 = .;

IF H&FY.033 = 1      THEN R&FY.033 = 1;
ELSE IF H&FY.033 = 2 THEN R&FY.033 = 1;
ELSE IF H&FY.033 = 3 THEN R&FY.033 = 2;
ELSE IF H&FY.033 = 4 THEN R&FY.033 = 3;
ELSE IF H&FY.033 < 0 THEN R&FY.033 = .;

IF H&FY.041 = 1      THEN R&FY.041 = 1;
ELSE IF H&FY.041 = 2 THEN R&FY.041 = 1;
ELSE IF H&FY.041 = 3 THEN R&FY.041 = 2;
ELSE IF H&FY.041 = 4 THEN R&FY.041 = 3;
ELSE IF H&FY.041 < 0 THEN R&FY.041 = .;

IF H&FY.042 = 1      THEN R&FY.042 = 1;
ELSE IF H&FY.042 = 2 THEN R&FY.042 = 1;
ELSE IF H&FY.042 = 3 THEN R&FY.042 = 2;
ELSE IF H&FY.042 = 4 THEN R&FY.042 = 3;
ELSE IF H&FY.042 < 0 THEN R&FY.042 = .;

IF H&FY.046 = 1      THEN R&FY.046 = 1;
ELSE IF H&FY.046 = 2 THEN R&FY.046 = 1;
ELSE IF H&FY.046 = 3 THEN R&FY.046 = 2;
ELSE IF H&FY.046 = 4 THEN R&FY.046 = 3;
ELSE IF H&FY.046 < 0 THEN R&FY.046 = .;

IF H&FY.047 = 1      THEN R&FY.047 = 1;
ELSE IF H&FY.047 = 2 THEN R&FY.047 = 1;
ELSE IF H&FY.047 = 3 THEN R&FY.047 = 2;
ELSE IF H&FY.047 = 4 THEN R&FY.047 = 3;
ELSE IF H&FY.047 < 0 THEN R&FY.047 = .;

************************************************************************
* Recode variables to one missing condition ".".
* This also renames all the "H0xxxx" to "R0xxxx".
************************************************************************;
R&FY.027 = H&FY.027;  IF R&FY.027 < 0 THEN R&FY.027 = .;
R&FY.031 = H&FY.031;  IF R&FY.031 < 0 THEN R&FY.031 = .;
R&FY.018 = H&FY.018;  IF R&FY.018 < 0 THEN R&FY.018 = .;
R&FY.048 = H&FY.048;  IF R&FY.048 < 0 THEN R&FY.048 = .;
R&FY.065 = H&FY.065;  IF R&FY.065 < 0 THEN R&FY.065 = .;

************************************************************************
```

```
   * Create region and service affiliation dummies.
   ************************************************************************;
   IF XSERVREG NE . THEN DO;  /*JSO 08/24/2006, Changed 16 to 24*/ /*MER 11/11/2012, Changed 24
to 30*/
      ARRAY REGDUMS (30) REG01 REG02 REG03 REG04 REG05 REG06
                         REG07 REG08 REG09 REG10 REG11 REG12
                         REG13 REG14 REG15 REG16 REG17 REG18
                         REG19 REG20 REG21 REG22 REG23 REG24
                         REG25 REG26 REG27 REG28 REG29 REG30;
      DO I = 1 TO 30;
         REGDUMS(I)=0;
      END;
      IF       XSERVREG= 1  THEN REG01  =1;
      ELSE IF  XSERVREG= 2  THEN REG02  =1;
      ELSE IF  XSERVREG= 3  THEN REG03  =1;
      ELSE IF  XSERVREG= 4  THEN REG04  =1;
      ELSE IF  XSERVREG= 5  THEN REG05  =1;
      ELSE IF  XSERVREG= 6  THEN REG06  =1;
      ELSE IF  XSERVREG= 7  THEN REG07  =1;
      ELSE IF  XSERVREG= 8  THEN REG08  =1;
      ELSE IF  XSERVREG= 9  THEN REG09  =1;
      ELSE IF  XSERVREG= 10 THEN REG10  =1;
      ELSE IF  XSERVREG= 11 THEN REG11  =1;
      ELSE IF  XSERVREG= 12 THEN REG12  =1;
      ELSE IF  XSERVREG= 13 THEN REG13  =1;
      ELSE IF  XSERVREG= 14 THEN REG14  =1;
      ELSE IF  XSERVREG= 15 THEN REG15  =1;
      ELSE IF  XSERVREG= 16 THEN REG16  =1;
      ELSE IF  XSERVREG= 17 THEN REG17  =1;
      ELSE IF  XSERVREG= 18 THEN REG18  =1;
      ELSE IF  XSERVREG= 19 THEN REG19  =1;
      ELSE IF  XSERVREG= 20 THEN REG20  =1;
      ELSE IF  XSERVREG= 21 THEN REG21  =1;
      ELSE IF  XSERVREG= 22 THEN REG22  =1;
      ELSE IF  XSERVREG= 23 THEN REG23  =1;
      ELSE IF  XSERVREG= 24 THEN REG24  =1;
      ELSE IF  XSERVREG= 25 THEN REG25  =1;
      ELSE IF  XSERVREG= 26 THEN REG26  =1;
      ELSE IF  XSERVREG= 27 THEN REG27  =1;
      ELSE IF  XSERVREG= 28 THEN REG28  =1;
      ELSE IF  XSERVREG= 29 THEN REG29  =1;
      ELSE IF  XSERVREG= 30 THEN REG30  =1;

      ARRAY SRVDUMS (5) SRV01 SRV02 SRV03 SRV04 SRV05; /*MER 11/11/2012 Changed from 4 to 5*/
      DO I = 1 TO 5;    /*Needed for consumer watch ONLY */
         SRVDUMS(I)=0;
      END;
      IF       XSERVAFF = 1 THEN SRV01 = 1;
      ELSE IF  XSERVAFF = 2 THEN SRV02 = 1;
      ELSE IF  XSERVAFF = 3 THEN SRV03 = 1;
      ELSE IF  XSERVAFF = 4 THEN SRV04 = 1;
      ELSE IF  XSERVAFF = 5 THEN SRV05 = 1;

   END;
 *-------------------------;
   * Create catchment dummies;
   *-------------------------;
   %INCLUDE "..\..\ReportCards\CAHPS_Adult&fyyear.CDUMFILE.INC";   * this is array statement;
   CATINDX = INPUT(PUT(CACSMPL, CACLOOK.), 3.);
   DO I = 1 TO DIM(CATDUMS);
     CATDUMS(I) = 0;
   END;
   CATDUMS(CATINDX)=1;

RUN;

***************************************************************************
* Recode item responses to proportional values using CONVERT.SAS.
***************************************************************************;
%INCLUDE "..\..\ReportCards\CAHPS_Adult&FYYEAR.\CONVERT.SAS";

%CONT2(DSN=ENTIRE, NUM=4,  Y=R&FY.018 R&FY.048 R&FY.027 R&FY.031);
%CONT3(DSN=ENTIRE, NUM=12, Y=R&FY.007 R&FY.010 R&FY.029 R&FY.033
                            R&FY.021 R&FY.022 R&FY.023 R&FY.024
```

```
                            R&FY.041 R&FY.042 R&FY.046 R&FY.047);

*************************************************************************
* Sort the main file to reorder it by MPRID.
*************************************************************************;
PROC SORT DATA=ENTIRE; BY MPRID; RUN;

*************************************************************************
* Print the contents of ENTIRE dataset.
*************************************************************************;
PROC CONTENTS DATA=ENTIRE;
   TITLE2 'Contents of ENTIRE';
RUN;


*************************************************************************
* Print some of the recoded records.
*************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR MPRID
       FIELDAGE   /*MJS 01/26/04*/
       XTNEXREG
       XSERVAFF
       XSERVREG
       USA
       ENBGSMPL
       XSEXA
       STRATUM   /*KRR 04/03/2006 Changed from ADJ_CELL*/
       XINS_COV
       NXNS_COV  /*JSO 04/26/2007, added for reservists logic*/
       DBENCAT   /*JSO 04/26/2007, added for reservists logic*/
       XENR_PCM
       &WGT.
      ;
RUN;

*************************************************************************
* Print some of the recoded records.
*************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR FIELDAGE   /*MJS 01/26/04*/
       AGE1824
       AGE2534
       AGE3544
       AGE4554
       AGE5564
       AGE6574
       AGE75UP

       XSEXA
       FEMALE

       ENBGSMPL
       XINS_COV
       NXNS_COV
       XENR_PCM
       XBNFGRP
       GROUP1
       GROUP2
       GROUP3
       GROUP4
       GROUP5
       GROUP6
       GROUP7
      ;
RUN;

PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded question variables';
   VAR H&FY.007  R&FY.007
       H&FY.010  R&FY.010
       H&FY.021  R&FY.021
```

```
       H&FY.022  R&FY.022
       H&FY.023  R&FY.023
       H&FY.024  R&FY.024
       H&FY.029  R&FY.029
       H&FY.033  R&FY.033
       H&FY.041  R&FY.041
       H&FY.042  R&FY.042
       H&FY.046  R&FY.046
       H&FY.047  R&FY.047
       H&FY.018  R&FY.018
       H&FY.027  R&FY.027
       H&FY.031  R&FY.031
       H&FY.048  R&FY.048
       H&FY.065  R&FY.065
      ;
RUN;


/*JSO 08/24/2006, Changed 16 to 24*/
/*MER 11/11/2012, Changed 24 to 30*/
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded REGION variables';
   VAR XSERVREG
       REG01
       REG02
       REG03
       REG04
       REG05
       REG06
       REG07
       REG08
       REG09
       REG10
       REG11
       REG12
       REG13
       REG14
       REG15
       REG16
       REG17
       REG18
       REG19
       REG20
       REG21
       REG22
       REG23
       REG24
       REG25
       REG26
       REG27
       REG28
       REG29
       REG30;
RUN;

/*MER 11/03/2012 Changed 4 to 5*/
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded service affiliation variables';
   VAR XSERVREG
       XSERVAFF
       XOCONUS /*JSO 08/24/2006, Changed Overseas Regions*/
       SRV01
       SRV02
       SRV03
       SRV04
       SRV05
      ;
RUN;
proc freq data=entire;
table xservreg*cacsmpl/noprint out=temp;
proc sort; by cacsmpl count;
data out.xservind(keep=cacsmpl xservind);
set temp; by cacsmpl;
if last.cacsmpl;
```

```
if xservreg in (16,17,18,19,20) then xservreg=16;
else if xservreg in (21,22,23,24,25) then xservreg=17;
else if xservreg in (26,27,28,29,30) then xservreg=18;

rename xservreg=xservind;
proc sort data=entire;
by cacsmpl;
data entire;
merge entire out.xservind; by cacsmpl;

*************************************************************************
* Create the 7 subgroups for processing by STEP2.SAS.
*************************************************************************;
DATA OUT.GROUP1
     OUT.GROUP2
     OUT.GROUP3
     OUT.GROUP4
     OUT.GROUP5
     OUT.GROUP6
     OUT.GROUP7
     OUT.GROUP8;

     SET ENTIRE;

     DROP
        H&FY.007
        H&FY.010
        H&FY.021
        H&FY.022
        H&FY.023
        H&FY.024
        H&FY.029
        H&FY.033
        H&FY.041
        H&FY.042
        H&FY.046
        H&FY.047
        H&FY.018
        H&FY.027
        H&FY.031
        H&FY.048
        H&FY.065
        ;
      IF GROUP1 = 1 THEN OUTPUT OUT.GROUP1;
      IF GROUP2 = 1 THEN OUTPUT OUT.GROUP2;
      IF GROUP3 = 1 THEN OUTPUT OUT.GROUP3;
      IF GROUP4 = 1 THEN OUTPUT OUT.GROUP4;
      IF GROUP5 = 1 THEN OUTPUT OUT.GROUP5;
      IF GROUP6 = 1 THEN OUTPUT OUT.GROUP6;
      IF GROUP7 = 1 THEN OUTPUT OUT.GROUP7;
      OUTPUT OUT.GROUP8;
RUN;
```

G.9.B ReportCards\CAHPS_Adult2015\Convert.SAS - Convert Item Responses To Proportional Values.

```
***************************************************************************
*
* PROGRAM:  CONVERT.SAS
* TASK:     DOD HEALTH CARE SURVEY ANALYSIS (8687-330)
* PURPOSE:  CONVERT ITEM RESPONSES TO PROPORTIONAL VALUES FOR CONSISTENCY
*           WITH THE TOPS SURVEY.
* WRITTEN:  October 2000 BY ERIC SCHONE
*
* MODIFIED: October 2000 BY KEITH RATHBUN, Added PROLOG.  Also, added DSN
*           to argument lists.
*
* INPUTS:  1) User-specified SAS Dataset
*
* OUTPUTS: 1) User-specified SAS Dataset with recoded values
*
* NOTES:
*
* 1) Arguments for the CONT1-CONT3 macros are as follows:
*    a) SAS dataset name (dsn)
*    b) Number of variables to be converted (num)
*    c) List of variables to be converted (y)
* 2) These macros assume that the response items have already been
*    converted/recoded to CAHPS scales.
*
***************************************************************************
* CONT1 - Convert big problem, small problem, not a problem questions to
*         proportional values.
***************************************************************************;
%macro cont1(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i = 1 to &num;
      if vars(i) ne . and vars(i) ne 3 then vars(i) = 0;
      if vars(i) = 3 then vars(i) = 1;
   end;
run;
%mend cont1;

***************************************************************************
* CONT2 - Convert rating questions to proportional values.
***************************************************************************;
%macro cont2(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i=1 to &num;
      if vars(i) ne . and vars(i) < 8 then vars(i) = 0;
      if vars(i) in (8,9,10) then vars(i) = 1;
   end;
run;
%mend cont2;

***************************************************************************
* CONT3 - Convert Never, Sometimes, Usually, Always questions to
*         proportional values.
***************************************************************************;
%macro cont3(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i=1 to &num;
      if vars(i) ne . and vars(i) >= 2 then vars(i) = 2;
      vars(i) = vars(i) - 1;
   end;
run;
%mend cont3;
```

G.9.C ReportCards\CAHPS_Adult2015\STEP2.SAS - Calculate CAHPS Adjusted Scores - Annual.

```
/*******************************************************************************
/*  Project:  DoD - 2004 Adult Report Cards
/*  Program:  STEP2Q.SAS
/*  Purpose:  Draft Adult Report Card
/*  Requires program STEP1.SAS to have been run
/*  Programming specifications for adult report card
/*  The adult report card contains a large number of
/*  risk-adjusted scores.  Some scores are
/*  calculated from responses to individual survey questions.
/*  Composite scores are calculated by
/*  combining scores from individual questions.
/*  The scores then are compared with external civilian
/*  benchmarks.  The programming tasks involved in building
/*  the report card are:
/*       1)   preparing data for analyses
/*       2)   estimating risk adjustment models
/*       3)   calculating risk-adjusted values and variances
/*       4)   calculating benchmarks
/*       5)   comparing risk-adjusted values to benchmarks
/*            and hypothesis testing
/*
/*  Modified:13) November 11, 2012 by Mike Rudacille, updated for handling of
/*               Joint Service facilities
/*           14) December 1, 2014 By Matt Turbyfill, revised for the Macro Program.
                                     Changed R14 to R&FY.
                                     Inserted ..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\ as
the filepath for all INC files,
                                            including REGRSREG, RISKARRY, RISKMEAN, REGARRAY,
RISKVARS, MEANFILE, RISKARRY, RISKMEAN.  Also for the three FILE statements./*

/* SUBGROUPS
/* ____________________________________________________________________________
/*    Seven subgroups          Definitions                        Reg or Catch   Macro
/* ____________________________________________________________________________
/* 1. Prime enrollees          XINS_COV IN(1,2,6) AND H08007>=4   Catchment      SCORE1
/* 2. Enrollees w/mil PCM      XENR_PCM IN(1,2,6) AND H08007>=4   Catchment      SCORE1
/* 3. Enrollees w/civ PCM      XENR_PCM = 3       AND H08007>=4   Region         SCORE2
/* 4. Nonenrollees             XINS_COV IN(3)                     Region         SCORE2
/* 5. Active duty              XBNFGRP=1                          Catchment      SCORE1
/* 6. Active duty dependents   XBNFGRP=2                          Region         SCORE2
/* 7. Retirees and dependents  XBNFGRP IN (3,4)                   Region         SCORE2
/*
/*  PREV PGM:  STEP1.SAS
/*  NEXT PGM:  COMPOSIT.SAS
/*******************************************************************************/
OPTIONS NOCENTER LS=132 PS=78 SOURCE NOOVP STIMER COMPRESS=YES;
LIBNAME   IN1  "DATA";
LIBNAME   OUT  "DATA";
LIBNAME   OUT2 "DATA\ADULTHATFILES";

*-------------------------------------;
*-       set the parameters here      -;
*-------------------------------------;
* set the number of Dependent variables to process;
* One does not need to start at 1, but the max must be >= min;
%LET MIN_VAR =  1;
%LET MAX_VAR =  16;

* set the number of subgroups to process;
%LET MIN_GRP = 1;
%LET MAX_GRP = 8;

***************************************************************************
* These are expected to remain the same for a particular dependent
* variable run.
***************************************************************************;
%LET WGT      = CFWT;
%LET IND_VAR1 = R&FY.065;
%LET IND_VAR2 =  ;  * FEMALE;
%LET IND_VAR3 =  ;  * SREDHIGH;
%LET DEBUGFLG = 0;  * Set to 1 if you want extra printout;
```

```
%LET TITL1 = Prime Enrollees;
%LET TITL2 = Enrollees w/military PCM;
%LET TITL3 = Enrollees w/civilian PCM;
%LET TITL4 = Nonenrollees;
%LET TITL5 = Active Duty;
%LET TITL6 = Active Duty Dependents;
%LET TITL7 = Retirees and Dependents;
%LET TITL8 = All Beneficiaries;

***************************************************************************
* GETTING NEEDED CARE.
***************************************************************************;
/*10/6/09 ERE not using 2008 version of question 11 and 29 anymore*/
%LET DEPVAR1 = R&FY.029;
%LET DEPVAR2 = R&FY.033;


***************************************************************************
* GETTING NEEDED CARE QUICKLY.
***************************************************************************;
/*10/6/09 ERE not using 2008 version of question 17 and 30 anymore*/
%LET DEPVAR3 = R&FY.010;
%LET DEPVAR4 = R&FY.007;


***************************************************************************
* HOW WELL DOCTORS COMMUNICATE.
***************************************************************************;
%LET DEPVAR5= R&FY.021;
%LET DEPVAR6= R&FY.022;
%LET DEPVAR7= R&FY.023;
%LET DEPVAR8= R&FY.024;

***************************************************************************
* COURTEOUS AND HELPFUL OFFICE STAFF.
***************************************************************************;
/*10/6/09 ERE this section is not in the 2009 v4 questionaire*/

***************************************************************************
* CUSTOMER SERVICE.
***************************************************************************;
%LET DEPVAR9 = R&FY.041;
%LET DEPVAR10 = R&FY.042;

***************************************************************************
* CLAIMS PROCESSING.
***************************************************************************;
%LET DEPVAR11 = R&FY.046;
%LET DEPVAR12 = R&FY.047;

***************************************************************************
* RATING ALL HEALTH CARE: 0 - 10.
***************************************************************************;
%LET DEPVAR13 = R&FY.018;

***************************************************************************
* RATING OF HEALTH PLAN: 0 - 10.
***************************************************************************;
%LET DEPVAR14 = R&FY.048;

***************************************************************************
* RATING OF PERSONAL DR: 0 - 10.
***************************************************************************;
%LET DEPVAR15 = R&FY.027;

***************************************************************************
* SPECIALITY CARE: 0 - 10.
***************************************************************************;
%LET DEPVAR16 = R&FY.031;


proc freq data=in1.group8;   /*MJS 01/23/04 Changed data set*/
   tables cacsmpl /missing list out=skelcat(keep=cacsmpl);
```

```
run;
data skelcat;
   set skelcat;
   if cacsmpl = " " then delete;
run;

/*RSG 02/2005 - put in hard code for skelreg vs. doing freq on data
                since xservreg is not in data and must be coded*/

/* MER 11/11/2012, Changed from 24 to 30 Regions */
DATA SKELREG;
   INPUT XSERVREG;
   DATALINES;
      1
      2
      3
      4
      5
      6
      7
      8
      9
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      20
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      23
      24
      25
      26
      27
      28
      29
      30
;
RUN;


 %MACRO SCORE1;
 *********************************************;
 *     use this macro for groups 1, 2 & 5    *;
 *     catchment variables are to be used    *;
 *********************************************;
 %PUT ******************************************;
 %PUT STARTING MACRO SCORE1;
 %PUT "GROUP    = " GROUP&IGRP;
 %PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP;
 %PUT "DEP_VAR  = " &&DEPVAR&IVAR;
 %PUT "IND_VAR1 = " &IND_VAR1;
 %PUT "IND_VAR2 = " &IND_VAR2;
 %PUT "IND_VAR3 = " &IND_VAR3;
 %PUT "WGT      = " &WGT;
 %PUT ******************************************;

*----------------------------------------------------;
* If the current group is 1 use the skeleton files;
* else used the previous groups output file;
* The mrgfile is added to by each subgroup;
*----------------------------------------------------;
 %LET CMRGFILE = OUT.C_&&DEPVAR&IVAR;
 %IF "&IGRP" = "1" %THEN %LET CMRGFILE = SKELCAT;


* run regression using the catchment level variables;
* output a BETA file (1 record) and the subgroup;
```

```
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
     TITLE2 "Regression Model on catchment areas";
     TITLE3 "Beneficiary group&igrp: &&TITL&IGRP";
     WEIGHT &WGT;
     %INCLUDE "..\..\ReportCards\CAHPS_Adult&fyyear.\REGRSCAT.INC";
     OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                        PRED&IGRP RESID&IGRP CACSMPL XSERVREG &&DEPVAR&IVAR)
              P = PRED&IGRP
              R = RESID&IGRP;
RUN;


* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
        TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with PRED&IGRP and RESID&IGRP";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
        VAR MPRID XSERVREG CACSMPL &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
   RUN;

    PROC PRINT DATA=BETAS;
         TITLE2 "BETAS:  file with coefficients";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


*-----------------------------------;
*-- get the standard err/variance;
*-----------------------------------;
%LET DEP = &&DEPVAR&IVAR;
%C_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);


* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
DATA ADJUST;
     SET MEANFILE;    * CREATED IN THE MACRO  MAKE_DAT;
     IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
     %INCLUDE "..\..\ReportCards\CAHPS_Adult&fyyear.\RISKARRY.INC";
     %INCLUDE "..\..\ReportCards\CAHPS_Adult&fyyear.\RISKMEAN.INC";
     DO I = 1 TO DIM(COEFFS);
       IF COEFFS(I) = . THEN COEFFS(I) = 0;
       IF MEANS(I) = . THEN MEANS(I) = 0;
       ADJUST + ( COEFFS(I) * MEANS(I) );
     END;
     ADJUST = ADJUST + INTERCEPT;
 RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=ADJUST;
        TITLE2 'Print of ADJUST';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* add the catchment coefficients to the adjusted value from above;
* output one record per catchment area with the catchment;
* level adjusted scores;
DATA COEFFCAC(KEEP=CATAREA NEWADJST);
   SET ADJUST;
   %INCLUDE "..\..\ReportCards\CAHPS_Adult&fyyear.\CATARRAY.INC";
   LENGTH NAME $8;
   DO I=1 TO DIM(CATRHS);
     CALL VNAME(CATRHS(I),NAME);
     CATAREA=INPUT(SUBSTR(NAME,4,4),4.);
     IF CATRHS(I) = . THEN CATRHS(I) = 0;
     NEWADJST=ADJUST + CATRHS(I);
     OUTPUT;
   END;
```

```
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=COEFFCAC;
         TITLE2 'COEFFCAC: Catchment Area Adjusted Scores';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


 * sum of wgts per catchment areas;
 * attach the region id to the output file so;
 * so we can create wgts for each region later;
 PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
   ID    XSERVind ;  * important ;
   CLASS CACSMPL ;
   VAR   &WGT;
   OUTPUT OUT=CAT_WGTS(RENAME=(CACSMPL=CATAREA)) N=CATCNT SUM=CATWGT;
 RUN;


* merge the Coeffcac file with the catchment;
* adjusted scores to the catchment level weight;
* merge by the catchment area. creates a;
* catchment level file with catchment weights;
 DATA COEFFCAC;
   MERGE COEFFCAC(IN=IN1)
         CAT_WGTS(IN=IN2 KEEP=CATAREA XSERVind CATWGT CATCNT);
   BY CATAREA;
   IF IN1;
 RUN;



%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=CAT_WGTS(OBS=70);
         TITLE2 'CAT_WGTS: Catchment Area Sum of WGTS';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFCAC(OBS=70);
         TITLE2 'Catchment Area Adjusted Scores - with sum of wgts and region';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

%END;


* merge the previous groups catchment results (if any);
* with the catchment level std err and the catchment;
* level results from the current groups and dependent var;
%PUT "&CMRGFILE: " &CMRGFILE;
DATA OUT.C_&&DEPVAR&IVAR(RENAME=(NEWADJST=ADJ&IGRP));
     MERGE &CMRGFILE(IN=INS)
           C&IGRP&&DEPVAR&IVAR
           COEFFCAC(RENAME=(CATAREA=CACSMPL CATWGT=CATWGT&IGRP CATCNT=CATCNT&IGRP));
     BY CACSMPL;
     DEPENDNT = "&&DEPVAR&IVAR";
     IF INS;
RUN;

PROC PRINT DATA=OUT.C_&&DEPVAR&IVAR;
     TITLE2 "Print of Catchment variables in C_&&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;



%MEND SCORE1;
```

```
%MACRO SCORE2;
 ************************************;
 * use this macro for groups 3, 4, 6, 7;
 * region variables are to be used     ;
 ************************************;
 %PUT ****************************************;
 %PUT STARTING MACRO SCORE2;
 %PUT "GROUP    = " GROUP&IGRP;
 %PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP;
 %PUT "DEP_VAR  = " &&DEPVAR&IVAR;
 %PUT "IND_VAR1 = " &IND_VAR1;
 %PUT "IND_VAR2 = " &IND_VAR2;
 %PUT "IND_VAR3 = " &IND_VAR3;
 %PUT "WGT      = " &WGT;
 %PUT ****************************************;

 %LET RMRGFILE = OUT.R_&&DEPVAR&IVAR;
 %IF "&IGRP" = "1" %THEN %LET RMRGFILE = SKELREG;

* run regression using the region level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
     TITLE2 "Regression Model for GROUP&igrp for regions";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
     WEIGHT &WGT;
     %INCLUDE "..\..\ReportCards\CAHPS_Adult&fyyear.\REGRSREG.INC";
     OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                     PRED&IGRP RESID&IGRP CACSMPL XSERVREG &&DEPVAR&IVAR)
              P = PRED&IGRP
              R = RESID&IGRP;

RUN;

* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
         TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with predicted values and the RESID&IGRP";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
         VAR MPRID XSERVREG CACSMPL &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
    RUN;

    PROC PRINT DATA=BETAS;
         TITLE2 "BETAS:  file with coefficients";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


*-----------------------------------------;
*----- get the standard err/variance ----;
*-----------------------------------------;
%LET DEP = &&DEPVAR&IVAR;
%R_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);


* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
 DATA ADJUST;
    SET MEANFILE;
    IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
    %INCLUDE "..\..\ReportCards\CAHPS_Adult&fyyear.\RISKARRY.INC";
    %INCLUDE "..\..\ReportCards\CAHPS_Adult&fyyear.\RISKMEAN.INC";
    DO I = 1 TO DIM(COEFFS);
       IF COEFFS(I) = . THEN COEFFS(I) = 0;
       IF MEANS(I) = .  THEN MEANS(I)  = 0;
       ADJUST + ( COEFFS(I) * MEANS(I) );
    END;
    ADJUST = ADJUST + INTERCEPT;
 RUN;


* add the region coefficients to the adjusted value from above;
```

```
* output one record per region with the region;
* level adjusted scores;
 DATA COEFFREG(KEEP=XSERVREG NEWADJST);
    SET ADJUST;
    %INCLUDE "..\..\ReportCards\CAHPS_Adult&fyyear.\REGARRAY.INC";
    LENGTH NAME $8;
    DO I=1 TO DIM(REGRHS);
       CALL VNAME(REGRHS(I),NAME);
       XSERVREG=INPUT(SUBSTR(NAME,4,2),2.);
       IF REGRHS(I) = . THEN REGRHS(I) = 0;
       NEWADJST=ADJUST + REGRHS(I);
       OUTPUT;
    END;
RUN;


* sum of wgts for each region;
PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
  CLASS XSERVREG;
  VAR   &WGT;
  OUTPUT OUT=REG_WGTS (DROP = _TYPE_ _FREQ_) N=REGCNT SUM=REGWGT;
RUN;


* merge the COEFFREG file with the region;
* adjusted scores to the region level total weight;
* merge by the region.  Creates a region level;
* file with the total sample weight of the region;
DATA COEFFREG;
      MERGE COEFFREG(IN=IN1)
            REG_WGTS(IN=IN2   KEEP=XSERVREG REGCNT REGWGT);
      BY XSERVREG;
      IF IN1;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=MEANFILE;
         TITLE2 'Print of MEANFILE';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=ADJUST;
         TITLE2 'Print of ADJUST';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Region Adjusted Scores';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=REG_WGTS;
         TITLE2 'Print of REG_WGTS: Region Area Sum of WGTS';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Regions Adjusted Scores - with sum of wgts and region';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


* Calculate region level adjusted scores from the;
* region level adjusted scores in COEFFREG;
/*PROC MEANS DATA=COEFFREG NWAY NOPRINT;
  WEIGHT REGWGT;
  CLASS  XSERVREG;
  VAR    NEWADJST;
  OUTPUT OUT=REGFILE1 (DROP = _TYPE_ _FREQ_) MEAN=ADJ&IGRP;
RUN;
*/
```

```
%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=REGFILE1;
        TITLE2 'Print of REGFILE1: Region Scores';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* merge the previous groups regional results (if any);
* with the region level std err and the region;
* level results from the current group/dependent var;
%PUT "&RMRGFILE: " &RMRGFILE;
DATA OUT.R_&&DEPVAR&IVAR;
    MERGE &RMRGFILE(IN=INS)
          R&IGRP&&DEPVAR&IVAR    /*KRR - removed perm dataset ref to OUT2 */
          coeffreg(rename=(newadjst=adj&igrp));
    BY XSERVREG;
    RENAME REGCNT = REGCNT&IGRP;
    RENAME REGWGT = REGWGT&IGRP;
    DEPENDNT = "&&DEPVAR&IVAR";
    IF INS;
RUN;

PROC PRINT DATA=OUT.R_&&DEPVAR&IVAR;
     TITLE2 "Print of REGION variables in &&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;



 %MEND SCORE2;


 *
;
 %MACRO MAKE_INC;
 ***************************************;
 * creates include files for later Procs;
 * Needs to be run each time.  Called   ;
 * in the outer (beneficiary loop).     ;
 * I chose this method because it was   ;
 * clearer(to me at least).             ;
 * This macro needs to be run once per  ;
 * Dep var per subgroup.                ;
 ***************************************;

* Drop records where the dependent var is missing;
* Drop records with missing catchment or region values;



  DATA GROUP&IGRP;
       SET IN1.GROUP&IGRP;
       IF &&DEPVAR&IVAR NOT = .;

  RUN;

 DATA _NULL_;
      SET GROUP&IGRP END = EOF;
      IF &&DEPVAR&IVAR NOT = .;

      ARRAY AGECNT(7) 8 aCNT1 - aCNT7;
      RETAIN AGECNT 0;
      RETAIN CNT 0;
      ARRAY AGENAM(7)  $8 AGENAM1 - AGENAM7;
      ARRAY AGENAMX(7) $8 AGENAMX1 - AGENAMX7;
      RETAIN AGENAM;
      RETAIN AGENAMX;
      ARRAY CATCNT(9998) 8 CCNT0001 - CCNT9998;
      ARRAY REGCNT(30)   8 REGCNT01 - REGCNT30; *KRR 10/24/2006 - Changed from 16 to 24; *MER
11/11/2012, Changed from 24 to 30;
      RETAIN CATCNT 0;
      RETAIN REGCNT 0;
```

```
      * create a name array for the age dummies;
      IF _N_ = 1 THEN DO;
         AGENAM(1) = "AGE1824";
         AGENAM(2) = "AGE2534";
         AGENAM(3) = "AGE3544";
         AGENAM(4) = "AGE4554";
         AGENAM(5) = "AGE5564";
         AGENAM(6) = "AGE6574";
         AGENAM(7) = "AGE75UP";
      END;

      * total record count;
      CNT + 1;

      * count records in each age group;
      * we will use only age groups with more;
      * than 2 obs;
      IF AGE1824 = 1 THEN AGECNT(1) + 1;
      IF AGE2534 = 1 THEN AGECNT(2) + 1;
      IF AGE3544 = 1 THEN AGECNT(3) + 1;
      IF AGE4554 = 1 THEN AGECNT(4) + 1;
      IF AGE5564 = 1 THEN AGECNT(5) + 1;
      IF AGE6574 = 1 THEN AGECNT(6) + 1;
      IF AGE75UP = 1 THEN AGECNT(7) + 1;

      * count records in each catchment group;
      * we will only use catchment areas ;
      * with more than than 2 obs;
      * I am using the catchment area as the subscript;
      * to make the code simpler and more readable;
      IF CACSMPL >= 1 AND CACSMPL <= 9998 THEN DO;
         CATCNT(CACSMPL) = CATCNT(CACSMPL) + 1;
      END;

      * count records in each REGION group;
      * we will only use REGIONS ;
      * with more than than 2 obs;
      * I am using the region value as the subscript;
      * to make the code simpler and more readable;
      IF XSERVREG >= 1 AND XSERVREG <=30  THEN DO; *KRR 10/24/2006 - Changed from 16 to 24; *MER
11/11/12 24 to 30;
         REGCNT(XSERVREG) = REGCNT(XSERVREG) + 1;
      END;

      IF EOF THEN GOTO ENDFILE;
      RETURN;


ENDFILE:
     * create a title common to all procs in the current group;
     TITLE  " &&DEPVAR&IVAR  &&TITL&IGRP";

     * display counts in the log;
     %IF &DEBUGFLG > 0  %THEN %DO;
        PUT ' ';
        PUT 'AT EOF:';
        PUT "TOTAL CNT = "    CNT;
        PUT AGENAM(1) "  " AGECNT(1)=;
        PUT AGENAM(2) "  " AGECNT(2)=;
        PUT AGENAM(3) "  " AGECNT(3)=;
        PUT AGENAM(4) "  " AGECNT(4)=;
        PUT AGENAM(5) "  " AGECNT(5)=;
        PUT AGENAM(6) "  " AGECNT(6)=;
        PUT AGENAM(7) "  " AGECNT(7)=;
        PUT " ";

        DO I = 1 TO 30; *KRR 10/24/2006 - Changed from 16 to 24; *MER 11/11/12 24 to 30;
           IF(REGCNT(I) > 0) THEN DO;
              PUT  'REG' I Z2. REGCNT(I) 6.;
           END;
        END;
        PUT ' ';

        DO I = 1 TO 9998;
```

```
      IF(CATCNT(I) > 0) THEN DO;
         PUT  'CAT' I Z4. CATCNT(I) 6.;
      END;
   END;
   PUT ' ';
%END;    *** of debug test;


*-------------------------------------------------------;
* create an include file for the regression model;
* it is inconvient, but SAS requires that the;
* include file start after a complete statement;
* i.e. after a semicolon;
* This include is for the regression using catchment areas;
FILE "..\..\ReportCards\CAHPS_Adult&fyyear.\REGRSCAT.INC";
PUT @6  "MODEL &&DEPVAR&IVAR = ";
IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

CNT2 = 0;
* setup an array of those age groups that have > 1 obs;
DO I = 1 TO 7;
   IF AGECNT(I) > 1 THEN DO;
      CNT2 +1;
      AGENAMX(CNT2) = AGENAM(I);
   END;
END;
* drop the last category to create;
* an omitted category which is required;
* to solve the regression properly;
DO I = 1 TO CNT2-1;
   PUT @12 AGENAMX(I);
END;


* ditto for the catchment areas with > 0 obs;
* in this case we drop the last non-zero cnt;
* this is not consistent with Portias code which;
* unintentionally omitted several catchment area codes;
LAST_REC = 0;
DO I = 1 TO 9998;
   IF CATCNT(I) > 0 THEN LAST_REC = I;
END;

* skip the last cacsmpl with > 1 obs;
DO I = 1 TO LAST_REC-1;
   IF CATCNT(I) > 0 THEN DO;
      PUT @12 'CAT' I Z4.;
   END;
END;
PUT @11 ';';


*-------------------------------------------------------;
* This include is for the regression using regions;
* in this case we drop the last REGION;
FILE "..\..\ReportCards\CAHPS_Adult&fyyear.\REGRSREG.INC";
PUT @6  "MODEL  &&DEPVAR&IVAR = ";
IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

CNT2 = 0;
* setup an array of those age groups that have > 1 obs;
DO I = 1 TO 7;
   IF AGECNT(I) > 1 THEN DO;
      CNT2 +1;
      AGENAMX(CNT2) = AGENAM(I);
   END;
END;

* now drop the last category to create;
* an omitted category which is required;
```

```
* to solve the regression properly;
DO I = 1 TO CNT2-1;
   PUT @12 AGENAMX(I);
END;

* ditto for the catchment areas with > 0 obs;
* in this case we drop the the first USABLE category;
* this is not consistent with the catchment area code;
* but this is the method that Portia used;
FIRST = 0;        *KRR 10/24/2006 - Changed from 16 to 24; *MER 11/11/12 - 24 to 30;
DO I = 1 TO 30;   * skip the 1st region with 1+ obs;
   IF REGCNT(I) > 0 THEN DO;
      IF FIRST = 1 THEN PUT @12 'REG' I Z2.;
      FIRST = 1;
   END;
END;
PUT @11 ';';


*-------------------------------------------------------;
* now create the complete var statement;
* for the Proc MEANS used to replace the;
* independent variables missing values;
* we assume the age groups will always be used;
* These are also called the RISK FACTORS;
FILE "..\..\ReportCards\CAHPS_Adult&fyyear.\RISKVARS.INC";
PUT @10  "VAR";
DO I = 1 TO CNT2;
   PUT @12 AGENAMX(I);
END;

* not all the other dependent variables will be used;
* only write them out if they are not null;
CNT3 = 0;
IF "&IND_VAR1" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR1";
END;

IF "&IND_VAR2" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR2";
END;

IF "&IND_VAR3" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR3";
END;
PUT @11 ';';


*-------------------------------------------------------;
* create an ARRAY statement of the desired risk factors;
* called adjusters in the specs and in the code;
FILE "..\..\ReportCards\CAHPS_Adult&fyyear.\RISKARRY.INC";
PUT @10  "ARRAY COEFFS(*) $8";
DO I = 1 TO CNT2;
   PUT @12 AGENAMX(I);
END;

CNT3 = 0;
IF "&IND_VAR1" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR1";
END;

IF "&IND_VAR2" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR2";
END;

IF "&IND_VAR3" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR3";
```

```
     END;
     PUT @11 ';';


     *-------------------------------------------------------;
     * create an ARRAY of mean names for the output;
     * from a proc MEANS of the Risk Factors in RISKARRY;
     FILE "..\..\ReportCards\CAHPS_Adult&fyyear.\RISKMEAN.INC";
     IND_CNT = CNT2 + CNT3;
     PUT @6 "ARRAY MEANS(*) $8";
     DO I = 1 TO IND_CNT;
        PUT @12 "MEAN" I Z2.;
     END;
     PUT @11 ';';

*   ----------------------------------------------------;
*   create the equivalent of the following statement;
*   OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN=MEAN1-MEAN&MEAN_CNT;
     FILE "..\..\ReportCards\CAHPS_Adult&fyyear.\MEANFILE.INC";
     PUT @6 "OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN = ";
     DO I = 1 TO IND_CNT;
        PUT @12 "MEAN" I Z2.;
     END;
     PUT @11 ';';

     *-------------------------------------------------------;
     * create a catchment area array for all catchment areas;
     * with 1+ obs.
     * the missing value = 9999 was dropped in STEP1;  ** rlc 4/29/00;
     FILE "..\..\ReportCards\CAHPS_Adult&fyyear.\CATARRAY.INC";
     PUT @10  "ARRAY CATRHS(*) $8";
     DO I = 1 TO 9998;            *** rlc 4/29/00 changed "9999" to "9998";
        IF CATCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
           PUT  @16 'CAT' I Z4.;
        END;
     END;
     PUT @11 ';';

     *-------------------------------------------------------;
     * create a region area array;
     * with at least ONE obs;
     FILE "..\..\ReportCards\CAHPS_Adult&fyyear.\REGARRAY.INC";
     PUT @10  "ARRAY REGRHS(*) $8";
     DO I = 1 TO 30; *KRR 10/24/2006 - Changed from 16 to 24; *MER 11/11/12 24 to 30;
        IF REGCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
           PUT  @16 'REG' I Z2.;
        END;
     END;
     PUT @11 ';';
 file print;
 RUN;

 * Create the means of the adjuster variables;
 * They will be used to replace missing adjuster variables;
 * calculate weighted means;
 PROC MEANS DATA=group&igrp;

   WEIGHT &WGT;
   %INCLUDE "..\..\ReportCards\CAHPS_Adult&fyyear.\RISKVARS.INC";
   %INCLUDE "..\..\ReportCards\CAHPS_Adult&fyyear.\MEANFILE.INC";
    RUN;

DATA GROUP&IGRP;
     SET GROUP&IGRP;
     IF _N_ = 1 THEN SET MEANFILE;
     %INCLUDE "..\..\ReportCards\CAHPS_Adult&fyyear.\RISKARRY.INC";
     %INCLUDE "..\..\ReportCards\CAHPS_Adult&fyyear.\RISKMEAN.INC";
     DO I = 1 TO DIM(COEFFS);
        IF COEFFS(I) = . THEN DO;
           COEFFS(I) = MEANS(I);
        END;
     END;
RUN;
```

```
%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=MEANFILE;
        TITLE2 "Print of MEANFILE for Risk Adjuster variables";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;




 %MEND MAKE_INC;



 *
;
 %MACRO R_SUDAAN(INFILE);
 ****************************************************;
 * use this macro to create standard err (variances);
 * FOR: REGIONS                                     ;
 ****************************************************;
 %PUT ****************************************;
 %PUT STARTING MACRO R_SUDAAN (REGIONS);
 %PUT ****************************************;



DATA &INFILE;
   SET &INFILE;
   IF XSERVREG > 0;
RUN;


* Sort data by TMP_CELL;
PROC SORT DATA=&INFILE;
   BY TMP_CELL;
RUN;

%IF &DEBUGFLG > 5  %THEN %DO;
   PROC PRINT DATA=&INFILE(OBS=5);
        TITLE2 'Print of the input file to SUDAAN (REGION)';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* Calculate values for regions;
PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;
   SETENV DECWIDTH=4;
   NEST TMP_CELL / missunit;
   VAR RESID&IGRP;
   TABLES XSERVREG;
   SUBGROUP XSERVREG;
   LEVELS 30; *KRR 10/24/2006 - Changed from 16 to 24; *MER 11/11/12 24 to 30;
   OUTPUT  SEMEAN
         / TABLECELL=DEFAULT REPLACE
           FILENAME=RS&DEP;
   RUN;

   DATA R&IGRP&&DEPVAR&IVAR;
        SET RS&DEP;
        KEEP XSERVREG SEMEAN;
        IF SEMEAN NE .;
        RENAME SEMEAN = SEMEAN&IGRP;
   RUN;


   PROC PRINT DATA=R&IGRP&&DEPVAR&IVAR;
      TITLE2 "Print REGION DESCRIPT DATA=R&IGRP&&DEPVAR&IVAR";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

 %MEND  R_SUDAAN;
```

```
 %MACRO C_SUDAAN(INFILE);
 ****************************************************;
 * use this macro to create standard err (variances);
 * FOR: CATCHMENT AREAS                              ;
 ****************************************************;
 %PUT ****************************************;
 %PUT STARTING MACRO C_SUDAAN (CATCHMENT);
 %PUT ****************************************;

DATA &INFILE;
   SET &INFILE;
   IF CACSMPL > 0;
RUN;


* Sort data by TMP_CELL;
PROC SORT DATA=&INFILE;
   BY TMP_CELL;
RUN;

%IF &DEBUGFLG > 5  %THEN %DO;
   PROC PRINT DATA=&INFILE(OBS=5);
        TITLE2 'Print of the input file to SUDAAN for CATCHMENT';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* Calculate values for regions;
PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;
   SETENV DECWIDTH=4;
   NEST TMP_CELL / missunit;
   VAR RESID&IGRP;
   TABLES CACSMPL;
   SUBGROUP CACSMPL;
   LEVELS 9998;
   OUTPUT  SEMEAN
         / TABLECELL=DEFAULT REPLACE
           FILENAME=CS&DEP;
   RUN;

   DATA C&IGRP&&DEPVAR&IVAR;
        SET CS&DEP;
        IF SEMEAN NE .;
        KEEP CACSMPL SEMEAN;
        RENAME SEMEAN = SEMEAN&IGRP;
   RUN;


   PROC PRINT DATA=C&IGRP&&DEPVAR&IVAR;
      TITLE2 "Print CATCHMENT DESCRIPT DATA=C&IGRP&&DEPVAR&IVAR";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

 %MEND  C_SUDAAN;


 *
;
%***********************************;
%*  call the macros;
%***********************************;

%MACRO MAINLOOP(MIN_VAR,MAX_VAR,MIN_GRP,MAX_GRP);
    %* loop over the set of dependent variables;
       %DO IVAR = &MIN_VAR %TO &MAX_VAR;
          %DO IGRP = &MIN_GRP %TO &MAX_GRP;
             %MAKE_INC;
             %IF &IGRP = 1 OR &IGRP = 2 OR &IGRP = 5 or &igrp = 8 %THEN %do;
                %SCORE1;
                %SCORE2; %end;
```

```
            %ELSE
               %SCORE2;
         %END;
      %END;

%MEND;

%MAINLOOP(&MIN_VAR,&MAX_VAR,&MIN_GRP,&MAX_GRP);
```

G.9.D ReportCards\CAHPS_Adult2015\COMPOSIT.SAS - Calculate CAHPS Composite Scores - Annual.

```
***************************************************************************
* Project:  DoD - Quarterly Adult Report Cards
* Program:  COMPOSIT.SAS
* Purpose:  Generate Quarterly Adult Report Card composite scores
* Requires: Programs STEP1Q.SAS and STEP2Q.SAS must be run prior
*           to this program.
*
* Modified:12) 08/01/13 by Amanda Kudis, updated for 2013 database.
*          13) 12/01/2014 By Matt Turbyfill, revised for the Macro Program.
                                    Changed all FILE and INCLUDE filepaths to
..\..\ReportCards\CAHPS_Adult&FOLDER.&FYYEAR.\FILES.INC
                                    Changed R14 to R&FY.
                                    Added INFILE Data step removing BYVARs with only one
occurrence.
***************************************************************************;
OPTIONS NOCENTER NOFMTERR LS=132 PS=78 SOURCE SOURCE2 NOOVP COMPRESS=YES;
libname in  "data";
libname in2 "data\adulthatfiles";
libname out "data";


 %MACRO COMPOSIT (TYPE=,COMPOS=,VAR1=,VAR2=,VAR3=,VAR4=,QCOUNT=);

  DATA _NULL_;
   %IF "&TYPE" = "R" %THEN %DO;
       CALL SYMPUT ('BYVAR','XSERVREG');
   %END; %ELSE
   %IF "&TYPE" = "C" %THEN %DO;
       CALL SYMPUT ('BYVAR','CACSMPL');
   %END;

 ****************************************;
 *   Create a Composite Score           ;
 ****************************************;
 DATA _NULL_;
     FILE "..\..\&PC.ReportCards\CAHPS_Adult&fyyear.\FILES.INC";
     PUT @6 'SET';
     IF "&VAR1" NE '' THEN PUT @8 "IN.&TYPE._&VAR1";
     IF "&VAR2" NE '' THEN PUT @8 "IN.&TYPE._&VAR2";
     IF "&VAR3" NE '' THEN PUT @8 "IN.&TYPE._&VAR3";
     IF "&VAR4" NE '' THEN PUT @8 "IN.&TYPE._&VAR4";
     PUT @8 ';';
 RUN;


 DATA COMPOS&COMPOS;
      LENGTH DEPENDNT $ 8;
      %INCLUDE "..\..\&PC.ReportCards\CAHPS_Adult&fyyear.\FILES.INC";
      DEPENDNT = "&TYPE.COMPOS&COMPOS";
 RUN;

 PROC SORT DATA=COMPOS&COMPOS;
      BY &BYVAR;
 RUN;

 PROC PRINT DATA=COMPOS&COMPOS(OBS=60);
      TITLE "Print of COMPOS&COMPOS after sort";
 RUN;

 DATA COMPOS&COMPOS;
      SET COMPOS&COMPOS;
      BY &BYVAR;
   %IF "&TYPE" = "R" %THEN %DO;
       ARRAY N(*) REGCNT1 - REGCNT8;
       ARRAY W(*) REGWGT1 - REGWGT8;
       ARRAY TN(*) TOTCNT1 - TOTCNT8;
       ARRAY TW(*) TOTWGT1 - TOTWGT8;
   %END; %ELSE
   %IF "&TYPE" = "C" %THEN %DO;
       ARRAY N(*) CATCNT1 - CATCNT8;
```

```
       ARRAY W(*) CATWGT1 - CATWGT8;
       ARRAY TN(*) TOTCNT1 - TOTCNT8;
       ARRAY TW(*) TOTWGT1 - TOTWGT8;
   %END;
      ARRAY ADJ(*)    ADJ1 - ADJ8;
      ARRAY TOTADJ(*) TOTADJ1 - TOTADJ8;
      ARRAY AVGADJ(*) AVJADJ1 - AVJADJ8;
      RETAIN TOTADJ TN TW;
      RETAIN AVGADJ;

      IF FIRST.&BYVAR THEN DO;
         DO I = 1 TO DIM(TOTADJ);
            TOTADJ(I) = 0; TN(I)=0; TW(I)=0;
         END;
      END; DROP I;

      PUT ' ';
      PUT ' --- STARTING LOOP1: ' &BYVAR=;
      DO I = 1 TO DIM(TOTADJ);
         PUT I= ADJ(I)=;
         IF ADJ(I) NE . THEN DO;
            TOTADJ(I) = TOTADJ(I) + ADJ(I);
            TN(I)=TN(I)+N(I);
            TW(I)=TW(I)+W(I);
         END;
         PUT I= ADJ(I)= TOTADJ(I)=;
      END;


      PUT ' ';
      PUT ' --- STARTING LOOP2: ' &BYVAR=;
      IF LAST.&BYVAR THEN DO;
         DO I = 1 TO DIM(TOTADJ);
            PUT I= ADJ(I)= TOTADJ(I)= AVGADJ(I)=;
            AVGADJ(I) = TOTADJ(I)/&QCOUNT;
            adj(i)=avgadj(i);
            N(I)=TN(I)/&QCOUNT;
            W(I)=TW(I)/&QCOUNT;
         END;
         OUTPUT;
      END;

 RUN;

%do i=1 %to 8;
/* Collect Standard Errors and residuals from variables in composite */
        %if &type=R|(&i=1|&i=2|&i=5|&i=8) %then %do;
                %if &var1~= %then %do;
                        %let n=r_&var1;
                        %let m=s_&var1;

                   data s_&var1(rename=(semean&i=s_&var1));
                   set in.&type._&var1(keep=semean&i &byvar);
                   proc sort; by &byvar;
                   data r_&var1;

                   set in2.h&i.&var1(rename=(resid&i=r_&var1));

                   proc sort data=r_&var1; by mprid;
                %end;
                %if &var2~= %then %do;
                   %let n=%str(&n r_&var2);
                   %let m=%str(&m s_&var2);
                   data s_&var2(rename=(semean&i=s_&var2));
                           set in.&type._&var2(keep=semean&i &byvar);

                   proc sort; by &byvar;

                   data r_&var2;
                               set in2.h&i.&var2(rename=(resid&i=r_&var2));

                   proc sort data=r_&var2; by mprid;
                %end;
                %if &var3~= %then %do;
```

```
   %let n=%str(&n r_&var3);

   data s_&var3(rename=(semean&i=s_&var3));
        set in.&type._&var3(keep=semean&i &byvar);

   proc sort; by &byvar;

   data r_&var3;
        set in2.h&i.&var3(rename=(resid&i=r_&var3));

   proc sort data=r_&var3; by mprid;
   %let m=%str(&m s_&var3);
%end;

%if &var4~= %then %do;
   %let n=%str(&n r_&var4);
   data s_&var4(rename=(semean&i=s_&var4));
               set in.&type._&var4(keep=semean&i &byvar);

   proc sort; by &byvar;

   data r_&var4;
               set in2.h&i.&var4(rename=(resid&i=r_&var4));


   %let m=%str(&m s_&var4);
   proc sort data=r_&var4; by mprid;
%end;
/* Merge residual files and estimate correlations */
data infile;
  merge &n; by mprid;

proc sort; by &byvar;



data infile;
       set infile;
       by &byvar.;
       if first.&byvar ne 1 or last.&byvar ne 1;
run;



proc corr  outp=outf noprint;
  by &byvar;
  var &n;
  weight cfwt;

data outf;
  set outf; by &byvar;
  where _type_='CORR';

/*  sum standard error of a row variable times correlation times standard error
of each column variable, then sum sums and take square root, divide by number of variables */
data final;
  merge &m outf; by &byvar;

data final;
  set final; by &byvar;
  array r_val &n;
  array s_val &m;
  sde=0;
  do i=1 to dim(s_val);
       %do j=1 %to &qcount;
       if upcase(_name_)=upcase("R_&&var&j") then
                      sde=sum(sde,r_val(i)*s_&&var&j*s_val(i));
       %end;
  end;
run;

data sefin&compos._&i errd;
  set final; by &byvar;
  if first.&byvar then tv=0;
```

```
                tv+sde;
                if last.&byvar then do;
              /**RSG 02/2005 Changed to only do exponential if tv value is non-negative -
                 those with negative trend is set aside to print out and determine whether from
                 nonmissing data of 30 or more*/
                      if tv >= 0 then sde&i=(tv**.5)/&qcount;
                      else if tv <= 0 then do;
                      output errd;
                      sde&i=.;
                  end;
                  output sefin&compos._&i;
                end;
              run;
              /**RSG 02/2005 Count how many nonmissing values are in the trend dataa
                 to determine if negative trend is something to be concerned about*/

              proc means data=infile noprint;
                by &byvar;
                var &n;
                output out=missing (drop=_type_ _freq_) n=;

              data errd2;
                merge errd(in=a drop=&n) missing (in=b);
                by &byvar;
                if a;
              run;

              proc print data=errd2;
                var &byvar tv &n;
              title "ERROR: NEGATIVE TREND FOR &N IN GROUP=&I. AND COMPOSE=&COMPOS";
              run;
              title ' '; /*RSG 02/2005 blank out title for next loop*/

              %if &i=1 %then %do;
                 data sefin&compos;
                             set sefin&compos._1(keep=&byvar sde&i); by &byvar;
                             rename sde&i=semean&i;
                 run;
              %end;
              %else %do;
                 data sefin&compos;
                             merge sefin&compos sefin&compos._&i(keep=&byvar sde&i); by &byvar;
                             rename sde&i=semean&i;
                 run;
              %end;


       %end;
%end;

data out.&type.compos&compos;
merge compos&compos sefin&compos; by &byvar;
run;
PROC PRINT DATA=OUT.&TYPE.COMPOS&COMPOS;
      TITLE1 COMPTITL;
 RUN;
%MEND COMPOSIT;

*-------------------------------------;
*-       set the parameters here      -;
*-------------------------------------;
************************************;
*  call the macro for each composite;
************************************;   /*MJS 02/04/04*/
%COMPOSIT (type=R,compos=1,var1=R&FY.029,var2=R&FY.033,qcount=2);
%COMPOSIT (type=R,compos=2,var1=R&FY.007,var2=R&FY.010,qcount=2);
%COMPOSIT (type=R,compos=3,var1=R&FY.021,var2=R&FY.022,var3=R&FY.023,var4=R&FY.024,qcount=4);
%COMPOSIT (type=R,compos=4,var1=R&FY.041,var2=R&FY.042,qcount=2);
%COMPOSIT (type=R,compos=5,var1=R&FY.046,var2=R&FY.047,qcount=2);

%COMPOSIT (type=C,compos=1,var1=R&FY.029,var2=R&FY.033,qcount=2);
%COMPOSIT (type=C,compos=2,var1=R&FY.007,var2=R&FY.010,qcount=2);
%COMPOSIT (type=C,compos=3,var1=R&FY.021,var2=R&FY.022,var3=R&FY.023,var4=R&FY.024,qcount=4);
%COMPOSIT (type=C,compos=4,var1=R&FY.041,var2=R&FY.042,qcount=2);
```

```
%COMPOSIT (type=C,compos=5,var1=R&FY.046,var2=R&FY.047,qcount=2);
```

G.10.A LOADWEB\LOADCAHP.SAS - Convert CAHPS Scores into WEB layout - Annual.

```
***************************************************************************
*
* PROGRAM:  LOADCAHP.SAS
* TASK:     2007 DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Convert the CAHPS Scores Database into the WEB layout
*
* WRITTEN:  06/01/2000 BY KEITH RATHBUN
*
* MODIFIED: 1) 12/01/2014 By Matt Turbyfill, revised for the Macro Program.
                              Changed IN to "..\&PC.REPORTCARDS\CAHPS_ADULT&FYYEAR.\DATA".
                              Changed LOADCAHQ to "..\LOADWEB\LOADCAHQ.INC"
                              Changed YEAR to &FYYEAR.
                              Changed R14 to R&FY.
                              Inserted &FYYEAR. into TITLE1
*
* INPUTS:   1) CAHPS Individual and Composite data sets with adjusted scores
*
* OUTPUT:   1) LOADCAHP.sas7bdat - Combined CAHPS Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*              and composite data sets
*
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - STEP1.SAS - Recode questions and generate group files
*    - STEP2.SAS - Calculate individual adjusted scores for group 1-8
*    - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
*
* 2) The output file (LOADCAHP.sas7bdat) will be run through the
*    MAKEHTML.SAS program to generate the WEB pages.
*
***************************************************************************
* Assign data libraries and options
***************************************************************************;
LIBNAME IN  "..\&PC.REPORTCARDS\CAHPS_ADULT&FYYEAR.\DATA";
LIBNAME OUT ".";
LIBNAME LIBRARY "..\..\DATA\FMTLIB";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER NOFMTERR;

***************************************************************************
* Load Format definitions for CAHPS Individual and composite data sets.
***************************************************************************;
%INCLUDE "..\LOADWEB\LOADCAHQ.INC";

***************************************************************************
***************************************************************************
*
* Process Macro Input Parameters:
*
* 1) QUESTION = Variable Question Name (DSN).
*    - For individual Questions it is the variable name
*    - For composite Questions it is called xCOMPOSn
*      where n = a predefined composite # and
*            x = R (Region) or C (Catchment)
* 2) TYPE = Type of Score (COMPOSITE or INDIVIDUAL)
* 3) REGCAT = Region/Catchment Area
*
***************************************************************************
***************************************************************************;
%MACRO PROCESS(QUESTION=,TYPE=,REGCAT=);
***************************************************************************
* Assign value for BENTYPE composite year
***************************************************************************;
%LET YEAR = &FYYEAR.;

***************************************************************************
* Assign prefix for weighted/unweighted count variables.
* Unweighted counts are REGCNTn or CATCNTn where n=group number.
* Weighted counts are REGWGTn or CATWGTn where n=group number.
```

```
*************************************************************************;
%IF "&REGCAT" = "Region" %THEN %DO;
   %LET PREFIX = REG;
%END;
%ELSE %IF "&REGCAT" = "Catchment" %THEN %DO;
   %LET PREFIX = CAT;
%END;
%ELSE %DO;
   %PUT "ERROR: Invalid Type = &TYPE";
%END;

*************************************************************************
*
* Convert the CAHPS individual Scores Record into WEB layout.
* There are 8 logical records (adjusted scores) per physical record:
*
* ____________________________________________________________
*    Adjusted Score           Definitions
*    Group Number
* ____________________________________________________________
* 1. Prime enrollees          XINS_COV IN (1,2,6) AND H08007>=2
* 2. Enrollees w/mil PCM      XENR_PCM IN (1,2,6) AND H08007>=2
* 3. Enrollees w/civ PCM      XENR_PCM = 3  AND H08007>=2
* 4. Nonenrollees             XINS_COV IN (3)
* 5. Active duty              BFGROUPP=1
* 6. Active duty dependents   BFGROUPP=2
* 7. Retirees and dependents  BFGROUPP IN (3,4)
* 8. All beneficiaries        All beneficiaries
*
*************************************************************************;
DATA &QUESTION;
   SET IN.&QUESTION;

   LENGTH MAJGRP  $30;
   LENGTH REGION  $30;  /*RSG 02/2005 Increased length to accommodate new region*/
   LENGTH REGCAT  $42;   **MER 11/11/2012 - Changed REGION to be large enough for Joint
Services;
   LENGTH BENTYPE $50;
   LENGTH BENEFIT $34;
   LENGTH TIMEPD  $5;  /*RSG 02/2005*/
   ******************************************************************;
   * Assign Region;
   ******************************************************************;
   %IF &REGCAT = Region %THEN %DO;
       REGION  = PUT(XSERVREG,SERVREGF.);
   %END;
   %ELSE %IF &REGCAT = Catchment %THEN %DO;
       REGION  = PUT(XSERVIND,SERVREGo.);
   %END;
   ******************************************************************;
   * Assign benefit and benefit type;
   ******************************************************************;
   IF "&TYPE" = "INDIVIDUAL" THEN DO;
      IF DEPENDNT IN("R&FY.018", "R&FY.048", "R&FY.027", "R&FY.031") THEN
         BENTYPE = "Composite";
      ELSE
            BENTYPE = PUT(DEPENDNT,$BENTYPF.);
      BENEFIT = PUT(DEPENDNT,$BENEF.);
      TIMEPD = "&YEAR";
   END;
   ELSE IF "&TYPE" = "COMPOSITE" THEN DO;
      BENTYPE = "Composite";   ***MJS 07/03/03 Changed from BENTYPE = PUT(&YEAR,$BENTYPF.);
      BENEFIT = PUT(DEPENDNT,$BENEF.);
      TIMEPD = "&YEAR";
   END;
   ELSE PUT "ERROR: Invalid TYPE = &TYPE";
   ******************************************************************;
   * For now, Initialize Significance test to zero.;
   ******************************************************************;
   SIG = 0;
   ******************************************************************;
   * Assign Region/Catchment Area;
   ******************************************************************;
   %IF &REGCAT = Region %THEN %DO;
```

```
   REGCAT = PUT(XSERVREG,SERVREGF.);
%END;
%ELSE %IF &REGCAT = Catchment %THEN %DO;
   REGCAT = PUT(CACSMPL,CACR.);
%END;
%ELSE %DO;
   PUT "ERROR: Invalid REGCAT = &REGCAT";
%END;
*********************************************************************;
* 1 = Prime Enrollees  ;
*********************************************************************;
MAJGRP = PUT(1,MAJGRPF.);
SCORE = ADJ1;
SEMEAN = SEMEAN1;
N_OBS = &PREFIX.CNT1;
N_WGT = &PREFIX.WGT1;
OUTPUT;
*********************************************************************;
* 2 = Enrollees with military PCM  ;
*********************************************************************;
MAJGRP = PUT(2,MAJGRPF.);
SCORE = ADJ2;
SEMEAN = SEMEAN2;
N_OBS = &PREFIX.CNT2;
N_WGT = &PREFIX.WGT2;
OUTPUT;
*********************************************************************;
* 3 = Enrollees with civilian PCM  ;
*********************************************************************;
%IF &REGCAT = Region %THEN %DO;
   MAJGRP = PUT(3,MAJGRPF.);
   SCORE = ADJ3;
   SEMEAN = SEMEAN3;
   N_OBS = &PREFIX.CNT3;
   N_WGT = &PREFIX.WGT3;
   OUTPUT;
%END;
*********************************************************************;
* 4 = Non-enrolled beneficiaries   ;
*********************************************************************;
%IF &REGCAT = Region %THEN %DO;
   MAJGRP = PUT(4,MAJGRPF.);
   SCORE = ADJ4;
   SEMEAN = SEMEAN4;
   N_OBS = &PREFIX.CNT4;
   N_WGT = &PREFIX.WGT4;
   OUTPUT;
%END;
*********************************************************************;
* 5 = Active duty;
*********************************************************************;
MAJGRP = PUT(5,MAJGRPF.);
SCORE = ADJ5;
SEMEAN = SEMEAN5;
N_OBS = &PREFIX.CNT5;
N_WGT = &PREFIX.WGT5;
OUTPUT;
*********************************************************************;
* 6 = Active duty dependents;
*********************************************************************;
%IF &REGCAT = Region %THEN %DO;
   MAJGRP = PUT(6,MAJGRPF.);
   SCORE = ADJ6;
   SEMEAN = SEMEAN6;
   N_OBS = &PREFIX.CNT6;
   N_WGT = &PREFIX.WGT6;
   OUTPUT;
%END;
*********************************************************************;
* 7 = Retirees and dependents;
*********************************************************************;
%IF &REGCAT = Region %THEN %DO;
   MAJGRP = PUT(7,MAJGRPF.);
   SCORE = ADJ7;
```

```
      SEMEAN = SEMEAN7;
      N_OBS = &PREFIX.CNT7;
      N_WGT = &PREFIX.WGT7;
      OUTPUT;
   %END;
   ********************************************************************;
   * 8 = All Beneficiaries ;
   ********************************************************************;
   MAJGRP = PUT(8,MAJGRPF.);
   SCORE  = ADJ8;
   SEMEAN = SEMEAN8;
   N_OBS = &PREFIX.CNT8;
   N_WGT = &PREFIX.WGT8;
   OUTPUT;

KEEP MAJGRP
     REGION
     REGCAT
     BENTYPE
     BENEFIT
     TIMEPD
     SCORE
     SEMEAN
     N_OBS
     N_WGT
     SIG
   ;
RUN;

%MEND;

***************************************************************************;
* COMPOSITE # 1.;
* GETTING NEEDED CARE VARIABLES.;
***************************************************************************;
%PROCESS(QUESTION=RCOMPOS1,TYPE=COMPOSITE, REGCAT=Region);
%PROCESS(QUESTION=R_R&FY.029,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R&FY.033,TYPE=INDIVIDUAL,REGCAT=Region);

%PROCESS(QUESTION=CCOMPOS1,TYPE=COMPOSITE, REGCAT=Catchment);
%PROCESS(QUESTION=C_R&FY.029,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R&FY.033,TYPE=INDIVIDUAL,REGCAT=Catchment);

***************************************************************************;
* COMPOSITE # 2.;
* GETTING CARE QUICKLY VARIABLES.;
***************************************************************************;
%PROCESS(QUESTION=RCOMPOS2,TYPE=COMPOSITE, REGCAT=Region);
%PROCESS(QUESTION=R_R&FY.007,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R&FY.010,TYPE=INDIVIDUAL,REGCAT=Region);

%PROCESS(QUESTION=CCOMPOS2,TYPE=COMPOSITE, REGCAT=Catchment);
%PROCESS(QUESTION=C_R&FY.007,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R&FY.010,TYPE=INDIVIDUAL,REGCAT=Catchment);


***************************************************************************;
* COMPOSITE # 3.;
* HOW WELL DOCTORS COMMUNICATE.;
***************************************************************************;
%PROCESS(QUESTION=RCOMPOS3,TYPE=COMPOSITE, REGCAT=Region);
%PROCESS(QUESTION=R_R&FY.021,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R&FY.022,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R&FY.023,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R&FY.024,TYPE=INDIVIDUAL,REGCAT=Region);

%PROCESS(QUESTION=CCOMPOS3,TYPE=COMPOSITE, REGCAT=Catchment);
%PROCESS(QUESTION=C_R&FY.021,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R&FY.022,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R&FY.023,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R&FY.024,TYPE=INDIVIDUAL,REGCAT=Catchment);

***************************************************************************;
* COMPOSITE # .;
```

```
* COURTEOUS AND HELPFUL OFFICE STAFF.;
***************************************************************************;


***************************************************************************;
* COMPOSITE # 4.;
* CUSTOMER SERVICE.;
***************************************************************************;
%PROCESS(QUESTION=RCOMPOS4,TYPE=COMPOSITE, REGCAT=Region);
%PROCESS(QUESTION=R_R&FY.041,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R&FY.042,TYPE=INDIVIDUAL,REGCAT=Region);

%PROCESS(QUESTION=CCOMPOS4,TYPE=COMPOSITE, REGCAT=Catchment);
%PROCESS(QUESTION=C_R&FY.041,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R&FY.042,TYPE=INDIVIDUAL,REGCAT=Catchment);

***************************************************************************;
* COMPOSITE # 5.;
* CLAIMS PROCESSING.;
***************************************************************************;
%PROCESS(QUESTION=RCOMPOS5,TYPE=COMPOSITE, REGCAT=Region);
%PROCESS(QUESTION=R_R&FY.046,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R&FY.047,TYPE=INDIVIDUAL,REGCAT=Region);

%PROCESS(QUESTION=CCOMPOS5,TYPE=COMPOSITE, REGCAT=Catchment);
%PROCESS(QUESTION=C_R&FY.046,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R&FY.047,TYPE=INDIVIDUAL,REGCAT=Catchment);

***************************************************************************;
* INDIVIDUAL # 1.;
* RATING OF ALL HEALTH CARE: 0 - 10.;
***************************************************************************;
%PROCESS(QUESTION=R_R&FY.018,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=C_R&FY.018,TYPE=INDIVIDUAL,REGCAT=Catchment);

***************************************************************************;
* INDIVIDUAL # 2.;
* RATING OF HEALTH PLAN: 0 - 10.;
***************************************************************************;
%PROCESS(QUESTION=R_R&FY.048,TYPE=INDIVIDUAL,REGCAT=Region)
%PROCESS(QUESTION=C_R&FY.048,TYPE=INDIVIDUAL,REGCAT=Catchment)

***************************************************************************;
* INDIVIDUAL # 3.;
* RATING OF PERSONAL DOCTOR: 0 - 10.;
***************************************************************************;
%PROCESS(QUESTION=R_R&FY.027,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=C_R&FY.027,TYPE=INDIVIDUAL,REGCAT=Catchment);

***************************************************************************;
* INDIVIDUAL # 4.;
* SPECIALTY CARE: 0 - 10.;
***************************************************************************;
%PROCESS(QUESTION=R_R&FY.031,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=C_R&FY.031,TYPE=INDIVIDUAL,REGCAT=Catchment);

***************************************************************************;
***************************************************************************;
* STACK up all of the files into one final output dataset.;
***************************************************************************;
***************************************************************************;
DATA OUT.LOADCAHP;
   SET R_R&FY.029 C_R&FY.029
       R_R&FY.033 C_R&FY.033
       R_R&FY.007 C_R&FY.007
       R_R&FY.010 C_R&FY.010
       R_R&FY.021 C_R&FY.021
       R_R&FY.022 C_R&FY.022
       R_R&FY.023 C_R&FY.023
       R_R&FY.024 C_R&FY.024
       R_R&FY.041 C_R&FY.041
       R_R&FY.042 C_R&FY.042
       R_R&FY.046 C_R&FY.046
       R_R&FY.047 C_R&FY.047
```

```
       R_R&FY.018 C_R&FY.018
       R_R&FY.048 C_R&FY.048
       R_R&FY.027 C_R&FY.027
       R_R&FY.031 C_R&FY.031
       RCOMPOS1 CCOMPOS1
       RCOMPOS2 CCOMPOS2
       RCOMPOS3 CCOMPOS3
       RCOMPOS4 CCOMPOS4
       RCOMPOS5 CCOMPOS5

    ;
    IF SCORE = . THEN DELETE;
RUN;

TITLE1 "&FYYEAR. DOD Health Survey Scores/Report Cards";
TITLE2 "Program Name: LOADCAHP.SAS By Keith Rathbun";
TITLE3 "Program Inputs: CAHPS Individual and Composite data sets with adjusted scores";
TITLE4 "Program Outputs: LOADCAHP.sas7bdat - Combined CAHPS Scores Database in WEB layout";

PROC FREQ;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

G.10.B LOADWEB\LOADCAHQ.INC - Format definitions for converting the Scores Database into the WEB layout - Annual.

```
*************************************************************************
*
* PROGRAM:  LOADCAHQ.INC
* TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Format definitions for converting the CAHPS Scores Database
*           into the WEB layout.
*
* WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from LOADCAHP.INC.
*
* MODIFIED: 1) 08/13/2001 BY KEITH RATHBUN, Added XSERVAFF format to
*              accommodate the short reports.
*           2) 01/24/2002 BY KEITH RATHBUN, Added BENTYPF = 1998,1999,2000
*              added catchment composites.
*           3) 04/10/2002 BY KEITH RATHBUN, Added parameters for 2002 survey.
*           4) 04/03/2003 BY MIKE SCOTT, Added parameters for 2003 survey.
*           5) 07/08/2003 BY MIKE SCOTT, Added formats GETNCARE, GETCAREQ,
*              CRTSHELP, HOWWELL, CUSTSERV, CLMSPROC, and PREVCARE.
*           6) 03/22/2004 BY KEITH RATHBUN, Added parameters for 2004 survey.
*              Changed R04031 to be "Wait Less than 15 Minutes For Appointment".
*           7) 05/06/2004 BY MIKE SCOTT, Changed R04031 back to 2003 version of
*              the label ("Wait More than 15 Minutes Past Appointment") so that
*              the Q1 2004 version of the question is consistent with past
*              versions.  The label will be changed to the new version ("Waiting
*              in the Doctor's Office") in Makehtmq.sas.
*           8) 02/2006 BY REGINA GRAMSS, Changed date format to fielding dates.
*           9) 03/21/2006 BY KEITH RATHBUN, Added parameters for 2006 survey.
*          10) 08/22/2006 BY JUSTIN OH, Changed SERVREGF format for Overseas.
*          11) 12/15/2006 BY JUSTIN OH, Added parameters for 2007 survey.
*          12) 02/02/2007 BY JUSTIN OH, Added "s" in Healthy Behaviors in VALUE BEN.
*          13) 01/10/2008 BY KEITH RATHBUN, Added parameters for 2008 survey.
*          14) 01/09/2009 BY MIKE RUDACILLE, Added parameters for 2009 survey.
*          14) 01/16/2009 BY MIKE RUDACILLE, Changed CONUS to USA.
*          15) 04/11/2009 by Mike Rudacille - Changed formats to reflect
*              modifications to beneficiary reports necessary for V4
*          16) 12/17/09 by Emma Ernst, Added parameters for 2010 survey.
*          17) 12/02/10 by Mike Rudacille, Added parameters for 2011 survey.
*              Also removed 2000 parameters for space considerations.
*          18) 12/10/11 by Mike Rudacille, Added parameters for 2012 survey.
*              Also removed 2002 parameters for space considerations.
*          19) 11/03/12 by Mike Rudacille, Updated for handling of
*              Joint Service facilities
*          20) 12/27/12 by Aimee Valenzuela, Added parameters for 2013 survey.
*          21) 09/20/13 by Amanda Kudis, Added parameters for 2014 survey.
*
*
* INPUTS:   No direct input
*
* OUTPUT:   No direct output
*
* NOTES:    1) Under the new contract (8860), the survey year was changed
*              to be based on the year the survey is administered (2002)
*              as opposed to the questioning reference frame (2001).  This
*              include file contains variable names for both the 2001
*              survey administration year and the the 2002 administration
*              year surveys.
*
*************************************************************************
;
*************************************************************************
* FORMAT Definitions
*************************************************************************;
PROC FORMAT;
   VALUE MAJGRPF
      1 = "Prime Enrollees            "
      2 = "Enrollees with Military PCM"
      3 = "Enrollees with Civilian PCM"
      4 = "Non-enrolled Beneficiaries "
      5 = "Active Duty                "
      6 = "Active Duty Dependents     "
      7 = "Retirees and Dependents    "
```

```
      8 = "All Beneficiaries          "
   ;
   VALUE XSERVAFF
      1 = "ARMY"
      2 = "AIR FORCE"
      3 = "NAVY"
      4 = "OTHER"
      5 = "JOINT SERVICE"
   ;
   VALUE REGIONF
      0 = "USA MHS "
      1 = "North"
      2 = "South"
      3 = "West"
      4 = "Overseas"
   ;

/*JSO 08/24/2006, Changed Overseas to Service for Europe,Pacific,Latin*/
   VALUE SERVREGF
      1 = "North Army"
      2 = "North Air Force"
      3 = "North Navy"
      4 = "North Other"
      5 = "North Joint Service"
      6 = "South Army"
      7 = "South Air Force"
      8 = "South Navy"
      9 = "South Other"
     10 = "South Joint Service"
     11 = "West Army"
     12 = "West Air Force"
     13 = "West Navy"
     14 = "West Other"
     15 = "West Joint Service"
     16 = "Europe Army"
     17 = "Europe Air Force"
     18 = "Europe Navy"
     19 = "Europe Other"
     20 = "Europe Joint Service"
     21 = "Pacific Army"
     22 = "Pacific Air Force"
     23 = "Pacific Navy"
     24 = "Pacific Other"
     25 = "Pacific Joint Service"
     26 = "Latin America Army"
     27 = "Latin America Air Force"
     28 = "Latin America Navy"
     29 = "Latin America Other"
     30 = "Latin America Joint Service"
     31 = "USA ARMY"
     32 = "USA AIR FORCE"
     33 = "USA NAVY"
     34 = "USA OTHER";

/*JSO 08/24/2006, Changed Overseas to Europe,Pacific,Latin*/
   VALUE SERVREGO
      1 = "North Army"
      2 = "North Air Force"
      3 = "North Navy"
      4 = "North Other"
      5 = "North Joint Service"
      6 = "South Army"
      7 = "South Air Force"
      8 = "South Navy"
      9 = "South Other"
     10 = "South Joint Service"
     11 = "West Army"
     12 = "West Air Force"
     13 = "West Navy"
     14 = "West Other"
     15 = "West Joint Service"
     16 = "Overseas Europe"
     17 = "Overseas Pacific"
     18 = "Overseas Latin America";
```

```
   VALUE $BENTYPF
    "2005 Q1 " = "January, 2005                                  "
    "2005 Q2 " = "April, 2005                                    "
    "2005 Q3 " = "July, 2005                                     "
    "2005 Q4 " = "October, 2005                                  "
    "2006 Q1 " = "January, 2006                                  "
    "2006 Q2 " = "April, 2006                                    "
    "2006 Q3 " = "July, 2006                                     "
    "2006 Q4 " = "October, 2006                                  "
    "2007 Q1 " = "January, 2007                                  "
    "2007 Q2 " = "April, 2007                                    "
    "2007 Q3 " = "July, 2007                                     "
    "2007 Q4 " = "October, 2007                                  "
    "2008 Q1 " = "January, 2008                                  "
    "2008 Q2 " = "April, 2008                                    "
    "2008 Q3 " = "July, 2008                                     "
    "2008 Q4 " = "October, 2008                                  "
    "2009 Q1 " = "January, 2009                                  "
    "2009 Q2 " = "April, 2009                                    "
    "2009 Q3 " = "July, 2009                                     "
    "2009 Q4 " = "October, 2009                                  "
    "2010 Q1 " = "January, 2010                                  "
    "2010 Q2 " = "April, 2010                                    "
    "2010 Q3 " = "July, 2010                                     "
    "2010 Q4 " = "October, 2010                                  "
    "2011 Q1 " = "January, 2011                                  "
    "2011 Q2 " = "April, 2011                                    "
    "2011 Q3 " = "July, 2011                                     "
    "2011 Q4 " = "October, 2011                                  "
    "2012 Q1 " = "January, 2012                                  "
    "2012 Q2 " = "April, 2012                                    "
    "2012 Q3 " = "July, 2012                                     "
    "2012 Q4 " = "October, 2012                                  "
    "2013 Q1 " = "January, 2013                                  "
    "2013 Q2 " = "April, 2013                                    "
    "2013 Q3 " = "July, 2013                                     "
    "2013 Q4 " = "October, 2013                                  "
    "2014 Q1 " = "January, 2014                                  "
    "2014 Q2 " = "April, 2014                                    "
    "2014 Q3 " = "July, 2014                                     "
    "2014 Q4 " = "October, 2014                                  "
    "2015 Q1 " = "January, 2015                                  "
    "2015 Q2 " = "April, 2015                                    "
    "2015 Q3 " = "July, 2015                                     "
    "2015 Q4 " = "October, 2015                                  "

/*****************************************************************************************
***************/
    /* Admin. Year Defn.
*/
    /*  2005      2006      2007      2008      2009      2010      2011      2012     2013
2014       2015    */

/*****************************************************************************************
***************/
    "R05013", "R06013", "R07013", "R08013", "R09029", "R10029", "R11029", "R12029", "R13029",
"R14029", "R15029" = "Getting to See a Specialist        "
    "R05027", "R06027", "R07027", "R08027", "R09033", "R10033", "R11033", "R12033", "R13033",
"R14033", "R15033" = "Getting Treatment                  "
    "R05019", "R06019", "R07019", "R08019", "R09007", "R10007", "R11007", "R12007", "R13007",
"R14007", "R15007" = "Wait for Urgent Care               "
    "R05022", "R06022", "R07022", "R08022", "R09010", "R10010", "R11010", "R12010", "R13010",
"R14010", "R15010" = "Wait for Routine Visit             "
    "R05033", "R06033", "R07033", "R08033", "R09021", "R10021", "R11021", "R12021", "R13021",
"R14021", "R15021" = "Listens Carefully                  "
    "R05034", "R06034", "R07034", "R08034", "R09022", "R10022", "R11022", "R12022", "R13022",
"R14022", "R15022" = "Explains so You Can Understand     "
    "R05035", "R06035", "R07035", "R08035", "R09023", "R10023", "R11023", "R12023", "R13023",
"R14023", "R15023" = "Shows Respect                      "
    "R05036", "R06036", "R07036", "R08036", "R09024", "R10024", "R11024", "R12024", "R13024",
"R14024", "R15024" = "Spends Time with You               "
    "R05043", "R06043", "R07043", "R08043", "R09040", "R10040", "R11041", "R12041", "R13041",
"R14041", "R15041" = "Getting Information                "
```

```
    "R05045", "R06045", "R07045", "R08045", "R09041", "R10041", "R11042", "R12042", "R13042",
"R14042", "R15042" = "Courteous Customer Service         "
    "R05040", "R06040", "R07040", "R08040", "R09045", "R10045", "R11046", "R12046", "R13046",
"R14046", "R15046" = "Claims Handled in a Reasonable Time"
    "R05041", "R06041", "R07041", "R08041", "R09046", "R10046", "R11047", "R12047", "R13047",
"R14047", "R15047" = "Claims Handled Correctly           "
    "R05037", "R06037", "R07037", "R08037", "R09018", "R10018", "R11018", "R12018", "R13018",
"R14018", "R15018" = "Health Care                        "
    "R05048", "R06048", "R07048", "R08048", "R09047", "R10047", "R11048", "R12048", "R13048",
"R14048", "R15048" = "Health Plan                        "
    "R05009", "R06009", "R07009", "R08009", "R09027", "R10027", "R11027", "R12027", "R13027",
"R14027", "R15027" = "Primary Care Manager               "
    "R05015", "R06015", "R07015", "R08015", "R09031", "R10031", "R11031", "R12031", "R13031",
"R14031", "R15031" = "Specialty Care                     "
                           "PHYSIC  " = "Physical                                        "
                           "MENTAL  " = "Mental                                          "
   ;
   VALUE $BENEF
    "RCOMPOS1","CCOMPOS1","R05013","R05027",
                          "R06013","R06027",
                          "R07013","R07027",
                          "R08013","R08027",
                          "R09029","R09033",
                          "R10029","R10033",
                          "R11029","R11033",
                          "R12029","R12033",
                          "R13029","R13033",
                          "R14029","R14033",
                          "R15029","R15033"
    = "Getting Needed Care  "

    "RCOMPOS2","CCOMPOS2","R05019","R05022",
                          "R06019","R06022",
                          "R07019","R07022",
                          "R08019","R08022",
                          "R09007","R09010",
                          "R10007","R10010",
                          "R11007","R11010",
                          "R12007","R12010",
                          "R13007","R13010",
                          "R14007","R14010",
                          "R15007","R15010"
    = "Getting Care Quickly "

    "RCOMPOS3","CCOMPOS3","R05033","R05034","R05035","R05036",
                          "R06033","R06034","R06035","R06036",
                          "R07033","R07034","R07035","R07036",
                          "R08033","R08034","R08035","R08036",
                          "R09021","R09022","R09023","R09024",
                          "R10021","R10022","R10023","R10024",
                          "R11021","R11022","R11023","R11024",
                          "R12021","R12022","R12023","R12024",
                          "R13021","R13022","R13023","R13024",
                          "R14021","R14022","R14023","R14024",
                          "R15021","R15022","R15023","R15024"
    = "How Well Doctors Communicate "

    "RCOMPOS4","CCOMPOS4","R05043","R05045",
                          "R06043","R06045",
                          "R07043","R07045",
                          "R08043","R08045",
                          "R09040","R09041",
                          "R10040","R10041",
                          "R11041","R11042",
                          "R12041","R12042",
                          "R13041","R13042",
                          "R14041","R14042",
                          "R15041","R15042"
    = "Customer Service          "

    "RCOMPOS5","CCOMPOS5","R05040","R05041",
                          "R06040","R06041",
                          "R07040","R07041",
                          "R08040","R08041",
```

```
                          "R09045","R09046",
                          "R10045","R10046",
                          "R11046","R11047",
                          "R12046","R12047",
                          "R13046","R13047",
                          "R14046","R14047",
                          "R15046","R15047"
    = "Claims Processing
            "
    "RCOMPOS11","COMPOS11","MENTAL","PHYS"
    = "Health Status                      "

/*****************************************************************************************
*************/
    /* Admin. Year Defn.
*/
    /* 2005      2006      2007      2008      2009      2010      2011      2012     2013
2014      2015  */

/*****************************************************************************************
*************/
    "R05037", "R06037", "R07037", "R08037", "R09018", "R10018", "R11018", "R12018", "R13018",
"R14018", "R15018" = "Health Care                                  "
    "R05048", "R06048", "R07048", "R08048", "R09047", "R10047", "R11048", "R12048", "R13048",
"R14048", "R15048" = "Health Plan                                  "
    "R05009", "R06009", "R07009", "R08009", "R09027", "R10027", "R11027", "R12027", "R13027",
"R14027", "R15027" = "Primary Care Manager                         "
    "R05015", "R06015", "R07015", "R08015", "R09031", "R10031", "R11031", "R12031", "R13031",
"R14031", "R15031" = "Specialty Care                               "
   ;
VALUE BEN
/*  0 = 'Total'  deleted no longer calculating total 04/2005 RSG ***/
  1 = 'Getting Needed Care'
  2 = 'Getting Care Quickly'
  3 = 'How Well Doctors Communicate'
  4 = 'Customer Service'
  5 = 'Claims Processing'
  6 = 'Health Plan'
  7 = 'Health Care'
  8 = 'Primary Care Manager'
  9 = 'Specialty Care'
 10 = 'Preventive Care'
 11 = 'Healthy Behaviors';

  VALUE MAJOR
  1 = "Prime Enrollees            "
  2 = "Enrollees with Military PCM"
  3 = "Enrollees with Civilian PCM"
  4 = "Non-enrolled Beneficiaries "
  5 = "Active Duty                "
  6 = "Active Duty Dependents     "
  7 = "Retirees and Dependents    "
  8 = "All Beneficiaries          ";

  VALUE GETNCARE
  1 = "Getting to See a Specialist"
  2 = "Getting Treatment"
  3 = "Composite";

  VALUE GETCAREQ
  1 = "Wait for Routine Visit"
  2 = "Wait for Urgent Care"
  3 = "Composite";

  VALUE HOWWELL
  1 = "Listens Carefully"
  2 = "Explains so You Can Understand"
  3 = "Shows Respect"
  4 = "Spends Time with You"
  5 = "Composite";

  VALUE CUSTSERV
  1 = "Getting Information"
  2 = "Courteous Customer Service"
```

```
  3 = "Composite";

  VALUE CLMSPROC
  1 = "Claims Handled in a Reasonable Time"
  2 = "Claims Handled Correctly"
  3 = "Composite";

  VALUE PREVCARE
  1 = "Mammography"
  2 = "Pap Smear"
  3 = "Hypertension"
  4 = "Prenatal Care"
  5 = "Composite";

  VALUE SMOKEF
  1 = "Non-Smoking Rate"
  2 = "Counselled To Quit"
  3 = "Percent Not Obese"
  4 = "Composite";
RUN;
```

G.11.A Benchmark\BENCHA03.SAS - Calculate CAHPS Benchmark data for HCSDB - Annual.

```
***************************************************************************
*
* PROGRAM:  BENCHA03.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Adjust Adult CAHPS Benchmarks
*
* WRITTEN:  June 2000 BY ERIC SCHONE
*
* INPUTS:   1) BENCHA02.SD2 - 2005 Adult CAHPS Questions Renamed to be
*              consistent with the 2006 MPR DOD Survey.
*           2) GROUP8.SD2 - CAHPS Group8 (all beneficiaries) Dataset
*
* OUTPUTS:  1) Benchmark Composite Scores Data Sets
*
* MODIFIED:34) Aug 2, 2012 by Amanda Kudis - Updated for 2012 and removed insurnace restriction.
*          35) Aug 1, 2013 by Amanda Kudis - Updated for 2013.
*          36) 12/01/2014 By Matt Turbyfill, revised for the Macro Program.
                              Replaced RCTYPE with &PC.ReportCards
                              Changed IN to &BENCHDATA.
                              Changed IN2 to "..\&RCTYPE\CAHPS_Adult&FYYEAR.\Data".
                              Changed LIBRARY to ..\..\DATA\FMTLIB
                              Replaced MERGE statement in &Q._&L., OUT&COMPNO._&I., and
OUT.COMP&COMPNO._&I DATA steps with SET statements.
                              Added MERGE=1 to R_&X.
                              Added BY MERGE to TEMP step.
                              Changed R14 to R&FY.
                              Changed CONVERT.SAS to
..\ReportCards\CAHPS_Adult&FYYEAR.\CONVERT.SAS*
* NOTES:
*
* 1) Run this program after BENCHA01.SAS and BENCHA02.SAS.
* 2) This program will generate the input for BENCHA04.SAS.
*
***************************************************************************
* Assign data libraries and options
***************************************************************************;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards                ***/
%LET RCTYPE = &PC.ReportCards;

libname in      "&BENCHDATA.";
libname in2     "..\&RCTYPE\CAHPS_Adult&FYYEAR.\Data";
libname out     "Data";
LIBNAME LIBRARY "..\..\DATA\FMTLIB";

%let wgt=CFWT;

OPTIONS MLOGIC MPRINT NOCENTER MERGENOBY=WARN LS=132 PS=79;


%macro comb(f,t,q,l);

proc summary data=&f;
 var &t;
 where &q~=.;
 weight &wgt;
 output out=temp mean=&t;
run;

data temp;
 set temp;
 array old &t;
 call symput('z',left(dim(old)));
run;

data temp(drop=_type_ &t);
 set temp;
 array old &t;
 array new var1-var&z;
  do i=1 to &z;
   new(i)=old(i);
```

```
  end;
run;

data &q._&l;
 set temp;
 set c_&q;
 array coeffs &t;
 array means var1-var&z;
  DO I = 1 TO DIM(COEFFS);
   IF COEFFS(I) = . THEN COEFFS(I) = 0;
   IF MEANS(I) = . THEN MEANS(I) = 0;
   ADJUST + ( COEFFS(I) * MEANS(I) );
  END;
 merge=1;

 ADJUST = ADJUST + intercept;
 &q._&l=adjust;

run;

%mend comb;

%macro adjust(x,y);



proc summary data=setup;
where &x>.;
 class SUB_ID;

 output out=count;
run;

data count count2(rename=(_freq_=denom));
 set count;
 if _type_=0 then output count2;
 else output count;
run;

data count(keep=pweight SUB_ID);
 if _n_=1 then set count2;
 set count;
 pweight=denom/_freq_;
run;

data temp;
 merge count  setup; by SUB_ID;

run;
proc summary data=temp;
where &x>.;
weight pweight;
var &y;
output out=temp2 mean=&y;
data temp2;
 set temp2;
 array old &y;
 call symput('z',left(dim(old)));
run;
data temp2(keep=var1-var&z);
 set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
   new(i)=old(i);
  end;
run;
data temp;
set temp;
if _n_=1 then set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
  if old(i)=. then
```

```
   old(i)=new(i);
  end;
run;
proc reg data=temp outest=c_&x noprint;
 model &x=&y;
 weight pweight;
 output out=r_&x r=r_&x;
run;

data r_&x;
 set r_&x;
 merge=1;
run;

proc sort data=r_&x; by SUB_ID;
run;

PROC DESCRIPT DATA=r_&x DESIGN=STRWR NOPRINT;
 WEIGHT pweight;
 SETENV DECWIDTH=4;
 NEST SUB_ID / missunit;
 VAR R_&x;
 OUTPUT  SEMEAN / TABLECELL=DEFAULT
 FILENAME=s_&x;
RUN;

data s_&x(rename=(semean=s_&x));
 set s_&x(keep=semean);
 %do i=1 %to 8;
  %if &i=8 %then %do;

   data group8;
    set in2.group5 in2.group6 in2.group7;
   run;
   %comb(group8,&y,&x,8);
  %end;
  %else %do;
   %comb(in2.group&i,&y,&x,&i);
  %end;
 %end;


%mend adjust;

/* adjust all the variables */

%macro comp(compno,a,b,c,d);
 %if &a~= %then %do;
  %let n=r_&a;
  %let m=s_&a;
  %do i=1 %to 8;
   %let p&i=&a._&i;
  %end;
  %let grpnum=1;
   proc sort data=r_&a;
    by mpid;
   run;
 %end;
 %if &b~= %then %do;
  %let n=%str(&n r_&b);
  %let m=%str(&m s_&b);
  %do i=1 %to 8;
   %let p&i=%str(&&p&i &b._&i);
  %end;
  %let grpnum=2;
   proc sort data=r_&b;
    by mpid;
   run;
 %end;
 %if &c~= %then %do;
  proc sort data=r_&c;
   by mpid;
  run;
  %let grpnum=3;
```

```
  %let n=%str(&n r_&c);
  %do i=1 %to 8;
   %let p&i=%str(&&p&i &c._&i);
  %end;
  %let m=%str(&m s_&c); %end;

  %if &d~= %then %do;
   proc sort data=r_&d;
    by mpid;
   run;
   %let grpnum=4;
   %let n=%str(&n r_&d);
    %do i=1 %to 8;
     %let p&i=%str(&&p&i &d._&i);
    %end;

    %let m=%str(&m s_&d);
  %end;

data infile;
 merge &n;
 by mpid;
run;

proc corr outp=outf noprint;
 var &n;
 weight pweight;
run;

data final;
 if _n_=1 then do;
  %if &a~= %then %do;
   set s_&a;
  %end;
  %if &b~= %then %do;
   set s_&b;
  %end;
  %if &c~= %then %do;
   set s_&c;
  %end;
  %if &d~= %then %do;
   set s_&d;
  %end;
 end;
 set  outf;
 call symput('s'||compress(_n_),substr(_name_,3));
 where _type_='CORR';
run;

data final;
 set final;
 array r_val &n;
 array s_val &m;
 sde=0;
 do i=1 to dim(s_val);
  %do i=1 %to &grpnum;
   if _name_="r_&&s&i" then
   sde=sde+r_val(i)*s_&&s&i*s_val(i);
  %end;
 end;
run;

data sefin&compno;
 set final end=last;
 tv+sde;
 if last then do;
 sde=(tv**.5)/&grpnum;
 output;
end;

%do i=1 %to 8;
 data temp(keep=&&p&i);
  merge &&p&i;
  by merge;
```

```
 run;

data output;
 set &&p&i;
 totadj+adjust;
run;

data output(keep=totadj);
 set output end=last;
 if last then do;
  totadj=totadj/&grpnum;
  output;
 end;
run;

data out&compno._&i;
 set output;
 set temp;
run;

data out.comp&compno._&i;
   set out&compno._&i;
   set sefin&compno;
run;

%end;

%mend comp;

/* create composites */
proc sort data=in.bencha02 out=setup;
 by SUB_ID;
run;
data setup;
set setup;
/*if ^(model in (2,4)); */  **AMK removed restriction 9/20/12;
if disp in ('M10','I10')  ;   ***KRR 04/19/04 Changed _02 to _03;
data setup;
 set setup; by SUB_ID;
 mpid=_n_;
 if agegroup ne . then do;
 age1824=0; age2534=0; age3544=0; age4554=0; age5564=0; age6574=0;

      if agegroup=1 then age1824=1;
 else if agegroup=2 then age2534=1;
 else if agegroup=3 then age3544=1;
 else if agegroup=4 then age4554=1;
 else if agegroup=5 then age5564=1;
 else if agegroup=6 then age6574=1;
 end;
 if agegroup<6;



run;
%INCLUDE "..\REPORTCARDS\CAHPS_Adult&FYYEAR.\CONVERT.SAS";

%CONT2(DSN=SETUP, NUM=4,  Y=R&FY.018 R&FY.048 R&FY.027 R&FY.031);
%CONT3(DSN=SETUP, NUM=12, Y=R&FY.007 R&FY.010 R&FY.029 R&FY.033
                           R&FY.021 R&FY.022 R&FY.023 R&FY.024
                           R&FY.041 R&FY.042 R&FY.046 R&FY.047);
/* GETTING NEEDED CARE */
%adjust(R&FY.029,age1824 age2534 age3544 age4554  R&FY.065);
%adjust(R&FY.033,age1824 age2534 age3544 age4554  R&FY.065);
%comp(1,R&FY.029,R&FY.033);

/* GETTING NEEDED CARE QUICKLY */
%adjust(R&FY.007,age1824 age2534 age3544 age4554  R&FY.065);
%adjust(R&FY.010,age1824 age2534 age3544 age4554  R&FY.065);
%comp(2,R&FY.007,R&FY.010);

/* HOW WELL DOCTORS COMMUNICATE */
%adjust(R&FY.021,age1824 age2534 age3544 age4554  R&FY.065);
%adjust(R&FY.022,age1824 age2534 age3544 age4554  R&FY.065);
```

```
%adjust(R&FY.023,age1824 age2534 age3544 age4554  R&FY.065);
%adjust(R&FY.024,age1824 age2534 age3544 age4554  R&FY.065);
%comp(3,R&FY.021,R&FY.022,R&FY.023,R&FY.024);

/* CUSTOMER SERVICE */
%adjust(R&FY.041,age1824 age2534 age3544 age4554  R&FY.065);
%adjust(R&FY.042,age1824 age2534 age3544 age4554  R&FY.065);
%comp(4,R&FY.041,R&FY.042);

/* CLAIMS PROCESSING */
%adjust(R&FY.046,age1824 age2534 age3544 age4554  R&FY.065);
%adjust(R&FY.047,age1824 age2534 age3544 age4554  R&FY.065);
%comp(5,R&FY.046,R&FY.047);

/* RATING ALL HEALTH CARE: 0 - 10 */
%adjust(R&FY.018,age1824 age2534 age3544 age4554  R&FY.065);
%comp(6,R&FY.018);

/* RATING OF HEALTH PLAN: 0 - 10 */
%adjust(R&FY.048,age1824 age2534 age3544 age4554  R&FY.065);
%comp(7,R&FY.048);

/* RATING OF PERSONAL DR: 0 - 10 */
%adjust(R&FY.027,age1824 age2534 age3544 age4554  R&FY.065);
%comp(8,R&FY.027);

/* SPECIALTY CARE */
%adjust(R&FY.031,age1824 age2534 age3544 age4554  R&FY.065);
%comp(9,R&FY.031);
```

G.11.B Benchmark\BENCHA04.SAS - Convert the Benchmark Scores Database into the WEB layout - Annual.

```
***************************************************************************
*
* PROGRAM:  BENCHA04.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6401-904)
* PURPOSE:  Convert the Benchmark Scores Database into the WEB layout
*
* WRITTEN:  06/01/2000 BY KEITH RATHBUN
*
* INPUTS:   1) Benchmark data sets with adjusted scores
*              (COMPn_i.SD2 where n = composite number and i = group number)
*
* OUTPUT:   1) BENCHA04.SD2 - Combined Benchmark Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*              and composite data sets
*
* MODIFIED:
*
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - BENCHA01.SAS - Extract Benchmark variables
*    - BENCHA02.SAS - Recode Benchmark variables
*    - BENCHA03.SAS - Construct Scores and SEMEAN datasets
*
* 2) The output file (BENCHA04.SAS7BDAT) will be run through the
*    MAKEHTML.SAS program to generate the WEB pages.
*
* MODIFIED: 1) 12/01/2014 By Matt Turbyfill, revised for the Macro Program.
                                    Changed LIBRARY to "..\..\DATA\FMTLIB".
                                    Changed YEAR to &FYYEAR.;
/*                                  Added X = .; statement to initialize X.
                                    Changed R14 to R&FY.
*/
***************************************************************************
* Assign data libraries and options
***************************************************************************;
LIBNAME IN  "DATA";
LIBNAME IN2 "apredtest";
LIBNAME OUT "DATA";
LIBNAME LIBRARY  "..\..\DATA\FMTLIB";


OPTIONS PS=79 LS=132 COMPRESS=NO NOCENTER;

***************************************************************************
* Load Format definitions for CAHPS Individual and composite data sets.
***************************************************************************;
%INCLUDE "..\LOADWEB\LOADCAHQ.INC";

***************************************************************************
***************************************************************************
*
* Process Macro Input Parameters:
*
* 1) CNUM = Composite or rating variable number (1-10)
* 2) GNUM = Group number (1-8)
* 3) NVAR = Number of variables in the composite
* 4) VARS = List of individual variables for composite
* 5) SE   = List of individual standard error variables
*
* ____________________________________________________________
*    Adjusted Score           Definitions
*    Group Number
* ____________________________________________________________
* 1. Prime enrollees          XINS_COV IN (1,2,6) AND H09004_R>=7
* 2. Enrollees w/mil PCM      XENR_PCM IN (1,2,6) AND H09004_R>=7
* 3. Enrollees w/civ PCM      XENR_PCM = 3        AND H09004_R>=7
* 4. Nonenrollees             XINS_COV IN (3,4,5)
* 5. Active duty              BFGROUPP = 1
```

```
* 6. Active duty dependents   BFGROUPP = 2
* 7. Retirees and dependents  BFGROUPP IN (3,4)
* 8. All Beneficiaries
*
*************************************************************************;
%MACRO PROCESS(CNUM=, GNUM=, NVAR=, VARS=, SE=);
*************************************************************************
* Assign value for BENTYPE composite year
*************************************************************************;
%LET YEAR = "&FYYEAR."; * Note that this is based on Calendar Year here;

*************************************************************************
* Convert benchmark scores datasets into WEB layout.
*************************************************************************;
%IF &CNUM<6 %THEN %DO;

  DATA INP;
    SET IN2.COMP&CNUM;
     WHERE X=&GNUM;



   DATA INP;
    SET INP  IN2.PROJERR&GNUM;
    RENAME SE=SESX;
RUN;
%END;
%ELSE %DO;

   DATA INP;
    SET IN2.PROJERR&GNUM;
    RENAME SE=SESX;

       X = .;
RUN;
%END;



   DATA COMP&CNUM._&Gnum;
      SET INP;
     IF _N_=1 THEN
     SET IN.COMP&CNUM._&GNUM;
      LENGTH MAJGRP  $30;
      LENGTH REGION  $25;
      LENGTH REGCAT  $26;
      LENGTH BENTYPE $50;
      LENGTH BENEFIT $34;
      LENGTH TIMEPD  $35;   ***MJS 07/03/03 Added line;

      ********************************************************************
      * For now, assign SIG = 0
      ********************************************************************;
      SIG = 0;

      ********************************************************************
      * Assign major group
      ********************************************************************;
      MAJGRP  = PUT(&Gnum,MAJGRPF.);

      ********************************************************************
      * Assign Region and Regcat
      ********************************************************************;
      REGION  = "Benchmark";
      REGCAT  = "Benchmark";

      ********************************************************************
      * Assign benefit and benefit type
      ********************************************************************;
      IF      &CNUM = 1  THEN BENEFIT = "Getting Needed Care";
      ELSE IF &CNUM = 2  THEN BENEFIT = "Getting Care Quickly";
      ELSE IF &CNUM = 3  THEN BENEFIT = "How Well Doctors Communicate";
      ELSE IF &CNUM = 4  THEN BENEFIT = "Customer Service";
      ELSE IF &CNUM = 5  THEN BENEFIT = "Claims Processing";
```

```
      ELSE IF &CNUM = 6  THEN BENEFIT = "Health Care";
      ELSE IF &CNUM = 7  THEN BENEFIT = "Health Plan";
      ELSE IF &CNUM = 8  THEN BENEFIT = "Primary Care Manager";
      ELSE IF &CNUM = 9  THEN BENEFIT = "Specialty Care";

      BENTYPE = "Composite";   ***MJS 07/03/03 Changed from BENTYPE = PUT(&YEAR,$BENTYPF.);
      TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added;
       IF &CNUM<6 THEN DO;
          IF X=&GNUM THEN DO;
      ********************************************************************
      * Assign composite score and SEMEAN
      ********************************************************************;
            SCORE = TOTADJ;
            SEMEAN = SQRT(SDE**2+SESX**2);

      ********************************************************************
      * Output composite score record for each REGION
      ********************************************************************;
            OUTPUT;
          END;
       END;
      ********************************************************************
      * Now, output the individual score records
      ********************************************************************;
      IF &NVAR GT 1|&CNUM>5 THEN DO;
         ARRAY ITEMS &VARS;
         ARRAY SE    &SE;
         LENGTH NAME $8;
         DO I = 1 TO DIM(ITEMS); DROP I;
            CALL VNAME(ITEMS(I),NAME);
            NAME = SUBSTR(NAME,1,6);
            SCORE  = ITEMS(I);
            SEMEAN = SQRT(SE(I)**2+SESX**2);
            IF &NVAR GT 1 THEN
            BENTYPE = PUT(NAME,$BENTYPF.);
            TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added;
           IF COMPRESS(UPCASE(NAME))=COMPRESS(UPCASE(VAR)) THEN OUTPUT;
         END;
      END;

   KEEP MAJGRP
        REGION
        REGCAT
        BENTYPE
        BENEFIT
        TIMEPD   /*MJS 07/03/03 Added*/
        SEMEAN
        SCORE
        SIG
      ;
   RUN;

%MEND;

***************************************************************************
***************************************************************************
* Process each of the 8 Groups.
***************************************************************************
***************************************************************************;
%MACRO DOIT;
%DO I = 1 %TO 8;
   ************************************************************************
   * COMPOSITE # 1.
   * GETTING NEEDED CARE VARIABLES.
   ************************************************************************;
   %PROCESS(CNUM=1, GNUM=&I, NVAR=2, VARS=R&FY.029_&I R&FY.033_&I,
         SE=S_R&FY.029 S_R&FY.033);

   ************************************************************************
   * COMPOSITE # 2.
   * GETTING CARE QUICKLY VARIABLES.
   ************************************************************************;
   %PROCESS(CNUM=2, GNUM=&I, NVAR=2, VARS=R&FY.007_&I R&FY.010_&I,
         SE=S_R&FY.007 S_R&FY.010);
```

```
   ************************************************************************
   * COMPOSITE # 3.
   * HOW WELL DOCTORS COMMUNICATE.
   ************************************************************************;
   %PROCESS(CNUM=3, GNUM=&I, NVAR=4, VARS=R&FY.021_&I R&FY.022_&I R&FY.023_&I R&FY.024_&I,
         SE=S_R&FY.021 S_R&FY.022 S_R&FY.023 S_R&FY.024);

   ************************************************************************
   * COMPOSITE # 4.
   * CUSTOMER SERVICE.
   ************************************************************************;
   %PROCESS(CNUM=4, GNUM=&I, NVAR=2, VARS=R&FY.041_&I R&FY.042_&I,
         SE=S_R&FY.041 S_R&FY.042);

   ************************************************************************
   * COMPOSITE # 5.
   * CLAIMS PROCESSING.
   ************************************************************************;
   %PROCESS(CNUM=5, GNUM=&I, NVAR=2, VARS=R&FY.046_&I R&FY.047_&I,
         SE=S_R&FY.046 S_R&FY.047);

   ************************************************************************
   * INDIVIDUAL # 1.
   * RATING OF ALL HEALTH CARE: 0 - 10.
   ************************************************************************;
   %PROCESS(CNUM=6, GNUM=&I, NVAR=1, VARS=R&FY.018_&I, SE=S_R&FY.018);

   ************************************************************************
   * INDIVIDUAL # 2.
   * RATING OF HEALTH PLAN: 0 - 10.
   ************************************************************************;
   %PROCESS(CNUM=7, GNUM=&I, NVAR=1, VARS=R&FY.048_&I, SE=S_R&FY.048);

   ************************************************************************
   * INDIVIDUAL # 3.
   * RATING OF PERSONAL DOCTOR: 0 - 10.
   ************************************************************************;
   %PROCESS(CNUM=8, GNUM=&I, NVAR=1, VARS=R&FY.027_&I, SE=S_R&FY.027);

   ************************************************************************
   * INDIVIDUAL # 4.
   * SPECIALTY CARE: 0 - 10.
   ************************************************************************;
   %PROCESS(CNUM=9, GNUM=&I, NVAR=1, VARS=R&FY.031_&I, SE=S_R&FY.031);
%END;
%MEND DOIT;
%DOIT;

***************************************************************************
***************************************************************************
* STACK up all of the files into one final output dataset.
***************************************************************************
***************************************************************************;
/*Comp4 was from questions 40 and 41 and there is no 2007 equivalent*/
DATA OUT.BENCHA04;
   SET COMP1_1  COMP1_2  COMP1_3  COMP1_4  COMP1_5  COMP1_6  COMP1_7  COMP1_8
       COMP2_1  COMP2_2  COMP2_3  COMP2_4  COMP2_5  COMP2_6  COMP2_7  COMP2_8
       COMP3_1  COMP3_2  COMP3_3  COMP3_4  COMP3_5  COMP3_6  COMP3_7  COMP3_8
       COMP4_1  COMP4_2  COMP4_3  COMP4_4  COMP4_5  COMP4_6  COMP4_7  COMP4_8
       COMP5_1  COMP5_2  COMP5_3  COMP5_4  COMP5_5  COMP5_6  COMP5_7  COMP5_8
       COMP6_1  COMP6_2  COMP6_3  COMP6_4  COMP6_5  COMP6_6  COMP6_7  COMP6_8
       COMP7_1  COMP7_2  COMP7_3  COMP7_4  COMP7_5  COMP7_6  COMP7_7  COMP7_8
       COMP8_1  COMP8_2  COMP8_3  COMP8_4  COMP8_5  COMP8_6  COMP8_7  COMP8_8
       COMP9_1  COMP9_2  COMP9_3  COMP9_4  COMP9_5  COMP9_6  COMP9_7  COMP9_8
    ;
    IF SCORE = . THEN DELETE;
RUN;

TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6663-410)";
TITLE2 "Program Name: BENCHA04.SAS By Keith Rathbun";
TITLE3 "Program Inputs: Benchmark Individual and Composite data sets with adjusted scores";
TITLE4 "Program Outputs: BENCHA04.SAS7BDAT - Combined Benchmark Scores Database in WEB layout";
```

```
PROC CONTENTS; RUN;

PROC FREQ;
TABLES TIMEPD BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

G.12.A ReportCards\MPR_Adult2015\PRVCOMP.SAS - Calculate Preventive Care Composite Scores - Annual.

```
*****************************************************************
*  Project:   DoD Reporting and Analysis 6077-410
*  Program:   PRVCOMPQ.SAS
*  Author:    Chris Rankin
*  Date:      12/22/2000
*  Modified:  4/19/2001 By Keith Rathbun: Restrict population to
*             xins_cov in(1,2,3,6).  Use POSTSTR instead of
*             adj_cell.
*  Modified: 1) 11/11/2012 By Mike Rudacille Updated for handling of
*                        Joint Service facilities
*            2) 12/01/2014 By Matt Turbyfill, revised for the Macro Program.
                                   Replaced RCTYPE with &PC.ReportCards
                                   Changed INNORM to "&NORMDATA."
                                   Changed CACLIB to ..\CAHPS_Adult&FYYEAR.\Data
                                   Changed NORMDAT to &NORMFILE.
                                   Changed INDATA to &DATAFILE.
                                   Changed YRDATA to HCS&FY.
                                   Changed YR to &FY.
                                   Changed H11 to H&NY.
                                   Changed H14 to H&FY.;
/*                                 Added lines for "cp&yr.obs&p=.;" and "cp&yr.den&p=.;"
                                   Included DATA step in GETCORR to remove groupings with
only one obs.*
*/
*  Purpose:   Calculate MPR Preventive Care Composites
*  Input:     HCSyyq_1.sas7bdat
*  Output:    RFINAL.sas7bdat
*             CFINAL.sas7bdat
*             MFINAL.sas7bdat
*             SFINAL.sas7bdat
*
*  Include
*   Files:    LOADCAHPQ.INC
*   Notes:    Next program is Loadmprq.sas
*
*             ***CHECK PARAMETER ASSIGNMENTS***
*****************************************************************;

OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 MLOGIC MPRINT
        NOFMTERR COMPRESS=YES;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards                ***/
%LET RCTYPE = &PC.ReportCards;

LIBNAME IN             "..\..\..\Data";
LIBNAME INNORM         "&NORMDATA.";
LIBNAME CACLIB         "..\CAHPS_Adult&FYYEAR.\Data";
LIBNAME OUT            ".";
LIBNAME LIBRARY        "..\..\..\Data\fmtlib";

%LET WGT=CFWT;
%LET NORMWGT = CFWT;
%LET NORMDAT = &NORMFILE.;

%LET DEBUG=N;      /** Set to Y for Debug print of datasets **/
%LET INDATA=&DATAFILE.;

%LET YRDATA=HCS&FY.;
%LET YR=&FY.;

/***** The following parameters are used in the Variance ****/
/***** calcuation macro for region and catchment area    ****/

%LET GRPNUM=8;      /** number of groups          **/
%LET COMPNUM=6;     /** number of variables       **/  /* RSG - 04/2005 changed from 8 to 7
(eliminate cholesterol*/
%LET REGNUM=18;     /** number of regions         **/  /* RSG - 01/2005 CHANGED TO FIT THE 16
CATEGORIES OF XSERVREG */
                                                       /* JSO 08/24/2006 (16 TO 15) Changed
Overseas Regions*/
```

```
                                                        /* MER 11/11/2012 (15 TO 18) Joint
Service */
%LET CATCHNUM=9999; /** number of catchment areas **/

%LET CMPNUM1=4;    /** number of variables in first composite  **/   /*RSG 04/2005 Changed
CMPNUM1 from 5 to 4*/
%LET CMPNUM2=2;    /** number of variables in second composite **/   /*MJS 04/30/03 Changed
CMPNUM2 from 4 to 3*/

%LET COMPCNT=2;    /** number of composites                   **/

**** set up benchmarks for preventive services ;
**** MER 3/31/11 - updated to hp 2020 goals    ;

%LET GOALVAR1= .78;    /** HP Goal for prenatal care        **/
%LET GOALVAR2= .81;    /** HP Goal for Mammography          **/
%LET GOALVAR3= .93;    /** HP Goal for Papsmear             **/
%LET GOALVAR4= .95;    /** HP Goal for Blood Pressure check **/
%LET GOALVAR5= .90;    /** access goals                     **/ /*04/2005 - RSG: DELETED
CHOLESTEROLE GOAL*/
%LET GOALVAR6= .90;

%INCLUDE "..\..\LOADWEB\LOADCAHQ.INC";

*************************************************************;
* Beneficiary group note
*    Eight groups             Definitions
* ___________________________________________________________;
* 1. Prime enrollees          XINS_COV IN (1,2,6) AND H09004>=2
* 2. Enrollees w/mil PCM      XENR_PCM IN (1,2,6) AND H09004>=2
* 3. Enrollees w/civ PCM      XENR_PCM IN (3,7)   AND H09004>=2
* 4. Nonenrollees             XINS_COV IN (3) /*JSO 08/24/2006, Deleted 4,5*/
* 5. Active duty              XBNFGRP = 1
* 6. Active duty dependents   XBNFGRP = 2
* 7. Retirees                 XBNFGRP IN (3,4)
* 8. All beneficiaries        ALL
*************************************************************;

*-----------------------------------------------------
* Add cacsmpl from group8.sd2 dataset - CDR 2/05/2004
*-----------------------------------------------------;

PROC SORT DATA=CACLIB.GROUP8 OUT=GROUP8(KEEP=MPRID CACSMPL XSERVIND);
   BY MPRID;
RUN;

PROC SORT DATA=IN.&INDATA(KEEP=MPRID XINS_COV HP_BP HP_MAMOG
                              HP_PAP HP_PRNTL   /*ES 02/04/04*/
                              XTNEXREG XENR_PCM XBNFGRP ENBGSMPL &WGT FIELDAGE DBENCAT
                              STRATUM H&FY.010 H&FY.007 H&FY.004 H&FY.003 SERVAFF XREGION)
   OUT= &YRDATA; BY MPRID;
RUN;

/**** note -- output all data to a single dataset for macro */
/**** call                                                  */
/**** MACROS are no longer called for catchment areas       */

/* 08/24/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
*LIBNAME LIBRARY '..\..\..\..\2005\Data\fmtlib';

DATA NORMDATA(KEEP=XTNEXREG XSERVREG &WGT PRVVAR1-PRVVAR&COMPNUM. NUMV1-NUMV&COMPNUM.
                  DENV1-DENV&COMPNUM XSERVAFF FIELDAGE);
                  /* 11/15/2006 JSO Added FIELDAGE in the keep statement */

  set INNORM.&NORMDAT(KEEP=MPRID XINS_COV HP_BP HP_MAMOG HP_PAP HP_PRNTL XTNEXREG
                           XENR_PCM XBNFGRP ENBGSMPL &NORMWGT DBENCAT
                           H&NY.010 H&NY.007 H&NY.003 SERVAFF XREGION FIELDAGE XCATCH);
                      /* 08/24/2006 JSO Added XREGION in the keep statement to get XOCONUS */
                      /* 11/15/2006 JSO Added FIELDAGE in the keep statement */
                      /* 05/10/2007 JSO Added H05006, DBENCAT in the keep statement */
                      /* 12/21/2011 MER For switch to 2011 norm data mapped the following vars:
*/
                      /* H05006 -> H&NY.003
*/
```

```
                      /* H05007 -> H&NY.004 (subsequently taken out due to not being necessary
*/
                      /* H05019 -> H&NY.007
*/
                      /* H05022 -> H&NY.010
*/
                      /* H05030 and ADJ_CELL were dropped                                  */

*************************************************************************
* For quarterly reports, catchment level reporting is not done
* so the value of cellp is set to 1.
* For annual reporting purposes, cellp will need to be assigned
* to geocell
*************************************************************************;

/*RSG 02/2005 Added codes to define XTNEXREG & XSERVAFF*/

  IF SERVAFF = 'A' THEN XSERVAFF = 1;        *Army;
  ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;   *Air Force;
  ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;   *Navy;
  ELSE XSERVAFF = 4;                         *Other/unknown;

  IF XCATCH = 37 THEN XCATCH = 67; /* Recode for combining of Walter Reed facilities */

  IF PUT(XCATCH, JOINTSRV.)='1' THEN XSERVAFF=5; *Joint Service;

  IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

  IF XTNEXREG = . THEN DELETE;

  IF XINS_COV NOT IN(1,2,3,6,9,10,11) THEN DELETE;  /*JSO 07/30/2007, Added 9*/

  NXNS_COV = XINS_COV;              /*JSO 04/26/2007 added for reservists logic*/
                                    /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
  IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
  IF DBENCAT IN('GRD','IGR') AND H&NY.003 = 3 THEN DO;
     NXNS_COV = 3;
     XENR_PCM = .;
  END;

  PRVVAR1=HP_PRNTL;        /** prenatal care  **/
  PRVVAR2=HP_MAMOG;        /** mammography    **/
  PRVVAR3=HP_PAP;          /** papsmear       **/
  PRVVAR4=HP_BP;           /** blood pressure **/
  PRVVAR5=H&NY.010;          /** access var 1   **/
  PRVVAR6=H&NY.007;          /** access var 2   **/

/**** set up numerator and denominator for proportions ****/

  ARRAY PRVVAR(*) PRVVAR1-PRVVAR&COMPNUM;
  ARRAY  NUMER(*) NUMV1-NUMV&COMPNUM;
  ARRAY  DENOM(*) DENV1-DENV&COMPNUM;

  DO I = 1 TO &COMPNUM;
     IF I LE  &CMPNUM1 THEN DO;
        IF PRVVAR(I) = 1 THEN NUMER(I) = 1;
        ELSE NUMER(I)=0;
        IF PRVVAR(I) IN (1, 2) THEN DENOM(I)=1;
     END;
     ELSE IF I GT &CMPNUM1 THEN DO;
        IF PRVVAR(I) IN (1, 2) THEN NUMER(I)=1;
        ELSE NUMER(I)=0;
        IF PRVVAR(I) > 0 THEN DENOM(I)=1;
     END;
  END;
  DROP I;
  DENV4=1;


 /*RSG 02/2005 Added codes to define XSERVREG CACSMPL*/

  IF XTNEXREG = 1 THEN DO;
     IF XSERVAFF = 1 THEN XSERVREG = 1;
     ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
```

```
     ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
     ELSE IF XSERVAFF = 4 THEN XSERVREG = 4;
     ELSE XSERVREG = 5;
  END;

  IF XTNEXREG = 2 THEN DO;
     IF XSERVAFF = 1 THEN XSERVREG = 6;
     ELSE IF XSERVAFF = 2 THEN XSERVREG = 7;
     ELSE IF XSERVAFF = 3 THEN XSERVREG = 8;
     ELSE IF XSERVAFF = 4 THEN XSERVREG = 9;
     ELSE XSERVREG = 10;
  END;

  IF XTNEXREG = 3 THEN DO;
     IF XSERVAFF = 1 THEN XSERVREG = 11;
     ELSE IF XSERVAFF = 2 THEN XSERVREG = 12;
     ELSE IF XSERVAFF = 3 THEN XSERVREG = 13;
     ELSE IF XSERVAFF = 4 THEN XSERVREG = 14;
     ELSE XSERVREG = 15;
  END;

  IF XTNEXREG = 4 THEN DO; /*JSO 08/22/2006, Changed Overseas Regions*/
     IF      XREGION = 13 THEN XSERVREG = 16;
     ELSE IF XREGION = 14 THEN XSERVREG = 17;
     ELSE IF XREGION = 15 THEN XSERVREG = 18;
  END;

  /* AMK 8/02/12 - New logic for handling out of catchment OCONUS */
  IF XCATCH = 9904 THEN DO;
     IF XSERVREG <=5 THEN XCATCH=9901;
     ELSE IF XSERVREG <=10 THEN XCATCH=9902;
     ELSE IF XSERVREG <=15 THEN XCATCH=9903;
     ELSE IF XSERVREG = 16 THEN XCATCH=9905;
     ELSE IF XSERVREG = 17 THEN XCATCH=9906;
     ELSE IF XSERVREG = 18 THEN XCATCH=9907;
  END;


  RENAME XCATCH=CACSMPL &NORMWGT = &WGT;
run;

PROC SORT DATA=CACLIB.GROUP8 OUT=GROUP8(KEEP=MPRID CACSMPL XSERVIND);
   BY MPRID;
RUN;

/* 08/22/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
*LIBNAME LIBRARY  "..\..\..\Data\Afinal\fmtlib";

DATA &YRDATA(KEEP=BGROUP MHS USA XSERVAFF CACSMPL &WGT. TMP_CELL
                  PRVVAR1-PRVVAR&COMPNUM. NUM&YR.V1-NUM&YR.V&COMPNUM.
                  DEN&YR.V1-DEN&YR.V&COMPNUM IN_GROUP8
                  XTNEXREG XSERVREG XSERVIND);
                  /* 11/15/2006 JSO Added FIELDAGE in the keep statement */

    MERGE &YRDATA.(IN=IN_1) GROUP8(IN=IN_2); /*CDR 2/05/2004 */
  BY MPRID;
  IF IN_1;
  IF IN_2=1 THEN IN_GROUP8=1;
  ELSE IN_GROUP8=0;



*************************************************************************
* For quarterly reports, catchment level reporting is not done
* so the value of cellp is set to 1.
* For annual reporting purposes, cellp will need to be assigned
* to geocell
*************************************************************************;
  IF SERVAFF = 'A' THEN XSERVAFF = 1;        *Army;
  ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;   *Air Force;
  ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;   *Navy;
  ELSE XSERVAFF = 4;                         *Other/unknown;

  IF PUT(CACSMPL, JOINTSRV.)='1' THEN XSERVAFF=5; *Joint Service;
```

```
  CELLP = 1;
  LENGTH TMP_CELL 8;
  TMP_CELL = STRATUM;   /* Make STRATUM a numeric variable */

  IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

  IF XTNEXREG = . THEN DELETE;

  IF XINS_COV NOT IN(1,2,3,6,9,10,13,14) THEN DELETE;  /*JSO 07/30/2007, Added 9*/ /*AMK 6/17/14
removed 11 added 13/14*/

  NXNS_COV = XINS_COV;   /*JSO 05/14/2007 added for reservists logic*/
                         /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
  IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
  IF DBENCAT IN('GRD','IGR') AND H&FY.003 = 3 THEN DO;
     NXNS_COV = 3;
     XENR_PCM = .;
  END;

  PRVVAR1=HP_PRNTL;        /** prenatal care  **/
  PRVVAR2=HP_MAMOG;        /** mammography    **/
  PRVVAR3=HP_PAP;          /** papsmear       **/
  PRVVAR4=HP_BP;           /** blood pressure **/
  /*RSG 04/2005 - delete cholesterol, renumber PRVVAR below*/
  PRVVAR5=H&FY.010;          /** access var 1   **/
  PRVVAR6=H&FY.007;          /** access var 2   **/


/**** set up numerator and denominator for proportions ****/

  ARRAY PRVVAR(*) PRVVAR1-PRVVAR&COMPNUM;
  ARRAY  NUMER(*) NUM&YR.V1-NUM&YR.V&COMPNUM;
  ARRAY  DENOM(*) DEN&YR.V1-DEN&YR.V&COMPNUM;

  DO I = 1 TO &COMPNUM;
     IF I LE  &CMPNUM1 THEN DO;
        IF PRVVAR(I) = 1 THEN NUMER(I) = 1;
        ELSE NUMER(I)=0;
        IF PRVVAR(I) IN (1, 2) THEN DENOM(I)=1;
     END;
     ELSE IF I GT &CMPNUM1 THEN DO;
        IF PRVVAR(I) IN (1, 2) THEN NUMER(I)=1;
        ELSE NUMER(I)=0;
        IF PRVVAR(I) > 0 THEN DENOM(I)=1;
     END;
  END;
  DROP I;
  DENV4=1;

  MHS= 1;   /* set up dummy for MHS-- include all observations */

 /* 08/22/2006, JSO Create XOUSA for 2005 data */


  IF XTNEXREG = 1 THEN DO;
     IF XSERVAFF = 1 THEN XSERVREG = 1;
     ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
     ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
     ELSE IF XSERVAFF = 4 THEN XSERVREG = 4;
     ELSE XSERVREG = 5;
  END;

  IF XTNEXREG = 2 THEN DO;
     IF XSERVAFF = 1 THEN XSERVREG = 6;
     ELSE IF XSERVAFF = 2 THEN XSERVREG = 7;
     ELSE IF XSERVAFF = 3 THEN XSERVREG = 8;
     ELSE IF XSERVAFF = 4 THEN XSERVREG = 9;
     ELSE XSERVREG = 10;
  END;

  IF XTNEXREG = 3 THEN DO;
     IF XSERVAFF = 1 THEN XSERVREG = 11;
     ELSE IF XSERVAFF = 2 THEN XSERVREG = 12;
```

```
     ELSE IF XSERVAFF = 3 THEN XSERVREG = 13;
     ELSE IF XSERVAFF = 4 THEN XSERVREG = 14;
     ELSE XSERVREG = 15;
  END;

  IF XTNEXREG = 4 THEN DO;
     IF XREGION = 13 THEN XSERVREG = 16;
     ELSE IF XREGION = 14 THEN XSERVREG = 17;
     ELSE IF XREGION = 15 THEN XSERVREG = 18;

  END;

  IF XSERVREG = . THEN DELETE;  /* MER 11/10/10 - Deletes records with imputed TNEXREG = 'O' */
                                /* and missing XOCONUS.  (Only applies to CACSMPL = 9904)    */

/* AMK 8/02/12 - New logic for handling out of catchment OCONUS
   USING CACSMPL INSTEAD OF XCATCH B/C NO RENAME STATEMENT AFTERWARD, AS IN
   SMK_BMI AND STEP1*/

  IF CACSMPL = 9904 THEN DO;
     IF XSERVREG <=5 THEN CACSMPL=9901;
     ELSE IF XSERVREG <=10 THEN CACSMPL=9902;
     ELSE IF XSERVREG <=15 THEN CACSMPL=9903;
     ELSE IF XSERVREG = 16 THEN CACSMPL=9905;
     ELSE IF XSERVREG = 17 THEN CACSMPL=9906;
     ELSE IF XSERVREG = 18 THEN CACSMPL=9907;
  END;

*************************************************************************
* Assign indicator of USA based on XTNEXREG.  USA stands for
* Contential United States it but includes both Alaska and Hawaii.
* 1/16/09 Changed USA to USA.
*************************************************************************;
  IF XTNEXREG IN (1,2,3) THEN USA=1;                                /*RSG 01/2005 OVERALL USA*/

  ELSE IF XTNEXREG = 4 THEN USA=2;

* Prime enrollees     *;

  IF (NXNS_COV IN (1,2,6,13) AND H&FY.004>=2) THEN DO; /*AMK 6/17/14 added 13*/
     BGROUP=1;
     OUTPUT;
  END;

* Enrollees with military PCMs *;
  IF (XENR_PCM IN (1,2,6) AND H&FY.004>=2) THEN DO;   /*ES 02/04/04*/
     BGROUP=2;
     OUTPUT;
  END;


* Enrollees with civilian PCMs *; /*JSO 04/05/2007, added conditions for RC type*/
IF "&RCTYPE" = 'ReportCards' AND
     (XENR_PCM IN (3,7) AND H&FY.004>=2) THEN DO;
     BGROUP=3;
     OUTPUT;
  END;
ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
     ((XENR_PCM IN (3) AND H&FY.004>=2) OR NXNS_COV IN (3,9,10,14)) THEN DO;  /*JSO 07/30/2007,
Added 9*//*AMK 6/17/14 added  14*/
     BGROUP=3;
     OUTPUT;
  END;

* Nonenrollees *;

  IF NXNS_COV IN (3,9,10,14) THEN DO; /*JSO 08/24/2006, Deleted 4,5*//*AMK 6/17/14 added  14*/
     BGROUP=4;                  /*JSO 07/30/2007, Added 9*/
     OUTPUT;
  END;

* Active duty      *;

  IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
```

```
     BGROUP=5;        /*JSO 07/30/2007, added DBENCAT conditions*/
     OUTPUT;
  END;

* Active duty dependents  *;

  IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN DO;
     BGROUP=6;        /*JSO 07/30/2007, added DBENCAT conditions*/
     OUTPUT;
  END;

* Retirees  *;

  IF XBNFGRP IN (3,4) THEN DO;
     BGROUP=7;
     OUTPUT;
  END;

* All beneficiaries *;

  BGROUP=8;
  OUTPUT;
RUN;


PROC FREQ DATA=&YRDATA;
   TABLES IN_GROUP8/MISSING LIST;
   TITLE "OVERLAP BETWEEN &INDATA AND GROUP8 DATA";
RUN;

**** Next, check catchment areas for requisite number of observations ;
**** for the macro calls (exclude cacsmpl w/ <2 obs)                  ;
**** also, keep list of region/catchment area combinations            ;


PROC FREQ  DATA=&YRDATA;
    TABLE BGROUP*MHS*USA*XSERVind*CACSMPL/MISSING LIST
    OUT=OBSCNT(DROP=PERCENT);
RUN;


PROC SORT DATA=&YRDATA; BY BGROUP MHS USA XSERVind CACSMPL;
RUN;

DATA HCSDB /*FAILED*/;
   MERGE &YRDATA(IN=IN_ALL) OBSCNT(IN=IN_OBS);
   BY BGROUP MHS USA XSERVind CACSMPL;
   IF COUNT < 2 THEN DO;
       PUT "Failed obs # criterion: XSERVREG=" XSERVREG "CACSMPL=" CACSMPL;
       *OUTPUT FAILED;
   END;
*   ELSE OUTPUT HCSDB;
RUN;

DATA OBSCNT;
   SET OBSCNT;
   RENAME BGROUP=GROUP;
RUN;

PROC SORT NODUPKEY DATA=OBSCNT; BY GROUP CACSMPL;
RUN;




*******************************************************
*** First, calculate standard errors and create     ***
*** a file for each analytical unit                 ***
*******************************************************;

PROC SORT DATA=HCSDB; BY TMP_CELL;
RUN;

*******************************************************
```

```
***** Sudaan macro to calculate standard errors   *****
***** there are three output datasets created     *****
***** (XTNEXREG, XSERVREG, MHS, XSERVAFF)                     *****
***** Note:  7/10/2000 use USA for MHS          *****
***** Note:  there are 8 variables and 8 groups   *****
***** Note:  1/16/09 Changed USA to USA         *****
*****************************************************;

%MACRO A_SUDAAN(TABLEVAR);

*** set the number of levels in the proc descript ***;
*** for region or catchment                       ***;

 %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
     %LET ENDNUM=4;
     %LET PREF=S;         /** dataset prefix for service affiliation data    **/
 %END;
 %IF %UPCASE(&TABLEVAR)=XSERVREG %THEN %DO;
     %LET ENDNUM=&REGNUM;
     %LET PREF=R;         /** dataset prefix for region data    **/
 %END;
 %ELSE %IF %UPCASE(&TABLEVAR)=USA %THEN %DO;
     %LET ENDNUM=1;
     %LET PREF=C;         /** dataset prefix for catchement area data **/
 %END;
 %ELSE %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
     %LET ENDNUM=5;      /** RSG 01/2005 Change level of USA to 4 **/
     %LET PREF=M;        /** MER 11/11/2012 Change from 4 to 5 for Joint Service **/
 %END;
%ELSE %IF %UPCASE(&TABLEVAR)=CACSMPL %THEN %DO;
     %LET ENDNUM=&CATCHNUM;
     %LET PREF=D;         /** dataset prefix for catchement area data **/
 %END;

 %DO I=1 %TO &GRPNUM;     /** 8 groups    **/

     %DO J=1 %TO &COMPNUM;   /** 6 variables **/

           DATA INDATA&I.&J(KEEP=&WGT MHS USA XTNEXREG XSERVREG XSERVAFF
                              CACSMPL NUM&YR.V&J DEN&YR.V&J TMP_CELL);
           SET HCSDB;
           WHERE XSERVREG > 0 AND BGROUP=&I AND DEN&YR.V&J > 0;
           %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
               IF XSERVAFF > 5 OR XSERVAFF = . THEN DELETE;  /*RSG 01/2005 Delete USA greater
than 4 which are not USA */
           %END;                                             /*MER 11/11/2012 Changed from 4 to
5 for Joint Service */
           %IF %UPCASE(&TABLEVAR)=USA %THEN %DO;
               IF USA NE 1 THEN DELETE;
           %END;
           %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
               IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
           %END;
         RUN;

*** Calculate values for regions, catchment areas ****;


            PROC DESCRIPT DATA=INDATA&I.&J DESIGN=STRWR NOPRINT;
                WEIGHT &WGT;
                SETENV DECWIDTH=4;
                NEST TMP_CELL / MISSUNIT;
                VAR NUM&YR.V&J;
                TABLES &TABLEVAR;
                SUBGROUP &TABLEVAR;
                LEVELS &ENDNUM;
                OUTPUT SEMEAN/ TABLECELL=DEFAULT REPLACE
                FILENAME=&PREF.GRP&I.V&J;
            RUN;


***** first, put all variables into one dataset for each group *****;

         DATA &PREF.GRP&I.V&J;
```

```
            SET &PREF.GRP&I.V&J;
            IF SEMEAN NE .;
            MHS=1;
          RUN;

         %IF &J=1 %THEN %DO;
            DATA &PREF.SEGRP&I;
               SET &PREF.GRP&I.V&J(KEEP=&TABLEVAR SEMEAN);
               GROUP=&I;
               IF SEMEAN NE .;
               RENAME SEMEAN = SERR&YR.V&J;
            RUN;
         %END;
         %ELSE %DO;
            DATA &PREF.SEGRP&I;
               MERGE &PREF.SEGRP&I &PREF.GRP&I.V&J(KEEP=&TABLEVAR SEMEAN);
               BY &TABLEVAR;
               GROUP=&I;
               RENAME SEMEAN = SERR&YR.V&J;
            RUN;
         %END;
     %END;

***** Put all data into one dataset  *****
***** Note:  changed output dataset  *****
***** to include group               *****;

     %IF &I=1 %THEN %DO;

        DATA &PREF.SERR;
           SET &PREF.SEGRP&I;
           KEEP GROUP &TABLEVAR SERR&YR.V1-SERR&YR.V&COMPNUM;
        RUN;
     %END;
     %ELSE %DO;

        DATA &PREF.SERR;
           SET &PREF.SERR
           &PREF.SEGRP&I;
        RUN;
     %END;

******** DEBUG PRINT   *******;

     %IF &DEBUG=Y %THEN %DO;
        %IF &I=&GRPNUM AND &PREF=R %THEN %DO;
             PROC PRINT DATA=&PREF.SERR;
                VAR &TABLEVAR GROUP SERR&YR.V1-SERR&YR.V&COMPNUM;
             RUN;
        %END;
     %END;

 %END;

%MEND A_SUDAAN;

%A_SUDAAN (USA);
%A_SUDAAN (XSERVAFF);
%A_SUDAAN (XSERVREG);
%A_SUDAAN (XTNEXREG);
%A_SUDAAN (CACSMPL);

*******************************************************
*** Next, calculate correlation coefficients         ***
*** and create a file for each analytical unit       ***
*******************************************************;

%MACRO GETCORR(BYVAR);

 %IF %UPCASE(&BYVAR)=XTNEXREG %THEN %LET PREF=S;
 %ELSE %IF %UPCASE(&BYVAR)=XSERVREG %THEN %LET PREF=R;
 %ELSE %IF %UPCASE(&BYVAR)=USA %THEN %LET PREF=C;
 %ELSE %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %LET PREF=M;
 %ELSE %IF %UPCASE(&BYVAR)=CACSMPL %THEN %LET PREF=D;
```

```
 PROC SORT DATA=HCSDB; BY &BYVAR BGROUP;
 RUN;



 DATA HCSDB1;
       SET HCSDB;
       BY &BYVAR. BGROUP;
       IF FIRST.BGROUP NE 1 OR LAST.BGROUP NE 1;
 RUN;



 %DO I = 1 %TO &GRPNUM;

    PROC CORR NOPRINT DATA=HCSDB1 OUTP=&PREF.CORRC&I;
       %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %DO;
          WHERE BGROUP=&I AND 1 <= XSERVAFF <= 5;     /** RSG 0/2005 Change USA values to keep
to be between 1-4 **/
       %END;                                          /*MER 11/11/2012 Changed from 4 to 5 for
Joint Service */
       %IF %UPCASE(&BYVAR)=USA %THEN %DO;
          WHERE BGROUP=&I AND USA = 1;
       %END;
       %ELSE %DO;
          WHERE BGROUP=&I;
       %END;
       BY &BYVAR;
       VAR PRVVAR1-PRVVAR&COMPNUM;
       WITH PRVVAR1-PRVVAR&COMPNUM;
       WEIGHT &WGT;
    RUN;

    DATA &PREF.CORRC&I;
      SET &PREF.CORRC&I;
      WHERE _TYPE_="CORR";
      GROUP=&I;
      ARRAY OLD PRVVAR1-PRVVAR&COMPNUM;
      ARRAY NEW COR&YR.V1-COR&YR.V&COMPNUM;
      DO J = 1 TO &COMPNUM;
         NEW(J)=OLD(J);
      END;
      DROP J PRVVAR1-PRVVAR&COMPNUM;
    RUN;

    %IF &I=1 %THEN %DO;

       DATA &PREF.CORRC;
         SET &PREF.CORRC&I;
       RUN;

    %END;
    %ELSE %DO;

       DATA &PREF.CORRC;
         SET &PREF.CORRC
         &PREF.CORRC&I;
       RUN;

    %END;
    %IF &DEBUG=Y %THEN %DO;
        %IF &I=&COMPNUM AND &PREF=R %THEN %DO;
           PROC PRINT DATA=&PREF.CORRC;
              WHERE GROUP=1;
           RUN;
        %END;
    %END;
 %END;

*** Flatten dataset(for each region, condense matrix to one row) ***;

 %DO K=1 %TO &COMPNUM;
```

```
    DATA &PREF.CORR&K;
      SET &PREF.CORRC;
      WHERE _NAME_ = "PRVVAR&K";
      ARRAY CORR   (&COMPNUM) COR&YR.V1-COR&YR.V&COMPNUM;
      ARRAY CORR&K (&COMPNUM) COR&YR.V&K.1-COR&YR.V&K.&COMPNUM;
      DO L=1 TO &COMPNUM;
         CORR&K(L)=CORR(L);
      END;
      KEEP GROUP &BYVAR COR&YR.V&K.1-COR&YR.V&K.&COMPNUM;
    RUN;
    %IF &K=1 %THEN %DO;
        DATA &PREF.CORR;
          SET &PREF.CORR&K;
        RUN;
    %END;
    %ELSE %DO;
       DATA &PREF.CORR;
         MERGE &PREF.CORR(IN=IN_1) &PREF.CORR&K(IN=IN_2);
          BY GROUP &BYVAR;
       RUN;
    %END;
    %IF &DEBUG=Y %THEN %DO;
       %IF &PREF=R %THEN %DO;
          PROC PRINT DATA=&PREF.CORR;
             WHERE GROUP=1;
          RUN;
       %END;
     %END;
 %END;

%MEND GETCORR;

%GETCORR(USA);
%GETCORR(XSERVAFF);
%GETCORR(XSERVREG);
%GETCORR(XTNEXREG);
%GETCORR(CACSMPL);

*******************************************************
***  Macro to derive composites for each         *******
***  beneficiary group, level                    *******
***  output one dataset for each group           *******
*******************************************************;

%MACRO GETPROP(BYVAR);

 %LET START = %EVAL(&CMPNUM1+1);

 %IF %UPCASE(&BYVAR)=XSERVREG %THEN %LET PREF=R;
 %ELSE %IF %UPCASE(&BYVAR)=USA %THEN %LET PREF=C;
 %ELSE %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %LET PREF=M;
 %ELSE %IF %UPCASE(&BYVAR)=XTNEXREG %THEN %LET PREF=S;
 %ELSE %IF %UPCASE(&BYVAR)=CACSMPL %THEN %LET PREF=D;

 PROC MEANS NWAY NOPRINT DATA=HCSDB;
    CLASS BGROUP &BYVAR;
    VAR NUM&YR.V1-NUM&YR.V&COMPNUM
        DEN&YR.V1-DEN&YR.V&COMPNUM;
    WEIGHT &WGT;
    OUTPUT OUT= &PREF.CMPSUM(DROP = _TYPE_)
    SUM =  ;
 RUN;
 PROC MEANS NWAY NOPRINT DATA=normdata;
 *   CLASS &BYVAR;
    VAR
        DENV1-DENV&COMPNUM;
    WEIGHT &wgt.;
    OUTPUT OUT= &PREF.norms(DROP = _TYPE_)
    SUM =  nrmv1-nrmv&compnum;
 RUN;

 PROC MEANS NWAY NOPRINT DATA=HCSDB;
    CLASS BGROUP &BYVAR;
    VAR DEN&YR.V1-DEN&YR.V&COMPNUM;
```

```
    OUTPUT OUT=&PREF.DGFR(DROP=_TYPE_ _FREQ_)
    SUM= NOBS&YR.V1-NOBS&YR.V&COMPNUM;
 RUN;

data &pref.cmpsum;

if _n_=1 then set &pref.norms;
set &pref.cmpsum;
proc sort data=&pref.cmpsum; by bgroup &byvar;
 DATA &PREF.CMPSUM;
    MERGE &PREF.CMPSUM(RENAME=(_FREQ_=N_OBS&YR.))
          &PREF.DGFR;
    BY BGROUP &BYVAR;
    %IF &PREF=M %THEN %DO;  /** added 7/10/2000 **/
        WHERE 1 <= XSERVAFF <= 5;         /** RSG 01/2005 Change USA values to keep to be
between 1-4 **/
    %END;                                 /*MER 11/11/2012 Changed from 4 to 5 for Joint Service
*/
    %ELSE %IF &PREF=C %THEN %DO;
        WHERE USA = 1;
    %END;

   **** set up group variable  **;

    RENAME BGROUP=GROUP;;

   **** set up proportions, and composites **;

   ARRAY PROPORT PROP&YR.V1-PROP&YR.V&COMPNUM;
   ARRAY NUMER   NUM&YR.V1-NUM&YR.V&COMPNUM;
   ARRAY DENOM   DEN&YR.V1-DEN&YR.V&COMPNUM;
   array norm    nrmv1-nrmv&compnum;

   DO J=1 TO DIM(PROPORT);
      PROPORT(J) = NUMER(J)/DENOM(J);
   END;
   DROP J;

  **** composites **;


** added goalvars to datastep, 5/30/2000                ;
** taken out of temporary array for variance calculations;
** and used, kept as variables                          ;

  GOALVAR1=&GOALVAR1;
  GOALVAR2=&GOALVAR2;
  GOALVAR3=&GOALVAR3;
  GOALVAR4=&GOALVAR4;
  GOALVAR5=&GOALVAR5;
  GOALVAR6=&GOALVAR6;
/*RSG 04/2005 - delete goal8 since chol eliminated*/

** the weight for preventive service is defined as the         ;
** proportion of the denominator for that service to the       ;
;
** composite denominator                                       ;
** healthy people 2000 goals -- used as benchmarks             ;

  ARRAY   SVCWGT(&COMPNUM) WGT&YR.V1-WGT&YR.V&COMPNUM;
  ARRAY    BMARK(&COMPNUM) GOALVAR1-GOALVAR&COMPNUM;
  ARRAY WGTBMARK(&COMPNUM) WTD&YR.V1-WTD&YR.V&COMPNUM;
  array comp(&compnum) cmp&yr.v1-cmp&yr.v&compnum;
cpden1=sum(of nrmv1-nrmv&cmpnum1);
cpden2=sum(of nrmv&start-nrmv&compnum);
  DO K = 1 TO &COMPNUM;
      IF K < &START THEN SVCWGT(K)= norm(K)/CPDEN1;
      ELSE SVCWGT(K) = norm(K)/CPDEN2;
      WGTBMARK(K) = SVCWGT(K)*BMARK(K);
      comp(k)=svcwgt(k)*proport(k);
  END;
  DROP K;
   CP&YR.BMK1=SUM(OF WTD&YR.V1-WTD&YR.V&CMPNUM1);
   CP&YR.BMK2=SUM(OF WTD&YR.V&START-WTD&YR.V&COMPNUM);
```

```
   comp&yr.1=sum(of cmp&yr.v1-cmp&yr.v&cmpnum1);
   comp&yr.2=sum(of cmp&yr.v&start-cmp&yr.v&compnum);
   DROP WGT&YR.V1-WGT&YR.V&COMPNUM WTD&YR.V1-WTD&YR.V&COMPNUM
        NUM&YR.V1-NUM&YR.V&COMPNUM;

 RUN;

 %IF &DEBUG=Y AND &PREF=R %THEN %DO;
     PROC PRINT DATA=&PREF.CMPSUM;  /* print out final dataset */
     RUN;                               /* for region to check     */
 %END;

%MEND GETPROP;

%GETPROP(USA);
%GETPROP(XSERVAFF);
%GETprop(XSERVREG);
%GETPROP(XTNEXREG);
%GETProp(CACSMPL);

*******************************************************
** since MHS benchmarks will be displayed           ****
** set up adjustment factor to apply to             ****
** each analytical unit's composite benchmarks      ****
*******************************************************;


DATA ADJUST;
   SET MCMPSUM(KEEP=GROUP CP&YR.BMK1 CP&YR.BMK2);
   WHERE GROUP=8;           /** use all beneficiaries **/
   RENAME CP&YR.BMK1=MHS&YR.BM1;
   RENAME CP&YR.BMK2=MHS&YR.BM2;
   DROP GROUP;
RUN;


*******************************************************
***  Macro to merge 3 datasets for each          *******
***  called by analytical unit                   *******
***  output final dataset for                    *******
***  XSERVAFF, XSERVREG, XTNEXREG, MHS (USA)     *******
*******************************************************;

PROC FORMAT;  /*RSG 02/2005 - hardcoded in prog to have caps vs format in loadcahq.inc*/
   VALUE REGIONF
      0 = "USA MHS "
      1 = "NORTH"
      2 = "SOUTH"
      3 = "WEST"
      4 = "OVERSEAS"
   ;
%MACRO GETSIG(BYVAR);

 %LET START = %EVAL(&CMPNUM1+1);
 %LET NEXT  = %EVAL(&CMPNUM1+2);

 %IF %UPCASE(&BYVAR)=XSERVREG %THEN %LET PREF=R;
 %ELSE %IF %UPCASE(&BYVAR)=USA %THEN %LET PREF=C;
 %ELSE %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %LET PREF=M;
 %ELSE %IF %UPCASE(&BYVAR)=XTNEXREG %THEN %LET PREF=S;
 %ELSE %IF %UPCASE(&BYVAR)=CACSMPL %THEN %LET PREF=D;


 DATA OUT.&PREF.FINAL (KEEP= MAJGRP REGION REGCAT GOALVAR1-GOALVAR&COMPNUM
                SIG&YR.V1-SIG&YR.V&COMPNUM SCOR&YR.V1-SCOR&YR.V&COMPNUM
                CP&YR.SIG1-CP&YR.SIG&COMPCNT CP&YR.1SE CP&YR.2SE
                CP&YR.BMK1-CP&YR.BMK&COMPCNT
                SERR&YR.V1-SERR&YR.V&COMPNUM CP&YR.1SE CP&YR.2SE
                COMP&YR.1 COMP&YR.2 PROP&YR.V1-PROP&YR.V&COMPNUM
                DF&YR.SCR1-DF&YR.SCR&COMPNUM DF&YR._CP1 DF&YR._CP2
                NOBS&YR.V1-NOBS&YR.V&COMPNUM CP&YR.OBS1-CP&YR.OBS&COMPCNT
                DEN&YR.V1-DEN&YR.V&COMPNUM CP&YR.DEN1-CP&YR.DEN&COMPCNT);
```

```
  /** output a dataset to check **/

    /* OUT.&PREF.CHECK(DROP=DROP=SESQ&YR.V1-SESQ&YR.V&COMPNUM
                           PROP&YR.V1-PROP&YR.V&COMPNUM
                           SEM&YR.V11-SEM&YR.V&COMPNUM.&COMPNUM);*/

   FORMAT MAJGRP $30. REGION $30. REGCAT $42.; /* MER 11/11/12 - Updated REGION for Joint
Service facilities */

   %IF &PREF=D %THEN %DO;

      MERGE OBSCNT(IN=IN_OBS) &PREF.CMPSUM(IN=IN_PROP) &PREF.CORR
            &PREF.SERR;
      BY GROUP &BYVAR;
      IF IN_OBS;

   %END;
   %ELSE %DO;

      MERGE &PREF.CMPSUM(IN=IN_PROP) &PREF.CORR
            &PREF.SERR;
      BY GROUP &BYVAR;
      IF IN_PROP;

   %END;

   /**  MAJGRP -- text field for group   **/

       IF GROUP=1 THEN MAJGRP="Prime Enrollees            ";
   ELSE IF GROUP=2 THEN MAJGRP="Enrollees with Military PCM";
   ELSE IF GROUP=3 THEN MAJGRP="Enrollees with Civilian PCM";
   ELSE IF GROUP=4 THEN MAJGRP="Non-enrolled Beneficiaries ";
   ELSE IF GROUP=5 THEN MAJGRP="Active Duty                ";
   ELSE IF GROUP=6 THEN MAJGRP="Active Duty Dependents     ";
   ELSE IF GROUP=7 THEN MAJGRP="Retirees and Dependents    ";
   ELSE IF GROUP=8 THEN MAJGRP="All Beneficiaries          ";


   /**** REGION AND REGCAT SETUP          **/

   %IF &PREF=D %THEN %DO;
      REGCAT=PUT(CACSMPL, CACR.);
      REGION=PUT(XSERVind, SERVREGo.);
   %END;
   %IF &PREF=S %THEN %DO;
       REGCAT=PUT(XTNEXREG,REGIONF.);
       REGION=PUT(XTNEXREG,REGIONF.);
   %END;
   %else %IF &PREF=C %THEN %DO;
       REGION="USA MHS";
       REGCAT="USA MHS";
   %END;
   %ELSE %IF &PREF=R %THEN %DO;
       REGION=PUT(XSERVREG, SERVREGo.);
       REGCAT=PUT(XSERVREG, SERVREGo.);
   %END;
   %ELSE %IF &PREF=M %THEN %DO;                     /** RSG 1/2005 Add codes for service
grouping **/
       REGION=PUT(XSERVAFF,XSERVAFF.);
       REGCAT=PUT(XSERVAFF,XSERVAFF.);
   %END;

   /**** setup t statistics, degreees of freedom    **/

   ARRAY    TSTAT{&COMPNUM} T_&YR.V1-T_&YR.V&COMPNUM;
   ARRAY    BMARK{&COMPNUM} GOALVAR1-GOALVAR&COMPNUM;
   ARRAY  STNDERR{&COMPNUM} SERR&YR.V1-SERR&YR.V&COMPNUM;
   ARRAY  SERRSQR{&COMPNUM} SESQ&YR.V1-SESQ&YR.V&COMPNUM;
   ARRAY     DEGF{&COMPNUM} DF&YR.SCR1-DF&YR.SCR&COMPNUM;
   ARRAY    DENOM{&COMPNUM} DEN&YR.V1-DEN&YR.V&COMPNUM;
   ARRAY  PROPORT{&COMPNUM} PROP&YR.V1-PROP&YR.V&COMPNUM;
   ARRAY    SCORE{&COMPNUM} SCOR&YR.V1-SCOR&YR.V&COMPNUM;
   ARRAY   PVALUE{&COMPNUM} PVAL&YR.V1-PVAL&YR.V&COMPNUM;
   ARRAY      SIG{&COMPNUM} SIG&YR.V1-SIG&YR.V&COMPNUM;
```

```
 ARRAY    N_OBS{&COMPNUM} NOBS&YR.V1-NOBS&YR.V&COMPNUM;
 array    norm{&compnum} nrmv1-nrmv&compnum;
 /** get the item variance, t-statistics, df, p-values **/
 /** and whether significant                            **/

 DO I=1 TO &COMPNUM;
    SERRSQR{I}=STNDERR{I}**2;  /* Item variance */
    SCORE{I}=PROPORT{I}*100;   /* Score (prop. * 100) */
    IF STNDERR{I} > 0 THEN TSTAT{I}=(PROPORT{I}-BMARK{I})/STNDERR{I};
    ELSE TSTAT{I}=.;
    DEGF{I}=N_OBS{I}-1;
    PVALUE{I}=(1-PROBT(ABS(TSTAT{I}),DEGF{I}))*2;
    IF PVALUE{I} GE .05 THEN SIG{I}=0;
    ELSE IF PVALUE{I} < .05 THEN DO;
       IF PROPORT{I} > BMARK{I} THEN SIG{I}=1;
       IF PROPORT{I} < BMARK{I} THEN SIG{I}=-1;
    END;
 END;
 DROP I;



%DO I=1 %TO &COMPNUM.&COMPNUM.;
            SEM&YR.V&I. = 0;
%END;



 /** multiply each item pair std. errors and correlation coefficients **/
 /** preventive care composite                                        **/

 ARRAY SERRC1{&CMPNUM1} SERR&YR.V1-SERR&YR.V&CMPNUM1;
 ARRAY SEwC1{&CMPNUM1} SEw&YR.V1-SEw&YR.V&CMPNUM1;
 %DO J = 1 %TO &CMPNUM1;
    ARRAY  SMEAN&J{&CMPNUM1} SEM&YR.V&J.1-SEM&YR.V&J.&CMPNUM1;
    ARRAY CORVAR&J{&CMPNUM1} COR&YR.V&J.1-COR&YR.V&J.&CMPNUM1;
    DO K=1 TO &CMPNUM1;
       SMEAN&J{K}=SERR&YR.V&J*SERRC1{K}*CORVAR&J{K}*norm{K}*nrmV&J;
    END;
    SEM&YR.V&J.&J=0; /** don't count in final standard error calculation **/
    sew&yr.v&j= (nrmV&j**2)*SESQ&YR.V&j;
    %END;
 DROP K;
 /** multiply each item pair std. errors and correlation coefficients **/
 /** access to care composite                                         **/

 ARRAY SERRC2{&CMPNUM2} SERR&YR.V&START-SERR&YR.V&COMPNUM;

 %DO L = &START %TO &COMPNUM;
    ARRAY  SMEAN&L{&CMPNUM2} SEM&YR.V&L.&START-SEM&YR.V&L.&COMPNUM;
    ARRAY CORVAR&L{&CMPNUM2} COR&YR.V&L.&START-COR&YR.V&L.&COMPNUM;
    DO M=1 TO &CMPNUM2;
       SMEAN&L{M}=SERR&YR.V&L*SERRC2{M}*CORVAR&L{M};
    END;
    SEM&YR.V&L.&L=0;  /** don't coun't in final standard error calculation **/
  %END;
  DROP M;
/** calculate composite t-statistic, pvalue, and whether significant **/
/** for composites                                                   **/

  %DO P=1 %TO &COMPCNT;
     %IF &P=1 %THEN %DO;

        /** composite standard error comprised of two parts **/
        CP&YR.&P.SE1=SUM(OF SEw&YR.V1-SEw&YR.V&CMPNUM1);
        CP&YR.&P.SE2=SUM(OF SEM&YR.V11-SEM&YR.V&CMPNUM1.&CMPNUM1.);
        cp&yr.obs&p=sum(of nobs&yr.v1-nobs&yr.v&cmpnum1);
        cp&yr.den&p=sum(of nrmv1-nrmv&cmpnum1);
     %END;
     %ELSE %DO;
        CP&YR.&P.SE1=SUM(OF SESQ&YR.V&START-SESQ&YR.V&COMPNUM);
        CP&YR.&P.SE2=SUM(OF SEM&YR.V&START.&START.-SEM&YR.V&COMPNUM.&COMPNUM.);
        cp&yr.obs&p=.;
        cp&yr.den&p=.;
```

```
      %END;

    /** add the two parts of the composite standard error  **/
    /** calculate the composite t statistics and p-values  **/
    /** determine whether differences re sigificant       **/

    /**RSG - 02/2005 Some of the following codes will produce some
             "error" (e.g., fields that are not initialized) - these
             are "leftover" codes from previous versions of the survey
             where 2 composite scores were produced.  Now since we only
             use 1 composite score, these are basically calculations that
             are not used...but kept in "just in case"**/
      IF CP&YR.DEN&P > 0 THEN CP&YR.&P.SE=SQRT(CP&YR.&P.SE2+CP&YR.&P.SE1)/cp&yr.den&P;  /*RSG
02/2005 prevent division by zero*/
      ELSE CP&YR.&P.SE = .;
      IF CP&YR.&P.SE > 0 THEN CP&YR._T&P.=(COMP&YR.&P.-CP&YR.BMK&P.)/CP&YR.&P.SE;
      ELSE CP&YR._T&P.= .;
      DF&YR._CP&P.=CP&YR.OBS&P. - 1;
      CP&YR._P&P.=(1-PROBT(ABS(CP&YR._T&P.),DF&YR._CP&P.))*2;
      IF CP&YR._P&P GE .05 THEN CP&YR.SIG&P=0;
      ELSE IF CP&YR._P&P < .05 THEN DO;
         IF COMP&YR.&P. > CP&YR.BMK&P THEN CP&YR.SIG&P= 1;
         ELSE IF COMP&YR.&P. < CP&YR.BMK&P THEN CP&YR.SIG&P=-1;
      END;

    %END;

    OUTPUT OUT.&PREF.FINAL;

    /*%IF &PREF=M %THEN %DO;
      OUTPUT OUT.&PREF.CHECK;
    %END; */

 RUN;

 PROC SORT DATA = OUT.&PREF.FINAL;BY MAJGRP REGION REGCAT;RUN;


%MEND GETSIG;

/** RSG 02/2005 - Any errors relating to unintialized fields such as
    cp&yr.den2 or cp&yr.obs2 can be ignored - these (as well as field
    that uses these fields for calculations, e.g. df&yr._cp2, are not
    used **/
%GETSIG(USA);
%GETSIG(XTNEXREG);
%GETSIG(XSERVREG);
%GETSIG(XSERVAFF);
%GETSIG(CACSMPL);
```

G.12.B ReportCards\MPR_Adult2015\smoking_BMI.sas - Calculate Healthy Behavior Composite Scores - Annual.

```
***************************************************************************
*
*  Project:   DoD Reporting and Analysis 6077-410
*  Program:   SMOKING_BMI.SAS
*  Purpose:   Calculate Smoking Rate and Smoking Cessation
*             for each region-service affiliation and
*             conus-service affiliation groups.
*
*  Date:      1/31/2005
*  Author:    Regina Gramss
*
*  Modified: 27) 11/11/2012 By Mike Rudacille Updated for handling of Joint Service facilities
*            28) 12/01/2014 By Matt Turbyfill, revised for the Macro Program.
                                  Replaced RCTYPE with &PC.ReportCards
                                  Changed BENCH to "&BENCHINPUT."
                                  Changed INNORM to "&NORMDATA."
                                  Changed INGP to ..\CAHPS_ADULT&FYYEAR.\DATA
                                  Changed DSN to &DATAFILE.
                                  Changed DSN_NORM to &NORMFILE.
                                  Changed CURRENT to &FYYEAR.
                                  Changed C13_ZAMV to &BENCHFILE.
                                  Added LIBRARY "&NORMFMTLIB."
                                  Removed line referencing JOINTSRV in the NORMDATA step.
                                  Changed LOADCAHQ to "..\..\LOADWEB\LOADCAHQ.INC"
                                  Changed H11 to H&NY.
                                  Changed H14 to H&FY.
                                  Added LIBRARY '..\..\..\Data\fmtlib'.
                                  Added NSUM = ROUND(NSUM,1)
*
*   Inputs:   1) HCS11A_2.sas7bdat - Annual 2011 Survey data
*             2) HCS13A_2.sas7bdat - Annual 2013 Survey data
*             3) AC2011DB.sas7bdat - 2011 CAHPS Benchmark Data
*
*   Output:   1) SMOKE.sas7bdat
*
*
***************************************************************************;

OPTIONS COMPRESS=YES NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards                ***/
%LET RCTYPE = &PC.ReportCards;

LIBNAME BENCH       "&BENCHINPUT.";
LIBNAME INDAT       "..\..\..\Data";
LIBNAME INNORM      "&NORMDATA.";
LIBNAME OUT         ".";
LIBNAME LIBRARY '..\..\..\Data\fmtlib';
LIBNAME INGP "..\CAHPS_ADULT&FYYEAR.\DATA";

%LET DSN=&DATAFILE.;
%LET DSN_NORM=&NORMFILE.;                 /*JSO 08/24/2006, Changed Regions, 16 to 15*/ /* MER
11/03/12 15 to 18 */
%LET REGNUM = 18;                       /*RSG 01/2005 Number of Regions (with serv
affiliation)*/
%LET CONNUM = 4;                        /*RSG 01/2005 Number of Conus level (with serv
affiliation)*/
%LET SRVNUM = 5;                        /*MER 11/03/2012 Number of service affiliations,
including Joint Service */
%LET CURRENT = &FYYEAR.;
%LET WGT = CFWT;
%LET NORMWGT = CFWT;
%LET CATCHNUM=9999;                     /*RSG 02/2005 number of catchment areas **/

DATA BENCHA01;
   SET BENCH.&BENCHFILE. ;
   if rep_typ in ("HMO/PPO Combined", "PPO") then model = 1;
   else model = 2;
   if disp in ('M10','I10')  ;
```

```
   if S46 in (1,2) & S47>=1 & S47<=4;  /*02/2006 RSG - REMOVED REQUIREMENT FOR ADDITIONAL VISIT
(ACC22 FIELD)*/
   cessbnch=0;
   if S47>1 then cessbnch=1;



proc summary nway; class sub_id;
var cessbnch;
output out=tbench mean=;
proc print;
proc summary;
var cessbnch;
output out=tbench mean=;
proc print;
data _null_;
set tbench;
call symput('CNSLGOAL',cessbnch);
run;

%LET NSMKGOAL = 0.88;

%LET BMIGOAL  = 0.69;

%INCLUDE "..\..\LoadWeb\LOADCAHQ.INC";

PROC FORMAT;
VALUE AGEF
LOW - 34 = 1
 35 - 49 = 2
 50 - 64 = 3
 65 - HIGH = 4;

/* 08/22/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
LIBNAME LIBRARY "&NORMFMTLIB.";


DATA NORMDATA (KEEP=TMP_CELL AGE_GRP XTNEXREG XSERVREG XSERVAFF
                    SM_RATE SM_CESS SM_RTDN SM_CSDN  BMI_DN BMI
                    TOTCON GROUP XSEXA &WGT. age_n MPCSMPL CACSMPL NXNS_COV);
                    /* 05/10/2007 JSO Added NXNS_COV in the keep statement */
SET INNORM.&DSN_NORM. (DROP=CACSMPL) ;
LENGTH AGE_N AGE_GRP TMP_CELL 8.;


TMP_CELL=STRATUM;

AGE_N = FIELDAGE;

AGE_GRP = PUT(AGE_N, AGEF.);
IF AGE_GRP < 4;

IF SERVAFF = 'A' THEN XSERVAFF = 1;         *Army;
ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;   *Air Force;
ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;   *Navy;
ELSE XSERVAFF = 4;                          *Other/unknown;

IF XCATCH = 37 THEN XCATCH = 67; /* Recode for combining of Walter Reed facilities */





IF XTNEXREG = 1 THEN DO;
   IF XSERVAFF = 1 THEN XSERVREG = 1;
   ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
   ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
   ELSE IF XSERVAFF = 4 THEN XSERVREG = 4;
   ELSE XSERVREG = 5;
END;

IF XTNEXREG = 2 THEN DO;
   IF XSERVAFF = 1 THEN XSERVREG = 6;
```

```
   ELSE IF XSERVAFF = 2 THEN XSERVREG = 7;
   ELSE IF XSERVAFF = 3 THEN XSERVREG = 8;
   ELSE IF XSERVAFF = 4 THEN XSERVREG = 9;
   ELSE XSERVREG = 10;
END;

IF XTNEXREG = 3 THEN DO;
   IF XSERVAFF = 1 THEN XSERVREG = 11;
   ELSE IF XSERVAFF = 2 THEN XSERVREG = 12;
   ELSE IF XSERVAFF = 3 THEN XSERVREG = 13;
   ELSE IF XSERVAFF = 4 THEN XSERVREG = 14;
   ELSE XSERVREG = 15;
END;

IF XTNEXREG = 4 THEN DO; /*JSO 08/22/2006, Changed Overseas Regions*/
   IF      XREGION = 13 THEN XSERVREG = 16;
   ELSE IF XREGION = 14 THEN XSERVREG = 17;
   ELSE IF XREGION = 15 THEN XSERVREG = 18;
END;

IF HP_SMKH3 IN (1,2) THEN DO;
   SM_RATE = 0;
   IF HP_SMKH3 = 2 THEN SM_RATE=1;
   SM_RTDN=1;
END;

/* MER 3/31/11 Start using HP_CESH3 instead of re-creating work already done in convarq */
IF HP_CESH3 IN (1,2) THEN DO;
   SM_CESS = 0;
   IF HP_CESH3 = 1 THEN SM_CESS=1;
   SM_CSDN=1;
END;

IF xbmicat > 0  THEN DO;
    BMI = 0;
    BMI_DN=1;
   IF xbmicat <=3 THEN BMI=1;
END;

IF XTNEXREG IN (1,2,3) THEN TOTCON=1;

ELSE IF XTNEXREG = 4 THEN TOTCON=2;

IF MPCSMPL = 3 THEN MPCSMPL = 2;  /* RSG 02/2006 GROUP WARRANT OFFICER WITH OFFICER */

/* AMK 8/02/12 - New logic for handling out of catchment OCONUS */
IF XCATCH = 9904 THEN DO;
   IF XSERVREG <=5 THEN XCATCH=9901;
   ELSE IF XSERVREG <=10 THEN XCATCH=9902;
   ELSE IF XSERVREG <=15 THEN XCATCH=9903;
   ELSE IF XSERVREG = 16 THEN XCATCH=9905;
   ELSE IF XSERVREG = 17 THEN XCATCH=9906;
   ELSE IF XSERVREG = 18 THEN XCATCH=9907;
END;

RENAME XCATCH=CACSMPL &NORMWGT = &WGT;

IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

IF XTNEXREG = .    THEN DELETE;

IF XINS_COV NOT IN(1,2,3,6,9,10,11) THEN DELETE;  /*JSO 07/30/2007, Added 9*/ /*MER 07/12/11
Added 10,11*/

NXNS_COV = XINS_COV;              /*JSO 04/26/2007 added for reservists logic*/
                                  /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
IF DBENCAT IN('GRD','IGR') AND H&NY.003 = 3 THEN DO;
   NXNS_COV = 3;
   XENR_PCM = .;
END;

* prime enrollees;
IF NXNS_COV IN (1,2,6) AND H&NY.004>=2 THEN DO;
```

```
   GROUP=1;
   OUTPUT;
END;

* enrollees with military pcms; /*JSO 04/05/2007, added conditions for RC type*/
IF XENR_PCM IN (1,2,6) AND H&NY.004>=2 THEN DO;
   GROUP=2;
   OUTPUT;
END;


* enrollees with civilian pcms; /*JSO 04/05/2007, added conditions for RC type*/
IF "&RCTYPE" = 'ReportCards' AND
   XENR_PCM = 3 AND H&NY.004>=2 THEN DO;
   GROUP=3;
   OUTPUT;
END;
ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
   ((XENR_PCM = 3 AND H&NY.004>=2) OR NXNS_COV IN (3,9,10)) THEN DO; /*JSO 07/30/2007, Added 9*/
   GROUP=3;
   OUTPUT;
END;


* nonenrollees;
IF NXNS_COV IN (3,9,10) THEN DO; /*JSO 08/24/2006, Deleted 4,5*/
   GROUP=4;                      /*JSO 07/30/2007, Added 9*/
   OUTPUT;
END;

* active duty;
IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
   GROUP=5;        /*JSO 07/30/2007, added DBENCAT conditions*/
   OUTPUT;
END;

* active duty dependents;
IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR')THEN DO;
   GROUP=6;        /*JSO 07/30/2007, added DBENCAT conditions*/
   OUTPUT;
END;

* retirees;
IF XBNFGRP IN (3,4) THEN DO;
   GROUP=7;
   OUTPUT;
END;

* all beneficiaries;
GROUP=8;
OUTPUT;

RUN;


LIBNAME LIBRARY '..\..\..\Data\fmtlib';

DATA SMOKE (KEEP=TMP_CELL AGE_GRP XTNEXREG XSERVREG XSERVAFF TOTCON GROUP
                 SM_RATE SM_CESS SM_RTDN SM_CSDN XSEXA &WGT BMI_DN BMI
                 CACSMPL MPCSMPL NXNS_COV);/* 05/10/2007 JSO Added NXNS_COV in the keep
statement */
SET INDAT.&DSN. (DROP=CACSMPL);
LENGTH AGE_N AGE_GRP TMP_CELL 8.;

/* MER 4/20/09 - Restrict dataset to just non-zero V4 weights */
*IF &WGT <= 0 THEN DELETE;

TMP_CELL=STRATUM;

AGE_N = FIELDAGE;

AGE_GRP = PUT(AGE_N, AGEF.);

IF AGE_GRP < 4;
```

```
IF SERVAFF='A' THEN XSERVAFF=1;              *Army;
   ELSE IF SERVAFF='F' THEN XSERVAFF=2;      *Air Force;
   ELSE IF SERVAFF='N' THEN XSERVAFF=3;      *Navy;
   ELSE XSERVAFF=4;

IF XCATCH = 37 THEN XCATCH = 67; /* Recode for combining of Walter Reed facilities */

IF PUT(XCATCH, JOINTSRV.)='1' THEN XSERVAFF=5; *Joint Service;

IF XTNEXREG = 1 THEN DO;
   IF XSERVAFF = 1 THEN XSERVREG = 1;
   ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
   ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
   ELSE IF XSERVAFF = 4 THEN XSERVREG = 4;
   ELSE XSERVREG = 5;
END;

IF XTNEXREG = 2 THEN DO;
   IF XSERVAFF = 1 THEN XSERVREG = 6;
   ELSE IF XSERVAFF = 2 THEN XSERVREG = 7;
   ELSE IF XSERVAFF = 3 THEN XSERVREG = 8;
   ELSE IF XSERVAFF = 4 THEN XSERVREG = 9;
   ELSE XSERVREG = 10;
END;

IF XTNEXREG = 3 THEN DO;
   IF XSERVAFF = 1 THEN XSERVREG = 11;
   ELSE IF XSERVAFF = 2 THEN XSERVREG = 12;
   ELSE IF XSERVAFF = 3 THEN XSERVREG = 13;
   ELSE IF XSERVAFF = 4 THEN XSERVREG = 14;
   ELSE XSERVREG = 15;
END;

IF XTNEXREG = 4 THEN DO; /*JSO 08/24/2006, Changed Overseas Regions*/
   IF      XREGION = 13 THEN XSERVREG = 16;
   ELSE IF XREGION = 14 THEN XSERVREG = 17;
   ELSE IF XREGION = 15 THEN XSERVREG = 18;
END;

IF XSERVREG = . THEN DELETE;  /* MER 11/10/10 - Deletes records with imputed TNEXREG = 'O' */
                              /* and missing XOCONUS.  (Only applies to CACSMPL = 9904)    */

IF XTNEXREG IN (1,2,3) THEN TOTCON=1;

ELSE IF XTNEXREG=4 THEN TOTCON=2;

IF MPCSMPL = 3 THEN MPCSMPL = 2;  /* RSG 02/2006 GROUP WARRANT OFFICER WITH OFFICER */

/* AMK 8/02/12 - New logic for handling out of catchment OCONUS */
IF XCATCH = 9904 THEN DO;
   IF XSERVREG <=5 THEN XCATCH=9901;
   ELSE IF XSERVREG <=10 THEN XCATCH=9902;
   ELSE IF XSERVREG <=15 THEN XCATCH=9903;
   ELSE IF XSERVREG = 16 THEN XCATCH=9905;
   ELSE IF XSERVREG = 17 THEN XCATCH=9906;
   ELSE IF XSERVREG = 18 THEN XCATCH=9907;
END;


RENAME XCATCH=CACSMPL;

IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

IF XTNEXREG = . THEN DELETE;

IF XINS_COV NOT IN(1,2,3,6,9,10,13,14) THEN DELETE;  /*JSO 07/30/2007, Added 9*//*AMK 6/17/14
removed 11, added 13/14*/

NXNS_COV = XINS_COV;              /*JSO 04/26/2007 added for reservists logic*/
                                  /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
IF DBENCAT IN('GRD','IGR') AND H&FY.003 = 3 THEN DO;
   NXNS_COV = 3;
   XENR_PCM = .;
```

```
END;

IF HP_SMKH3 IN (1,2) THEN DO;
   SM_RATE = 0;
   IF HP_SMKH3 = 2 THEN SM_RATE=1;
   SM_RTDN=1;
END;

/* MER 10/07/11 Start using HP_CESH3 instead of re-creating work already done in convarq */
IF HP_CESH3 IN (1,2) THEN DO;
   SM_CESS = 0;
   IF HP_CESH3 = 1 THEN SM_CESS=1;
   SM_CSDN=1;
END;

IF xbmicat > 0  THEN DO;
    BMI = 0;
    BMI_DN=1;
   IF xbmicat <=3 THEN BMI=1;
END;

* prime enrollees;
IF NXNS_COV IN (1,2,6,13) AND H&FY.004>=2 THEN DO;/*AMK 6/17/14 added 13*/
   GROUP=1;
   OUTPUT;
END;

* enrollees with military pcms; /*JSO 04/05/2007, added conditions for RC type*/
IF XENR_PCM IN (1,2,6) AND H&FY.004>=2 THEN DO;
   GROUP=2;
   OUTPUT;
END;

* enrollees with civilian pcms; /*JSO 04/05/2007, added conditions for RC type*/
IF "&RCTYPE" = 'ReportCards' AND
   XENR_PCM = 3 AND H&FY.004>=2 THEN DO;
   GROUP=3;
   OUTPUT;
END;
ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
   ((XENR_PCM = 3 AND H&FY.004>=2) OR NXNS_COV IN (3,9,10,14)) THEN DO; /*JSO 07/30/2007, Added
9*//*AMK 6/17/14 added 14*/
   GROUP=3;
   OUTPUT;
END;


* nonenrollees;
IF NXNS_COV IN (3,9,10,14) THEN DO; /*JSO 08/24/2006, Deleted 4,5*//*AMK 6/17/14 added 14*/
   GROUP=4;                   /*JSO 07/30/2007, Added 9*/
   OUTPUT;
END;

* active duty;
IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
   GROUP=5;        /*JSO 07/30/2007, added DBENCAT conditions*/
   OUTPUT;
END;

* active duty dependents;
IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN DO;
   GROUP=6;        /*JSO 07/30/2007, added DBENCAT conditions*/
   OUTPUT;
END;

* retirees;
IF XBNFGRP IN (3,4) THEN DO;
   GROUP=7;
   OUTPUT;
END;

* all beneficiaries;
GROUP=8;
OUTPUT;
```

```
RUN;

proc freq;
table xservreg*cacsmpl/list;
run;


PROC SORT DATA=SMOKE;
BY TMP_CELL;
PROC SORT DATA=NORMDATA;
BY TMP_CELL;
RUN;

%MACRO A_SUDAAN(TABLEVAR,SMOKE,SMOKEVAR,DEN);

%IF %UPCASE(&TABLEVAR)=XSERVREG %THEN %DO;
    %LET ENDNUM=&REGNUM;
    %LET PREF=R;
%END;
%ELSE %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
    %LET ENDNUM=&SRVNUM;
    %LET PREF=M;
%END;
%ELSE %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
    %LET ENDNUM=&CONNUM;
    %LET PREF=S;
%END;
%ELSE %IF %UPCASE(&TABLEVAR)=CACSMPL %THEN %DO;   /**RSG 02/2005 add code to calc by CACSMPL**/
    %LET ENDNUM=&CATCHNUM;
    %LET PREF=D;
%END;
%ELSE %IF %UPCASE(&TABLEVAR)=TOTCON %THEN %LET PREF=C;

%DO I = 1 %TO 8;

    DATA INDAT&I.(KEEP=&WGT XSERVAFF XSERVREG AGE_GRP XSEXA CACSMPL MPCSMPL
                      &SMOKEVAR. &DEN. TMP_CELL XTNEXREG);
    SET SMOKE;
    WHERE XSERVREG > 0 AND GROUP=&I. AND &DEN. >= 0;
       %IF %UPCASE(&TABLEVAR) = XSERVAFF %THEN %DO;
           IF XSERVAFF > 5 OR XSERVAFF = . THEN DELETE; /* MER 11/11/12 - Changed 4 to 5 */
       %END;
       %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
           IF TOTCON NE 1 THEN DELETE;
       %END;
       %IF %UPCASE(&TABLEVAR) = XTNEXREG %THEN %DO;
           IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
       %END;
    RUN;


    DATA NORMDAT&I.(KEEP=&WGT XSERVAFF XSERVREG AGE_GRP XSEXA &SMOKEVAR. &DEN.
                           TMP_CELL XTNEXREG MPCSMPL);
        SET NORMDATA;
        WHERE XSERVREG > 0 AND GROUP=&I.;

        %IF %UPCASE(&TABLEVAR) = XSERVAFF %THEN %DO;
            IF XSERVAFF > 5 OR XSERVAFF = . THEN DELETE; /* MER 11/11/12 - Changed 4 to 5 */
        %END;
        %IF %UPCASE(&TABLEVAR) = XTNEXREG %THEN %DO;
            IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
        %END;
    RUN;

    %IF %UPCASE(&SMOKE) NE CS AND %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
        PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
               WEIGHT &WGT;
            SETENV DECWIDTH=4;
            NEST TMP_CELL / missunit;
            VAR &SMOKEVAR;
            TABLES AGE_GRP*XSEXA*MPCSMPL*&TABLEVAR.;
            SUBGROUP AGE_GRP XSEXA MPCSMPL &TABLEVAR.;
            LEVELS 8 2 2 &ENDNUM.;
```

```
            OUTPUT  SEMEAN MEAN wsum nsum
               / TABLECELL=DEFAULT REPLACE
                FILENAME=&PREF.GRP&I.&SMOKE.;
        RUN;
    %END;
    %ELSE %IF %UPCASE(&SMOKE) NE CS AND %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
        PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
               WEIGHT &WGT;
            SETENV DECWIDTH=4;
            NEST TMP_CELL / missunit;
            VAR &SMOKEVAR;
            TABLES AGE_GRP*XSEXA*MPCSMPL;
            SUBGROUP AGE_GRP XSEXA MPCSMPL;
            LEVELS 3 2 2;
            OUTPUT  SEMEAN MEAN wsum nsum
               / TABLECELL=DEFAULT REPLACE
                FILENAME=&PREF.GRP&I.&SMOKE.;
        RUN;
    %END;

    %IF %UPCASE(&SMOKE) NE CS %THEN %DO;

        DATA &PREF.SER_&I.&SMOKE.;
           SET &PREF.GRP&I.&SMOKE.;
           GROUP=&I.;
           IF SEMEAN NE .;
           %IF %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
               KEEP &TABLEVAR. GROUP AGE_GRP XSEXA MPCSMPL SEMEAN MEAN wsum nsum;
           %END;
           %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
               TOTCON=1;
               KEEP TOTCON GROUP AGE_GRP XSEXA MPCSMPL SEMEAN MEAN wsum nsum;
           %END;
        RUN;

        /* CREATE WEIGHTS FROM 2005 DATA*/
        proc summary data=normdat&i. nway;
                var &WGT;
                where &den>0;
                class age_grp xsexa MPCSMPL;
                output out=norm_&i. sum=normwt;

        proc sort data=&pref.ser_&i.&smoke.;
                by age_grp xsexa mpcsmpl;

        data &pref.ser_&i.&smoke.;
                merge &pref.ser_&i.&smoke.(in=gin) norm_&i.;
                by age_grp xsexa mpcsmpl;
                if gin;
                wsum=wsum/normwt;
                nsum=nsum/normwt;
                sesq=normwt*semean**2;
        run;

        proc summary data=&pref.ser_&i.&smoke. nway;
                var mean semean sesq wsum nsum;
                class &tablevar.;
                weight normwt;
                output out=&pref.sert&i.&smoke. mean(mean sesq)= sum(wsum nsum)=
sumwgt(semean)=;
        run;

        data &pref.sert&i.&smoke;
           set &pref.sert&i.&smoke;
           group=&i.;
                   semean=sqrt(sesq/semean);
                                  NSUM = ROUND(NSUM,1);
           drop _type_ _freq_;
        run;

        %IF &I. = 1 %THEN %DO;

            DATA &PREF._&SMOKE.;
                   SET &PREF.SERT&I.&SMOKE.;
```

```
        RUN;
    %END;
    %ELSE %DO;

        DATA &PREF._&SMOKE.;
                SET &PREF._&SMOKE. &PREF.SERT&I.&SMOKE.;
        RUN;

        PROC SORT DATA=&PREF._&SMOKE.;
           BY GROUP;
        RUN;

    %END;

%END;
   %IF %UPCASE(&SMOKE) = CS AND %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
   PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                WEIGHT &WGT;
                SETENV DECWIDTH=4;
                NEST TMP_CELL / missunit;
                VAR &SMOKEVAR;
                TABLES AGE_GRP*XSEXA*&TABLEVAR.;
                SUBGROUP AGE_GRP XSEXA &TABLEVAR.;
                LEVELS 3 2 &ENDNUM.;
                OUTPUT  SEMEAN MEAN wsum nsum
                        / TABLECELL=DEFAULT REPLACE
                          FILENAME=&PREF.GRP&I.&SMOKE.;
    RUN;
%END;
%ELSE %IF %UPCASE(&SMOKE) = CS AND %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
   PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                WEIGHT &WGT;
                SETENV DECWIDTH=4;
                NEST TMP_CELL / missunit;
                VAR &SMOKEVAR;
                TABLES AGE_GRP*XSEXA;
                SUBGROUP AGE_GRP XSEXA;
                LEVELS 3 2 ;
                OUTPUT  SEMEAN MEAN wsum nsum
                        / TABLECELL=DEFAULT REPLACE
                          FILENAME=&PREF.GRP&I.&SMOKE.;
    RUN;
%END;

%IF %UPCASE(&SMOKE) = CS %THEN %DO;

   DATA &PREF.SER_&I.&SMOKE.;
      SET &PREF.GRP&I.&SMOKE.;
      GROUP=&I.;
      IF SEMEAN NE .;
      %IF %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
          KEEP &TABLEVAR. GROUP AGE_GRP XSEXA SEMEAN MEAN wsum nsum;
      %END;
      %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
          TOTCON=1;
          KEEP TOTCON GROUP AGE_GRP XSEXA SEMEAN MEAN wsum nsum;
      %END;
    RUN;

    /* CREATE WEIGHTS FROM 2005 DATA*/
    proc summary data=normdat&i. nway;
            var &WGT;
            where &den>0;
            class age_grp xsexa;
            output out=norm_&i. sum=normwt;

    proc sort data=&pref.ser_&i.&smoke.;
            by age_grp xsexa;

    data &pref.ser_&i.&smoke.;
            merge &pref.ser_&i.&smoke.(in=gin) norm_&i.;
            by age_grp xsexa;
            if gin;
            wsum=wsum/normwt;
```

```
                nsum=nsum/normwt;
                sesq=normwt*semean**2;
        run;

        proc summary data=&pref.ser_&i.&smoke. nway;
                var mean semean sesq wsum nsum;
                class &tablevar.;
                weight normwt;
                output out=&pref.sert&i.&smoke. mean(mean sesq)= sum(wsum nsum)=
sumwgt(semean)=;
        run;

        data &pref.sert&i.&smoke;
           set &pref.sert&i.&smoke;
           group=&i.;
                   semean=sqrt(sesq/semean);
           drop _type_ _freq_;
        run;


         %IF &I. = 1 %THEN %DO;

               DATA &PREF._CESS;
                       SET &PREF.SERT&I.&SMOKE.;
               RUN;
         %END;
         %ELSE %DO;

               DATA &PREF._CESS;
               SET &PREF._CESS &PREF.SERT&I.&SMOKE.;
            RUN;

               PROC SORT DATA=&PREF._CESS;
                       BY GROUP;
               RUN;

         %END;

     %END;
%END;

%MEND;

%A_SUDAAN(XSERVAFF,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XSERVAFF,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XSERVAFF,BM,BMI,BMI_DN);
%A_SUDAAN(XSERVREG,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XSERVREG,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XSERVREG,BM,BMI,BMI_DN);
%A_SUDAAN(XTNEXREG,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XTNEXREG,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XTNEXREG,BM,BMI,BMI_DN);
%A_SUDAAN(TOTCON,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(TOTCON,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(TOTCON,BM,BMI,BMI_DN);
%A_SUDAAN(CACSMPL,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(CACSMPL,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(CACSMPL,BM,BMI,BMI_DN);

%MACRO ADDIT(PREF, TYPE);

DATA &PREF._&TYPE;
SET &PREF._&TYPE;
LENGTH BENEFIT $34. BENTYPE $50.;

BENEFIT="Healthy Behaviors";
    %IF &TYPE=RT %THEN %DO;
        BENTYPE="Non-Smoking Rate";
    %END;
    %IF &TYPE=CESS %THEN %DO;
        BENTYPE="Counselled To Quit";
    %END;
    %IF &TYPE = BM %THEN %DO;
        BENTYPE = "Percent Not Obese";
```

```
    %END;
RUN;

%MEND;

%ADDIT(C,RT);
%ADDIT(C,CESS);
%ADDIT(C,BM);
%ADDIT(M,RT);
%ADDIT(M,CESS);
%ADDIT(M,BM);
%ADDIT(R,RT);
%ADDIT(R,CESS);
%ADDIT(R,BM);
%ADDIT(S,RT);
%ADDIT(S,CESS);
%ADDIT(S,BM);
%ADDIT(D,RT);
%ADDIT(D,CESS);
%ADDIT(D,BM);

proc freq data=ingp.group8 noprint;
tables cacsmpl*xservind / list out=cacformat(drop=count percent);
run;

%MACRO MAKEDATA(PREF, TABLEVAR);
  DATA &PREF._SMOKE;
   SET &PREF._RT
       &PREF._CESS
       &PREF._BM
;

   LENGTH MAJGRP $30. REGION $30. REGCAT $42.; /* MER 11/11/2012 - Updated REGION for Joint
Service facilities */

    IF      GROUP=1 THEN MAJGRP="Prime Enrollees            ";
    ELSE IF GROUP=2 THEN MAJGRP="Enrollees with Military PCM";
    ELSE IF GROUP=3 THEN MAJGRP="Enrollees with Civilian PCM";
    ELSE IF GROUP=4 THEN MAJGRP="Non-enrolled Beneficiaries ";
    ELSE IF GROUP=5 THEN MAJGRP="Active Duty                ";
    ELSE IF GROUP=6 THEN MAJGRP="Active Duty Dependents     ";
    ELSE IF GROUP=7 THEN MAJGRP="Retirees and Dependents    ";
    ELSE IF GROUP=8 THEN MAJGRP="All Beneficiaries          ";

    %IF &TABLEVAR = XSERVAFF %THEN %DO;
        IF XSERVAFF = 1 THEN REGION = 'ARMY';
        IF XSERVAFF = 2 THEN REGION = 'AIR FORCE';
        IF XSERVAFF = 3 THEN REGION = 'NAVY';
        IF XSERVAFF = 4 THEN REGION = 'OTHER';
            IF XSERVAFF = 5 THEN REGION = 'JOINT SERVICE'; /* MER 11/11/12 - Added for Joint
Service facilities */
    %END;

    %IF &TABLEVAR = XSERVREG %THEN %DO;
        REGION = PUT(XSERVREG,SERVREGO.); /*JSO 08/24/2006, Create new format for Overseas*/
    %END;

    %IF &TABLEVAR = XTNEXREG %THEN %DO;
        IF XTNEXREG=1 THEN REGION="NORTH";
        ELSE IF XTNEXREG=2 THEN REGION="SOUTH";
        ELSE IF XTNEXREG=3 THEN REGION="WEST";
        ELSE IF XTNEXREG=4 THEN REGION="OVERSEAS";
    %END;

    %IF &TABLEVAR = TOTCON %THEN %DO;
        REGION = "USA MHS";
    %END;

 %IF &TABLEVAR = CACSMPL %THEN %DO;   /*RSG 02/2005 Add CACSMPL**/
        REGCAT = PUT(CACSMPL, CACR.);
        REGION = ' ';
        %END;

    %IF &TABLEVAR NE CACSMPL %THEN %DO;
```

```
        REGCAT=REGION;
        DROP GROUP &TABLEVAR;
        %END;

        %IF &TABLEVAR = CACSMPL %THEN %DO;   /*RSG 02/2005 Add CACSMPL**/
        REGCAT = PUT(CACSMPL, CACR.);
        REGION = ' ';
        %END;

    %IF &TABLEVAR NE CACSMPL %THEN %DO;
        REGCAT=REGION;
        DROP GROUP &TABLEVAR;
        %END;


    IF &TABLEVAR NE 0;

   RUN;

  %IF &TABLEVAR = CACSMPL %THEN %DO;

      PROC SORT DATA=&PREF._SMOKE;
      BY CACSMPL;


      DATA &PREF._SMOKE;
      MERGE &PREF._SMOKE (IN=A) CACFORMAT (IN=B);
      BY CACSMPL;
      IF A;
      REGION=PUT(XSERVind,SERVREGO.);
      DROP GROUP &TABLEVAR;
      RUN;
    %END;


%MEND MAKEDATA;

%MAKEDATA(M,XSERVAFF);
%MAKEDATA(C,TOTCON);
%MAKEDATA(R,XSERVREG);
%MAKEDATA(S,XTNEXREG);
%MAKEDATA(D,CACSMPL);

DATA SMOKE;
SET M_SMOKE R_SMOKE S_SMOKE C_SMOKE D_SMOKE;
SESQ = SEMEAN**2;
RENAME MEAN=SCORE wsum=n_wgt nsum=n_obs;
RUN;

/* CALCULATE COMPOSITE SCORE - AVERAGE RATE AND CESSATION*/

PROC SORT DATA=SMOKE;
BY MAJGRP REGION REGCAT;
RUN;

PROC SUMMARY DATA=SMOKE SUM;
BY MAJGRP REGION REGCAT;
VAR SCORE SESQ N_WGT N_OBS;
OUTPUT SUM= OUT=PRECOMP;
RUN;

DATA COMP(RENAME=(S_MEAN=SCORE S_SE=SEMEAN));
SET PRECOMP;
IF _FREQ_ = 3 THEN DO;
   S_MEAN=SCORE/3;
   S_SE=SQRT(SESQ)/3;
   N_OBS=round(N_OBS/3);
END;
ELSE DO;
   S_MEAN=.;
   S_SE=.;
END;
BENTYPE="Composite";
BENEFIT="Healthy Behaviors";
```

```
DROP _TYPE_ _FREQ_ SCORE SESQ;
RUN;

PROC SORT DATA=SMOKE;
BY MAJGRP BENTYPE;
RUN;

DATA BENCH;
SET SMOKE;
BY MAJGRP BENTYPE;
IF LAST.BENTYPE AND BENTYPE="Counselled To Quit" THEN DO;
   SCORE=&CNSLGOAL;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
ELSE IF LAST.BENTYPE AND BENTYPE="Non-Smoking Rate" THEN DO;
   SCORE=&NSMKGOAL;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
ELSE IF LAST.BENTYPE AND BENTYPE="Percent Not Obese" THEN DO;
   SCORE=&BMIGOAL;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
   SCORE=(SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   BENTYPE="Composite";
   DROP N_WGT;
   OUTPUT;
END;
RUN;

PROC SORT DATA=SMOKE;
BY REGION BENTYPE;
RUN;

DATA TEMP;
SET SMOKE;
IF REGION=REGCAT;
RUN;

PROC SORT DATA=TEMP;
BY REGION BENTYPE;
RUN;

DATA BENCH2;
SET TEMP;
BY REGION BENTYPE;
IF LAST.BENTYPE AND BENTYPE="Counselled To Quit" THEN DO;
   SCORE=&CNSLGOAL;
   SEMEAN=.;
   MAJGRP="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
IF LAST.BENTYPE AND BENTYPE="Non-Smoking Rate" THEN DO;
   SCORE=&NSMKGOAL;
   SEMEAN=.;
   MAJGRP="Benchmark";
   DROP N_WGT;
   OUTPUT;
END;
IF LAST.BENTYPE AND BENTYPE="Percent Not Obese" THEN DO;
```

```
   SCORE=&BMIGOAL;
   SEMEAN=.;
   MAJGRP="Benchmark";
   DROP N_WGT;
   OUTPUT;
   SCORE=(SUM(&CNSLGOAL, &NSMKGOAL, &BMIGOAL))/3;
   SEMEAN=.;
   MAJGRP="Benchmark";
   BENTYPE="Composite";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
RUN;

DATA SIG1;
SET SMOKE COMP;
IF BENTYPE='Non-Smoking Rate' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-&NSMKGOAL)/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;

   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > &NSMKGOAL THEN SIG = 1;
      ELSE IF SCORE < &NSMKGOAL THEN SIG = -1;
   END;
END;
IF BENTYPE='Counselled To Quit' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-&CNSLGOAL)/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;
   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > &CNSLGOAL THEN SIG = 1;
      ELSE IF SCORE < &CNSLGOAL THEN SIG = -1;
   END;
END;
IF BENTYPE='Percent Not Obese' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-&BMIGOAL)/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;
   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > &BMIGOAL THEN SIG = 1;
      ELSE IF SCORE < &BMIGOAL THEN SIG = -1;
   END;
END;
IF BENTYPE='Composite' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3))/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;
   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > ((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3) THEN SIG = 1;
      ELSE IF SCORE <((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3) THEN SIG = -1;
   END;
END;

DROP TSTAT PVAL;
RUN;

DATA SMOKE_ALL;
SET SIG1 BENCH BENCH2;
TIMEPD="&CURRENT.";
RUN;

PROC SORT DATA=SMOKE_ALL OUT=OUT.SMOKE;
BY MAJGRP REGION REGCAT BENTYPE;
RUN;
```

```
DATA OUT.CGRP5RT;
SET CGRP5RT;
RUN;

DATA OUT.CSER_5RT;
SET CSER_5RT;
RUN;
DATA OUT.CSERT5RT;
SET CSERT5RT;
RUN;
DATA OUT.c_smoke;
SET c_smoke;
RUN;

DATA OUT.normdat5;
SET normdat5;
RUN;
DATA OUT.norm_5;
SET norm_5;
RUN;
```

G.12.C ReportCards\MPR_Adult2015\LOADMPR.SAS - Convert the MPR Scores Database into the WEB layout - Annual.

```
*****************************************************************;
*  Project:   DoD Reporting and Analysis 6244-410
*  Program:   LOADMPR.SAS
*  Author:    Chris Rankin
*  Date:      4/07/2000
*  Modified:  1) 11/11/2012 By Mike Rudacille, Updated for handling of
*                Joint Service facilities
*             2) 12/01/2014 By Matt Turbyfill, revised for the Macro Program.
                                   Changed YR to &FY.
                                   Changed YEAR to &FYYEAR.
                                   Changed EYR to %EVAL(&FY.-2)
*
*  Purpose:   Calculate MPR Preventive Care Composites
*
*   Input:    RFINAL.sas7bdat
*             CFINAL.sas7bdat
*             MFINAL.sas7bdat
*             DFINAL.sas7bdat
*             SFINAL.sas7bdat
*             SMOKE.sas7bdat
*   Output:   loadmpr.sas7bdat
*****************************************************************;

OPTIONS COMPRESS=YES NOCENTER LS=124 PS=74 SOURCE SOURCE2;

LIBNAME   INLIB   ".";
LIBNAME   OUT     ".";
LIBNAME   LIBRARY  "..\..\..\data\fmtlib";   /*MJS 02/05/04*/

%LET COMPNUM=7; /*** number of questions in both composites ***/
%LET CMPNUM1=4; /*** number of questions in first composite ***/   /*MJS 02/05/04*/

%LET YR=&FY.;
%LET YEAR=&FYYEAR.;
%LET EYR=%EVAL(&FY.-2);

%INCLUDE "..\..\LOADWEB\LOADCAHQ.INC";

*************************************************************;
*** Note -- take out access to care questions and composite ***;
*************************************************************;

DATA BENCHMKS(KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD SCORE SIG);
  FORMAT MAJGRP $30.  REGION $30. REGCAT $42. /* MER 11/11/2012 - Updated REGION for Joint
Service facilities */
         BENEFIT $34. BENTYPE $50. TIMEPD $35.;

  SET inlib.CFINAL;

  /***** Benchmarks       *****/

  ARRAY BENCHMK{*} GOALVAR1-GOALVAR&CMPNUM1 CP&yr.BMK1;
  DO I = 1 TO 5;   /*MJS 02/05/04*/
     SCORE   = BENCHMK{I}*100;
     SIG     = .;
     REGION  = "Benchmark";
     REGCAT  = "Benchmark";
     BENEFIT = "Preventive Care";
     IF      I = 1 THEN BENTYPE = "Prenatal Care";
     ELSE IF I = 2 THEN BENTYPE = "Mammography";
     ELSE IF I = 3 THEN BENTYPE = "Pap Smear";
     ELSE IF I = 4 THEN BENTYPE = "Hypertension";
     /*ELSE IF I = 5 THEN BENTYPE = "Cholesterol Testing";*/   /*RSG 01/27/06*/
     ELSE IF I = 5 THEN BENTYPE = "Composite";
     TIMEPD = "&YEAR";  /*RSG 02/2005*/
     OUTPUT;
  END;
  DROP I;
RUN;
```

```
DATA BENCHMKS;
  SET BENCHMKS;
  OUTPUT;
  IF MAJGRP = "All Beneficiaries" THEN DO;
     DO REG = 1 TO 18; DROP REG; /* MER 11/11/2012 Changed 15 to 18 for Joint Service facilities
*/
           MAJGRP = "Benchmark";
           REGION = PUT(REG,SERVREGO.);
           REGCAT = PUT(REG,SERVREGO.);
           OUTPUT;
     END;
     DO SERV = 1 TO 5; DROP SERV; /* MER 11/11/2012 Changed 4 to 5 for Joint Service facilities
*/
         MAJGRP = "Benchmark";
         REGION = PUT(SERV,XSERVAFF.);
         REGCAT = PUT(SERV,XSERVAFF.);
         OUTPUT;
     END;
     MAJGRP = "Benchmark";
     REGION = 'CONUS MHS';
     REGCAT = 'CONUS MHS';
     OUTPUT;
     MAJGRP = "Benchmark";
     REGION = 'NORTH';
     REGCAT = 'NORTH';
     OUTPUT;
     MAJGRP = "Benchmark";
     REGION = 'SOUTH';
     REGCAT = 'SOUTH';
     OUTPUT;
     MAJGRP = "Benchmark";
     REGION = 'WEST';
     REGCAT = 'WEST';
     OUTPUT;
     MAJGRP = "Benchmark";
     REGION = 'OVERSEAS';
     REGCAT = 'OVERSEAS';
     OUTPUT;
  END;
RUN;

PROC FREQ DATA=BENCHMKS;
   TABLES MAJGRP/MISSING LIST;
RUN;

*************************;
*****  Scores          **;
*************************;

DATA DFINAL;
  SET INLIB.DFINAL;
  WHERE UPCASE(TRIM(MAJGRP)) IN ("PRIME ENROLLEES", "ENROLLEES WITH MILITARY PCM",
                                 "ACTIVE DUTY", "ALL BENEFICIARIES");
RUN;

DATA SCORES(KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD SCORE SEMEAN SIG N_OBS N_WGT);
  FORMAT MAJGRP $30.  REGION $30. REGCAT $42. /* MER 11/11/2012 - Updated REGION for Joint
Service facilities */
          BENEFIT $34. BENTYPE $50. TIMEPD $35.;
  SET INLIB.MFINAL
      INLIB.RFINAL
      DFINAL
      INLIB.SFINAL
      INLIB.CFINAL;
IF REGCAT='Out of Catchment Region 01' then REGCAT='Out of Catchment North Region';
IF REGCAT='Out of Catchment Region 02' then REGCAT='Out of Catchment South Region';
IF REGCAT='Out of Catchment Region 03' then REGCAT='Out of Catchment West Region';
IF REGCAT='Out of Catchment Region 04' then REGCAT='Out of Catchment OCONUS Region';

  ARRAY SEMEANS{*} SERR&YR.V1-SERR&YR.V&CMPNUM1.  CP&YR.1SE ;
  ARRAY  SCORES{*} SCOR&YR.V1-SCOR&YR.V&CMPNUM1.  Comp&YR.1;
  ARRAY  SIGNIF{*} SIG&YR.V1-SIG&YR.V&CMPNUM1.    CP&YR.SIG1;
  ARRAY   NOBS {*} NOBS&YR.V1-NOBS&YR.V&CMPNUM1.  CP&YR.OBS1;
  ARRAY   NWGT {*} DEN&YR.V1-DEN&YR.V&CMPNUM1     CP&YR.DEN1;
```

```
  cp&YR.den1=0;
  DO I = 1 TO 5;   /*MJS 02/05/04*/
     SCORE   = SCORES{I};
     SEMEAN  = SEMEANS{I};
     SIG     = SIGNIF{I};
     N_OBS   = NOBS{I};
     N_WGT   = NWGT{I};
     if i<5 then cp&YR.den1+nwgt[i];
     BENEFIT = "Preventive Care";
     IF      I = 1 THEN BENTYPE = "Prenatal Care";
     ELSE IF I = 2 THEN BENTYPE = "Mammography";
     ELSE IF I = 3 THEN BENTYPE = "Pap Smear";
     ELSE IF I = 4 THEN BENTYPE = "Hypertension";
     /*ELSE IF I = 5 THEN BENTYPE = "Cholesterol Testing";*/   /*RSG 01/27/06*/
     ELSE IF I = 5 THEN DO;
          BENTYPE = "Composite";  /*RSG 02/2005*/
          score=score*100;
     END;;
     TIMEPD = "&YEAR";
     OUTPUT;
  END;
RUN;

PROC FREQ DATA=SCORES;
   WHERE UPCASE(TRIM(MAJGRP)) IN ("PRIME ENROLLEES", "ENROLLEES WITH MILITARY PCM",
                                  "ACTIVE DUTY", "ALL BENEFICIARIES");
   TABLES MAJGRP*REGCAT;
RUN;

DATA DTREND;
  SET INLIB.DTREND; by majgrp;
  WHERE UPCASE(TRIM(MAJGRP)) IN ("PRIME ENROLLEES", "ENROLLEES WITH MILITARY PCM",
                                 "ACTIVE DUTY", "ALL BENEFICIARIES");
RUN;

/*
proc sort data=inlib.mtrend out=mtrend; by descending majgrp;
data mtrend;
set mtrend;
retain adj1 adj2 0;
if upcase(majgrp)="ALL BENEFICIARIES" then do;
adj1=cp&YR.bmk1; adj2=cp&EYR.bmk1; end;
proc print;
proc sort data=mtrend; by majgrp;
data mtrend(drop=adj1 adj2);
set mtrend;
retain tadj1 tadj2 0;
if _n_=1 then do;
tadj1=adj1;
tadj2=adj2;
end;
*/

DATA TREND1 (KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE semean TIMEPD SCORE SIG N_OBS N_WGT);
   FORMAT MAJGRP $30.  REGION $30. REGCAT $42. /* MER 11/11/2012 - Updated REGION for Joint
Service facilities */
          BENEFIT $34. BENTYPE $50. TIMEPD $35.;

   SET inlib.CTREND
       DTREND
       INLIB.RTREND
       INLIB.STREND
       INLIB.MTREND;by majgrp;
/*
   if _n_=1 then do;
      adj1=tadj1;
      adj2=tadj2;
   end;
   retain adj1 adj2;
   score=100*((comp031*adj1/cp03bmk1)-(comp011*adj2/cp01bmk1));*/

/*RSG 02/2005 following code no longer needed - need trend for all
  benefit level, not just composite*/
/*   score=cmptrnd1;
```

```
   SIG= SIGCPTR1;
   N_OBS=DF_COMP1;
   N_WGT=NWGTC1;
   BENTYPE="Trend";
   BENEFIT="Preventive Care";
   OUTPUT;
*/
IF REGCAT='Out of Catchment Region 01' then REGCAT='Out of Catchment North Region';
IF REGCAT='Out of Catchment Region 02' then REGCAT='Out of Catchment South Region';
IF REGCAT='Out of Catchment Region 03' then REGCAT='Out of Catchment West Region';
IF REGCAT='Out of Catchment Region 04' then REGCAT='Out of Catchment OCONUS Region';

  ARRAY  SCORES{*} TRENDV1-TRENDV&CMPNUM1.  CMPTRND1;
  ARRAY  SIGNIF{*} SIGTRND1-SIGTRND&CMPNUM1.    SIGCPTR1;
  ARRAY   NOBS {*} DFSCOR1-DFSCOR&CMPNUM1.  DF_COMP1;
  ARRAY   NWGT {*} NWGT1-NWGT&CMPNUM1.  NWGTC1;
  DO I = 1 TO 5;   /*MJS 02/05/04*/
     SCORE   = SCORES{I};
     SEMEAN=.;
     SIG     = SIGNIF{I};
     N_OBS   = NOBS{I};
     N_WGT   = NWGT{I};
     BENEFIT = "Preventive Care";
     IF      I = 1 THEN BENTYPE = "Prenatal Care";
     ELSE IF I = 2 THEN BENTYPE = "Mammography";
     ELSE IF I = 3 THEN BENTYPE = "Pap Smear";
     ELSE IF I = 4 THEN BENTYPE = "Hypertension";
     /*ELSE IF I = 5 THEN BENTYPE = "Cholesterol Testing";*/   /*RSG 01/27/06*/
     ELSE IF I = 5 THEN DO;
          BENTYPE = "Composite";  /*RSG 02/2005*/
*          score=score*100;
     END;;
     TIMEPD = "Trend";
     OUTPUT;
  END;
RUN;

DATA TREND2(KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE SCORE SIG TIMEPD);
  FORMAT MAJGRP $30.  REGION $30. REGCAT $42. /* MER 11/11/2012 - Updated REGION for Joint
Service facilities */
         BENEFIT $34. BENTYPE $50. TIMEPD $35.;

  SET INLIB.CTREND;

/*RSG 02/2005 hard code in benchmark trends for each measure -
      comment out code for just composite trend benchmark*/
/*  SCORE= TRNDBMK1;
  SIG=.;
  SEMEAN=.;
  REGION="Benchmark";
  REGCAT="Benchmark";
  BENTYPE="Trend";
  BENEFIT="Preventive Care";
  OUTPUT;
*/

  DO I = 1 TO 5;   /*MJS 02/05/04*/
     SCORE   = 0;
     SIG     = .;
     REGION  = "Benchmark";
     REGCAT  = "Benchmark";
     BENEFIT = "Preventive Care";
     IF      I = 1 THEN BENTYPE = "Prenatal Care";
     ELSE IF I = 2 THEN BENTYPE = "Mammography";
     ELSE IF I = 3 THEN BENTYPE = "Pap Smear";
     ELSE IF I = 4 THEN BENTYPE = "Hypertension";
     /*ELSE IF I = 5 THEN BENTYPE = "Cholesterol Testing";*/   /*RSG 01/27/06*/
     ELSE IF I = 5 THEN BENTYPE = "Composite";
     TIMEPD = "Trend";  /*RSG 02/2005*/
     OUTPUT;
  END;
  DROP I;
RUN;
```

```
DATA OUT.LOADMPR(KEEP=MAJGRP REGION REGCAT BENEFIT semean BENTYPE SCORE SIG
                      N_OBS N_WGT TIMEPD);
  SET BENCHMKS TREND1 TREND2 SCORES INLIB.SMOKE;
RUN;


PROC FREQ DATA=OUT.LOADMPR;
   WHERE TIMEPD='Trend';
   TABLES BENTYPE*REGION/MISSING LIST;
RUN;
```

G.13 ReportCards\MPR_Adult2015\TRENDMPR.SAS - Calculate Trend and Perform Significance tests on MPR Scores - Annual.

```
*****************************************************************
*
*  Project:   DoD Reporting and Analysis 6244-410
*  Program:   TRENDMPR.SAS
*  Author:    Chris Rankin
*  Date:      6/19/2000
*
*  Modified: 1) 12/01/2014 By Matt Turbyfill, revised for the Macro Program.
                                     Changed YR to &FY.
                                     Changed EYR to %EVAL(&FY.-2)
                                     Changed IN&EYR to
..\..\..\Programs\20&EYR.\&PC.ReportCards\MPR_Adult20&EYR.
                                     Renamed IN14 and IN12 to IN&FY. And IN&EYR.
*
*  Purpose:   Calculate trends from 2012 to 2014.
*
*  Outputs:   RTREND.sas7bdat
*             MTREND.sas7bdat
*             CTREND.sas7bdat
*             STREND.sas7bdat
*             DTREND.sas7bdat
*
*  Inputs:    RFINAL.sas7bdat
*             CFINAL.sas7bdat
*             MFINAL.sas7bdat
*             SFINAL.sas7bdat
*             DFINAL.sas7bdat
*
*  Notes:     1) Next program is loadmpr.sas.
*
*****************************************************************;
OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2;

%LET YR = &FY.;
%LET EYR =  %EVAL(&FY.-2);

LIBNAME IN&YR   ".";
LIBNAME IN&EYR. "..\..\..\Programs\20&EYR.\&PC.ReportCards\MPR_Adult20&EYR.";
LIBNAME OUT     ".";
LIBNAME LIBRARY "..\..\..\data\fmtlib";

%LET COMPNUM=7;    /** number of variables - 02/2006 RSG - changed from 8 to 7 because
cholesterol dropped   **/

**** Note:  groups changed 6/16/2000 to correspond with ;
**** definition of CAHPS groups                        ;

*************************************************************;
* Beneficiary group note
*    Eight groups             Definitions
* ___________________________________________________________;
* 1. Prime enrollees          XINSCOV IN (1,2,6) AND H08007>=2
* 2. Enrollees w/mil PCM      XENR_PCM IN (2,6)  AND H08007>=2
* 3. Enrollees w/civ PCM      XENR_PCM=3         AND H08007>=2
* 4. Nonenrollees             XINSCOV IN (3)
* 5. Active duty              BFGROUPP=1
* 6. Active duty dependents   BFGROUPP=2
* 7. Retirees                 BFGROUPP IN (3,4)
* 8. All beneficiaries        ALL
*************************************************************;

/*** macro to merge final datasets together and calculate trends ***/

%MACRO TRENDS(INDATA, OUTDATA);

  PROC SORT DATA=IN&EYR..&INDATA;
     BY MAJGRP REGION REGCAT;
  RUN;

  PROC SORT DATA=IN&YR..&INDATA;
```

```
      BY MAJGRP REGION REGCAT;
   RUN;

   DATA OUT.&OUTDATA;
      MERGE IN&YR..&INDATA(IN=IN_&YR.) IN&EYR..&INDATA(IN=IN_&EYR.);
      BY MAJGRP REGION REGCAT;
      IF IN_&YR. & IN_&EYR.;

      /*** calculate trends in the composite benchmarks ***/
      ARRAY   BMK&YR.{*} CP&YR.BMK1 CP&YR.BMK2;
      ARRAY   BMK&EYR.{*} CP&EYR.BMK1 CP&EYR.BMK2;
      ARRAY BMKTRND{*} TRNDBMK1 TRNDBMK2;

      DO J=1 TO 2;
         IF BMK&EYR.{J} > 0 THEN BMKTRND{J}=100*(BMK&YR.{J}-BMK&EYR.{J});
         ELSE BMKTRND{J}=.;
      END;
      DROP J;

      /*** note-- don't use adjusted scores ***/
      ARRAY SCORE&YR.{*} PROP&YR.V1-PROP&YR.V&COMPNUM COMP&YR.1 COMP&YR.2;
      ARRAY SCORE&EYR.{*} PROP&EYR.V1-PROP&EYR.V&COMPNUM COMP&EYR.1 COMP&EYR.2;
      ARRAY  SERR&YR.{*} SERR&YR.V1-SERR&YR.V&COMPNUM CP&YR.1SE  CP&YR.2SE;
      ARRAY  SERR&EYR.{*} SERR&EYR.V1-SERR&EYR.V&COMPNUM CP&EYR.1SE  CP&EYR.2SE;
      ARRAY   TREND{*} TRENDV1-TRENDV&COMPNUM   CMPTRND1 CMPTRND2;
      ARRAY   TSTAT{*} T_TRNDV1-T_TRNDV&COMPNUM T_CTRND1 T_CTRND2;
      ARRAY  PVALUE{*} P_TRNDV1-P_TRNDV&COMPNUM P_CTRND1 P_CTRND2;
      ARRAY     SIG{*} SIGTRND1-SIGTRND&COMPNUM SIGCPTR1 SIGCPTR2;
      ARRAY DEGFR&YR.{*} DF&YR.SCR1-DF&YR.SCR&COMPNUM DF&YR._CP1 DF&YR._CP2;
      ARRAY DEGFR&EYR.{*} DF&EYR.SCR1-DF&EYR.SCR&COMPNUM DF&EYR._CP1 DF&EYR._CP2;
      ARRAY    DEGF{*} DFSCOR1-DFSCOR&COMPNUM DF_COMP1 DF_COMP2;
      ARRAY   DENOM{*} DENOMT1-DENOMT&COMPNUM DENOMTC1 DENOMTC2;
      ARRAY   DEN&EYR.{*} DEN&EYR.V1-DEN&EYR.V&COMPNUM CP&EYR.DEN1 CP&EYR.DEN2;
      ARRAY   DEN&YR.{*} DEN&YR.V1-DEN&YR.V&COMPNUM CP&YR.DEN1 CP&YR.DEN2;
      ARRAY    NWGT{*} NWGT1-NWGT&COMPNUM NWGTC1 NWGTC2;

      /*** setup t statistics, degreees of freedom    ***/
      DO I=1 TO 9;
         IF SCORE&EYR.{I} GE 0 AND SCORE&YR.{I} GE 0 THEN DO;
            IF SCORE&EYR.{I} > 0 THEN TREND{I}=100*(SCORE&YR.{I}-SCORE&EYR.{I});
            ELSE TREND{I}=.;
            DENOM{I}= SERR&EYR.{I}**2+SERR&YR.{I}**2;
            IF DENOM{I} > 0 THEN
               TSTAT{I}=(SCORE&YR.{I}-SCORE&EYR.{I})/SQRT(DENOM{I});
            ELSE TSTAT{I}=.;
            DEGF{I}=MIN(DEGFR&YR.{I},DEGFR&EYR.{I});
            NWGT{I}=MIN(DEN&YR.{I},DEN&EYR.{I});
            IF DEGF{I}=0 THEN DEGF{I}=1;
            IF DEGF{I}IN (0, .) THEN
            PUT "MAJGRP=" MAJGRP "REGCAT=" REGCAT "REGION=" REGION
            "DEGFR&EYR.=" DEGFR&EYR.{I} "DEGFR&YR.=" DEGFR&YR.{I};
            PVALUE{I}=(1-PROBT(ABS(TSTAT{I}),DEGF{I}))*2;
            IF TREND{I}=. THEN SIG{I}=.;
            ELSE IF TREND{I} NE . THEN DO;
               IF PVALUE{I} GE .05 THEN SIG{I}=0;
               IF PVALUE{I} < .05  THEN DO;
                  IF TSTAT{I} > 0 THEN SIG{I}=1;
                  IF TSTAT{I} < 0 & TSTAT{I} ne . THEN SIG{I}=-1;
               END;
            END;
         END;
      END;
      DROP I;
   RUN;

%MEND TRENDS;

%TRENDS(MFINAL, MTREND);
%TRENDS(RFINAL, RTREND);
%TRENDS(CFINAL, CTREND);
%TRENDS(SFINAL, STREND);
%TRENDS(DFINAL, DTREND);
```

G.14.A LOADWEB\FAKE.SAS - Generate the WEB layout/template file - Annual.

```
/*****************************************************************************/
/* PROJECT:  6244-410 - 2006 Annual Beneficiary Reports                       */
/* PROGRAM:  FAKE.SAS                                                         */
/* PURPOSE:  Generate Fake Data for Report Cards                              */
/* AUTHOR:   Mark A. Brinkley                                                 */
/*                                                                            */
/* MODIFIED: 1) November 12, 2012 By Mike Rudacille - Updated for             */
/*              handling of Joint Service facilities                          */
/*           2) December 1, 2014 By Matt Turbyfill,
       */
/*                                  Revised for the Macro Program.
              */
/*                                  Changed IN to ..\&PC.ReportCards\CAHPS_Adult&FYYEAR.\Data
       */
/*                                  Changed LOADCAHQ to ..\LoadWeb\LOADCAHQ.INC
                     */
/*                                  Changed PERIOD1 to &YEAR2.
                                    */
/*                                  Changed PERIOD2 to &YEAR1.
                                    */
/*                                  Changed PERIOD3 to &FYYEAR.
                                    */
/*                                  Changed HCSyyq_2 to &DATAFILE.
                                    */
/*                                                                            */
/*****************************************************************************/

LIBNAME OUT '.';
LIBNAME IN  "..\&PC.ReportCards\CAHPS_Adult&FYYEAR.\Data";  /*** Changed to group8 location for
revised cacsmpl KRR 02-05-2004 ***/
LIBNAME LIBRARY  '..\..\DATA\FMTLIB';

OPTIONS COMPRESS=YES NOFMTERR;

%include "..\LOADWEB\loadcahq.inc";

/*RSG 02/2005 added to make fake.sd2 with macros*/
%LET NUMQTR = 4;  /*RSG 02/2005 - Numbering based off quarterly program*/
%LET PERIOD1 = &YEAR2.;
%LET PERIOD2 = &YEAR1.;
%LET PERIOD3 = &FYYEAR.;
%LET PERIOD4 = Trend;

DATA TEMP;
   SET IN.GROUP8(KEEP=XSERVind XSERVAFF XTNEXREG USA CACSMPL);   /*KRR 02/05/04*/
RUN;

************************************************************************
* CACSMPL FORMAT DEFINITIONS FOR REPORT CARD USE FACILITY NAME
* RSG - 02/2005 - USE CACR FORMAT FROM LIBRARY
************************************************************************;

proc freq data=temp;
   table xservind*cacsmpl/ noprint out=temp2;
run;

data temp3;
   length cafmt $42;
   set temp2 end=last; by xservind;
   caf=0;
   where cacsmpl ne 9999;
   if first.xservind then do;
      cafmt=put(xservind,servrego.);
      output;
   end;
   cafmt=put(cacsmpl,cacr.);
   caf=1;
   if count>1 & cafmt ne 'INV' then output;
   if last then do;
      xservind=0;
      caf=0;
```

```
cafmt='Benchmark';
output;

caf=1;


xservind=19;
cafmt = 'ARMY';
output;

xservind=20;
cafmt = 'AIR FORCE';
output;

xservind=21;
cafmt = 'NAVY';
output;

xservind=22;
cafmt = 'OTHER';
output;

xservind=23;
cafmt = 'JOINT SERVICE';
output;

xservind=24;
cafmt = 'NORTH';
output;

xservind=25;
cafmt = 'SOUTH';
output;

xservind=26;
cafmt = 'WEST';
output;

xservind=27;
cafmt = 'OVERSEAS';
output;

xservind=28;
cafmt = 'Europe Army';
output;

xservind=29;
cafmt = 'Europe Air Force';
output;

xservind=30;
cafmt = 'Europe Navy';
output;

xservind=31;
cafmt = 'Europe Other';
output;

xservind=32;
cafmt = 'Europe Joint Service';
output;

xservind=33;
cafmt = 'Pacific Army';
output;

xservind=34;
cafmt = 'Pacific Air Force';
output;

xservind=35;
cafmt = 'Pacific Navy';
output;
```

```
      xservind=36;
      cafmt = 'Pacific Other';
      output;

      xservind=37;
      cafmt = 'Pacific Joint Service';
      output;

      xservind=38;
      cafmt = 'Latin America Army';
      output;

      xservind=39;
      cafmt = 'Latin America Air Force';
      output;

      xservind=40;
      cafmt = 'Latin America Navy';
      output;

      xservind=41;
      cafmt = 'Latin America Other';
      output;

      xservind=42;
      cafmt = 'Latin America Joint Service';
      output;

      xservind=43;
      cafmt = 'USA MHS';
      output;
   end;
run;

proc sort; by xservind caf cafmt; run;

data temp4;
   set temp3 end=last;
   start=_n_; label=cafmt; type='N'; fmtname='ROWMAT';
   if last then call symput('x',_n_);
run;

proc format cntlin=temp4;
proc print data=temp4;


RUN;

%MACRO FAKE;
DATA FAKE;

  KEEP MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD I K;   ***MJS 06/18/03 Added TIMEPD;

  LENGTH MAJGRP  $ 30
         REGION  $ 30    /*RSG 01/2005 lengthen format to fit service affiliation*/
         REGCAT  $ 42    /*MER 11/08/2012 length format for REGION for Joint Service facilities
*/
         BENTYPE $ 50
         TIMEPD  $ 5;   ***MJS 06/18/03 Added TIMEPD;



  DO I=1 TO 8;             ** 8 Major groups **;

     MAJGRP=PUT(I,MAJGRPF.);

     DO J=1 TO &x;        ** Region/catchment **;

     REGCAT=PUT(J,ROWMAT.);
     RETAIN REGION;

     **RSG 01/2005 Change code to fit XSERVREG values**;
     IF REGCAT IN ('ARMY','NAVY','AIR FORCE','OTHER','JOINT SERVICE',
                   'NORTH','SOUTH','WEST','OVERSEAS','USA MHS',
```

```
                  'Overseas Europe','Overseas Pacific','Overseas Latin America',
                  'North Army','North Navy','North Air Force','North Other','North Joint
Service',
                  'South Army','South Navy','South Air Force','South Other','South Joint
Service',
                  'West Army','West Navy','West Air Force','West Other','West Joint Service',
                  'Europe Army', 'Europe Navy', 'Europe Air Force', 'Europe Other','Europe
Joint Service',
                  'Pacific Army', 'Pacific Navy', 'Pacific Air Force', 'Pacific Other','Pacific
Joint Service',
                  'Latin America Army', 'Latin America Navy', 'Latin America Air Force',
                  'Latin America Other', 'Latin America Joint Service')
        THEN REGION=REGCAT;


        DO K=1 TO 11;      ** 11 Benefits **;  /*** 12-13 MAB ***/

          BENEFIT=PUT(K,BEN.);

          IF K=1 THEN DO;
              DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                  BENTYPE=PUT(L,GETNCARE.);   ***that replaced BENTYPE hard assignment;
                  %DO Q = 1 %TO &NUMQTR;   ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
                      TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                  %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
              END;
          END;
          ELSE IF K=2 THEN DO;
              DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                  BENTYPE=PUT(L,GETCAREQ.);   ***that replaced BENTYPE hard assignment;
                  %DO Q = 1 %TO &NUMQTR;   ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
                      TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                  %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
              END;
          END;
          ELSE IF K=3 THEN DO;
              DO L=1 TO 5;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                  BENTYPE=PUT(L,HOWWELL.);   ***that replaced BENTYPE hard assignment;
                  %DO Q = 1 %TO &NUMQTR;   ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
                      TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                  %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
              END;
          END;
          ELSE IF K=4 THEN DO;
              DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                  BENTYPE=PUT(L,CUSTSERV.);   ***that replaced BENTYPE hard assignment;
                  %DO Q = 1 %TO &NUMQTR;   ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
                      TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                  %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
              END;
          END;
          ELSE IF K=5 THEN DO;
              DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                  BENTYPE=PUT(L,CLMSPROC.);   ***that replaced BENTYPE hard assignment;
                  %DO Q = 1 %TO &NUMQTR;   ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
                      TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                  %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
              END;
          END;
          ELSE IF K=6 THEN DO;
              %DO Q = 1 %TO &NUMQTR;   ***RSG 02/2005 Changed start point to 2 for annual - only
go back 2 years;
                  BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                  TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
              %END;                        ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT after
this line;
          END;
          ELSE IF K=7 THEN DO;
```

```
             %DO Q = 1 %TO &NUMQTR;   ***RSG 02/2005 Changed start point to 2 for annual - only
go back 2 years;
                 BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                 TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
             %END;                        ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT after
this line;
         END;
         ELSE IF K=8 THEN DO;
             %DO Q = 1 %TO &NUMQTR;   ***RSG 02/2005 Changed start point to 2 for annual - only
go back 2 years;
                 BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                 TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
             %END;                        ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT after
this line;
         END;
         ELSE IF K=9 THEN DO;
             %DO Q = 1 %TO &NUMQTR;   ***RSG 02/2005 Changed start point to 2 for annual - only
go back 2 years;
                 BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                 TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
             %END;                        ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT after
this line;
         END;
         ELSE IF K=10 THEN DO;
             DO L=1 TO 5;                   ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                 BENTYPE=PUT(L,PREVCARE.);   ***that replaced BENTYPE hard assignment;
                 %DO Q = 1 %TO &NUMQTR;   ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
                     TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                 %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
             END;
      END;
         ELSE IF K=11 THEN DO;            ***RSG 02/2005 Added for smoking scores.;
             DO M=1 TO 4;
                 BENTYPE=PUT(M,SMOKEF.);
                 %DO Q = 1 %TO &NUMQTR;   ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
                     TIMEPD = "&&PERIOD&Q"; OUTPUT;
                 %END;
             END;
         END;
       END;
     END;
  END;
RUN;
%MEND FAKE;
%FAKE;

/*** 12-13 MAB ***/
/*** Need to create single benchmarks for ALL major groups ***/
DATA EXTRA;
  SET FAKE;
  IF MAJGRP="Prime Enrollees" AND REGION=REGCAT AND REGION^="Benchmark";
  MAJGRP="Benchmark";
RUN;
/*** Combine extra data with fake ***/
DATA FAKE;
  SET EXTRA FAKE;
  IF REGCAT="Benchmark" THEN REGION=REGCAT;
RUN;

/*** Need to clean up data ***/
DATA FAKE2;
  SET FAKE;

  /*** Need to set oddball records to missing ***/
  if region=''|compress(regcat)='.' then delete;

  /*** Don't populate catchment areas for 4 major groups ***/
  IF I IN(3,4,6,7) AND REGION^=REGCAT THEN DELETE;
  SIG = .;
```

```
  SCORE = .;

  DROP I K;
RUN;

/*RSG 02/2005 ORDER FILE*/

DATA ORDER1;
  SET FAKE2;
  IF MAJGRP = "Benchmark" THEN DELETE;

  IF MAJGRP = "Prime Enrollees" THEN LINEUP=1;
  IF MAJGRP = "Enrollees with Military PCM" THEN LINEUP=2;
  IF MAJGRP = "Enrollees with Civilian PCM" THEN LINEUP=3;
  IF MAJGRP = "Standard/Extra Users" THEN LINEUP=4;
  IF MAJGRP = "Active Duty" THEN LINEUP=5;
  IF MAJGRP = "Active Duty Dependents" THEN LINEUP=6;
  IF MAJGRP = "Retirees and Dependents" THEN LINEUP=7;
  IF MAJGRP = "All Users" THEN LINEUP=8;

  IF REGION = "Benchmark" THEN LINEUP1=1;
  ELSE IF UPCASE(REGION) = 'USA MHS' THEN LINEUP1=2;

  ELSE IF UPCASE(REGION) = 'ARMY' THEN LINEUP1=3;
  ELSE IF UPCASE(REGION) = 'NAVY' THEN LINEUP1=4;
  ELSE IF UPCASE(REGION) = 'AIR FORCE' THEN LINEUP1=5;
  ELSE IF UPCASE(REGION) = 'OTHER' THEN LINEUP1=6;
  ELSE IF UPCASE(REGION) = 'JOINT SERVICE' THEN LINEUP1=7;

  ELSE IF UPCASE(REGION) = 'NORTH' THEN LINEUP1=8;
  ELSE IF UPCASE(REGION) = 'NORTH ARMY' THEN LINEUP1=9;
  ELSE IF UPCASE(REGION) = 'NORTH NAVY' THEN LINEUP1=10;
  ELSE IF UPCASE(REGION) = 'NORTH AIR FORCE' THEN LINEUP1=11;
  ELSE IF UPCASE(REGION) = 'NORTH OTHER' THEN LINEUP1=12;
  ELSE IF UPCASE(REGION) = 'NORTH JOINT SERVICE' THEN LINEUP1=13;

  ELSE IF UPCASE(REGION) = 'SOUTH' THEN LINEUP1=14;
  ELSE IF UPCASE(REGION) = 'SOUTH ARMY' THEN LINEUP1=15;
  ELSE IF UPCASE(REGION) = 'SOUTH NAVY' THEN LINEUP1=16;
  ELSE IF UPCASE(REGION) = 'SOUTH AIR FORCE' THEN LINEUP1=17;
  ELSE IF UPCASE(REGION) = 'SOUTH OTHER' THEN LINEUP1=18;
  ELSE IF UPCASE(REGION) = 'SOUTH JOINT SERVICE' THEN LINEUP1=19;

  ELSE IF UPCASE(REGION) = 'WEST' THEN LINEUP1=20;
  ELSE IF UPCASE(REGION) = 'WEST ARMY' THEN LINEUP1=21;
  ELSE IF UPCASE(REGION) = 'WEST NAVY' THEN LINEUP1=22;
  ELSE IF UPCASE(REGION) = 'WEST AIR FORCE' THEN LINEUP1=23;
  ELSE IF UPCASE(REGION) = 'WEST OTHER' THEN LINEUP1=24;
  ELSE IF UPCASE(REGION) = 'WEST JOINT SERVICE' THEN LINEUP1=25;

  ELSE IF UPCASE(REGION) = 'OVERSEAS' THEN LINEUP1=26;

  ELSE IF UPCASE(REGION) = 'OVERSEAS EUROPE' THEN LINEUP1=27;
  ELSE IF UPCASE(REGION) = 'EUROPE ARMY' THEN LINEUP1=28;
  ELSE IF UPCASE(REGION) = 'EUROPE NAVY' THEN LINEUP1=29;
  ELSE IF UPCASE(REGION) = 'EUROPE AIR FORCE' THEN LINEUP1=30;
  ELSE IF UPCASE(REGION) = 'EUROPE OTHER' THEN LINEUP1=31;
  ELSE IF UPCASE(REGION) = 'EUROPE JOINT SERVICE' THEN LINEUP1=32;

  ELSE IF UPCASE(REGION) = 'OVERSEAS PACIFIC' THEN LINEUP1=33;
  ELSE IF UPCASE(REGION) = 'PACIFIC ARMY' THEN LINEUP1=34;
  ELSE IF UPCASE(REGION) = 'PACIFIC NAVY' THEN LINEUP1=35;
  ELSE IF UPCASE(REGION) = 'PACIFIC AIR FORCE' THEN LINEUP1=36;
  ELSE IF UPCASE(REGION) = 'PACIFIC OTHER' THEN LINEUP1=37;
  ELSE IF UPCASE(REGION) = 'PACIFIC JOINT SERVICE' THEN LINEUP1=38;

  ELSE IF UPCASE(REGION) = 'OVERSEAS LATIN AMERICA' THEN LINEUP1=39;
  ELSE IF UPCASE(REGION) = 'LATIN AMERICA ARMY' THEN LINEUP1=40;
  ELSE IF UPCASE(REGION) = 'LATIN AMERICA NAVY' THEN LINEUP1=41;
  ELSE IF UPCASE(REGION) = 'LATIN AMERICA AIR FORCE' THEN LINEUP1=42;
  ELSE IF UPCASE(REGION) = 'LATIN AMERICA OTHER' THEN LINEUP1=43;
  ELSE IF UPCASE(REGION) = 'LATIN AMERICA JOINT SERVICE' THEN LINEUP1=44;

  ELSE LINEUP1=45;
```

```
  IF REGION=REGCAT THEN LINEUP2=1;
  ELSE LINEUP2=2;

RUN;   ***MJS 07/03/03 Changed BENTYPE to TIMEPD;

PROC SORT DATA=ORDER1 OUT=OUT.FAKE (DROP=LINEUP LINEUP1 LINEUP2);
BY LINEUP LINEUP1 LINEUP2 REGCAT;
RUN;

PROC FREQ;
  TABLES MAJGRP REGION REGCAT BENTYPE BENEFIT;
RUN;
```

G.14.B LOADWEB\MERGFINL.SAS - Merge the final CAHPS and MPR Scores Databases into the WEB layout - Annual.

```
***************************************************************************
*
* PROGRAM:  MERGFINL.SAS
* TASK:     2007 DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Merge the final CAHPS and MPR Scores Databases
*           into the WEB layout preserving the order of the FAKE.SD2.
*
* WRITTEN:  06/07/2000 BY KEITH RATHBUN
*
* MODIFIED: 1) 08/01/2013 BY AMANDA KUDIS: Updated to support the 2013
*              annual HCSDB.
*           2) 08/01/2014 BY AMANDA KUDIS: Updated to support the 2014
*              annual HCSDB.
*           3) December 1, 2014 By Matt Turbyfill, Revised for the Macro Program.
                                    Replaced RCTYPE with &PC.ReportCards
                                    Replaced BCHTYPE with &PC.Benchmark
                                    Changed IN03 to ..\..\Programs\&YEAR2.\&PC.LoadWeb
                                    Changed IN04 to ..\..\Programs\&YEAR1.\&PC.LoadWeb
                                    Changed IN05 to ..\&RCTYPE\MPR_Adult&FYYEAR.
                                    Changed IN06 to
..\..\Programs\&YEAR2.\&RCTYPE\MPR_Adult&YEAR2.
                                    Changed IN07 to
..\..\Programs\&YEAR1.\&RCTYPE\MPR_Adult&YEAR1.
                                    Changed IN09 to ..\..\Programs\&YEAR2.\&BCHTYPE\data
                                    Changed IN10 to ..\..\Programs\&YEAR1.\&BCHTYPE\data
                                    Changed PERIOD2 to &YEAR2.
                                    Changed PERIOD1 to &YEAR1.
                                    Changed PERIOD to &FYYEAR.
                                    Renamed all all variables inding in 12, 13, or 14 to
&FY2., &FY1., or &FY., respectively
                                    Inserted &FYYEAR into TITLE1
*
* INPUTS:   1) MPR and CAHPS Individual and Composite data sets with adjusted
*              scores, and benchmark data for DoD HCS.
*              - LOADMPR.sas7bdat  - MPR Scores Databases
*              - LOADCAHP.sas7bdat - CAHPS Scores Databases
*              - BENCHA04.sas7bdat - CAHPS Benchmark Databases
*              - FAKE.sas7bdat     - WEB Layout in Column order
*
* OUTPUT:   1) MERGFINL.sas7bdat - Combined Scores Database in WEB layout
*
* NOTES:
*
* 1) The following steps need to be run prior to this
*    program (2005,2006,2007):
*  - STEP1.SAS       - Recode questions and generate CAHPS group files
*  - STEP2.SAS       - Calculate CAHPS individual adjusted scores for groups 1-8
*  - COMPOSIT.SAS    - Calculate composite adjusted scores for group 1-8
*  - PRVCOMP.SAS     - Calculate MPR individual and composite scores
*  - SMOKING_BMI.SAS - Calculate MPR smoking and BMI scores
*  - BENCHA01-04.SAS - Convert Benchmark Scores into WEB layout
*  - LOADCAHP.SAS    - Convert CAHPS Scores Database into WEB layout
*
* 2) The output file (MERGFINL.SD2) will be run through the
*    MAKEHTML.SAS program to generate the WEB pages.
*
***************************************************************************
* Assign data libraries and options
***************************************************************************;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards                ***/
%LET RCTYPE = &PC.ReportCards;

/*** SELECT PROGRAM - Benchmark OR PurchasedBenchmark                    ***/
%LET BCHTYPE = &PC.Benchmark;


LIBNAME IN01  ".";
LIBNAME IN02  ".";
LIBNAME IN03  "..\..\Programs\&YEAR2.\&PC.LoadWeb";
```

```
LIBNAME IN04  "..\..\Programs\&YEAR1.\&PC.LoadWeb";
LIBNAME IN05  "..\&RCTYPE\MPR_Adult&FYYEAR.";
LIBNAME IN06  "..\..\Programs\&YEAR2.\&RCTYPE\MPR_Adult&YEAR2.";
LIBNAME IN07  "..\..\Programs\&YEAR1.\&RCTYPE\MPR_Adult&YEAR1.";
LIBNAME IN08  "..\&BCHTYPE\data";
LIBNAME IN09  "..\..\Programs\&YEAR2.\&BCHTYPE\data";
LIBNAME IN10  "..\..\Programs\&YEAR1.\&BCHTYPE\data";
LIBNAME OUT   ".";

OPTIONS PS=79 LS=142 COMPRESS=YES NOCENTER;

%LET PERIOD2 = &YEAR2.;
%LET PERIOD1 = &YEAR1.;
%LET PERIOD  = &FYYEAR.;

*************************************************************************
* Construct ORDERing variable from WEB layout
*************************************************************************;
DATA ORDER;
   SET IN01.FAKE;
   ORDER = _N_;
   LENGTH KEY $200;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
   KEEP KEY ORDER;
RUN;

PROC SORT DATA=ORDER; BY KEY; RUN;

*************************************************************************
* Merge the Scores Databases
*************************************************************************;
DATA MERGFINL;
   LENGTH TIMEPD $35.;
   SET IN02.LOADCAHP (IN=INCAHP&FY.)
       IN03.LOADCAHP (IN=INCAHP&FY2.)
       IN04.LOADCAHP (IN=INCAHP&FY1.)
       IN05.LOADMPR  (IN=INMPR&FY.)
       IN06.LOADMPR  (IN=INMPR&FY2.)
       IN07.LOADMPR  (IN=INMPR&FY1.)
       IN08.BENCHA04 (IN=INBEN&FY.)
       IN09.BENCHA04 (IN=INBEN&FY2.)
       IN10.BENCHA04 (IN=INBEN&FY1.);
   SVCAHP&FY. = INCAHP&FY.;
   SVCAHP&FY2. = INCAHP&FY2.;
   SVCAHP&FY1. = INCAHP&FY1.;
   SVMPR&FY.  = INMPR&FY. ;
   SVMPR&FY2.  = INMPR&FY2. ;
   SVMPR&FY1.  = INMPR&FY1. ;
   SVBEN&FY.  = INBEN&FY. ;
   SVBEN&FY2.  = INBEN&FY2. ;
   SVBEN&FY1.  = INBEN&FY1. ;
   LENGTH KEY $200;

   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
   IF SCORE = . THEN DELETE;
   IF TRIM(REGCAT) = "INV" THEN DELETE;
   IF (INMPR&FY2. OR INMPR&FY1.) AND TIMEPD ='Trend' THEN DELETE; *AMK 9/27/&FY1.;
RUN;

PROC SORT DATA=MERGFINL; BY KEY; RUN;

*************************************************************************
* Append ORDERing variable to the merged Scores database file
*************************************************************************;
DATA MERGFINL2 out.MISSING;
   MERGE MERGFINL(IN=IN1) ORDER(IN=IN2);
   BY KEY;

   LENGTH FLAG $30;
   IF IN1 AND IN2 THEN FLAG = "IN SCORES DB AND LAYOUT";
```

```
   ELSE IF    IN1 THEN FLAG = "IN SCORES DB ONLY";
   ELSE IF    IN2 THEN FLAG = "IN LAYOUT ONLY";

   LENGTH SOURCE $30;
   IF SVCAHP&FY. = 1 THEN SOURCE = "CAHPS &PERIOD.";
   IF SVCAHP&FY1. = 1 THEN SOURCE = "CAHPS &PERIOD1.";
   IF SVCAHP&FY2. = 1 THEN SOURCE = "CAHPS &PERIOD2.";
   IF SVMPR&FY.  = 1 THEN SOURCE = "MPR &PERIOD.  ";
   IF SVMPR&FY1.  = 1 THEN SOURCE = "MPR &PERIOD1.  ";
   IF SVMPR&FY2.  = 1 THEN SOURCE = "MPR &PERIOD2.  ";
   IF SVBEN&FY.  = 1 THEN SOURCE = "BENCHMARK &PERIOD.";
   IF SVBEN&FY1.  = 1 THEN SOURCE = "BENCHMARK &PERIOD1.";
   IF SVBEN&FY2.  = 1 THEN SOURCE = "BENCHMARK &PERIOD2.";

   IF IN1 AND NOT IN2 THEN OUTPUT out.MISSING; *Missing from layout;
   IF IN1 AND ORDER NE . THEN OUTPUT MERGFINL2;
RUN;

***************************************************************************
* Reorder file according to WEB layout
***************************************************************************;
PROC SORT DATA=MERGFINL2 OUT=OUT.MERGFINL; BY ORDER; RUN;

DATA FAKE;
SET IN01.FAKE;
   ORDER = _N_;
RUN;

DATA LAYONLY;
   MERGE FAKE(IN=IN1) OUT.MERGFINL(IN=IN2 KEEP=ORDER);
   BY ORDER;
   IF IN1 AND NOT IN2;
RUN;

TITLE1 "&FYYEAR. DOD Health Survey Scores/Report Cards";
TITLE2 "Program Name: MERGFINL.SAS By Keith Rathbun";
TITLE3 "Program Inputs: MPR and CAHPS Combined Scores data sets and WEB Layout";
TITLE4 "Program Outputs: MERGFINL.sas7bdat - Merged Final Scores Database for input to
MAKEHTML.SAS";

TITLE5 "MERGFINL.sas7bdat Data source counts";
PROC FREQ DATA=OUT.MERGFINL;
  TABLES SOURCE FLAG

  SVCAHP&FY. SVCAHP&FY1. SVCAHP&FY2.
  SVMPR&FY.  SVMPR&FY1.  SVMPR&FY2.
  SVBEN&FY.  SVBEN&FY1.  SVBEN&FY2.

  SVCAHP&FY. * SVCAHP&FY1. * SVCAHP&FY2. *
  SVMPR&FY.  * SVMPR&FY1.  * SVMPR&FY2.  *
  SVBEN&FY.  * SVBEN&FY1.  * SVBEN&FY2.

 /MISSING LIST;
RUN;

TITLE5 "MERGFINL.sas7bdat Data attribute counts";
PROC FREQ DATA=OUT.MERGFINL;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;

TITLE5 "LAYONLY.sas7bdat Data attribute counts";
PROC FREQ DATA=LAYONLY;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;

TITLE5 "No matching record found in LAYOUT file (FAKE.sas7bdat)";
PROC PRINT DATA=OUT.MISSING;
VAR MAJGRP REGION REGCAT BENTYPE BENEFIT;
RUN;
```

G.15 LOADWEB\TREND_A.SAS - Calculate Trends for CAHPS scores - Annual.

```
***************************************************************************
*
* PROGRAM:  TREND_A.SAS
* TASK:     2007 DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Add TREND records to Scores database.
*
* WRITTEN:  07/28/2000 BY KEITH RATHBUN
*
* MODIFIED: 1) 08/01/2013 BY AMANDA KUDIS -- updated for 2013 survey.
*           2) 12/01/2014 By Matt Turbyfill, revised for the Macro Program.
                                    Changed first TIMEPD limitation to "&FYYEAR."
                                    Changed second TIMEPD limitation to WHERE TIMEPD IN
("&YEAR2.","&FYYEAR.")
                                    Renamed all all variables inding in 12, 13, or 14 to
&FY2., &FY1., or &FY., respectively
                                    Inserted &FYYEAR into TITLE1
                                    Changed TEMP12 and 14 to TEMP&FY2. and &FY.  Also change
limitations on datasets respectively to &YEAR2. and &FYYEAR.
*
* INPUTS:   1) CONUS_Q.sas7bdat - MPR and CAHPS Scores Database in WEB layout
*           2) FAKE.sas7bdat - Scores Database WEB Layout
*
* OUTPUT:   1) TREND_A.sas7bdat - Combined Scores Database in WEB layout
*
* NOTES:
*
* 1) All of the scores DB programs must be run and MERGFINL.SAS prior to
*    running this program.  All report card records must be merged prior
*    to the trend calculations (MERGFINL.SAS,CONUS_Q.SAS,TOTAL_A.SAS).
*
* 2) The output file (TREND_A.sas7bdat) will be run through the
*    MAKEHTML.SAS program to generate the HTML consumer reports.
*
***************************************************************************
* Assign data libraries and options
***************************************************************************;

LIBNAME IN   ".";
LIBNAME OUT  ".";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER ERRORS=10000;
/*RSG 02/2005 code copied from 2003 TOTAL_Ar.SAS - eliminate all records
  with semean>.05 or missing and delete all records for that region/regcat
  this will reduce the number of missing data*/

/* MER 11/17/08 semean threshold was changed to .07 */

data fakecut(keep=region regcat);
set in.conus_q;
where majgrp='Prime Enrollees' & region ne regcat
 & benefit='Health Plan' & timepd="&FYYEAR."; *AMK 08/01/2012 changed timepd to 2012;
if semean>.07|semean=.;

proc sort; by region regcat;
data fake;
set in.fake;
oorder=_n_;
proc sort data=fake; by region regcat;
data newfake;
merge fakecut(in=fin) fake; by region regcat;
if fin then delete;
proc sort data=newfake out=out.newfake; by oorder;
run;

***************************************************************************
* Extract records to calculate TRENDs.  Keep only 2001/2003 pairs for CAHPS
* records.  Trends have already been calculated for MPR scores.
***************************************************************************;

DATA TRENDS;
   SET IN.CONUS_Q (drop=key);       * AMK 08/01/2013, changed 2010, 2012 ;
```

```
   WHERE TIMEPD IN ("&YEAR2.","&FYYEAR."); * to 2011,2013;
   ************************************************************************
   * Trends already calculated for MPR scores, so remove from file
   * (RSG 02/2005) EXCEPT Healthy Behavior scores whose trend need to be calculated
   ************************************************************************;

   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));

   *AMK 08/01/2014, changed to svmpr12/13/14;
   IF (SVMPR&FY2. = 1 or SVMPR&FY1. = 1 or SVMPR&FY. = 1)
      AND BENEFIT NE 'Healthy Behaviors' THEN DELETE;

RUN;

DATA TEMP&FY2.;
   SET TRENDS;
   KEEP MAJGRP REGION REGCAT BENEFIT BENTYPE ;
   IF TIMEPD = "&YEAR2.";
RUN;
PROC SORT DATA=TEMP&FY2.; BY MAJGRP REGION REGCAT BENEFIT BENTYPE; RUN;

DATA TEMP&FY.;
   SET TRENDS;
   KEEP MAJGRP REGION REGCAT BENEFIT BENTYPE;
   IF TIMEPD = "&FYYEAR.";
RUN;
PROC SORT DATA=TEMP&FY.; BY MAJGRP REGION REGCAT BENEFIT BENTYPE; RUN;

DATA PAIR&FY2.&FY.(keep=majgrp region regcat benefit bentype);
   MERGE TEMP&FY2.(IN=IN&FY2.) TEMP&FY.(IN=IN&FY.);
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE;
   IF IN&FY2. AND IN&FY.;
RUN;

PROC SORT DATA=TRENDS;
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE;
RUN;

DATA TRENDS2;
   MERGE TRENDS(IN=INTREND) PAIR&FY2.&FY.(IN=INPAIR);
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE;
   IF INTREND AND INPAIR;
RUN;

PROC SORT DATA=TRENDS;
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD;
RUN;
  proc print data=trends(obs=100);
************************************************************************
* Calculate TRENDs keeping only the TREND records
************************************************************************;

DATA TRENDS bench;
   SET TRENDS(drop=bscore bsemean);
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD;
   IF TIMEPD = "&YEAR2." THEN DO;
      SCORE&FY2. = SCORE/100;
      SE&FY2.    = SEMEAN;
      N&FY2.     = N_OBS;
      W&FY2.     = N_WGT;
   END;
   RETAIN SCORE&FY2. SE&FY2. N&FY2. W&FY2.;
   IF TIMEPD = "&FYYEAR." THEN DO;
      SCORE&FY. = SCORE/100;
      SE&FY.    = SEMEAN;
      N&FY.     = N_OBS;
      W&FY.     = N_WGT;
   END;
   RETAIN SCORE&FY. SE&FY. N&FY. W&FY.;
   IF TIMEPD = "&FYYEAR" THEN DO;
      TIMEPD = "Trend";
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
```

```
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
      SOURCE = "TREND";
      SEMEAN = SQRT(SE&FY2.**2+SE&FY.**2);
      N_OBS  = MIN(N&FY2.,N&FY.);
      N_WGT  = MIN(W&FY2.,W&FY.);
      SCORE  = SCORE&FY.-SCORE&FY2.;
      DSCORE = 100*(SCORE&FY.-SCORE&FY2.);
      if region='Benchmark' then OUTPUT bench;
      else output trends;
   END;
   DROP ORDER SCORE&FY2. SCORE&FY. SE&FY2. SE&FY. N&FY2. N&FY.;
RUN;


PROC SORT DATA=trends;
   BY MAJGRP BENEFIT BENTYPE TIMEPD;
RUN;
proc sort data=bench out=benchs(keep=majgrp benefit bentype timepd score semean);
by majgrp benefit bentype timepd;
run;

***************************************************************************
* Perform significance tests for CAHPS scores
***************************************************************************;
DATA trends;
   MERGE trends(IN=SIN) BENCHs(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE;
   if bsemean=. then bsemean=0;
   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));
   SIG = 0;
   IF N_OBS >= 30 AND TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;
   IF SIN;
RUN;

data trends;
set trends bench;
score=dscore;
PROC SORT DATA=TRENDS; BY KEY; RUN;

***************************************************************************
* Construct ORDERing variable from WEB layout
* (RSG 02/2005 add fix to order it properly
***************************************************************************;
DATA ORDER;
   LENGTH KEY $200;
   SET IN.newFAKE;
   ORDER = _N_;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
   KEEP KEY ORDER;
RUN;

PROC SORT DATA=ORDER; BY KEY; RUN;

DATA MERGTRND;
   MERGE TRENDS(IN=IN1) ORDER(IN=IN2);
   BY KEY;
   IF IN1 and in2;
RUN;

PROC SORT DATA=IN.CONUS_Q OUT=CONUS_Q;
by key;run;
data conus_q;
     merge conus_q order(in=gin); by key;
     if gin;
proc sort data=CONUS_Q; by order;
PROC SORT DATA=MERGTRND; BY ORDER; RUN;

DATA OUT.TREND_A;
   update MERGTRND CONUS_Q;
```

```
   BY ORDER;

   IF BENEFIT = "Primary Care Manager" THEN BENEFIT = "Personal Doctor";   /*MJS 02/14/2003*/

   IF REGCAT = "5th Med Grp-Minot" THEN REGION = "West Air Force";
   IF substr(region,1,5) in ('Latin','Europ','Pacif') then delete;
   IF REGION IN ("South Joint Service","West Joint Service","Europe Joint Service",
                 "Pacific Joint Service","Latin America Joint Service") THEN DELETE;

RUN;

TITLE1 "&FYYEAR. DOD Health Survey Scores/Report Cards";
TITLE2 "Program Name: TREND_A.SAS By Keith Rathbun";
TITLE3 "Program Inputs: MPR and CAHPS data records in WEB Layout";
TITLE4 "Program Outputs: TREND_A.sas7bdat - Merged Final Scores Database with TRENDs for input
to SIGNIF_A.SAS";

TITLE5 "FREQs of TREND_A.sas7bdat";
PROC FREQ;
   TABLES SOURCE FLAG MAJGRP REGION BENEFIT BENTYPE
  /MISSING LIST;
RUN;

TITLE5 "FREQs of newFAKE.sas7bdat";
PROC FREQ DATA=IN.newFAKE;
   TABLES MAJGRP REGION BENEFIT BENTYPE
  /MISSING LIST;
RUN;
```

G.16 LOADWEB\MAKEHTMA.SAS - Generate HTML and XLS files for TRICARE Beneficiary Reports - Annual.

```
*=================================================================;
*   Programmer:  Mark A. Brinkley                                 ;
*        Title:  MAKEHTMA.SAS                                     ;
*       Client:  6077-410                                         ;
*         Date:  02-28-2005                                       ;
*                                                                 ;
*      Purpose:  This program is designed to create               ;
*                 ANNUAL report cards                             ;
*                                                                 ;
*                                                                 ;
*  Input files:  ?????.SD2                                        ;
* Output files:  HTML\                                            ;
*                  3384*3 F*.HTM Files (Frame version)            ;
*                  3384   P*.HTM Files (Printer friendly - no frames) ;
*                  3384   P*.XLS Files (Excel files)              ;
*                 -------------------                             ;
*                 16920   TOTAL files                             ;
*                                                                 ;
*                                                                 ;
*                                                                 ;
*                                                                 ;
*     IF YOU MODIFY THIS PROGRAM THEN PLEASE INITIAL AND DOCUMENT ;
*     YOUR CHANGES.  THOSE FAILING TO DO THIS WILL BE SEVERELY    ;
*     BEATEN.                                                     ;
*                                                                 ;
*                                                                 ;
*                                                                 ;
*                                                                 ;
* Modifications:                                                  ;
* 11-01-2000 - JSykes added pieces to create Excel Spreadsheets   ;
* 07-01-2001 - MAB modified for qtr 2                             ;
* 10-25-2001 - C.Rankin moved link to printer friendly version    ;
*              from frame, created macro variable to include      ;
*              third row of subbenefit heading                    ;
* 11-01-2001 - D.Beahm changed splitpercent to splitpixel and adjusted;
*              the pixel size of the top frame to prevent scrolling   ;
*              she also added a <BR> before the printer icon to make  ;
*              sure it appears on it's own line                   ;
* 12-21-2001 - D.Beahm changed column widths for frame page a so that ;
*              the column headers would line up with the data in frame;
*              page b. Also revised Excel code so benchmarks for the  ;
*              majorgrp are shaded dark red instead of blue       ;
* 04-18-2002 - Quarterly report cards will now show a rolling 4   ;
*              quarters of data for the trend. DKB updated the period ;
*              BENTYPE references to account for this, this will need ;
*              to be done each quarter. Also revised footnote     ;
*              to indicate that this is the 2002 Survey of Health Care;
*              Beneficiaries. This reflects a change from previous    ;
*              years, the survey year now refers to the processing    ;
*              year instead of the year for which data was collected. ;
*              Also changed image reference from QTR to COL, these    ;
*              new names for the qtr images reflects the column they  ;
*              are in instead of the quarter they represent       ;
* 06-19-2002 - Mark Brinkley                                      ;
*                 Updated for Q2_2002                             ;
*                 Changed macro var PERIOD to CURRENTPERIOD       ;
*                 Added macro vars PERIOD1-PERIOD3                ;
* 07-29-2002 - Daniele Beahm                                      ;
*                 Added links to trend pages. Clicking on the fielding;
*                 Period now takes you to the component page for that ;
*                 period and clicking on the Trend column header now  ;
*                 takes you to the Trend section of the help file     ;
* 02-04-2003 - Mike Scott                                         ;
*                 Changed "Primary Care Manager" to "Personal Doctor" ;
* 02-10-2003 - Mike Scott                                         ;
*                 Inserted LENGTH HREF $ 250 statements before    ;
*                 href = "string" statements so that href wouldn't be ;
*                 set by default                                  ;
* 02-14-2003 - Mike Scott                                         ;
*                 Added code to avoid scores > 100                ;
```

```
* 04-30-2003 - Mike Scott                                          ;
*                 Changed Preventive Care columns from 5 to 6 to      ;
*                 accommodate Cholesterol Testing.                    ;
* 05-01-2003 - Mike Scott                                          ;
*                 Updated periods for Q1 2003, and changed "2001 and  ;
*                 2002" to "2002 and 2003" and "2002 Health Care      ;
*                 Survey" to "2003 Health Care Survey".               ;
* 05-04-2003 - Mike Scott                                          ;
*                 Removed Civilian PCM (var1=3 or majgrp=3), and      ;
*                 changed 4-8 references to 3-7.                      ;
* 05-06-2003 - Mike Scott                                          ;
*                 Changed 7-0-0 to 8-0-0.                             ;
* 05-13-2003 - Mike Scott                                          ;
*                 Changed two widths.                                 ;
* 05-14-2003 - Mike Scott                                          ;
*                 Changed columns from 2-12 to 1-11 which is          ;
*                 controlled by var3 - decreased var3's by 1 and      ;
*                 decreased K loops by 1.                             ;
* 07-03-2003 - Mike Scott                                          ;
*                 Incorporated TIMEPD variable into program to run    ;
*                 with Q1 2003 TOTAL_Q rerun to include TIMEPD        ;
*                 variable.                                           ;
* 07-30-2003 - Mike Scott                                          ;
*                 Added else do section to correct header.            ;
* 07-31-2003 - Mike Scott                                          ;
*                 Updated periods for Q2 2003.                        ;
* 08-01-2003 - Mike Scott                                          ;
*                 Added code so periods would print on var3=7,8,9,10. ;
* 08-07-2003 - Regina Gramss                                       ;
*                 Changed program to create additional trend pages    ;
*                 for each sub-benefit: pages are now named with 4    ;
*                 numbers (var4 has been added to all file name       ;
*                 references) to compensate for additional layer      ;
*                 of pages. All file references have been changed     ;
*                 to include var4.                                    ;
* 01-28-2004 - Mike Scott                                          ;
*                 Changed back to html being generated in HTML        ;
*                 directory below directory where MAKEHTMQ is being   ;
*                 run.                                                ;
* 01-29-2004 - Mike Scott                                          ;
*                 Commented out LENGTH HREF $ 250 statements, since   ;
*                 HREF was already declared.                          ;
* 02-11-2004 - Mike Scott                                          ;
*                 Changed all lengths to 100 that were less than 100. ;
* 03-24-2004 - Mike Scott                                          ;
*                 Updated for Q1 2004.  Changed hard-coded years in   ;
*                 footnotes stating source to macro variables.        ;
* 05-07-2004 - Mike Scott - Changed "Wait More than 15 Minutes Past   ;
*              Appointment" to "Wait in Doctor's Office" and          ;
*              "Problems Getting Referral to Specialist" to "Problems ;
*              Getting to See Specialist".  NAed out trends for the   ;
*              composites Getting Needed Care, Getting Care Quickly,  ;
*              and Customer Service and for the questions Problems    ;
*              Getting Personal Doctor/Nurse (GNC), Wait in Doctor's  ;
*              Office (GCQ), and Problem with Paperwork (CS).         ;
* 02-16-2004 - Mike Scott - Moved initial data read-in outside macro  ;
*              loop to speed up program.                              ;
* 06-22-2004 - Regina Gramss - Updated for Q2 2004 run.               ;
* 08-02-2004 - Regina Gramss - removed lines that replaced trend      ;
*              with NA                                                ;
* 10-07-2004 - Regina Gramss - Adjusted for XTNEXREG                  ;
* 02-14-2005 - Mark Brinkley - added 12th benefit SMOKING             ;
* 03-28-2005 - Mark Brinkley - made changed to fix excel pages        ;
* 11-19-2007 - Keith Rathbun - Added 's' to Behavior. Updated         ;
*              parameters for 2007 survey.                            ;
* 11-05-2008 - Mike Rudacille - Updated parameters for 2008 survey.   ;
* 08-01-2012 - Amanda Kudis - Updated parameters for 2012 survey.     ;
* 11-12-2012 - Mike Rudacille - added handling of 2 new servreg       ;
*              categories (JOINT SERVICE, North Joint Service)        ;
*                                                                     ;
* NOTE: Update only SRCYR1, SRCYR2, PERIOD1/2/3, and CURRENTPERIOD.   ;
*=====================================================================;
```

```
OPTIONS COMPRESS=YES;

%LET SRCYR1 = 2013;   *** Previous year; /* MER - 11/21/08 Changed from previous year
                                          to 2 years previous for accuracy of footnote*/
%LET SRCYR2 = 2015;   *** Current year;

%LET CURRENTPERIOD = 2015;
%LET QTRS=3;                                            /** Qtr of these reports    **/


OPTIONS NOXWAIT;


%LET HTMLSP=%NRSTR( );
%LET QUOTE=%STR("");
%LET OUTDIR=HTML;                 /** Directory to put HTML files **/  /*MJS 01/28/04 Set to
HTML*/
%LET IMGDIR=images;               /** Directory with images **/
%LET TARGET=target='_parent';     /** HTML code for frames targeting **/
%LET OUTXLS=1;                    /** 1=Make XLS file/0=Don't   Added 1-24 MAB **/
%LET fontface=%STR(Arial,Helvetica,Swiss,Geneva);
%LET hdcolr=%STR('white');
%LET BLUE=%STR('#663300');        /** This is really dark red **/
%LET GREEN=%STR('#009933');
%LET RED=%STR('#cc0000');
%LET GRAY=%STR('white');
%LET LOGO=%STR('images\tricare_side_35_new.gif');
%LET HELP_BUT=%STR('images\help75.gif');
%LET HOME_BUT=%STR('images\home75.gif');
%LET BACK_BUT=%STR('images\back75.gif');
%LET NUMBER_HTML_FILES=0;         /** Keep count of HTML files created **/

%LET SUB_HEAD=0;                  /** Macro variable for sub-benfit heading **/
                                  /** 1=headings, 0=no headings             **/

/*******************************************************/
/***** Macro for putting notes at bottom of table   *****/
/*******************************************************/
%MACRO BOTTOM_NOTES();
     PUT "<tr>";
   %if &var3.=6 or &var3.=7 or &var3.=8 or &var3.=9 or &seppage.=2 %then %do;
     PUT "    <td colspan='&columns.'><font face='Arial,Helvetica,Swiss,Geneva' size='2'>Source:
Health Care Surveys of DoD Beneficiaries conducted in &SRCYR1 through &SRCYR2.</font>"; /* MER
11/21/08 Changed "and" to "through" */
   %end;
   %else %do;
     PUT "    <td colspan='&columns.'><font face='Arial,Helvetica,Swiss,Geneva' size='2'>Source:
&SRCYR2 Health Care Survey of DOD Beneficiaries</font>";
   %end;
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#009933'><br>";
     PUT "    <b>Indicates score significantly exceeds benchmark</b></font><b>&htmlsp.<br>";
     PUT "    </b><font face='Arial,Helvetica,Swiss,Geneva' size='2'
color='#cc0000'><i>Indicates score significantly falls short of benchmark</i></font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>NA Indicates not
applicable</font><br>";
     PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>*** Indicates suppressed due to
small sample size</font><br>";
     PUT "    <center><a href='&hrefxls.'><img src='&imgdir.\excel.gif' border=0>Download
Page</a></center>";
     PUT "</td></tr>";
%MEND BOTTOM_NOTES;



/*******************************************************/
/***** Macro for adding in link row to trends data  *****/
/*******************************************************/

/*** Macro variable with Javascript to go back ***/
%LET GOBACK=%STR(<script>document.write(&quote.<a href='javascript:history.go(-1)'
target='_parent'>&quote.);
document.write(&quote.<img src='images\\back75.gif' border='0' alt='Go to previous
page'>&quote.);document.write(&quote.</a>&quote.);</script>);
```

```
LIBNAME SRC1 '.'  ACCESS=READONLY;
*LIBNAME SRC1 V612 'L:\2005\PROGRAMS\LOADWEB';

OPTIONS LS=210;


/*******************************************************************/
/****   Macro to create html pages                                 ****/
/****          var1=major group                                    ****/
/****          var2=region                                         ****/
/****          var3=benefit                                        ****/
/****          var4=trend                                          ****/
/****       seppage=0/no separate pages for qtrly trends           ****/
/****               1/1st separate page with LINK to trends        ****/
/****               2/2nd separate page with trends                ****/
/*******************************************************************/
/** RSG 08/07/03 - added var4 to add extra dimension of page numbers for
    sub benefit trend pages**/


DATA PRE_SUBSET (RENAME=(TIME=TIMEPD));
  SET SRC1.TREND_Apc(DROP=FLAG SOURCE KEY);    /*** MAB testing 3/16/2005 ***/

  /* 02/2006 RSG - need to reset timepd to longer length to include
     values with asterix*/

  LENGTH TIME $6.;
  TIME=TIMEPD;
  IF BENEFIT="Total" THEN DELETE;  /*** MAB testing 2/11/2005 ***/

  /* MER 11/05/09 Temporary fix for 2009 and 2010 */
  /*IF (BENEFIT="Customer Service" AND TIMEPD="Trend") THEN SCORE=.;*/

  /* MER 4/30/11 - Set scores for Counselled To Quit = N/A for 2009 and 2010 for trends pages */
  /*               Also set Trend to N/A
  IF BENEFIT = "Healthy Behaviors" AND BENTYPE = "Counselled To Quit" AND
     TIMEPD IN ("2011", "Trend") THEN SCORE = .A;*/

  IF MAJGRP = "All Beneficiaries" THEN MAJGRP = "All Users";
  IF MAJGRP = "Non-enrolled Beneficiaries" THEN MAJGRP = "Standard/Extra Users";

  IF SCORE>100 then SCORE=100;
  IF (TIMEPD="Trend" and -.5<SCORE<0) THEN SCORE=ABS(SCORE);

  IF BENTYPE="Wait More than 15 Minutes Past Appointment" THEN     /*MJS 5/7/04 Changed label*/
    BENTYPE="Wait in Doctor`s Office";
  IF BENTYPE="Problems Getting Referral to Specialist" THEN        /*MJS 5/7/04 Changed label*/
    BENTYPE="Problems Getting to See Specialist";



  DROP TIMEPD;

     IF MAJGRP = "Benchmark" THEN LINEUP=1;
     ELSE IF MAJGRP = "Prime Enrollees" THEN LINEUP=2;
     ELSE IF MAJGRP = "Enrollees with Military PCM" THEN LINEUP=3;
         ELSE IF MAJGRP = "Enrollees with Civilian PCM" THEN LINEUP=4;
     ELSE IF MAJGRP = "Standard/Extra Users" THEN LINEUP=5;
         ELSE IF MAJGRP = "Purchased Care Users" THEN LINEUP=6;
     ELSE IF MAJGRP = "Active Duty" THEN LINEUP=7;
     ELSE IF MAJGRP = "Active Duty Dependents" THEN LINEUP=8;
     ELSE IF MAJGRP = "Retirees and Dependents" THEN LINEUP=9;
     ELSE IF MAJGRP = "All Users" THEN LINEUP=10;

     IF REGION = "Benchmark" THEN LINEUP2=1;
     ELSE IF UPCASE(REGION) = 'USA MHS' THEN DO;
        LINEUP2=2;
        REGION='US MHS';
        REGCAT='US MHS';
     END;
     ELSE IF UPCASE(REGION) = 'ARMY' THEN LINEUP2=3;
     ELSE IF UPCASE(REGION) = 'NAVY' THEN LINEUP2=4;
     ELSE IF UPCASE(REGION) = 'AIR FORCE' THEN LINEUP2=5;
```

```
     ELSE IF UPCASE(REGION) = 'OTHER' THEN LINEUP2=6;
     ELSE IF UPCASE(REGION) = 'JOINT SERVICE' THEN LINEUP2=7;
     ELSE IF UPCASE(REGION) = 'NORTH' THEN LINEUP2=8;
     ELSE IF UPCASE(REGION) = 'NORTH ARMY' THEN LINEUP2=9;
     ELSE IF UPCASE(REGION) = 'NORTH NAVY' THEN LINEUP2=10;
     ELSE IF UPCASE(REGION) = 'NORTH AIR FORCE' THEN LINEUP2=11;
     ELSE IF UPCASE(REGION) = 'NORTH OTHER' THEN LINEUP2=12;
     ELSE IF UPCASE(REGION) = 'NORTH JOINT SERVICE' THEN LINEUP2=13;
     ELSE IF UPCASE(REGION) = 'SOUTH' THEN LINEUP2=14;
     ELSE IF UPCASE(REGION) = 'SOUTH ARMY' THEN LINEUP2=15;
     ELSE IF UPCASE(REGION) = 'SOUTH NAVY' THEN LINEUP2=16;
     ELSE IF UPCASE(REGION) = 'SOUTH AIR FORCE' THEN LINEUP2=17;
     ELSE IF UPCASE(REGION) = 'SOUTH OTHER' THEN LINEUP2=18;
     ELSE IF UPCASE(REGION) = 'WEST' THEN LINEUP2=19;
     ELSE IF UPCASE(REGION) = 'WEST ARMY' THEN LINEUP2=20;
     ELSE IF UPCASE(REGION) = 'WEST NAVY' THEN LINEUP2=21;
     ELSE IF UPCASE(REGION) = 'WEST AIR FORCE' THEN LINEUP2=22;
     ELSE IF UPCASE(REGION) = 'WEST OTHER' THEN LINEUP2=23;
     ELSE IF UPCASE(REGION) = 'OVERSEAS' THEN LINEUP2=24;
     ELSE IF UPCASE(REGION) = 'OVERSEAS EUROPE' THEN LINEUP2=25;
     ELSE IF UPCASE(REGION) = 'OVERSEAS PACIFIC' THEN LINEUP2=26;
     ELSE IF UPCASE(REGION) = 'OVERSEAS LATIN AMERICA' THEN LINEUP2=27;


RUN;   ***MJS 07/03/03 Changed BENTYPE to TIMEPD;

PROC SORT;
BY LINEUP LINEUP2;
RUN;


%MACRO MKHTML(var1,var2,var3,seppage,var4);


/*** Determine some macro variables ***/
%if &prefix=f %then %do;
  %let width1=640;
  %let width2=640;
  %let border=0;
%end;
%else %do;
  %let width1=90%;
  %let width2=85%;
  %let border=1;
%end;

%let number_html_files=%EVAL(1+&number_html_files.);


/** Load in data **/
DATA SUBSET;
  SET PRE_SUBSET;
  LENGTH FILEOUT1 $ 100;   /*MJS 02/11/04*/
  LENGTH FILEOUT2 $ 100;
  LENGTH FILEOUT3 $ 100;


  /*** VAR1 indicated major group ***/
  %if &var1.=0 %then %let major=%STR();
  %if &var1.=1 %then %let major=%STR(Prime Enrollees);
  %if &var1.=2 %then %let major=%STR(Enrollees with Military PCM);
  %if &var1.=3 %then %let major=%STR(Enrollees with Civilian PCM);
  %if &var1.=4 %then %let major=%STR(Standard/Extra Users);
  %if &var1.=5 %then %let major=%STR(Purchased Care Users);
  %if &var1.=6 %then %let major=%STR(Active Duty);
  %if &var1.=7 %then %let major=%STR(Active Duty Dependents);
  %if &var1.=8 %then %let major=%STR(Retirees and Dependents);
  %if &var1.=9 %then %let major=%STR(All Users);


  %if &var4. = 0 %then %do;
      %LET BEN_TYPE=%STR('Composite');
  %end;
  %else %do;
```

```
    %if &var3. = 1 %then %do;
        %if &var4. = 1 %then %do;
            %LET BEN_TYPE = %STR('Getting to See a Specialist');
        %end;
        %else %if &var4. = 2 %then %do;
            %LET BEN_TYPE = %STR('Getting Treatment');
        %end;
    %end;
    %else %if &var3. = 2 %then %do;
        %if &var4. = 1 %then %do;
            %LET BEN_TYPE = %STR('Wait for Routine Visit');
        %end;
        %else %if &var4. = 2 %then %do;
            %LET BEN_TYPE = %STR('Wait for Urgent Care');
        %end;
    %end;
    %else %if &var3. = 3 %then %do;
        %if &var4. = 1 %then %do;
            %LET BEN_TYPE = %STR('Listens Carefully');
        %end;
        %else %if &var4. = 2 %then %do;
            %LET BEN_TYPE = %STR('Explains so You Can Understand');
        %end;
    %else %if &var4. = 3 %then %do;
            %LET BEN_TYPE = %STR('Shows Respect');
        %end;
        %else %if &var4. = 4 %then %do;
            %LET BEN_TYPE = %STR('Spends Time with You');
        %end;
    %end;
    %else %if &var3. = 4 %then %do;
        %if &var4. = 1 %then %do;
            %LET BEN_TYPE = %STR('Getting Information');
        %end;
        %else %if &var4. = 2 %then %do;
            %LET BEN_TYPE = %STR('Courteous Customer Service');
        %end;
    %end;
    %else %if &var3. = 5 %then %do;
        %if &var4. = 1 %then %do;
            %LET BEN_TYPE = %STR('Claims Handled in a Reasonable Time');
        %end;
        %else %if &var4. = 2 %then %do;
            %LET BEN_TYPE = %STR('Claims Handled Correctly');
        %end;
    %end;
    %else %if &var3. = 10 %then %do;
        %if &var4. = 1 %then %do;
            %LET BEN_TYPE = %STR('Mammography');
        %end;
        %else %if &var4. = 2 %then %do;
            %LET BEN_TYPE = %STR('Pap Smear');
        %end;
        %else %if &var4. = 3 %then %do;
            %LET BEN_TYPE = %STR('Hypertension');
        %end;
        %else %if &var4. = 4 %then %do;
            %LET BEN_TYPE = %STR('Prenatal Care');
        %end;
    %end;
    %else %if &var3. = 11 %then %do;    /*** MAB Added 2/11/2005 ***/
        %if &var4. = 1 %then %do;
            %LET BEN_TYPE = %STR('Non-Smoking Rate');
        %end;
        %else %if &var4. = 2 %then %do;
            %LET BEN_TYPE = %STR('Counselled To Quit');
        %end;
        %else %if &var4. = 3 %then %do;
            %LET BEN_TYPE = %STR('Percent Not Obese');
        %end;
    %end;
%end;

   IF MAJGRP = "&major.";     /*** MAB MODIFIED 3/16/2005 ***/
```

```
     %let comma=%STR(,);
     %let grpmsg=%STR(Click below to view this table by other groups);


   /*** Create macro variables to refer to Component or Trend pages ***/
   %if &seppage.=2 %then %do;
      %let q=q;
      %let unq=;
      %let click_alt=Click for Component data;
      %let click_image=component.gif;
   %end;
   %else %do;
      %let q=;
      %let unq=q;
      %let click_alt=Click for Trend data;
      %let click_image=trend.gif;
   %end;


   FILEOUT1=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.-&var4.&q..htm");    /** Main html
**/
   FILEOUT2=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.-&var4.&q.a.htm");   /** Header html
**/
   FILEOUT3=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.-&var4.&q.b.htm");   /** Data html
**/
   %if &outxls.=1 %then %do;
      %let fileout1= NUL;
      %let fileout2= NUL;
      %let fileout3= NUL;
    %end;
    %else %do;
      call symput('fileout1',FILEOUT1);
      call symput('fileout2',FILEOUT2);
      call symput('fileout3',FILEOUT3);
    %end;



  /*-------------------------*/
  /* 2000/11: begin xls code */
  /*-------------------------*/

  FILEOUTX=COMPRESS("&outdir.\p&var1.-&var2.-&var3.-&var4.&q..xls");          /* create run-
specific xls file */
  CALL SYMPUT('fileoutX',FILEOUTX);                                  /* via global macro vars
*/
  %if &seppage. ne 2 %then %do;
     TEMPLATE=COMPRESS("Templates\Template&var3..xls");
  %end;
  %else %do;
     TEMPLATE=COMPRESS("Templates\Template_trend.xls");
  %end;
  CALL SYMPUT('template',TEMPLATE);                                  /* identify which template
xls file */
  /*-------------------------*/
  /* 2000/11: end xls code   */
  /*-------------------------*/


  /*** VAR3 dictates type of benefit heading ***/
  %if &var3=0 %then %do;
    %let headvar=BENEFIT;
  %end;
  %else %do;
    %if &seppage.=2 or &var3=6 or &var3=7 or &var3=8 or &var3=9 %then %let headvar=TIMEPD;
    %else %let headvar=BENTYPE;
  %end;


  /*** Link to XLS file ***/
  HREFXLS=COMPRESS("p&var1.-&var2.-&var3.-&var4.&q..xls");
  call symput('hrefxls',HREFXLS);
RUN;
```

```
/*** Subset data by region ***/
DATA SUBSET2;
  SET SUBSET;

  %if &var2.=0 %then %do;    /** 0 = All regions **/
     IF REGION=REGCAT;       /** Just do All Region table **/
      %let sub_regs=%STR(All Regions);
  %end;

  %else %if &var2.=1 %then %do;
     IF UPCASE(REGION)="US MHS" ;
      %let sub_regs=%STR(US MHS);
  %end;
  %else %if &var2.=2 %then %do;
     IF UPCASE(REGION)="ARMY";
      %let sub_regs=%STR(ARMY);
  %end;
  %else %if &var2.=3 %then %do;
     IF UPCASE(REGION)="NAVY" ;
      %let sub_regs=%STR(NAVY);
  %end;
  %else %if &var2.=4 %then %do;
     IF UPCASE(REGION)="AIR FORCE";
      %let sub_regs=%STR(AIR FORCE);
  %end;
  %else %if &var2.=5 %then %do;
     IF UPCASE(REGION)="OTHER";
      %let sub_regs=%STR(OTHER);
  %end;
  %else %if &var2.=6 %then %do;
     IF UPCASE(REGION)="JOINT SERVICE";
      %let sub_regs=%STR(JOINT SERVICE);
  %end;
  %else %if &var2.=7 %then %do;
     IF UPCASE(REGION)="NORTH";
      %let sub_regs=%STR(NORTH);
  %end;
  %else %if &var2.=8 %then %do;
     IF UPCASE(REGION)="NORTH ARMY" or REGION="Benchmark" or REGION = "US MHS"
        OR REGION="NORTH" OR REGION="ARMY";
      %let sub_regs=%STR(North Army);
  %end;
  %else %if &var2.=9 %then %do;
     IF UPCASE(REGION)="NORTH NAVY" or REGION="Benchmark" or REGION = "US MHS"
        OR REGION="NORTH" OR REGION="NAVY";
      %let sub_regs=%STR(North Navy);
  %end;
  %else %if &var2.=10 %then %do;
     IF UPCASE(REGION)="NORTH AIR FORCE" or REGION="Benchmark" or REGION = "US MHS"
        OR REGION="NORTH" OR REGION="AIR FORCE";
      %let sub_regs=%STR(North Air Force);
  %end;
  %else %if &var2.=11 %then %do;
     IF UPCASE(REGION)="NORTH OTHER" or REGION="Benchmark" or REGION = "US MHS"
      OR REGION="NORTH" OR REGION="OTHER";
      %let sub_regs=%STR(North Other);
  %end;
  %else %if &var2.=12 %then %do;
     IF UPCASE(REGION)="NORTH JOINT SERVICE" or REGION="Benchmark" or REGION = "US MHS"
      OR REGION="NORTH" OR REGION="JOINT SERVICE";
      %let sub_regs=%STR(North Joint Service);
  %end;
  %else %if &var2.=13 %then %do;
     IF UPCASE(REGION)="SOUTH";
      %let sub_regs=%STR(SOUTH);
  %end;
  %else %if &var2.=14 %then %do;
     IF UPCASE(REGION)="SOUTH ARMY" or REGION="Benchmark" or REGION = "US MHS"
        OR REGION="SOUTH" OR REGION="ARMY";
      %let sub_regs=%STR(South Army);
  %end;
 %else %if &var2.=15 %then %do;
     IF UPCASE(REGION)="SOUTH NAVY" or REGION="Benchmark" or REGION = "US MHS"
```

```
        OR REGION="SOUTH" OR REGION="NAVY";
      %let sub_regs=%STR(South Navy);
 %end;
 %else %if &var2.=16 %then %do;
     IF UPCASE(REGION)="SOUTH AIR FORCE" or REGION="Benchmark" or REGION = "US MHS"
        OR REGION="SOUTH" OR REGION="AIR FORCE";
      %let sub_regs=%STR(South Air Force);
 %end;
 %else %if &var2.=17 %then %do;
     IF UPCASE(REGION)="SOUTH OTHER" or REGION="Benchmark" or REGION = "US MHS"
        OR REGION="SOUTH" OR REGION="OTHER";
      %let sub_regs=%STR(South Other);
 %end;
 %else %if &var2.=18 %then %do;
     IF UPCASE(REGION)="WEST";
      %let sub_regs=%STR(OVERSEAS);
 %end;
 %else %if &var2.=19 %then %do;
     IF UPCASE(REGION) = "WEST ARMY" or REGION="Benchmark" or REGION = "US MHS"
        OR REGION="WEST" OR REGION="ARMY";
      %let sub_regs=%STR(West Army);
 %end;
 %else %if &var2.=20 %then %do;
     IF UPCASE(REGION) = "WEST NAVY" or REGION="Benchmark" or REGION = "US MHS"
        OR REGION="WEST" OR REGION="NAVY";
      %let sub_regs=%STR(West Navy);
 %end;
 %else %if &var2.=21 %then %do;
     IF UPCASE(REGION) = "WEST AIR FORCE" or REGION="Benchmark" or REGION = "US MHS"
        OR REGION="WEST" OR REGION="AIR FORCE";
      %let sub_regs=%STR(West Air Force);
 %end;
 %else %if &var2.=22 %then %do;
     IF UPCASE(REGION) = "WEST OTHER" or REGION="Benchmark" or REGION = "US MHS"
        OR REGION="WEST" OR REGION="OTHER";
      %let sub_regs=%STR(West Other);
 %end;
 %else %if &var2.=23 %then %do;
     IF UPCASE(REGION) = "OVERSEAS" ;
      %let sub_regs=%STR(OVERSEAS);
 %end;
 %else %if &var2.=24 %then %do;
      IF UPCASE(REGION) = "OVERSEAS EUROPE" or REGION="Benchmark" or REGION = "US MHS"
        OR REGION="OVERSEAS" OR REGION="EUROPE";
       %let sub_regs=%STR(Overseas Europe);
  %end;
  %else %if &var2.=25 %then %do;
      IF UPCASE(REGION) = "OVERSEAS PACIFIC"or REGION="Benchmark" or REGION = "US MHS"
        OR REGION="OVERSEAS" OR REGION="PACIFIC";
       %let sub_regs=%STR(Overseas Pacific);
  %end;
  %else %if &var2.=26 %then %do;
      IF UPCASE(REGION) = "OVERSEAS LATIN AMERICA"or REGION="Benchmark" or REGION = "US MHS"
        OR REGION="OVERSEAS" OR REGION="LATIN AMERICA";
       %let sub_regs=%STR(Overseas Latin America);
  %end;

RUN;

/* MER 11/22/12 - Temp fix for pages showing 2010/11 scores
  %if &var3.=6 or &var3.=7 or &var3.=8 or &var3.=9 or &seppage.=2 %then %do;
     %if &var2.=0 %then %do;
        DATA SUBSET2;
           SET SUBSET2;
           IF REGCAT IN ("JOINT SERVICE","North Joint Service") THEN REGCAT = TRIM(REGCAT) ||
"*";
        RUN;
     %end;
     %else %if &var2.=12 %then %do;
        DATA SUBSET2;
           SET SUBSET2;
           IF REGCAT IN ("JOINT SERVICE","North Joint Service") THEN REGCAT = TRIM(REGCAT) ||
"*";
           ELSE IF SUBSTR(REGCAT,1,10) = "Ft Belvoir" THEN REGCAT = TRIM(REGCAT) || "*";
```

```
          ELSE IF SUBSTR(REGCAT,1,11) = "Walter Reed" THEN REGCAT = TRIM(REGCAT) || "*#";
       RUN;
     %end;
  %end;
*/

/*** Subset data by Benefit ***/
DATA SUBSET3;
  SET SUBSET2;

  %if &var3.=0 %then %do;   /** 0=All Benefits **/
     IF BENTYPE="Composite" and TIMEPD="&currentperiod.";
  %end;
  %else %if &var3.=1 %then %do;
     IF BENEFIT="Getting Needed Care";

     /*** # of columns for this benefit table ***/
     %let columns=%EVAL(3+&qtrs.);
  %end;
  %else %if &var3.=2 %then %do;
     IF BENEFIT="Getting Care Quickly";
     %let columns=%EVAL(3+&qtrs.);
  %end;
  %else %if &var3.=3 %then %do;
     IF BENEFIT="How Well Doctors Communicate";
     %let columns=%EVAL(5+&qtrs.);
  %end;
  %else %if &var3.=4 %then %do;
     IF BENEFIT="Customer Service";
     %let columns=%EVAL(3+&qtrs.);
  %end;
  %else %if &var3.=5 %then %do;
     IF BENEFIT="Claims Processing";
     %let columns=%EVAL(3+&qtrs.);
  %end;
  %else %if &var3.=6 %then %do;
     IF BENEFIT="Health Plan";
     %let columns=%EVAL(2+&qtrs.);
  %end;
  %else %if &var3.=7 %then %do;
     IF BENEFIT="Health Care";
     %let columns=%EVAL(2+&qtrs.);
  %end;
  %else %if &var3.=8 %then %do;
     IF BENEFIT="Personal Doctor";
     %let columns=%EVAL(2+&qtrs.);
  %end;
  %else %if &var3.=9 %then %do;
     IF BENEFIT="Specialty Care";
     %let columns=%EVAL(2+&qtrs.);
  %end;
  %else %if &var3.=10 %then %do;
     IF BENEFIT="Preventive Care";
     %let columns=%EVAL(5+&qtrs.);
  %end;
  %else %if &var3.=11 %then %do;
     IF BENEFIT="Healthy Behaviors";
     %let columns=%EVAL(4+&qtrs.);
  %end;

  /*** Set macro variable ***/
  %if &var3.=0 %then %do;
      %let sub_ben=%STR(&currentperiod. Composite Scores);
      %let columns=12;
  %end;
  %else %do;
    call symput('sub_ben',BENEFIT);
  %end;


  /*** Determine number of columns for sub-benefits  ***/
  /*** Equals cols - (x for qtrs  - 1 for stub column) ***/
  %let subcols=%EVAL(&columns.-&qtrs.-2);
```

```
  /*** Determine number of columns less 1st (stub) column ***/
  %let columns_less1=%EVAL(&columns.-1);

RUN;


DATA SUBSET4;
  SET SUBSET3;

  WIDTH_COL1=120; /** Set width of column 1 **/

  IF BENTYPE="Composite" THEN WIDTH3=90;
  ELSE WIDTH3=90;

  /** Deal with some special cases **/
  IF BENEFIT="Preventive Care" THEN DO;
      IF BENTYPE="Composite" THEN WIDTH3=.;
      ELSE WIDTH3=80;
  END;

  %if &prefix.=p %then %do;
     WIDTH3=.;
  %end;
  %else %if &var3.=0 %then %do;
/*     WIDTH_COL1=.;
     WIDTH3=40;*/
/* MER 05/02/09 new values for V4 frames */
     WIDTH_COL1=80;
     /* MER 05/02/09 */
     %if &var2.=0 %then %do;
        WIDTH3=44;
     %end;
     %else %do;
        WIDTH3=43;
     %end;
  %end;

RUN;



OPTIONS LS=152;
PROC PRINT;
 VAR BENEFIT BENTYPE TIMEPD REGION REGCAT MAJGRP;
RUN CANCEL;
PROC PRINT;
 VAR BENEFIT BENTYPE REGION REGCAT MAJGRP;
RUN CANCEL;


/*****************************************************************/
/****  Put out Header rows of table                           ****/
/*****************************************************************/
DATA HTML;
  SET SUBSET4;
  LENGTH HREFBACK $100;

  IF REGION IN("Benchmark");

  /** Determine where back button should link to **/
  %if &var1.=0 %then %do;
     HREFBACK=COMPRESS("&prefix.9-0-0-0.htm");
  %end;
  %else %do;
     HREFBACK=COMPRESS("&prefix.&var1.-0-0-0.htm");
  %end;

  /*** Create macro variable date with today's date ***/
  DATETIME=DATETIME();
  CALL SYMPUT ('DATETIME',left(put(datetime,datetime20.)));
  DROP DATETIME;

RUN;
```

```
/***  FRAMES SECTION  ***/
%if &prefix=f %then %do;

    /*** Make frameset page split frames smaller on all ratings pages ***/

   %if &var3.=0 %then %do;
         %let splitpixel=228;
    %end;
    %else %if &var3.=1 OR &var3.=2 %then %do;
         %let splitpixel=211;
    %end;
    %else %if &var3.=5 OR &var3.=11 %then %do;
         %let splitpixel=181;
    %end;
    %else %if &var3.=3 %then %do;
         %let splitpixel=196;
    %end;
    %else %if &var3.=4 %then %do;
         %let splitpixel=221;
    %end;
    %else %if &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;
         %let splitpixel=158;
    %end;
    %else %if &var3.=10 %then %do;
         %let splitpixel=192;
    %end;

    %if &SEPPAGE.=2 %then %do;
         %let splitpixel=157;
    %end;


   /*** Create frameset page HTML page ***/
   DATA _NULL_;
     FILE "&FILEOUT1.";
     PUT "<html>";
     PUT "<frameset rows='&splitpixel.,*'>";
      %if &seppage.=2 %then %do;
        PUT "   <frame src='f&var1.-&var2.-&var3.-&var4.qa.htm'  MARGINHEIGHT='0'
MARGINWIDTH='0'>";
        PUT "   <frame src='f&var1.-&var2.-&var3.-&var4.qb.htm'  MARGINHEIGHT='0'
MARGINWIDTH='0'>";
      %end;
      %else %do;
        PUT "   <frame src='f&var1.-&var2.-&var3.-&var4.a.htm'  MARGINHEIGHT='0'
MARGINWIDTH='0'>";
        PUT "   <frame src='f&var1.-&var2.-&var3.-&var4.b.htm'  MARGINHEIGHT='0'
MARGINWIDTH='0'>";
      %end;


     PUT "</frameset></html>";
   RUN;


   /*** Since done making frameset page then assign fileout1 = frame 1 ***/
   %let fileout1=&fileout2.;
   %if &seppage.=1 %then %do;
       %let fileout1=&fileout2.;
    %end;
    %else %if &seppage.=2 %then %do;
       %let fileout1=&fileout2.;
    %end;

%end;


/*** Initialize HTML page ***/
DATA _NULL_;
  FILE "&FILEOUT1.";

  PUT "<! Created &datetime.>";
```

```
  PUT "<html><head><title>";
  PUT "&major. &comma. &sub_ben., &sub_regs.";
  PUT "</title></head>";
  PUT "<body bgcolor='#999999' text='#000099' link='#660066' alink='#660066' vlink='#996699'>";

  /*** link to printer friendly version moved, 10/25/2001 C.Rankin ***/


RUN;

/*-------------------------*/
/* 2000/11: begin xls code */
/*-------------------------*/
%if &outxls.=1 %then %do;
  X "COPY &template. &fileoutX.";                                /* copy template xls to run-
specific xls file */
  X "START &fileoutX.";                                          /* open run-specific xls file
*/
  FILENAME XLSTITLE DDE 'excel|Sheet1!R1C1:R2C20' NOTAB;         /* xls rows 1 & 2 (titles)
*/
  FILENAME XLSDATA DDE 'excel|Sheet1!R6C1:R100C20' NOTAB;        /* xls rows 6+ (body of table)
*/
%end;
/*-------------------------*/
/* 2000/11: end xls code   */
/*-------------------------*/




/*** If ALL benefits (VAR3=0) then do special column headers ***/
%if &var3.=0 %then %do;
DATA _NULL_;
  SET HTML END=EOF;
  *LENGTH HREF $ 250;   /*MJS 01/29/04 Commented out statement*/

  IF _N_=1 THEN DO;

        FILE "&FILEOUT1." MOD;      /* 2000/11: moved file stmt inside if stmt */

         /*** put table title ***/
         /**PUT "<h2><center><font face='&fontface.'>&major., &sub_regs. <br> &sub_ben.
</font></center></h2>"**/

         /** MF Changes ROW 1 **/
         PUT "<center><table border='&border.' cellpadding='2' cellspacing='0' bgcolor='#D8D8D8'
colspan=12 width='&width1.'>";
         PUT "<tr bgcolor='white'>";
         PUT "    <td colspan='6' valign='top' bgcolor='#999999'><img border='0' height='25'
width='242' src=&logo.></td>";
         PUT "    <td colspan='6' align='right' valign='bottom' bgcolor='#999999'>";
         PUT "          <div align='right'>";
         PUT "          <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp. &htmlsp.";
         PUT "&goback.";

         PUT "          <noscript><a href="""  HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";
         PUT "          &htmlsp. &htmlsp.";
         PUT "          <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
         PUT "    </td>";
         PUT "</tr>";

         PUT "<tr>";
         PUT "        <td valign='center' align='center' colspan='12' bgcolor='#D8D8D8'>";
         PUT "                 <font face='&fontface.' color='#3333cc' size='5'><b>&major.
&comma.  &sub_regs.<br>";
         PUT "                  &sub_ben.</b></font>";
         PUT "        </td>";
         PUT "</tr>";


         /*** Print out 3rd row ***/
```

```
         /***  FRAMES SECTION  ***/


          /***here***/

         %if &prefix=f %then %do;
              PUT "<tr bgcolor= &hdcolr.>";
              /**RSG 02/2005 add in a dummy gif to align titles and comment out extra cell**/
              PUT "<td width=40 colspan=1><IMG SRC='&imgdir.\dummy.gif' ALT=' ' BORDER=0></td>";
              PUT "<td width=80 colspan=2><IMG SRC='&imgdir.\eoa.gif'ALT='Ease of Access'
BORDER=0></td>";
              PUT "<td width=185 colspan=3><IMG SRC='&imgdir.\com_cus_ser.gif'
ALT='Communication and Customer Service' BORDER=0></td>";
              PUT "<td width=160 colspan=4><IMG SRC='&imgdir.\ratings0.gif' ALT='Ratings'
BORDER=0></td>";
              PUT "<td width=50 colspan=1><IMG SRC='&imgdir.\prevention.gif' ALT='Prevention'
BORDER=0></td>";
              PUT "<td width=80 colspan=1><IMG SRC='&imgdir.\healthy.gif' ALT='Healthy
Behaviors' BORDER=0></td>";
              PUT "</tr>";
              PUT "<tr bgcolor= &hdcolr.>";
          %end;
          %else %do;
              PUT "<tr bgcolor= &hdcolr.>";
              PUT "<td>&htmlsp.</td>";

              PUT "<td align='center' valign='bottom' colspan=2><font face='&fontface.'
size='2'><b>Ease of Access</b></font></td>";
              PUT "<td align='center' valign='bottom' colspan=3><font face='&fontface.'
size='2'><b>Communication and Customer Service</b></font></td>";
              PUT "<td align='center' valign='bottom' colspan=4><font face='&fontface.'
size='2'><b>Ratings</b></font></td>";
              PUT "<td align='center' valign='bottom' colspan=1><font face='&fontface.'
size='2'><b>Prevention</b></font></td>";
              PUT "<td align='center' valign='bottom' colspan=1><font face='&fontface.'
size='2'><b>Healthy Behaviors</b></font></td>";
              PUT "</tr>";
              PUT "<tr bgcolor= &hdcolr.>";
          %end;


         /*** Print out 1st column of 4th row ***/
         /***  FRAMES SECTION  ***/
         %if &prefix=f %then %do;
             PUT "<td width=125>&htmlsp.</td>";
         %end;
         %else %do;
             PUT "<td width='8%'><font face='&fontface.'>&htmlsp.</font></td>";
         %end;

         bennum=1;  /** index to all 11 benefits **/


         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSTITLE;
           PUT "&major. &comma. &sub_regs.";
           PUT "%cmpres('&sub_ben.')";
         %end;
         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
  END;

   FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */

   /*** Put Benefits across columns (Continuation of 4th row) ***/
   HREF=COMPRESS("..\html\&prefix.&var1.-&var2.-"||bennum||"-&var4..htm");


   /** If TOTAL benefit then don't have HREF **/
   /***  FRAMES SECTION  ***/
```

```
   %if &prefix=f %then %do;
     IMAGE=COMPRESS("&imgdir.\image0_"||bennum||".gif");
     IF BENNUM=0 THEN PUT "<td align='center' valign='bottom'><IMG SRC='&imgdir.\image0_0.gif'
alt='Total' BORDER=0></td>";
     ELSE PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG
SRC='" IMAGE "' alt='" BENEFIT "' BORDER=0></a></td>";

   %end;
   %else %do;
     IF BENNUM=0 THEN PUT "<td width='8%' align='center' valign='bottom'><font
face='&fontface.'size='1'>" &HEADVAR. "</font></td>";
     ELSE PUT "<td width='8%' align='center' valign='bottom'><font face='&fontface.'size='1'><a
href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
   %end;


  bennum+1;


  IF EOF THEN DO;
    PUT "</tr>";
  END;

RUN;
%end;




/*** If Sub-benefit (VAR3^=0) then do differently ***/
/*** If not separate page (SEPPAGE=0) for quarterly info then do as before ***/
%else %if &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;



DATA _NULL_;
  SET HTML END=EOF;
  *LENGTH HREF $ 250;

  COLUMNS=&columns.;
  SPAN2=ROUND(COLUMNS/2,1);
  SPAN1=COLUMNS-SPAN2;


  IF _N_=1 THEN DO;

        FILE "&FILEOUT1." MOD ;


         /** MF Changes ROW 1 **/
         PUT "<center><table border='&border.' cellpadding='2' cellspacing='0' bgcolor='#D8D8D8'
width='&width2.'>";
         PUT "<tr bgcolor='white'>";
         PUT "    <td colspan=""" SPAN1 +(-1) """ valign='top' bgcolor='#999999'><img border='0'
height='25' width='242' src=&logo.></td>";
         PUT "    <td colspan=""" SPAN2 +(-1) """ align='right' valign='bottom'
bgcolor='#999999'>";
         PUT "          <div align='right'>";
         PUT "          <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp. &htmlsp.";


         PUT "&goback.";

         PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";
         PUT "          &htmlsp. &htmlsp.";
         PUT "          <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
         PUT "    </td>";
         PUT "</tr>";

         /** MF Changes ROW 2 **/
```

```
         PUT "<tr>";
         PUT "        <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
         PUT "                <font face='&fontface.' color='#3333cc' size='5'><b>&major.
&comma.  &sub_regs. <br>";

         /*** If ratings then don't display reference period ***/
         %if &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;
                         ***MJS 4/23/03 Changed 8/9/10/11 to 7/8/9/10;
               PUT "                 &sub_ben.</b></font>";
         %end;
         %else %do;
               PUT "                 &sub_ben.<BR>&currentperiod.</b></font>";
         %end;


         PUT "        </td>";
         PUT "</tr>";


         /*** Sub_head macro variable added C.Rankin 10/25/2001  ***/

         %if &sub_head.=1 %then %do;
            /** 3rd Row ***/
            /**  FRAMES SECTION  ***/
            %if &prefix=f %then %do;
                 PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                 /*** If sub-benefits then output sub-benefit columns ***/
                 %if &subcols.^=0 %then %do;
                   IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
                   PUT "<td align='center' valign='bottom' colspan=&subcols.><IMG SRC=" IMAGE "
alt='" BENEFIT "' BORDER=0></td>";
                   PUT "<td align='center' valign='bottom' colspan=&qtrs.><IMG
SRC='&imgdir.\composite.gif' ALT='Composite' BORDER=0></td></tr>";
                 %end;
                 %else %do;
                   PUT "<td align='center' valign='bottom' colspan=&qtrs.><IMG
SRC='&imgdir.\border_rating.gif' ALT='Ratings' BORDER=0></td></tr>";
                 %end;
            %end;
            %else %do;
                 PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                 /*** If sub-benefits then output sub-benefit columns ***/
                 %if &subcols.^=0 %then %do;
                   PUT "<td align='center' valign='bottom' colspan=&subcols.><font
face='&fontface.'><b>&sub_ben.<br>components</b></font></td>";
                   PUT "<td align='center' valign='bottom' colspan=&qtrs.><font
face='&fontface.'><b>Composite</b></font></td></tr>";
                 %end;
                 %else %do;
                   PUT "<td align='center' valign='bottom' colspan=&qtrs.><font
face='&fontface.'><b>Ratings</b></font></td></tr>";
                 %end;
            %end;
         %end;


         /*** 4th Row start (column 1) ***/
         /***  FRAMES SECTION  ***/
         %if &prefix=f %then %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td align='left' valign='bottom'><img src='&imgdir.\blank_35_50.gif'
border=0></td>";
         %end;
         %else %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td width='10%'>&htmlsp.</td>";
         %end;



         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
```

```
        %if &outxls.=1 %then %do;
          FILE XLSTITLE;
          PUT "&major. &comma. &sub_regs.";
          PUT "%cmpres('&sub_ben.')";
        %end;
        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
  END;

  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  /*** Print out column headings ***/

      HREF=COMPRESS("..\html\help.htm#q&var3.");
      HREF1=COMPRESS("..\html\help.htm#trend");




  /*** 4th Row (columns 2+) ***/
  /*** If quarter column then HREF link is different ****/
  /***  FRAMES SECTION  ***/

  %if &prefix=f %then %do;
     IF _N_>&subcols. THEN IMAGE=COMPRESS("&imgdir.\col"||_N_-&subcols.||".gif");
     ELSE IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");

     /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE */
     IF TIMEPD NE "TREND" AND TIMEPD NE "TREND*" THEN PUT "<td align='center' valign='bottom'><a
href="" HREF +(-1) "" &target.><IMG SRC='" IMAGE "' alt='" TIMEPD "' BORDER=0></a></td>";
     ELSE PUT "<td align='center' valign='bottom'><a href="" HREF1 +(-1) "" &target.><IMG
SRC='" IMAGE "' alt='" TIMEPD "' BORDER=0></a></td>";
  %end;
  %else %do;
     /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE */
     IF TIMEPD NE "TREND" AND TIMEPD NE "TREND*" THEN PUT "<td width='10%' align='center'
valign='bottom'><font face='&fontface.' size='1'><a href="" HREF +(-1) "" &target.>" &HEADVAR.
"</a></font></td>";
     ELSE PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.'
size='1'><a href="" HREF1 +(-1) "" &target.>" &HEADVAR. "</a></font></td>";
  %end;


  IF EOF THEN DO;
    PUT "</font></tr>";
  END;

RUN;
%end;




/*** Added MAB 11-20-2000 ***/
/*** If Sub-benefit then do differently ***/
/*** If separate page (SEPPAGE=1) then create 1st of 2 HTML files ***/
/*** 1 for data without qtrly info and 1 for just qtrly info ***/
%else %if &seppage.=1 %then %do;


DATA HTML2;
  SET HTML;
  IF TIMEPD="&currentperiod.";
  IF BENTYPE="Composite" THEN DELETE;
RUN;




/*** Remove qtrs from column counts ***/
%let columns=%EVAL(&columns.-&qtrs.);
```

```
/*** Do sub-benefit page without any qtrly info ***/
DATA _NULL_;
  SET HTML2 END=EOF;


  FILE "&FILEOUT1." MOD ;

  COLUMNS=&columns.;
  SPAN2=ROUND(COLUMNS/2,1);
  SPAN1=COLUMNS-SPAN2;


  IF _N_=1 THEN DO;



        FILE "&FILEOUT1." MOD ;


         /** MF Changes ROW 1 **/
         PUT "<center><table border='&border.' cellpadding='2' cellspacing='0' bgcolor='#D8D8D8'
width='&width2.'>";
         PUT "<tr bgcolor='white'>";
         PUT "    <td colspan=""" SPAN1 +(-1) """ valign='top' bgcolor='#999999'><img border='0'
height='25' width='242' src=&logo.></td>";
         PUT "    <td colspan=""" SPAN2 +(-1) """ align='right' valign='bottom'
bgcolor='#999999'>";
         PUT "          <div align='right'>";
         /** RSG - 09/02/03 Second set of trend pages need to refer to var4=0 pages **/
         PUT "          <a href='..\html\&prefix.&var1.-&var2.-&var3.-0&unq..htm' &target.><img
src='&imgdir.\&click_image.' alt='&click_alt.' border=0></a>&htmlsp.";
         PUT "          <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp. ";

         PUT "&goback.";
         PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";
         PUT "          &htmlsp. ";
         PUT "          <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
         PUT "    </td>";
         PUT "</tr>";

         /** MF Changes ROW 2 **/
         PUT "<tr>";
         PUT "        <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
         PUT "                <font face='&fontface.' color='#3333cc' size='5'><b>&major.
&comma.  &sub_regs. <br>";


         PUT "                 &sub_ben.<BR>&currentperiod.</b></font>";



         PUT "        </td>";
         PUT "</tr>";

         /*** Sub_head macro variable added C.Rankin 10/25/2001  ***/

         %if &sub_head.=1 %then %do;
            /*** 3rd Row ***/
            /***  FRAMES SECTION  ***/
            %if &prefix=f %then %do;
               PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
               IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
               PUT "<td align='center' valign='bottom' colspan=&subcols.><IMG SRC=" IMAGE "
alt='" BENEFIT "' BORDER=0></td>";
            %end;
            %else %do;
               PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
               PUT "<td align='center' valign='bottom' colspan=&subcols.><font
face='&fontface.'><b>&sub_ben.<br>components</b></font></td>";
```

```
            %end;
         %end;

         /*** 4th Row start (column 1) ***/
         /***  FRAMES SECTION  ***/
         %if &prefix=f %then %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
       if columns ne 3 and columns ne 6 and columns ne 4 then do;
              PUT "<td align='left' valign='bottom'><img src='&imgdir.\blank_50_50.gif'
border=0></td>";
           end;
       else if columns = 3 or columns = 4 then do;
              PUT "<td align='left' valign='bottom'><img src='&imgdir.\blank_120_50.gif'
border=0></td>";
       end;
       else if columns = 6 then do;
              PUT "<td align='left' valign='bottom'><img src='&imgdir.\blank_145_50.gif'
border=0></td>";
       end;

         %end;
         %else %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td width='10%'>&htmlsp.</td>";
         %end;


  qnum=1; /**RSG 08/07/03 Added as counter to use to for link to the trend pages**/

         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSTITLE;
           PUT "&major. &comma. &sub_regs.";
           PUT "%cmpres('&sub_ben.')";
         %end;
         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
  END;

  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  /*** Print out column headings ***/

  /*HREF=COMPRESS("help.htm#q&var3.");   */

  HREF=COMPRESS("..\html\&prefix.&var1.-&var2.-&var3.-"||qnum||"&unq..htm");
    *** RSG 08/07/03 Use qnum counter to refer to subbenefit trend pages;

****************************************;
  /*** 4th Row (columns 2+) ***/
  /*** If quarter column then HREF link is different ****/
  /***  FRAMES SECTION  ***/
  %if &prefix=f %then %do;
     IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");
     PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG SRC='"
IMAGE "' alt='" BENTYPE "' BORDER=0></a></td>";
  %end;
  %else %do;
     PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.' size='1'><a
href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
  %end;

  qnum+1; *** RSG 08/07/03 Added to increase the counter;

  IF EOF THEN DO;
    PUT "</font></tr>";
    /***  2-2 MAB removed scale row ***/
  END;


RUN;
%end;
```

```
/*** If separate page (SEPPAGE=2) then create 2nd of 2 HTML files ***/
/*** 1 for data without qtrly info and 1 for just qtrly info ***/
%else %if &seppage.=2 %then %do;


/*** Keep only qtrs in column counts ***/

%let columns=%EVAL(&qtrs.+2);


/*** Then do sub-benefit page with just qtrly info ***/
DATA JUSTQTR;
  SET HTML;
  /*** Since spliting up table need to delete some records ***/

  *  IF BENTYPE="Composite";   ***DKB ADDED TREND on 4/29/2002 to account for trend col;
  %if &var4. = 0 %then %do;  **RSG ADDED TREND FOR BENTYPES on 8/7/2003 - select
                                 records appropriate for bentype;
        IF BENTYPE="Composite";
  %end;
  %else %if &var4. ne 0 and BENTYPE ne "Composite" %then %do;

        %if &var3. = 1 %then %do;
            %if &var4. = 1 %then %do;
                IF BENTYPE = "Getting to See a Specialist";
            %end;
            %else %if &var4. = 2 %then %do;
                IF BENTYPE = "Getting Treatment";
            %end;
        %end;
        %else %if &var3. = 2 %then %do;
            %if &var4. = 1 %then %do;
                IF BENTYPE = "Wait for Routine Visit";
            %end;
            %else %if &var4. = 2 %then %do;
                IF BENTYPE = "Wait for Urgent Care";
            %end;
        %end;
        %else %if &var3. = 3 %then %do;
            %if &var4. = 1 %then %do;
                IF BENTYPE = "Listens Carefully";
            %end;
            %else %if &var4. = 2 %then %do;
                IF BENTYPE = "Explains so You Can Understand";
            %end;
            %else %if &var4. = 3 %then %do;
                IF BENTYPE = "Shows Respect";
            %end;
            %else %if &var4. = 4 %then %do;
                IF BENTYPE = "Spends Time with You";
            %end;
        %end;
        %else %if &var3. = 4 %then %do;
            %if &var4. = 1 %then %do;
                IF BENTYPE = "Getting Information";
            %end;
            %else %if &var4. = 2 %then %do;
                IF BENTYPE = "Courteous Customer Service";
            %end;
        %end;
        %else %if &var3. = 5 %then %do;
            %if &var4. = 1 %then %do;
                IF BENTYPE = "Claims Handled in a Reasonable Time";
            %end;
            %else %if &var4. = 2 %then %do;
                IF BENTYPE = "Claims Handled Correctly";
            %end;
        %end;
        %else %if &var3. = 10 %then %do;
            %if &var4. = 1 %then %do;
```

```
                IF BENTYPE = "Mammography";
            %end;
            %else %if &var4. = 2 %then %do;
                IF BENTYPE = "Pap Smear";
            %end;
            %else %if &var4. = 3 %then %do;
                IF BENTYPE = "Hypertension";
            %end;
            %else %if &var4. = 4 %then %do;
                IF BENTYPE = "Prenatal Care";
            %end;
        %end;
        %else %if &var3. = 11 %then %do;    /*** MAB Added 2/11/2005 ***/
            %if &var4. = 1 %then %do;
                IF BENTYPE = "Non-Smoking Rate";
            %end;
            %else %if &var4. = 2 %then %do;
                IF BENTYPE = "Counselled To Quit";
            %end;
                        %else %if &var4. = 3 %then %do;
                                IF BENTYPE = "Percent Not Obese";
                        %end;
        %end;

        call symput('sub2_ben',BENTYPE); **create macro var to use in sub-benefit
                                            trend pages (below) - RSG 08/07/03;
  %end;


RUN;

DATA _NULL_;
  SET JUSTQTR END=EOF;


  FILE "&FILEOUT1." MOD ;

  COLUMNS=&columns.;
  SPAN2=ROUND(COLUMNS/2,1);
  SPAN1=COLUMNS-SPAN2;

  IF _N_=1 THEN DO;

        FILE "&FILEOUT1." MOD ;

         /** MF Changes ROW 1 **/
         PUT "<center><table border='&border.' cellpadding='2' cellspacing='0' bgcolor='#D8D8D8'
width='&width2.'>";
         PUT "<tr bgcolor='white'>";
         PUT "    <td colspan=""" SPAN1 +(-1) """ valign='top' bgcolor='#999999'><img border='0'
height='25' width='242' src=&logo.></td>";
         PUT "    <td colspan=""" SPAN2 +(-1) """ align='right' valign='bottom'
bgcolor='#999999'>";
         PUT "          <div align='right'>";
         PUT "          <a href='..\html\&prefix.&var1.-&var2.-&var3.-0&unq..htm' &target.><img
src='&imgdir.\&click_image.' alt='&click_alt.' border=0></a>&htmlsp.";
         PUT "          <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp. &htmlsp.";


         PUT "&goback.";

         PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";
         PUT "          &htmlsp.";
         PUT "          <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
         PUT "    </td>";
         PUT "</tr>";

         /** MF Changes ROW 2 **/

         PUT "<tr>";
```

```
         PUT "        <td valign='center' align='center' colspan="""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
         PUT "                <font face='&fontface.' color='#3333cc' size='5'><b>&major.
&comma.  &sub_regs. <br>";

         PUT "                 &sub_ben.</b></font><br>";
         /*** For trend data for each benefit type, display benefit type - RSG 08/07/03***/
         %if &var4. ne 0 %then %do;
         PUT "                <font face='&fontface.' color='#3333cc' size='4'><b>";
         PUT "                 &sub2_ben.</b></font>";
         %end;
         PUT "        </td>";
         PUT "</tr>";


         /*** 3rd Row ***/
         /***  FRAMES SECTION  ***/
         /**PUT "<td></td>"**/



         /*** 4th Row start (column 1) ***/
         /***  FRAMES SECTION  ***/
         %if &prefix=f %then %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td align='left' valign='bottom'><img src='&imgdir.\blank_75_50.gif'
border=0></td>";
         %end;
         %else %do;
           PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
           PUT "<td width='10%'>&htmlsp.</td>";
         %end;



         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSTITLE;
           PUT "&major. &comma. &sub_regs.";
           %if &var4. = 0 %then %do;
            PUT "%cmpres('&sub_ben.')";
           %end;
           %else %do;
            PUT "%CMPRES('&sub_ben. &comma. &sub2_ben.')";
           %end;
         %end;
         /*-------------------------*/
         /* 2000/11: begin xls code */
         /*-------------------------*/
  END;

  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  /*** Print out column headings ***/


      LENGTH HREFf1 $250;
      LENGTH HREFf2 $250;
      LENGTH HREFf3 $250;

      LENGTH HREFp1 $250;
      LENGTH HREFp2 $250;
      LENGTH HREFp3 $250;

      LENGTH HREF5  $250;


      ****7-29-2002 DKB ADDED LINKS TO COMPONENT PAGES OF PREVIOUS QUARTERS FROM TREND PAGE****;
      ************************THIS WILL NEED TO BE UPDATED EACH QUARTER*********************;
       ***FRAMES***;
       HREFf1=COMPRESS("..\Period1\f&var1.-&var2.-&var3.-0.htm");
       HREFf2=COMPRESS("..\Period2\f&var1.-&var2.-&var3.-0.htm");
       HREFf3=COMPRESS("f&var1.-&var2.-&var3.-0.htm");
```

```
       ***NO FRAMES***;
       HREFp1=COMPRESS("..\Period1\p&var1.-&var2.-&var3.-0.htm");
       HREFp2=COMPRESS("..\Period2\p&var1.-&var2.-&var3.-0.htm");
       HREFp3=COMPRESS("p&var1.-&var2.-&var3.-0.htm");

       ****HELP FILE FOR TREND COLUMN***;
       HREF5=COMPRESS("..\html\help.htm#trend");    /*7-29-2002 DKB ADDED LINK FOR TREND SECTION
OF HELP FILE*/

    ****************************************************;


  /*** 4th Row (columns 2+) ***/
  /*** If quarter column then HREF link is different ****/
  /***  FRAMES SECTION  ***/


  %if &prefix=f %then %do;
    IMAGE=COMPRESS("&imgdir.\col"||_N_||".gif");  *DKB CHANGED IMAGE NAME FROM QTR TO COL;

    IF _N_=1 THEN HREF=HREFf1;
    ELSE IF _N_=2 THEN HREF=HREFf2;
    ELSE IF _N_=3 THEN HREF=HREFf3;
    ELSE IF _N_=4 THEN HREF=HREF5;

    PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG SRC='"
IMAGE "' alt='" TIMEPD "' BORDER=0></a></td>";

  %end;
  %else %do;
    IF _N_=1 THEN HREF=HREFp1;
    ELSE IF _N_=2 THEN HREF=HREFp2;
    ELSE IF _N_=3 THEN HREF=HREFp3;
    ELSE IF _N_=4 THEN HREF=HREF5;
    /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE*/

    PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.' size='1'><a
href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
  %end;


  IF EOF THEN DO;
    PUT "</font></tr>";
  END;

RUN;

%end;

/***  FRAMES SECTION  ***/
%if &prefix=f %then %do;
  /*** Close out header HTML page ***/
  DATA _NULL_;
    FILE "&FILEOUT1." MOD;

    PUT "</center></table>";
    PUT "</body></html>";
  RUN;


  /*** Since done making frame 1 page then assign fileout1 = frame 2 ***/
  %let fileout1=&fileout3.;

  /*** Initialize out data HTML page ***/
  DATA _NULL_;
    FILE "&FILEOUT3.";

    PUT "<! Created &datetime.>";
    PUT "<html>";
    PUT "<body bgcolor='#999999' text='#000099' link='#660066' alink='#660066'
vlink='#996699'>";
    PUT "<center><table border='1' cellpadding='2' cellspacing='0' bgcolor='#D8D8D8'
cols=&columns. width=640>";
```

```
  RUN;



%end;




/*************************************/
/****  Put out rest of table      ****/
/****  Colored scores and Stub    ****/
/*************************************/
%if &seppage.=0 OR &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;
DATA HTML3;
  SET SUBSET4;
RUN;
%end;
%else %if &seppage.=1 %then %do;
DATA HTML3;
  SET SUBSET4;

  IF TIMEPD="&currentperiod.";

  /*** Since spliting up table need to delete some records ***/

  %IF &VAR3. NE 0 %THEN %DO;
      IF BENTYPE="Composite" THEN DELETE;
  %END;
RUN;

%end;
%else %if &seppage.=2 %then %do;

DATA HTML3;
  SET SUBSET4;
  /*** Since spliting up table need to delete some records ***/
  /*** Modified 2-2 MAB to deal with new period values **/


  IF BENTYPE=&BEN_TYPE;


RUN;
%end;

/* ALL MAJGRPS */
%if &var1.=0 %then %do;

DATA HTML4;
  SET HTML3 END=EOF;


  IF MAJGRP="Prime Enrollees" THEN MAJNUM=1;
  IF MAJGRP="Enrollees with Military PCM"  THEN MAJNUM=2;
  IF MAJGRP="Enrollees with Civilian PCM" THEN MAJNUM=3;
  IF MAJGRP="Standard/Extra Users" THEN MAJNUM=4;
  IF MAJGRP="Purchased Care Users" THEN MAJNUM=5;
  IF MAJGRP="Active Duty" THEN MAJNUM=6;
  IF MAJGRP="Active Duty Dependents" THEN MAJNUM=7;
  IF MAJGRP="Retirees and Dependents" THEN MAJNUM=8;
  IF MAJGRP="All Users" THEN MAJNUM=9;


  /*** HREF link to another page ***/
/*  HREF=COMPRESS("..\html\&prefix."||MAJNUM||"-0-&var3.-&var4.&q..htm");
    RSG 02/2005 - changed for period1-3, link goes to that period component page*/
    HREF=COMPRESS("&prefix."||MAJNUM||"-0-&var3.-&var4.&q..htm");

  LENGTH HREFQ LMAJGRP $ 100;
  RETAIN LMAJGRP;

  IF _N_=1 THEN DO;
```

```
     LMAJGRP=" ";
     ROW=0;


    /*** Add links to trend data 7.6.2001 MAB ***/
    %let columns_less1=%EVAL(&columns.-1);
    %if &seppage.=0 %then %do;
          FILE "&FILEOUT1." MOD ;
          PUT "<tr bgcolor= &gray.><td width='" WIDTH_COL1 "'><font face='&fontface.'
size='2'><b>Trends</b></font></td>";

          %do i=1 %to 11;
             %if &i.^=6 AND &i.^=7 AND &i.^=8 AND &i.^=9 %then %do;   ***MJS 04/14/03 Changed
8,9,10,11 to 7,8,9,10;
                 HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0q.htm");
             %end;
             %else %do;
                 HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0.htm");
             %end;
             %if &prefix.=f %then %do;
               PUT "<td width='" WIDTH3 "'><a href='" HREFQ "' &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
             %end;
             %else %do;
               PUT "<td><a href='" HREFQ "' &target.><CENTER><img src='&imgdir.\trend_row.gif'
border=0></CENTER></a></td>";
             %end;
          %end;
          PUT "</tr>";
    %end;

  END;



  IF LMAJGRP^=MAJGRP THEN DO;             /*** Start new row ***/
        FILE "&FILEOUT1." MOD ;
        ROW+1;
        IF LMAJGRP^=" " THEN PUT "</tr>";


        /*** Column 1 / Row 1 ***/
        /***  FRAMES SECTION  ***/
        %if &prefix=f %then %do;
            IF MAJGRP IN("Benchmark") THEN PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" MAJGRP "</font></b></td>";    /*** no HREF links ***/
        %end;
        %else %do;
            IF MAJGRP IN("Benchmark") THEN PUT "<tr><td><b><font face='&fontface.' size='2'>"
MAJGRP "</font></b></td>";                            /*** no HREF links ***/
        %end;

        /*** Column 1 / Row 2+ ***/

        ELSE IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href="""" HREF +(-1) """ &target.> " MAJGRP " </a></font></td>";   /** Shade row **/
        ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href="""" HREF +(-1) """ &target.>
" MAJGRP " </a></font></td>";


        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSDATA;
           IF LMAJGRP^=" " THEN           PUT " ";
           IF REGION IN("Benchmark") THEN PUT REGION '09'x @@;   /* '09'x ensures text string is
put into one cell */
           ELSE IF MOD(ROW,2)=0 THEN      PUT MAJGRP '09'x @@;   /* rather than spanning across
cells              */
           ELSE                           PUT MAJGRP '09'x @@;
         %end;
        /*-------------------------*/
        /* 2000/11: end xls code   */
```

```
        /*-------------------------*/

        LMAJGRP=MAJGRP;
  END;


  /*** Column 2+ ***/
  /*********************************************/
  /**** Need to output different formats    ****/
  /*********************************************/
  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */


  IF MAJGRP IN("Benchmark") THEN DO;
       IF SCORE=. THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.A THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.
"></font></b></td>";
  END;
  ELSE DO;
    IF SCORE=. THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>***<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.A THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NA<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE DO;
        IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2' color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=-1 THEN PUT "<td align='center' valign='bottom'><i><font face='&fontface.'
size='2' color=&red.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></i></td>";
        ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>" SCORE
3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></td>";
    END;
  END;



  /*-------------------------*/
  /* 2000/11: begin xls code */
  /*-------------------------*/
  %if &outxls.=1 %then %do;
    FILE XLSDATA;
    IF MAJGRP IN("Benchmark") THEN DO;
         IF SCORE=. THEN        PUT "***" '09'x @@;
         ELSE IF SCORE=.A THEN  PUT "NA"  '09'x @@;
         ELSE                   PUT SCORE '09'x @@;
    END;
    ELSE DO;
      IF SCORE=. THEN DO;
          PUT "***" '09'x @@;
      END;
      ELSE IF SCORE=.A THEN DO;
          PUT "NA" '09'x @@;
      END;
      ELSE DO;
          IF SIG=1 THEN       PUT SCORE '09'x @@;
          ELSE IF SIG=. THEN  PUT "***" '09'x @@;
          ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
          ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
          ELSE                PUT SCORE '09'x @@;
      END;
    END;
  %end;
  /*-------------------------*/
```

```
  /* 2000/11: end xls code   */
  /*-------------------------*/

  IF EOF THEN DO;
     FILE "&FILEOUT1." MOD ;                          /* 2000/11: to refer back to htm file */
     PUT "</tr>";  /*** terminate last row ***/

     %BOTTOM_NOTES;  /** Macro with bottom notes **/


    /*-------------------------*/
    /* 2000/11: begin xls code */
    /*-------------------------*/
     %if &outxls.=1 %then %do;
        FILE XLSDATA;
        PUT; PUT;
        %if (&var3.=6 or &var3.=7 or &var3.=8 or &var3.=9 or &seppage.=2) %then %do;
          PUT "Source: Health Care Surveys of DoD Beneficiaries conducted in &SRCYR1 through
&SRCYR2";   ***MJS 03/24/04 Changed hard-coded year to macro variable;
                                                                                    /* MER 11/21/08
Changed "and" to "through" */
        %end;
        %else %do;
          PUT "Source: &SRCYR2 Health Care Survey of DOD Beneficiaries";   ***MJS 03/24/04
Changed hard-coded year to macro variable;
        %end;
          PUT "Indicates score significantly exceeds benchmark";
          PUT "Indicates score significantly falls short of benchmark";
          PUT "NA Indicates not applicable";
          PUT "*** Indicates suppressed due to small sample size";
     %end;

    /*-------------------------*/
    /* 2000/11: end xls code   */
    /*-------------------------*/

  END;
RUN;
%end;





/* All Regions */
%if &var2.=0 %then %do;
DATA HTML4;
  SET HTML3 END=EOF;

  LENGTH LREGION HREFQ $ 100;
  RETAIN LREGION;

  IF _N_=1 THEN DO;
     LREGION=" ";
     REGNUM=1;
     ROW=0;



    %let columns_less1=%EVAL(&columns.-1);
    %if &seppage.=0 %then %do;
          FILE "&FILEOUT1." MOD ;
          PUT "<tr bgcolor= &gray.><td width='" WIDTH_COL1 "'><font face='&fontface.'
size='2'><b>Trends</b></font></td>";

           %do i=1 %to 11;   ***RSG 02/2005 changed 11 to 12 since we now have 12 benefits;
             %if &i.^=6 AND &i.^=7 AND &i.^=8 AND &i.^=9 %then %do;   ***MJS 04/14/03 Changed
from 8,9,10,11 to 7,8,9,10;
                HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0q.htm");  /*** href to 2nd
html file ***/
             %end;
             %else %do;
```

```
                HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0.htm");  /*** href to 2nd
html file ***/
            %end;
            %if &prefix.=f %then %do;
              PUT "<td width='" WIDTH3 "'><a href='" HREFQ "' &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
         %end;
         %else %do;
               PUT "<td><a href='" HREFQ "' &target.><CENTER><img src='&imgdir.\trend_row.gif'
border=0></CENTER></a></td>";
         %end;
          %end;
          PUT "</tr>";
    %end;


END;


  IF LREGION^=REGION THEN DO;              /*** Start new row ***/
        FILE "&FILEOUT1." MOD ;
        ROW+1;
        IF LREGION^=" " THEN PUT "</tr>";  /*** terminate previous row ***/


        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF LREGION^=" " THEN PUT " ";          /*** terminate previous row ***/
          FILE "&FILEOUT1." MOD ;                /* 2000/11: to refer back to htm file */
        %end;
        /*-------------------------*/
        /* 2000/11: end xls code   */
        /*-------------------------*/


        /*** Column 1 / Row 1 ***/
        /***  FRAMES SECTION  ***/
        %if &prefix=f %then %do;
           IF REGION IN("Benchmark") THEN PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";  /*** no HREF links ***/
        %end;
        %else %do;
           IF REGION IN("Benchmark") THEN PUT "<tr><td><b><font face='&fontface.' size='2'>"
REGCAT "</font></b></td>";  /*** no HREF links ***/
        %end;
        ELSE DO;   /*** HREF links for each region ***/


          /*HREF=COMPRESS("..\html\&prefix.&var1.-"||REGNUM||"-&var3.-&var4.&q..htm");*/ /** MAB
3-16-2005 Added VAR1 **/
          /*RSG 02/2005 - Changed link so period1-3 will link to appropriate component page*/
          HREF=COMPRESS("&prefix.&var1.-"||REGNUM||"-&var3.-&var4.&q..htm");

          /*** Column 1 / Row 2+ ***/
          %if &prefix=f %then %do;
          %if &var1.=3 or &var1.=4 or &var1.=5 or &var1.=7 or &var1.=8 %then %do;
                  IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'> " REGCAT " </font></td>";
                  ELSE PUT "<tr><td><font face='&fontface.' size='2'> " REGCAT " </font></td>";
          %end;
          %else %do;
                  if regcat = "NORTH" or regcat = "SOUTH" or regcat="WEST" or
                     regcat = "OVERSEAS" or regcat="US MHS" then do;
                 IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><b><font face='&fontface.'
size='2'> " REGCAT " </b></font></td>";
                     ELSE PUT "<tr><td><b><font face='&fontface.' size='2'> " REGCAT "
</b></font></td>";
                  end;
                  else if regcat = "ARMY" or regcat = "NAVY" or regcat = "AIR FORCE" or
                     regcat = "OTHER" or regcat = "JOINT SERVICE" or regcat = "JOINT SERVICE*"
then do;
```

```
                IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'> " REGCAT " </font></td>";
                   ELSE PUT "<tr><td><font face='&fontface.' size='2'> " REGCAT "
</font></td>";
                end;
                else do;
                   IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href=""" HREF +(-1) """ &target.> " REGCAT " </a></font></td>"; /** Shade row **/
                   ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href=""" HREF +(-1)
""" &target.> " REGCAT " </a></font></td>";
                end;
             %end;
      %end;
          %else %do;
          %if &var1.=3 or &var1.=4 or &var1.=5 or &var1.=7 or &var1.=8 %then %do;
             IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font  face='&fontface.'
size='2'> " REGCAT " </font></td>";
                ELSE PUT "<tr><td><font face='&fontface.' size='2'> " REGCAT " </font></td>";
             %end;
             %else %do;
                if regcat = "NORTH" or regcat = "SOUTH" or regcat="WEST" or
                   regcat = "OVERSEAS" or regcat="US MHS" then do;
                IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><b><font  face='&fontface.'
size='2'> " REGCAT " </b></font></td>";
                   ELSE PUT "<tr><td><b><font face='&fontface.' size='2'> " REGCAT "
</b></font></td>";
                end;
                else if regcat = "ARMY" or regcat = "NAVY" or regcat = "AIR FORCE" or
                   regcat = "OTHER" or regcat = "JOINT SERVICE" or regcat = "JOINT SERVICE*"
then do;
                   IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font  face='&fontface.'
size='2'> " REGCAT " </font></td>";
                   ELSE PUT "<tr><td><font face='&fontface.' size='2'> " REGCAT "
</font></td>";
                end;
                else do;
                   IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font  face='&fontface.'
size='2'><a href=""" HREF +(-1) """ &target.> " REGCAT " </a></font></td>"; /** Shade row **/
                   ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href=""" HREF +(-1)
""" &target.> " REGCAT " </a></font></td>";
                end;
             %end;
          %end;

          REGNUM+1;


        END;

        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF REGION IN("Benchmark") THEN  PUT REGCAT '09'x @@;   /* no logic difference */
          ELSE DO;
            IF MOD(ROW,2)=0 THEN          PUT REGCAT '09'x @@;   /* just presentation difference
in htm */
            ELSE                          PUT REGCAT '09'x @@;   /* keeping as is to preserve
htm code structure */
          END;
        %end;
        /*-------------------------*/
        /* 2000/11: end xls code   */
        /*-------------------------*/

        LREGION=REGION;
  END;


  /*** Column 2+ ***/
  /*********************************************/
  /**** Need to output different formats    ****/
  /*********************************************/
```

```
  FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
  IF REGION IN("Benchmark") THEN DO;
     %if &prefix.=f %then %do;
       IF SCORE=. THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.A THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.
"></font></b></td>";
     %end;
     %else %do;
       IF SCORE=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE PUT "<td align='center' valign='bottom'><b><font face='&fontface.' color=&blue.
size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
     %end;
  END;
  ELSE DO;
    IF SCORE=. THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>***<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.A THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NA<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE DO;
        IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2' color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=-1 THEN PUT "<td align='center' valign='bottom'><i><font face='&fontface.'
size='2' color=&red.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></i></td>";
        ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>" SCORE
3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></td>";
    END;
  END;


  /*-------------------------*/
  /* 2000/11: begin xls code */
  /*-------------------------*/
  %if &outxls.=1 %then %do;
    FILE XLSDATA;
    IF REGION IN("Benchmark") THEN DO;
         IF SCORE=. THEN       PUT "***" '09'x @@;
         ELSE IF SCORE=.A THEN PUT "NA"  '09'x @@;
         ELSE                  PUT SCORE '09'x @@;
    END;
    ELSE DO;
      IF SCORE=. THEN DO;
          PUT "***" '09'x @@;
      END;
      ELSE IF SCORE=.A THEN DO;
          PUT "NA" '09'x @@;
      END;
      ELSE DO;
          IF SIG=1 THEN       PUT SCORE '09'x @@;
          ELSE IF SIG=. THEN  PUT "***" '09'x @@;
          ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
          ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
          ELSE                PUT SCORE '09'x @@;
      END;
    END;
  %end;
  /*-------------------------*/
  /* 2000/11: end xls code   */
  /*-------------------------*/
```

```
  IF EOF THEN DO;
     FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
     PUT "</tr>";  /*** terminate last row ***/


     %BOTTOM_NOTES;  /** Macro with bottom notes **/


     /*-------------------------*/
     /* 2000/11: begin xls code */
     /*-------------------------*/
     %if &outxls.=1 %then %do;
        FILE XLSDATA;
        PUT; PUT;
        %if (&var3.=6 or &var3.=7 or &var3.=8 or &var3.=9 or &seppage.=2) %then %do;
          PUT "Source: Health Care Surveys of DoD Beneficiaries conducted in &SRCYR1 through
&SRCYR2";   ***MJS 03/24/04 Changed hard-coded year to macro variable;
                                                                                  /* MER 11/21/08
Changed "and" to "through" */
        %end;
        %else %do;
          PUT "Source: &SRCYR2 Health Care Survey of DOD Beneficiaries";   ***MJS 03/24/04
Changed hard-coded year to macro variable;
        %end;
          PUT "Indicates score significantly exceeds benchmark";
          PUT "Indicates score significantly falls short of benchmark";
          PUT "NA Indicates not applicable";
          PUT "*** Indicates suppressed due to small sample size";
     %end;
     /*-------------------------*/
     /* 2000/11: end xls code   */
     /*-------------------------*/

  END;

RUN;

%end;





/* Single Regions */
/* This code is not applicable for the 2000 report cards */
/*  since not enough data to display sub-region info. */
/*  Will leave in code in case this changes */
%if &var2.^=0 AND &var1.^=0 %then %do;
DATA HTML4;
  SET HTML3 END=EOF;

  LENGTH LREGCAT $ 100;
  RETAIN LREGCAT;

  IF _N_=1 THEN DO;
     LREGCAT=" ";
     ROW=0;
  END;

  IF LREGCAT^=REGCAT THEN DO;              /*** Start new row ***/
        FILE "&FILEOUT1." MOD ;
        ROW+1;
        IF LREGCAT^=" " THEN PUT "</tr>";  /*** terminate previous row ***/
        IF REGCAT IN("Benchmark") THEN PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";
        ELSE IF SUBSTR(REGCAT,1,2) = "US" THEN PUT "<tr bgcolor= &gray.><td><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";
        ELSE IF REGCAT NE "ARMY" AND REGCAT NE "NAVY" AND REGCAT NE "AIR FORCE" AND REGCAT NE
"OTHER" AND REGCAT NE "JOINT SERVICE" AND REGCAT NE "JOINT SERVICE*" AND
             UPCASE(SUBSTR(REGCAT,1,5)) NE "NORTH" AND UPCASE(SUBSTR(REGCAT,1,5)) NE "SOUTH" AND
```

```
            UPCASE(SUBSTR(REGCAT,1,4)) NE "WEST" AND UPCASE(SUBSTR(REGCAT,1,8)) NE "OVERSEAS"
THEN DO;
            IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href=""..\HTML\help.htm#MTFs"">" REGCAT " </a></font></td>"; /** Shade row **/
            ELSE PUT "<tr><td><font face='&fontface.' size='2'><a
href=""..\HTML\help.htm#MTFs"">" REGCAT " </a></font></td>";
        END;
        ELSE DO;
            IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'>" REGCAT "</font></td>";   /** Shade row **/
            ELSE PUT "<tr><td><font face='&fontface.' size='2'>" REGCAT "</font></td>";
        END;

        /*-------------------------*/
        /* 2000/11: begin xls code */
        /*-------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF LREGCAT^=" " THEN PUT " ";
          IF REGCAT IN("Benchmark") THEN      PUT REGCAT '09'x @@;         /* no logic
difference */
          ELSE IF SUBSTR(REGCAT,1,5) = "CONUS" THEN PUT REGCAT '09'x @@;   /*** MAB 3/27/2005
Fixed error ***/
          ELSE IF MOD(ROW,2)=0 THEN           PUT REGCAT '09'x @@;         /* just presentation
difference in htm */
          ELSE                                PUT REGCAT '09'x @@;         /* keeping as is to
preserve htm code structure */
        %end;
        /*-------------------------*/
        /* 2000/11: end xls code   */
        /*-------------------------*/


        LREGCAT=REGCAT;

  END;



  /*********************************************/
  /**** Need to output different formats    ****/
  /*********************************************/
  FILE "&FILEOUT1." MOD ;                 /* 2000/11: refer back to htm file */
  IF REGION IN("Benchmark") THEN DO;
       IF SCORE=. THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE IF SCORE=.A THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       ELSE PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.
"></font></b></td>";
  END;
  ELSE DO;
    IF SCORE=. THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>***<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE IF SCORE=.A THEN DO;
        PUT "<td align='center' valign='bottom'><b><font face='&fontface.' size='2'>NA<!CODE= "
+(-1) ORDER Z5.  "></font></b></td>";
    END;
    ELSE DO;
        IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2' color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=.A THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
        ELSE IF SIG=-1 THEN PUT "<td align='center' valign='bottom'><i><font face='&fontface.'
size='2' color=&red.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></i></td>";
        ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>" SCORE
3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></td>";
    END;
  END;
```

```
  /*-------------------------*/
  /* 2000/11: begin xls code */
  /*-------------------------*/
  %if &outxls.=1 %then %do;
    FILE XLSDATA;
    IF REGION IN("Benchmark") THEN DO;
         IF SCORE=. THEN        PUT "***" '09'x @@;
         ELSE IF SCORE=.A THEN  PUT "NA"  '09'x @@;
         ELSE                   PUT SCORE '09'x @@;
    END;
    ELSE DO;
      IF SCORE=. THEN DO;
          PUT "***" '09'x @@;
      END;
      ELSE IF SCORE=.A THEN DO;
          PUT "NA" '09'x @@;
      END;
      ELSE DO;
          IF SIG=1 THEN       PUT SCORE '09'x @@;
          ELSE IF SIG=. THEN  PUT "***" '09'x @@;
          ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
          ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
          ELSE                PUT SCORE '09'x @@;
      END;
    END;
  %end;
  /*-------------------------*/
  /* 2000/11: end xls code   */
  /*-------------------------*/


  IF EOF THEN DO;
     FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
     PUT "</tr>";  /*** terminate last row ***/

     %BOTTOM_NOTES;  /** Macro with bottom notes **/


     /*-------------------------*/
     /* 2000/11: begin xls code */
     /*-------------------------*/
     %if &outxls.=1 %then %do;
        FILE XLSDATA;
        PUT; PUT;
        %if (&var3.=6 or &var3.=7 or &var3.=8 or &var3.=9 or &seppage.=2) %then %do;
          PUT "Source: Health Care Surveys of DoD Beneficiaries conducted in &SRCYR1 through
&SRCYR2";   ***MJS 03/24/04 Changed hard-coded year to macro variable;
                                                                                    /* MER 11/21/08
Changed "and" to "through" */
        %end;
        %else %do;
          PUT "Source: &SRCYR2 Health Care Survey of DOD Beneficiaries";   ***MJS 03/24/04
Changed hard-coded year to macro variable;
        %end;
          PUT "Indicates score significantly exceeds benchmark";
          PUT "Indicates score significantly falls short of benchmark";
          PUT "NA Indicates not applicable";
          PUT "*** Indicates suppressed due to small sample size";
     %end;
     /*-------------------------*/
     /* 2000/11: end xls code   */
     /*-------------------------*/

  END;

RUN;

%end;



/************************************/
/****  Print out footer info      ****/
```

```
/************************************/
DATA _NULL_;
    FILE "&FILEOUT1." MOD ;
    LENGTH HREF $250;


    /** Determine where back button should link to **/
    %if &var1.=0 %then %do;
       HREFBACK=COMPRESS("&prefix.9-0-0-0.htm");
    %end;
    %else %do;
       HREFBACK=COMPRESS("&prefix.&var1.-0-0-0.htm");
    %end;


    /** MF Changes **/
    PUT "<tr>";
    PUT "   <td colspan='&columns.'>";
    PUT "      <center>";
    PUT "         <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp.&htmlsp.";
             /*** 7-17 MAB added JS code to go back ***/
    PUT "&goback.";
    PUT "          <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";

    PUT "         <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a><br>";
    PUT "         <font face='Arial,Helvetica,Swiss,Geneva' size='2'><b>&grpmsg.<br>";
    PUT "         </b></font>";



    majgrp1=COMPRESS("&prefix.1-&var2.-&var3.-&var4.&q..htm");
    majgrp2=COMPRESS("&prefix.2-&var2.-&var3.-&var4.&q..htm");
    majgrp3=COMPRESS("&prefix.3-&var2.-&var3.-&var4.&q..htm");   ***MJS 05/04/03 Removed
Civilian PCM;
    majgrp4=COMPRESS("&prefix.4-&var2.-&var3.-&var4.&q..htm");   ***(majgrp3), and changed 4-8
to 3-7;
    majgrp5=COMPRESS("&prefix.5-&var2.-&var3.-&var4.&q..htm");   /* added purchased care MER
11/11/09 */
    majgrp6=COMPRESS("&prefix.6-&var2.-&var3.-&var4.&q..htm");
    majgrp7=COMPRESS("&prefix.7-&var2.-&var3.-&var4.&q..htm");
    majgrp8=COMPRESS("&prefix.8-&var2.-&var3.-&var4.&q..htm");   /**RSG - ADD IN MAJGRP 8**/
    majgrp9=COMPRESS("&prefix.9-&var2.-&var3.-&var4.&q..htm");


     /*** Certain major groups are not large enough to show ***/
     /*** catchment level detail. So if we are in html file ***/
     /*** which has this detail then don't link to a html   ***/
     /*** file which doesn't exist                          ***/

    %if &var1.^=0 %then %do;
      %if &var1.^=3 and &var1.^=4 and &var1.^=5 and &var1.^=7 and &var1.^=8 and &var2.^=0 %then
%do;

         PUT "<a href=""" MAJGRP1 +(-1) """ &target.><font face='&fontface.' size='2'>Prime
Enrollees</font></a>&htmlsp.&htmlsp.";
         PUT "<a href=""" MAJGRP2 +(-1) """ &target.><font face='&fontface.' size='2'>Enrollees
with Military PCM</font></a>&htmlsp.&htmlsp.";
         PUT "<a href=""" MAJGRP6 +(-1) """ &target.><font face='&fontface.' size='2'>Active
Duty</font></a>&htmlsp.&htmlsp.";
         PUT "<a href=""" MAJGRP9 +(-1) """ &target.><font face='&fontface.' size='2'>All
Users</font></a>";

      %end;
      %else %do;

        PUT "<a href=""" MAJGRP1 +(-1) """ &target.><font face='&fontface.' size='2'>Prime
Enrollees</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP2 +(-1) """ &target.><font face='&fontface.' size='2'>Enrollees
with Military PCM</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP3 +(-1) """ &target.><font face='&fontface.' size='2'>Enrollees
with Civilian PCM</font></a>&htmlsp.&htmlsp.";  /*RSG 02/2005 added Civilian PCM*/
```

```
        PUT "<a href=""" MAJGRP4 +(-1) """ &target.><font face='&fontface.'
size='2'>Standard/Extra Users</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP5 +(-1) """ &target.><font face='&fontface.' size='2'>Purchased
Care Users</font></a>&htmlsp.&htmlsp.";
        PUT "<br>";
        PUT "<a href=""" MAJGRP6 +(-1) """ &target.><font face='&fontface.' size='2'>Active
Duty</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP7 +(-1) """ &target.><font face='&fontface.' size='2'>Active Duty
Dependents</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP8 +(-1) """ &target.><font face='&fontface.' size='2'>Retirees
and Dependents</font></a>&htmlsp.&htmlsp.";
        PUT "<a href=""" MAJGRP9 +(-1) """ &target.><font face='&fontface.' size='2'>All
Users</font></a>";

      %end;
    %end;

   /*** link to printer friendly version moved C.Rankin 10/25/2001 ***/

   /*** If creating frames need link to printer friendly version of file ***/
   %if &prefix=f %then %do;
      HREFP=COMPRESS("p&var1.-&var2.-&var3.-&var4.&q..htm");
      PUT "    <BR><font face='Arial,Helvetica,Swiss,Geneva' size='1'><a href='" HREFP "'
&target.><img src='&imgdir.\printer.gif' alt='Printer Friendly Page' border=0>Printer Friendly
Page</a></font>";
   %end;



RUN;


/*** Close HTML page ***/
DATA _NULL_;
  FILE "&FILEOUT1." MOD ;

  PUT "</center></td></tr></table>";
  PUT "</body></html>";

RUN;



/*-------------------------------*/
/* 2000/12: begin xls color code */
/*-------------------------------*/
%if &outxls.=1 %then %do;
  FILENAME CMDS DDE 'excel|system';

  /* Align 2 titles */
  DATA _NULL_;
     FILE CMDS;
     %if &var3 = 3 or &var3 = 6 %then %do;
         CELL=COMPRESS("[SELECT(""R1C1:R1C"||4||""")]"); PUT CELL;
         PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns **/
         CELL=COMPRESS("[SELECT(""R2C1:R2C"||4||""")]"); PUT CELL;
         PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns **/
     %end;
     %else %do;
         CELL=COMPRESS("[SELECT(""R1C1:R1C"||&columns.||""")]"); PUT CELL;
         PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns **/
         CELL=COMPRESS("[SELECT(""R2C1:R2C"||&columns.||""")]"); PUT CELL;
         PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns **/
     %end;

  RUN;

  DATA _NULL_;
    FILE CMDS;
    SET HTML4(DROP=ROW) END=EOF;

    RETAIN ROW COLUMN;
```

```
    /*** Need to initialize row and column pointers ***/
    IF _N_=1 THEN DO;
      ROW=6;
      COLUMN=1;
    END;


   COLUMN=COLUMN+1;
    IF COLUMN>&columns. THEN DO;
       ROW=ROW+1;
       COLUMN=2;
    END;


    CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
    PUT CELL;

    /** Before color cell center data **/
    PUT '[ALIGNMENT(3, False, 3,0, False)]';


    IF REGION IN("Benchmark") OR MAJGRP IN("Benchmark") THEN PUT
'[FORMAT.FONT("Arial",10,True,False,False,False,9)]';  /*** BOLD & DARK RED ***/
    ELSE IF SCORE NOT IN(.,.A) THEN DO;
      IF SIG=1 THEN PUT '[FORMAT.FONT("Arial",10,True,False,False,False,10)]';          /***
BOLD & GREEN ***/
      ELSE IF SIG=-1 THEN PUT '[FORMAT.FONT("Arial",10,False,True,False,False,3)]';     /*** RED
***/
      ELSE PUT '[FORMAT.FONT("Arial",10,False,False,False,False,5)]';    /*** BLUE ***/
    END;


    /*** If last record then output footer ***/
    IF EOF THEN DO;
       ROW=ROW+3; COLUMN=1;
       CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
       PUT CELL;
       PUT '[FORMAT.FONT("Arial",10,True,False,False,False,10)]';          /*** BOLD & GREEN
***/
       ROW=ROW+1;
       CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
       PUT CELL;
       PUT '[FORMAT.FONT("Arial",10,False,True,False,False,3)]';     /*** RED ***/
    END;
  RUN;
  FILENAME CMDS DDE 'excel|system';
  DATA _NULL_;
    FILE CMDS;
    PUT '[SAVE()]';
    PUT '[CLOSE()]';
  RUN;
%end;
/*--------------------------------*/
/* 2000/12: end xls color code   */
/*--------------------------------*/




%MEND MKHTML;

/*
%LET PREFIX=p;
%LET OUTXLS=0;
%MKHTML(3,0,1,2,1);
%MKHTML(1,0,12,2,1);
%MKHTML(1,0,12,1,0);
%MKHTML(1,0,12,2,2);
%MKHTML(1,0,12,2,3);
%MKHTML(1,0,12,2,0);
*/

*********************************************;
**** Create macros to all MKHTML macro  ****;
```

```
*********************************************;

/*** Create 9 HTML pages (9 Majgrps / All Regions / All Benefits)***/
%MACRO DOALL1();
            %MKHTML(1,0,0,0,0);
            %MKHTML(2,0,0,0,0);
            %MKHTML(3,0,0,0,0);
            %MKHTML(4,0,0,0,0);
            %MKHTML(5,0,0,0,0);
            %MKHTML(6,0,0,0,0);
            %MKHTML(7,0,0,0,0);
            %MKHTML(8,0,0,0,0);
            %MKHTML(9,0,0,0,0);
%MEND DOALL1;



/*** Create 368 HTML pages (8 Majgrps / All Regions / 12 Benefits)***/
%MACRO DOALL2();
   %DO J=1 %TO 9;
      %DO K=1 %TO 11;
         %MKHTML(&J.,0,&K.,1,0);
         %if &k.^=6 AND &k.^=7 AND &k.^=8 AND &k.^=9 %then %do;
            %IF &K. = 3 OR &K. = 10 %THEN %DO L= 0 %TO 4;
               %MKHTML(&J.,0,&K.,2,&L.);
            %END;
            %ELSE %IF &K. = 1 OR &K. = 2 OR &K. = 4 OR &K. = 5 %THEN %DO L = 0 %TO 2;  ***RSG
02/2005 - ADDED 12TH BENEFIT;
               %MKHTML(&J.,0,&K.,2,&L.);
            %END;
            %ELSE %IF &K. = 11 %THEN %DO L = 0 %TO 3;
               %MKHTML(&J.,0,&K.,2,&L.);
            %END;
         %END;
       %END;
   %END;
%MEND DOALL2;

/*** Need to populate new table for all majgrps ***/
/*** Create 736 HTML pages (All Majgrps / 16 Regions / 12 Benefits) ***/
%MACRO DOALL4(i=);
        %DO K = 1 %TO 11;
            /*** Call macro for 2nd page (except for ratings benefits) ***/
            %DO J = 8 %TO 12;
                %MKHTML(&I.,&J.,&K.,1,0);
                %if &k.^=6 AND &k.^=7 AND &k.^=8 AND &k.^=9 %then %do;
                    %IF &K. = 3 OR &K. = 10 %THEN %DO L = 0 %TO 4;
                         %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                    %ELSE %IF &K. = 1 OR &K. = 2 OR &K. = 4 OR &K. = 5 %THEN %DO L = 0 %TO 2;
/*** MAB Added 2/11/2005 ***/
                         %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                    %ELSE %IF &K.=11 %THEN %DO L = 0 %TO 3;
                         %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                %end;
             %END;
             %DO J = 14 %TO 17;
                %MKHTML(&I.,&J.,&K.,1,0);
                %if &k.^=6 AND &k.^=7 AND &k.^=8 AND &k.^=9 %then %do;
                    %IF &K. = 3 OR &K. = 10 %THEN %DO L = 0 %TO 4;
                         %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                    %ELSE %IF &K. = 1 OR &K. = 2 OR &K. = 4 OR &K. = 5 %THEN %DO L = 0 %TO 2;
/*** MAB Added 2/11/2005 ***/
                         %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                    %ELSE %IF &K.=11 %THEN %DO L = 0 %TO 3;
                         %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                %end;
             %END;
             %DO J = 19 %TO 22;
```

```
                %MKHTML(&I.,&J.,&K.,1,0);
                %if &k.^=6 AND &k.^=7 AND &k.^=8 AND &k.^=9 %then %do;
                    %IF &K. = 3 OR &K. = 10 %THEN %DO L = 0 %TO 4;
                         %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                    %ELSE %IF &K. = 1 OR &K. = 2 OR &K. = 4 OR &K. = 5 %THEN %DO L = 0 %TO 2;
/*** MAB Added 2/11/2005 ***/
                         %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                    %ELSE %IF &K.=11 %THEN %DO L = 0 %TO 3;
                         %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                %end;
             %END;
             %DO J = 24 %TO 26;
                %MKHTML(&I.,&J.,&K.,1,0);
                %if &k.^=6 AND &k.^=7 AND &k.^=8 AND &k.^=9 %then %do;
                    %IF &K. = 3 OR &K. = 10 %THEN %DO L = 0 %TO 4;
                         %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                    %ELSE %IF &K. = 1 OR &K. = 2 OR &K. = 4 OR &K. = 5 %THEN %DO L = 0 %TO 2;
/*** MAB Added 2/11/2005 ***/
                         %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                    %ELSE %IF &K.=11 %THEN %DO L = 0 %TO 3;
                         %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                %end;
             %END;

    %END;
%MEND DOALL4;



 /*** Create 16 HTML pages (8 Majgrps / 16 Regions / All Benefits) ***/
%MACRO DOALL5(I=);
      %DO J=8 %TO 12;
           %MKHTML(&i.,&j.,0,0,0);
      %END;
      %DO J=14 %TO 17;
           %MKHTML(&i.,&j.,0,0,0);
      %END;
      %DO J=19 %TO 22;
           %MKHTML(&i.,&j.,0,0,0);
      %END;
      %DO J=24 %TO 26;
           %MKHTML(&i.,&j.,0,0,0);
      %END;

%MEND DOALL5;




/*** Run macro to create Frame HTML files ***/

/*
%LET PREFIX=f;
%LET OUTXLS=0;
%DOALL1;
%DOALL2;
%DOALL4(I=1);
%DOALL4(I=2);
%DOALL4(I=6);
%DOALL4(I=9);
%DOALL5(I=1);
%DOALL5(I=2);
%DOALL5(I=6);
%DOALL5(I=9);


/*** Run macro to create Printer Friendly HTML files (non-frames) ***/
/*
```

```
%LET PREFIX=p;
%LET OUTXLS=0;
%DOALL1;
%DOALL2;
%DOALL4(I=1);
%DOALL4(I=2);
%DOALL4(I=6);
%DOALL4(I=9);
%DOALL5(I=1);
%DOALL5(I=2);
%DOALL5(I=6);
%DOALL5(I=9);

/*** Run macro to create Excel files ONLY ***/

%LET PREFIX=p;
%LET OUTXLS=1;
%DOALL1;
%DOALL2;
%DOALL4(I=1);
%DOALL4(I=2);
%DOALL4(I=6);
%DOALL4(I=9);
%DOALL5(I=1);
%DOALL5(I=2);
%DOALL5(I=6);
%DOALL5(I=9);


%PUT "&number_html_files. HTML files created.";
```

G.17 PROGRAMS\HCSDB_Bene_Report_Macro_Batch_Program.SAS - Run all beneficiary report programs as a single process, including purchased care

```
options msglevel = i;
options nosource;
%symdel x / nowarn;

/*%LET PC = /*LEAVE THIS BLANK! DUMMY ONLY!*/;
/*%LET FOLDER = /*LEAVE THIS BLANK! DUMMY ONLY!*/;
/*First, set the type of run.
If for Purchased Care, set PC = Purchased.  Otherwise, PC is blank.
If run is quarterly, set QA = Q. If annual, set QA = A.
*/
%LET QA = A;

/*Set the Fiscal Year and Quarter here.*/
%LET FYYEAR = 2015;
%LET FYQTR = 3;
/*This is always the last two digits of FYYEAR.*/
%LET FY = 15; /*This also gets used to change the HYY and RYY variables.  Should those be
separate?  Do different fiscal years sometimes get used?*/
/*This is the last two digits of the year used for the norms.*/
%LET NY = 11;
/*Should always be one quarter before the FY quarter.*/
%LET CYYEAR = 2015 Q2;

/*This is the location of the previous quarter's CONUS file.*/
%LET LSTCONUSA = ..\..\..\Q3FY2015\Programs\&PC.Loadweb;

/*PERIOD4 is always the first month of the quarter in question.  Each preceding period is 3
months prior.*/
%LET PERIOD1 = July, 2014;
%LET PERIOD2 = October, 2014;
%LET PERIOD3 = January, 2015;
%LET PERIOD4 = April, 2015;

/*EMPTY_PERIOD is the number of the PERIOD that corresponds to a quarter with no data.  So far
the only quarters with no data are Q4FY2013 and Q4FY2014.
I.E., use the number of the PERIOD that equates to either July, 2013 or July, 2014.*/
%LET EMPTY_PERIOD = 1;

/*RUNBENCH = 1 if the benchmark needs to be run, 0 if not. The benchmark is never run during
annual run. If it is Q1, the benchmark needs to be run to update the field names.*/
%LET RUNBENCH = 0;

/*This is the location of the base Benchmark data file, C13_ZAMV.*/
%LET BENCHINPUT = N:\Project\40309_HCS\DC1\HCSDB\2013AdultNCQA\2013 File 5 Commercial;
/*This is the location of the Benchmark data as processed by Bench1 and Bench2.  Should be
quarterly.*/
%LET BENCHDATA = N:\Project\40309_HCS\DC1\HCSDB\Q3FY2015\Programs\Benchmark\Data;

%LET BENCHFILE = C13_ZAMV;
/*This is the location of the Norm data.*/
%LET NORMDATA = N:\Project\40309_HCS\DC1\HCSDB\20&NY.\DATA;
%LET NORMFMTLIB = &NORMDATA.\Fmtlib;
%LET NORMFILE = HCS&NY.A_2;

/*This is the base folder containing all programs for this run.*/
%LET PROGRAMS = N:\Project\40309_HCS\DC1\HCSDB\&FOLDER.&FYYEAR.\Programs;
%PUT PROGRAMS = &PROGRAMS.;



/*This block will change a number of settings depending on QA.*/


/*DO NOT CHANGE ANY MACROS BELOW THIS COMMENT!!*/

%LET YEAR1 = %EVAL(&FYYEAR.-1);
%LET YEAR2 = %EVAL(&FYYEAR.-2);
%LET FY1 = %EVAL(&FY.-1);
%LET FY2 = %EVAL(&FY.-2);
```

```
        %LET Q = ;
        %LET A = ;
        %LET FOLDER = ;
        %LET LOADD = ;
        %LET LOADF = ;
        %LET MERGE = ;
        %LET QEDIT = ;
        %LET AEDIT = ;
        %LET DATAFILE = ;
%MACRO MACROVARS;
%IF (&QA = Q) %THEN %DO;
        %LET Q = Q;
        %LET A = %STR();
        %LET FOLDER = Q&FYQTR.FY;
        %LET LOADD = CAHPS_Adult&FOLDER.&FYYEAR.;
        %LET LOADF = LOADCAHQ;
        %LET MERGE = MERGFINQ;
        %LET QEDIT = _EDIT;
        %LET AEDIT = ;
        %LET DATAFILE = HCS&FY.&FYQTR._2;
%END;
%ELSE %DO;
        %LET Q = %STR();
        %LET A = A;
        %LET FOLDER = %STR();
        %LET LOADD = %STR();
        %LET LOADF = LOADCAHP;
        %LET MERGE = MERGFINL;
        %LET QEDIT = ;
        %LET AEDIT = _EDIT;
        %LET DATAFILE = HCS&FY.A_2;
        %LET RUNBENCH = 0;
%END;
%MEND;
%macrovars;
%PUT FOLDER = &FOLDER;
%PUT PROGRAMS2 = &PROGRAMS.;
options source;

/*This macro corrects all settings for each program, then clears the memory after running the
program.*/
%macro runprog(dir, file, i);
%macrovars;

%PUT FOLDER = &FOLDER.;
%PUT PROGRAMS3 = &PROGRAMS.;

%PUT DIR = &DIR.;
/*Set the path for the log file.*/
/*proc printto log = "&dir.\&file..log" new
                       lst = "&dir.\&file..lst" new;
run;*/
/*Change the current directory.  This is so the filepath references in each program work
correctly.*/
x "cd &dir.";

/*The program that gets run should always be in the regular care directory.*/
%let dir2 = %sysfunc(compress(%sysfunc(tranwrd(&dir.,Purchased,)),%str( )));

%include "&dir2.\&file..SAS";

/*After the program is finished running, all other notes get written to the log files in the
root Programs directory.*/
/*proc printto log = "&PROGRAMS.\Null&PC.&file..log" new;
run;
proc printto print = "&PROGRAMS.\Null&PC.&file..lst" new;
run;*/
%PUT DIR = &DIR.;

/*Clear all formats*/
proc datasets memtype=catalog;
delete formats;
run;
quit;
```

```
/*Clear all datasets form WORK library*/
proc datasets lib=work kill nolist memtype=data;
quit;

/*Clear all macro programs except for MACROVARS and RUNPROG.*/
proc catalog catalog=work.sasmacr force;
save MACROVARS /et=MACRO;
save RUNPROG /et=MACRO;
save RUNPROGS /et=MACRO;
quit;
run;

/*Clear all macro variables except those declared above.*/
/*Actually, this is not necessary, because the INCLUDE statement is being run in a macro, so all
macro variables that get declared are local instead of global.*/
/*data _null_;
    set sashelp.vmacro;
    if scope = 'GLOBAL' then
      call execute('%symdel '||trim(left(name))||';');
  run;*/


%mend;


%MACRO RUNPROGS();

%PUT PROGRAMS4 = &PROGRAMS.;


%LET I = 0;
%DO %UNTIL (&I = 2);


%IF &I = 0 %THEN %LET PC = %str();
%IF &I > 0 %THEN %LET PC = Purchased;
%LET I = %EVAL(&I+1);
%LET LSTCONUS = &LSTCONUSA;

%IF &RUNBENCH = 1 %THEN %DO;
        %runprog(dir=&PROGRAMS.\&PC.Benchmark, file = BENCHA01);
        %runprog(dir=&PROGRAMS.\&PC.Benchmark, file = BENCHA02);
%END;


%runprog(dir=&PROGRAMS.\&PC.ReportCards\CAHPS_Adult&FOLDER.&FYYEAR., file =STEP1Q);


%runprog(dir=&PROGRAMS.\&PC.ReportCards\CAHPS_Adult&FOLDER.&FYYEAR., file =STEP2&Q.);
%runprog(dir=&PROGRAMS.\&PC.ReportCards\CAHPS_Adult&FOLDER.&FYYEAR., file =COMPOSIT,i=&i);
%runprog(dir=&PROGRAMS.\&PC.Loadweb\&LOADD., file =&LOADF.,i=&i);


%runprog(dir=&PROGRAMS.\&PC.Benchmark, file =BENCHA03);

%runprog(dir=&PROGRAMS.\&PC.Benchmark\&QA.predtest, file =SAS2STATA_Grps);


x "cd &PROGRAMS.\&PC.Benchmark";



/**   CHANGE HERE!!!!     **/

%if &PC = %str() %then %do;
        x '"Y:\APPS\Stata\13\MP4\64\StataMP-64.exe" /e do
"N:\Project\40309_HCS\DC1\HCSDB\2015\Programs\Benchmark\apredtest\vartest.do"';
        *x '"Y:\APPS\Stata\13\MP4\64\StataMP-64.exe" /e do
"N:\Project\40309_HCS\DC1\HCSDB\2014\Test_Programs\Benchmark\apredtest\vartest.do"';
%end;
%if &PC = Purchased %then %do;
        x '"Y:\APPS\Stata\13\MP4\64\StataMP-64.exe" /e do
"N:\Project\40309_HCS\DC1\HCSDB\2015\Programs\PurchasedBenchmark\apredtest\vartest.do"';
```

```
        *x '"Y:\APPS\Stata\13\MP4\64\StataMP-64.exe" /e do
"N:\Project\40309_HCS\DC1\HCSDB\2014\Test_Programs\PurchasedBenchmark\apredtest\vartest.do"';
%end;



%runprog(dir=&PROGRAMS.\&PC.Benchmark\&QA.predtest, file =CSV2SAS_Proj);
%runprog(dir=&PROGRAMS.\&PC.Benchmark\&QA.predtest, file =PREDCOMP);
%runprog(dir=&PROGRAMS.\&PC.Benchmark, file =BENCHA04);


%runprog(dir=&PROGRAMS.\&PC.ReportCards\MPR_Adult&FOLDER.&FYYEAR., file =PRVCOMP&Q.);

%runprog(dir=&PROGRAMS.\&PC.ReportCards\MPR_Adult&FOLDER.&FYYEAR., file =SMOKING_BMI);

%IF &QA = A %THEN %DO;
        %runprog(dir=&PROGRAMS.\&PC.ReportCards\MPR_Adult&FOLDER.&FYYEAR., file =TRENDMPR);
%END;



%runprog(dir=&PROGRAMS.\&PC.ReportCards\MPR_Adult&FOLDER.&FYYEAR., file =LOADMPR&Q.);
%runprog(dir=&PROGRAMS.\&PC.Loadweb, file =FAKE&Q.);
%runprog(dir=&PROGRAMS.\&PC.Loadweb, file =&MERGE.);


%runprog(dir=&PROGRAMS.\&PC.Loadweb, file =CONUS_&QA.);

%IF &QA = A %THEN %DO;
        %runprog(dir=&PROGRAMS.\&PC.Loadweb, file =TREND_A);
%END;

%END;
%MEND;
%RUNPROGS;
```

APPENDIX H

SAS CODE FOR 2015 TRICARE CONSUMER WATCH QUARTERS I-III AND COMBINED ANNUAL

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H.1.A ConsumerWatch\CONSUMERWATCH-C.SAS - Run annual MTF TRICARE Consumer Watch reports.

```
*****************************************************************************
* PROJECT: 8860-420
* PROGRAM: CONSUMERWATCH-C.SAS
* PURPOSE: Run Catchment Consumer Watch
* AUTHOR : NATALIE JUSTH
* DATE   : 2/12/02
* UPDATED: 2/5/03
* UPDATED: 11/17/03
* UPDATED: 03/17/05 BY LUCY LU.
* UPDATED: 01/02/06 BY LUCY LU.
* UPDATED: 11/22/06 BY LUCY LU.
* UPDATED: 11/16/07 BY LUCY LU.
* MODIFIED: 11/23/2010 BY  LUCY LU. WITH IMPROVED PROGRAMMING, WE
*           COMBINED ALL REGIONAL PROGRAMS INTO A SINGLE RUN.
*****************************************************************************;
OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 NOCENTER SOURCE2 NOFMTERR SPOOL;


/**********************/
/* TIME PERIOD MACROS */
/**********************/
%LET YEAR   = 2015;
%LET YEARP1 = 2014;
%LET YEARP2 = 2013;
%LET PATH = N:\Project\40309_HCS\DC1\HCSDB\2015\Programs\ConsumerWatch;

LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadweb';

/*LLU 03/17/2005, REMOVE APOSTROPHE FROM VARIABLE REGCAT FOR EXCEL NAMING*/

DATA TREND_A;
   SET INT.TREND_A(RENAME=(REGCAT=XREGCAT));

REGCAT=COMPRESS(XREGCAT,"'");
DROP XREGCAT;

RUN;



%INCLUDE "CONSUMERWATCH-CMACRO.INC";

/*** MACRO TO RUN CATCHMENT LEVEL REPORTS BY REGION ****/

%MACRO RUNBYREG (REG=,    /*Region as it appears in TREND_A */
                 FOLDER=  /*Regional folder name            */
                );

   PROC FREQ DATA=TREND_A;
      TABLES REGION*REGCAT / LIST MISSING OUT=TEMP;
      WHERE (REGION=&REG AND REGCAT NE &REG) OR REGION='USA MHS';
   RUN;

   DATA TEMP;
      SET TEMP;

      /* DO NOT PRODUCE CONSUMER WATCH REPORTS FOR OUT OF CATCHMENT AREAS */

      IF SUBSTR(REGCAT,1,16)="Out of Catchment" THEN DELETE;


   RUN;

   DATA _NULL_;
      SET TEMP END=FINISHED;

      LENGTH CMPRS $39;
      LENGTH NUM $4;
```

```
      CMPRS=COMPRESS(REGCAT);
      NUM=COMPRESS(PUT(_N_,4.));

      CALL SYMPUT("REGCAT"||NUM,REGCAT);
      CALL SYMPUT("CMPRS"||NUM,CMPRS);


      IF FINISHED THEN DO;
         CALL SYMPUT("N",_N_);
      END;
   RUN;

   %MACRO PROCESS;
      %DO I=1 %TO &N;
         %RUNCW(AREA=&&REGCAT&I,NAME=&&CMPRS&I,FOLDER=&FOLDER);
      %END;
   %MEND PROCESS;

   %PROCESS;


%MEND RUNBYREG;





/*%RUNBYREG(REG="USA MHS",FOLDER=USAMHS);

%RUNBYREG(REG="North Air Force",FOLDER=North);
%RUNBYREG(REG="North Army",FOLDER=North);
%RUNBYREG(REG="North Navy",FOLDER=North);
%RUNBYREG(REG="North Other",FOLDER=North);
%RUNBYREG(REG="North Joint Service",FOLDER=North);*/
%RUNBYREG(REG="South Air Force",FOLDER=South);
%RUNBYREG(REG="South Army",FOLDER=South);
%RUNBYREG(REG="South Navy",FOLDER=South);
%RUNBYREG(REG="South Other",FOLDER=South);
%RUNBYREG(REG="West Air Force",FOLDER=West);
%RUNBYREG(REG="West Army",FOLDER=West);
%RUNBYREG(REG="West Navy",FOLDER=West);
%RUNBYREG(REG="West Other",FOLDER=West);

%RUNBYREG(REG="Overseas Pacific",FOLDER=Overseas);
%RUNBYREG(REG="Overseas Europe",FOLDER=Overseas);
%RUNBYREG(REG="Overseas Latin America",FOLDER=Overseas);
*/
```

H.1.B ConsumerWatch\CONSUMERWATCH-CMACRO.INC - Produce numbers for annual Consumer Watch reports.

```
*******************************************************************************
* PROJECT: 8860-420
* PROGRAM: CONSUMERWATCH-Cmacro.INC
* PURPOSE: To pull from Beneficiary Reports the numbers that go into the data
*          sheet in Excel to produce graphs
*          Catchment level only
* AUTHOR : NATALIE JUSTH
* DATE   : 2/12/02
* UPDATED: 2/5/03
* UPDATED: 11/17/03
* UPDATED  03/15/2005 LUCY LU
*          --REMOVE LIBNAME FORM THE PROGRAM
*          --SUBSTITUDE ACTUAL YEAR VALUES BY MACRO YEAR VARIABLES
*          --ADD SMOKING CESSATION RATE ON PREVENTIVE CARE TABLE
* UPDATED: 01/31/2006 LUCY LU FOR 2005 ANNUAL CATCHMENT
*          --CHANGE 'CHOLESTEROL TESTING' TO 'PERCENT OF NORMAL WEIGHT'
* UPDATED: 04/07/2006 LUCY LU: ADD THE CODE TO COMPARE THE ANNUAL COMSUMER WATCH
*          WITH REPORT CARDS IN SCORESAND SIGNIFICANCE.
* MODIFIED 11/24/09 BY LUCY LU
*          1.START THIS YEAR, THE DATA DOES NOT INCLUDE THE VALUE OF
*            'Courteous and Helpful Office Staff'. THE PROGRAM WILL DELETE
*            RELATED CODE.
*          2.CHANGE IN CLCULATION OF VARIABLE SCORE
* MODIFIED 7/23/2010 BY LUCY LU
*          1. ADD MACRO TO MINIMIZE EXCEL WAITING, REDUCE PROGRAM
*             RUNNING TIME
*          2. ELIMINATE UNNECESSARY MACRO VARIABLE &VAL
* MODIFIED 7/2/2014 BY LUCY LU / KATHY BENCIO
*          MODIFIED CODE FOR 508 COMPLIANCE
*          1. CREATE NEW VAR WITH ASTERISK FOR FIGURES 1-4
*          2  CREATE NEW VAR WITH ASTERISK FOR PREVENTIVE CARE TABLE
*          3. RECODED ALL MISSING DATA TO DASH '-'
*
* INPUT  : ..\..\..\&YEAR.\PROGRAMS\LOADWEB\TREND_A.SAS7BDAT
* OUTPUT : INTO EXCEL SPREADSHEET
*******************************************************************************;

OPTIONS NOXWAIT NOFMTERR /*MPRINT*/;

TITLE "Consumer Watch &YEAR. - Catchment";

%MACRO RUNCW (AREA=,     /*AREA=Catchment area                                    */
              NAME=,     /*NAME=Name of Excel file being created for catchment area  */
              FOLDER=    /*FOLDER=Regional folder                                 */
             );

/* Change parameter for each catchment area */

FILENAME CMDS DDE "EXCEL|SYSTEM";

DATA _NULL_;

   LENGTH FID RC START STOP TIME 8;
   FID = FOPEN('CMDS' , 'S');
   IF (FID LE 0) THEN DO;
      RC = SYSTEM('START EXCEL');
      START = DATETIME();
      STOP = START + 10;
      DO WHILE (FID LE 0);
         FID = FOPEN('CMDS' , 'S');
         TIME = DATETIME();
         IF (TIME GE STOP) THEN FID = 1;
      END;
   END;
   RC = FCLOSE(FID);
RUN;


*LLU 7/21/2010--DETECTING AVAILABILITY OF EXCEL, MINIMIZE WAITING TIME;
```

```
%MACRO SETUP;

%GLOBAL OPENXLS SAVEXLS;

DATA _NULL_;

    SINGLE="'";
    DOUBLE='"';

LENGTH OPENXLS SAVEXLS $120;
   OPENXLS=SINGLE||"[OPEN("||DOUBLE||"&PATH.\templateAnnual.XLSB"||DOUBLE||")]"||SINGLE;
   SAVEXLS=SINGLE||"[SAVE.AS("||DOUBLE||"&PATH.\&FOLDER.\&NAME..XLSB"||DOUBLE||")]"||SINGLE;

   CALL SYMPUT ("OPENXLS",TRIM(OPENXLS));
   CALL SYMPUT ("SAVEXLS",TRIM(SAVEXLS));

RUN;

%MEND SETUP;

%SETUP;

DATA _NULL_;

   FILE CMDS;
   PUT &OPENXLS;
   X=SLEEP(2);
   PUT '[ERROR(FALSE)]';
   PUT &SAVEXLS;
   PUT '[app.minimize()]';

RUN;

*******************************************************************************
* FIGURE 1: Health Care Rating
*******************************************************************************;
TITLE2 'Figure 1: Health Care Rating';
PROC FREQ DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&AREA","Benchmark")
     AND BENEFIT = 'Health Care'
     AND TIMEPD IN ("&YEARP2.", "&YEARP1.", "&YEAR.");
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE*SIG/NOPRINT OUT=FIG1_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT = 'Health Care'
     AND TIMEPD = "&YEAR.";
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE/NOPRINT OUT=FIG1_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG1_SC FIG1_A(KEEP=SCORE TIMEPD);
   SET FIG1_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG1_A;
      ELSE OUTPUT FIG1_SC;
RUN;
PROC SORT DATA=FIG1_SC;
   BY TIMEPD;
RUN;
PROC SORT DATA=FIG1_A;
   BY TIMEPD;

 /*add the code here to preserve above dataset for later comparision, LLu 4/6/2006*/
DATA CFIG1;
   SET FIG1_SC;

KEEP MAJGRP REGCAT BENEFIT TIMEPD SCORE SIG;
RUN;

/*
DATA FIG1_SC(DROP=ASCORE);
   MERGE FIG1_SC
         FIG1_A(RENAME=(SCORE=ASCORE));
   BY TIMEPD;
```

```
   SCORE=SCORE-ASCORE;
RUN;
*/
DATA FIG1;
   SET FIG1_BE FIG1_SC;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 1;
      BSCORE=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP2." THEN DO;
      ROW = 2;
 *     SCORE=BSCORE+SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP1." THEN DO;
      ROW = 3;
  *    SCORE=BSCORE+SCORE;
   END;
   ELSE IF TIMEPD = "&YEAR." THEN DO;
      ROW =4 ;
   *   SCORE=BSCORE+SCORE;
   END;

   COL2 = SCORE;
   COL3 = SIG;

   *3/28/2014 CREATE NEW VAR WITH ASTERISK FOR FIGURES 1-4;
   IF COL3 IN (1, -1) THEN NEWCOL2=CATS("*",PUT(ROUND(SCORE,1),8.));
   ELSE IF SCORE >0 THEN NEWCOL2=PUT(ROUND(SCORE,1),8.);
RUN;

PROC SORT;
   BY ROW;
RUN;
*TITLE2 'FIGURE 1';
*PROC PRINT;
RUN;

*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;
FILENAME CMDS DDE "EXCEL|SYSTEM";

FILENAME TBL DDE "EXCEL|RATINGS!R18C2:R21C4";

DATA _NULL_;
   SET FIG1;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X NEWCOL2;
RUN;

*****************************************************************************
* FIGURE 2: Health Plan Rating
*****************************************************************************;
TITLE2 'Figure 2: Health Plan Rating';
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&AREA","Benchmark")
     AND BENEFIT = 'Health Plan'
     AND TIMEPD IN ("&YEARP2.", "&YEARP1.", "&YEAR.");
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE*SIG/ OUT=FIG2_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT = 'Health Plan'
     AND TIMEPD = "&YEAR.";
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE/ OUT=FIG2_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG2_SC FIG2_A(KEEP=SCORE TIMEPD);
   SET FIG2_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG2_A;
      ELSE OUTPUT FIG2_SC;
RUN;
```

```
 /*add the code here to preserve above dataset for later comparision, LLu 4/6/2006*/
DATA CFIG2;
   SET FIG2_SC;

KEEP MAJGRP REGCAT  BENEFIT TIMEPD SCORE SIG;
RUN;

PROC SORT DATA=FIG2_SC;
   BY TIMEPD;
RUN;
PROC SORT DATA=FIG2_A;
   BY TIMEPD;
RUN;
/*
DATA FIG2_SC(DROP=ASCORE);
   MERGE FIG2_SC
         FIG2_A(RENAME=(SCORE=ASCORE));
   BY TIMEPD;
   SCORE=SCORE-ASCORE;
RUN;
*/
DATA FIG2;
   SET FIG2_BE FIG2_SC;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 1;
      BSCORE=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP2." THEN DO;
      ROW = 2;
*      SCORE=BSCORE+SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP1." THEN DO;
      ROW = 3;
 *     SCORE=BSCORE+SCORE;
   END;
   ELSE IF TIMEPD = "&YEAR." THEN DO;
      ROW = 4;
  *    SCORE=BSCORE+SCORE;
   END;

   COL2 = SCORE;
   COL3 = SIG;

   *3/28/2014 CREATE NEW VAR WITH ASTERISK FOR FIGURES 1-4;
   IF COL3 IN (1, -1) THEN NEWCOL2=CATS("*",PUT(ROUND(SCORE,1),8.));
   ELSE IF SCORE >0 THEN NEWCOL2=PUT(ROUND(SCORE,1),8.);
RUN;

PROC SORT;
   BY ROW;
RUN;
*TITLE2 'FIGURE 2';
*PROC PRINT;
RUN;

*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;

FILENAME TBL DDE "EXCEL|RATINGS!R18C6:R21C8";

DATA _NULL_;
   SET FIG2;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X NEWCOL2;
RUN;

******************************************************************************
* FIGURE 3: Personal Doctor
******************************************************************************;
TITLE2 'Figure 3: Personal Doctor Rating';
PROC FREQ NOPRINT DATA=TREND_A;
```

```
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&AREA","Benchmark")
     AND BENEFIT = 'Personal Doctor'
     AND TIMEPD IN ("&YEARP2.", "&YEARP1.", "&YEAR.");
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE*SIG/ OUT=FIG3_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT = 'Personal Doctor'
     AND TIMEPD = "&YEAR.";
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE/ OUT=FIG3_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG3_SC FIG3_A(KEEP=SCORE TIMEPD);
   SET FIG3_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG3_A;
      ELSE OUTPUT FIG3_SC;
RUN;

 /*add the code here to preserve above dataset for later comparision, LLu 4/6/2006*/
DATA CFIG3;
   SET FIG3_SC;

KEEP MAJGRP REGCAT BENEFIT TIMEPD SCORE SIG;
RUN;


PROC SORT DATA=FIG3_SC;
   BY TIMEPD;
RUN;
PROC SORT DATA=FIG3_A;
   BY TIMEPD;
RUN;
/*
DATA FIG3_SC(DROP=ASCORE);
   MERGE FIG3_SC
         FIG3_A(RENAME=(SCORE=ASCORE));
   BY TIMEPD;
   SCORE=SCORE-ASCORE;
RUN;
*/

DATA FIG3;
   SET FIG3_BE FIG3_SC;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 1;
      BSCORE=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP2." THEN DO;
      ROW = 2;
*      SCORE=BSCORE+SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP1." THEN DO;
      ROW = 3;
 *     SCORE=BSCORE+SCORE;
   END;
   ELSE IF TIMEPD = "&YEAR." THEN DO;
      ROW = 4;
  *    SCORE=BSCORE+SCORE;
   END;

   COL2 = SCORE;
   COL3 = SIG;

   *3/28/2014 CREATE NEW VAR WITH ASTERISK FOR FIGURES 1-4;
   IF COL3 IN (1, -1) THEN NEWCOL2=CATS("*",PUT(ROUND(SCORE,1),8.));
   ELSE IF SCORE >0 THEN NEWCOL2=PUT(ROUND(SCORE,1),8.);
RUN;

PROC SORT;
   BY ROW;
RUN;
*TITLE2 'FIGURE 3';
```

```
*PROC PRINT;
RUN;

*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;

FILENAME TBL DDE "EXCEL|RATINGS!R18C10:R21C12";

DATA _NULL_;
   SET FIG3;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X NEWCOL2;
RUN;


******************************************************************************
* FIGURE 4: Specialist Rating
******************************************************************************;
TITLE2 'Figure 4: Specialist Rating';
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&AREA","Benchmark")
     AND BENEFIT = 'Specialty Care'
     AND TIMEPD IN ("&YEARP2.", "&YEARP1.", "&YEAR.");
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE*SIG/ OUT=FIG4_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT = 'Specialty Care'
     AND TIMEPD = "&YEAR.";
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE/ OUT=FIG4_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG4_SC FIG4_A(KEEP=SCORE TIMEPD);
   SET FIG4_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG4_A;
      ELSE OUTPUT FIG4_SC;
RUN;

 /*add the code here to preserve above dataset for later comparision, LLu 4/6/2006*/
DATA CFIG4;
   SET FIG4_SC;

KEEP MAJGRP REGCAT BENEFIT TIMEPD SCORE SIG;
RUN;

PROC SORT DATA=FIG4_SC;
   BY TIMEPD;
RUN;
PROC SORT DATA=FIG4_A;
   BY TIMEPD;
RUN;
/*
DATA FIG4_SC(DROP=ASCORE);
   MERGE FIG4_SC
         FIG4_A(RENAME=(SCORE=ASCORE));
   BY TIMEPD;
   SCORE=SCORE-ASCORE;
RUN;
*/
DATA FIG4;
   SET FIG4_BE FIG4_SC;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 1;
      BSCORE=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP2." THEN DO;
      ROW = 2;
*      SCORE=BSCORE+SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP1." THEN DO;
      ROW = 3;
```

```
 *     SCORE=BSCORE+SCORE;
   END;
   ELSE IF TIMEPD = "&YEAR." THEN DO;
      ROW = 4;
  *    SCORE=BSCORE+SCORE;
   END;

   COL2 = SCORE;
   COL3 = SIG;

   *3/28/2014 CREATE NEW VAR WITH ASTERISK FOR FIGURES 1-4;
   IF COL3 IN (1, -1) THEN NEWCOL2=CATS("*",PUT(ROUND(SCORE,1),8.));
   ELSE IF SCORE >0 THEN NEWCOL2=PUT(ROUND(SCORE,1),8.);
RUN;

PROC SORT;
   BY ROW;
RUN;
*TITLE2 'FIGURE 4';
*PROC PRINT;
RUN;

*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;

FILENAME TBL DDE "EXCEL|RATINGS!R18C14:R21C16";

DATA _NULL_;
   SET FIG4;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3 '09'X NEWCOL2;
RUN;


******************************************************************************
* FIGURE 5: Access Composites
******************************************************************************;
TITLE2 'Figure 5: Access Composites';
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&AREA","Benchmark")
     AND BENEFIT IN ('Getting Needed Care','Getting Care Quickly')
     AND BENTYPE='Composite' & TIMEPD IN ("&YEARP2.", "&YEARP1.", "&YEAR.");
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE*SIG/ OUT=FIG5_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT IN ('Getting Needed Care','Getting Care Quickly')
     AND BENTYPE='Composite' & TIMEPD = "&YEAR.";
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE/ OUT=FIG5_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG5_SC FIG5_A(KEEP=SCORE TIMEPD BENEFIT);
   SET FIG5_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG5_A;
      ELSE OUTPUT FIG5_SC;
RUN;

 /*add the code here to preserve above dataset for later comparision, LLu 4/6/2006*/
DATA CFIG5;
   SET FIG5_SC;

KEEP MAJGRP REGCAT BENEFIT TIMEPD SCORE SIG;
RUN;


PROC SORT DATA=FIG5_SC;
   BY BENEFIT TIMEPD;
RUN;
PROC SORT DATA=FIG5_A;
   BY BENEFIT TIMEPD;
RUN;
/*DATA FIG5_SC(DROP=ASCORE);
```

```
   MERGE FIG5_SC
         FIG5_A(RENAME=(SCORE=ASCORE));
   BY BENEFIT TIMEPD;
   SCORE=SCORE-ASCORE;
RUN;*/
PROC SORT DATA=FIG5_BE;
   BY BENEFIT;
RUN;

DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
     COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
     COL4(DROP=SCORE  RENAME=(SCORE1=COL4))
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL6(KEEP=ROW SIG RENAME=(SIG=COL6))
     COL7(kEEP=ROW SIG RENAME=(SIG=COL7));
   SET FIG5_BE FIG5_SC ; BY BENEFIT;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 1;
      BSCORE=SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP2." THEN DO;
      ROW = 2;
*      SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP1." THEN DO;
      ROW = 3;
 *     SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEAR." THEN DO;
      ROW = 4;
  *    SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;

   IF (BENEFIT = 'Getting Needed Care' AND REGCAT NE 'Benchmark') THEN OUTPUT COL2 COL6;
   IF (BENEFIT = 'Getting Needed Care' AND REGCAT = 'Benchmark') THEN OUTPUT COL3;
   IF (BENEFIT = 'Getting Care Quickly' AND REGCAT NE 'Benchmark') THEN OUTPUT COL4 COL7;
   IF (BENEFIT = 'Getting Care Quickly' AND REGCAT = 'Benchmark') THEN OUTPUT COL5;

RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;


/*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 5. LLU 04/07/2006*/

DATA FIG5A;
   MERGE COL2 COL6;
  BY ROW;
RUN;

DATA FIG5B;
   MERGE  COL4 COL7;
  BY ROW;
RUN;

DATA FIG5AB;
   SET FIG5A FIG5B;
  BY ROW;
RUN;



DATA FIG5;
   MERGE COL2 COL3 COL4(KEEP=ROW COL4) COL5 COL6 COL7;
```

```
   BY ROW;
RUN;
*TITLE2 'ACCESS COMPOSITES';
*PROC PRINT;
RUN;

*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C2:R21C2";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   PUT COL2;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C3:R18C3";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   PUT COL3;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C4:R21C4";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   PUT COL4;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C5:R18C5";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   PUT COL5;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R22C2:R25C4";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   PUT COL6 '09'X '09'X COL7;
RUN;

******************************************************************************
* FIGURE 6: Office Composites
******************************************************************************;
TITLE2 'Figure 6: Office Composites';
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&AREA","Benchmark")
     AND BENEFIT IN ('How Well Doctors Communicate')
     AND BENTYPE="Composite" & TIMEPD
    IN ("&YEARP2.", "&YEARP1.", "&YEAR.");
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE*SIG/ OUT=FIG6_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT IN ('How Well Doctors Communicate')
     AND BENTYPE="Composite" & TIMEPD = "&YEAR.";
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE/ OUT=FIG6_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG6_SC FIG6_A(KEEP=SCORE TIMEPD BENEFIT);
   SET FIG6_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG6_A;
      ELSE OUTPUT FIG6_SC;
RUN;
```

```
 /*add the code here to preserve above dataset for later comparision, LLu 4/6/2006*/
DATA CFIG6;
   SET FIG6_SC;

KEEP MAJGRP REGCAT BENEFIT TIMEPD SCORE SIG;
RUN;


PROC SORT DATA=FIG6_SC;
   BY BENEFIT TIMEPD;
RUN;
PROC SORT DATA=FIG6_A;
   BY BENEFIT TIMEPD;
RUN;
/*DATA FIG6_SC(DROP=ASCORE);
   MERGE FIG6_SC
         FIG6_A(RENAME=(SCORE=ASCORE));
   BY BENEFIT TIMEPD;
   SCORE=SCORE-ASCORE;
RUN;*/
PROC SORT DATA=FIG6_BE;
   BY BENEFIT;
RUN;

DATA COL4(DROP=SCORE RENAME=(SCORE1=COL4))
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL7(kEEP=ROW SIG RENAME=(SIG=COL7));
   SET FIG6_BE FIG6_SC ; BY BENEFIT;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 1;
      BSCORE=SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP2." THEN DO;
      ROW = 2;
*      SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP1." THEN DO;
      ROW = 3;
*      SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEAR." THEN DO;
      ROW = 4;
*      SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;

   IF (BENEFIT = 'How Well Doctors Communicate' AND REGCAT NE 'Benchmark') THEN OUTPUT COL4
COL7;
   IF (BENEFIT = 'How Well Doctors Communicate' AND REGCAT = 'Benchmark') THEN OUTPUT COL5;

RUN;


PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;

PROC SORT DATA=COL7; BY ROW; RUN;

/*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 5. LLU 04/07/2006*/


DATA FIG6B;
   MERGE  COL4 COL7;
  BY ROW;
RUN;

DATA FIG6AB;
   SET FIG6B;
  BY ROW;
```

```
RUN;


DATA FIG6;
   MERGE  COL4(KEEP=ROW COL4) COL5  COL7;
   BY ROW;
RUN;
*TITLE2 'OFFICE COMPOSITES';
*PROC PRINT;
RUN;

*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C8:R21C8";

DATA _NULL_;
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   PUT COL4;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C9:R18C9";

DATA _NULL_;
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   PUT COL5;
RUN;



FILENAME TBL DDE "EXCEL|COMPOSITES!R22C8:R25C8";

DATA _NULL_;
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   PUT  COL7;
RUN;

******************************************************************************
* FIGURE 7: Claims/Service Composites
******************************************************************************;
TITLE2 'Figure 7: Claims/Service Composites';
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&AREA","Benchmark")
     AND BENEFIT IN ('Customer Service','Claims Processing')
     AND BENTYPE ="Composite" & TIMEPD IN ("&YEARP2.", "&YEARP1.", "&YEAR.");
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE*SIG/ OUT=FIG7_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT IN ('Customer Service','Claims Processing')
     AND BENTYPE ="Composite" & TIMEPD= "&YEAR.";
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE/ OUT=FIG7_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG7_SC FIG7_A(KEEP=SCORE TIMEPD BENEFIT);
   SET FIG7_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG7_A;
      ELSE OUTPUT FIG7_SC;
RUN;

 /*add the code here to preserve above dataset for later comparision, LLu 4/6/2006*/
DATA CFIG7;
   SET FIG7_SC;

KEEP MAJGRP REGCAT BENEFIT TIMEPD SCORE SIG;
RUN;


PROC SORT DATA=FIG7_SC;
```

```
   BY BENEFIT TIMEPD;
RUN;
PROC SORT DATA=FIG7_A;
   BY BENEFIT TIMEPD;
RUN;
/*DATA FIG7_SC(DROP=ASCORE);
   MERGE FIG7_SC
         FIG7_A(RENAME=(SCORE=ASCORE));
   BY BENEFIT TIMEPD;
   SCORE=SCORE-ASCORE;
RUN;*/
PROC SORT DATA=FIG7_BE;
   BY BENEFIT;
RUN;

DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
     COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
     COL4(DROP=SCORE  RENAME=(SCORE1=COL4))
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL6(KEEP=ROW SIG RENAME=(SIG=COL6))
     COL7(kEEP=ROW SIG RENAME=(SIG=COL7));
   SET FIG7_BE FIG7_SC ; BY BENEFIT;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 1;
      BSCORE=SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP2." THEN DO;
      ROW = 2;
    *  SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP1." THEN DO;
      ROW = 3;
    *  SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEAR." THEN DO;
      ROW = 4;
    *  SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;

   IF (BENEFIT = 'Customer Service' AND REGCAT NE 'Benchmark') THEN OUTPUT COL2 COL6;
   IF (BENEFIT = 'Customer Service' AND REGCAT = 'Benchmark') THEN OUTPUT COL3;
   IF (BENEFIT = 'Claims Processing' AND REGCAT NE 'Benchmark') THEN OUTPUT COL4 COL7;
   IF (BENEFIT = 'Claims Processing' AND REGCAT = 'Benchmark') THEN OUTPUT COL5;

RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;

/*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 5. LLU 04/07/2006*/

DATA FIG7A;
   MERGE COL2 COL6;
  BY ROW;
RUN;

DATA FIG7B;
   MERGE  COL4 COL7;
  BY ROW;
RUN;

DATA FIG7AB;
   SET FIG7A FIG7B;
  BY ROW;
RUN;
```

```
DATA FIG7;
   MERGE COL2 COL3 COL4(KEEP=ROW COL4) COL5 COL6 COL7;
   BY ROW;
RUN;
*TITLE2 'CLAIMS/SERVICE COMPOSITES';
*PROC PRINT;
RUN;

*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C14:R21C14";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   PUT COL2;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C15:R18C15";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   PUT COL3;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C16:R21C16";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   PUT COL4;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C17:R18C17";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   PUT COL5;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R22C14:R25C16";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   PUT COL6 '09'X '09'X COL7;
RUN;

******************************************************************************
* TABLE 1: Preventive Care
******************************************************************************;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = "&AREA"
     AND TIMEPD = "&YEAR"
     AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                     'Percent Not Obese', 'Non-Smoking Rate','Counselled To Quit');
   TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*SCORE*SIG/ OUT=TAB1_03(DROP=COUNT PERCENT);
   TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*N_OBS/ OUT=TAB2_03(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND TIMEPD = "&YEAR"
     AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                     'Percent Not Obese', 'Non-Smoking Rate','Counselled To Quit');
```

```
     TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*SCORE*SIG/ OUT=TAB3_03(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
    WHERE MAJGRP = 'Prime Enrollees'
      AND REGCAT = "&AREA"
      AND TIMEPD = "&YEARP1"
      AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
      AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                      'Percent Not Obese', 'Non-Smoking Rate','Counselled To Quit');
    TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*SCORE*N_OBS*N_WGT*SIG/ OUT=TAB1_02(DROP=COUNT
PERCENT);
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = "&AREA"
     AND TIMEPD = "&YEARP2"
     AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                     'Percent Not Obese', 'Non-Smoking Rate','Counselled To Quit');
   TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*SCORE*N_OBS*N_WGT*SIG/ OUT=TAB1_01(DROP=COUNT
PERCENT);
RUN;

DATA TAB303;
   SET TAB3_03;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW=5;
      IF BENTYPE='Mammography' THEN COL2=SCORE;
         ELSE IF BENTYPE='Pap Smear' THEN COL3=SCORE;
         ELSE IF BENTYPE='Hypertension' THEN COL4=SCORE;
         ELSE IF BENTYPE='Prenatal Care' THEN COL5=SCORE;
         ELSE IF BENTYPE='Percent Not Obese' THEN COL6=SCORE;
         ELSE IF BENTYPE = 'Non-Smoking Rate' THEN COL7=SCORE;
         ELSE IF BENTYPE ='Counselled To Quit' THEN COL8=SCORE;
   END;
PROC SORT;
   BY ROW;
RUN;
DATA TAB203;
   SET TAB2_03;
   ROW=4;
   IF MAJGRP='Prime Enrollees';
   IF BENTYPE='Mammography' THEN COL2=N_OBS;
      ELSE IF BENTYPE='Pap Smear' THEN COL3=N_OBS;
      ELSE IF BENTYPE='Hypertension' THEN COL4=N_OBS;
      ELSE IF BENTYPE='Prenatal Care' THEN COL5=N_OBS;
      ELSE IF BENTYPE='Percent Not Obese' THEN COL6=N_OBS;
      ELSE IF BENTYPE = 'Non-Smoking Rate' THEN COL7=N_OBS;
      ELSE IF BENTYPE ='Counselled To Quit' THEN COL8=N_OBS;
PROC SORT;
   BY ROW;
RUN;
DATA TAB103;
   SET TAB1_03;
   ROW=3;
   IF BENTYPE='Mammography' THEN DO;
      COL2=SCORE;
      COL9=SIG;
   END;
   ELSE IF BENTYPE='Pap Smear' THEN DO;
      COL3=SCORE;
      COL10=SIG;
   END;
   ELSE IF BENTYPE='Hypertension' THEN DO;
      COL4=SCORE;
      COL11=SIG;
   END;
   ELSE IF BENTYPE='Prenatal Care' THEN DO;
      COL5=SCORE;
      COL12=SIG;
   END;
   ELSE IF BENTYPE='Percent Not Obese' THEN DO;
      COL6=SCORE;
      COL13=SIG;
```

```
   END;
   ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
      COL7=SCORE;
      COL14=SIG;
   END;
   ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
      COL8=SCORE;
      COL15=SIG;
   END;

   PROC SORT;
   BY ROW;
RUN;

DATA TAB101;
   SET TAB1_01;
   ROW=1;
   IF BENTYPE='Mammography' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL2=.;
      ELSE DO;
         COL2=SCORE;
         COL9=SIG;
      END;
   END;
   ELSE IF BENTYPE='Pap Smear' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL3=.;
      ELSE DO;
         COL3=SCORE;
         COL10=SIG;
      END;
   END;
   ELSE IF BENTYPE='Hypertension' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL4=.;
      ELSE DO;
         COL4=SCORE;
         COL11=SIG;
      END;
   END;
   ELSE IF BENTYPE='Prenatal Care' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL5=.;
      ELSE DO;
         COL5=SCORE;
         COL12=SIG;
      END;
   END;
   ELSE IF BENTYPE='Percent Not Obese' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL6=.;
      ELSE DO;
         COL6=SCORE;
         COL13=SIG;
      END;
   END;
   ELSE IF BENTYPE='Non-Smoking Rate' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL7=.;
      ELSE DO;
         COL7=SCORE;
         COL14=SIG;
      END;
   END;
   ELSE IF BENTYPE='Counselled To Quit' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL8=.;
      ELSE DO;
         COL8=SCORE;
         COL15=SIG;
      END;
    END;

PROC SORT;
   BY ROW;
RUN;
DATA TAB102;
   SET TAB1_02;
   ROW=2;
   IF BENTYPE='Mammography' THEN DO;
```

```
      IF (N_WGT<200 OR N_OBS<30) THEN COL2=.;
      ELSE DO;
         COL2=SCORE;
         COL9=SIG;
      END;
   END;
   ELSE IF BENTYPE='Pap Smear' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL3=.;
      ELSE DO;
         COL3=SCORE;
         COL10=SIG;
      END;
   END;
   ELSE IF BENTYPE='Hypertension' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL4=.;
      ELSE DO;
         COL4=SCORE;
         COL11=SIG;
      END;
   END;
   ELSE IF BENTYPE='Prenatal Care' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL5=.;
      ELSE DO;
         COL5=SCORE;
         COL12=SIG;
      END;
   END;
   ELSE IF BENTYPE='Percent Not Obese' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL6=.;
      ELSE DO;
         COL6=SCORE;
         COL13=SIG;
      END;
   END;
   ELSE IF BENTYPE='Non-Smoking Rate' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL7=.;
      ELSE DO;
         COL7=SCORE;
         COL14=SIG;
      END;
   END;
   ELSE IF BENTYPE='Counselled To Quit' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL8=.;
      ELSE DO;
         COL8=SCORE;
         COL15=SIG;
      END;
   END;
PROC SORT;
   BY ROW;
RUN;

DATA TAB1;
   MERGE TAB101 TAB102 TAB103 TAB203 TAB303;
   BY ROW;
RUN;
DATA COL2(DROP=COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL3(DROP=COL2 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL4(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL5(DROP=COL2 COL3 COL4 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL6(DROP=COL2 COL3 COL4 COL5 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL7(DROP=COL2 COL3 COL4 COL5 COL6 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL8(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL9(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL10 COL11 COL12 COL13 COL14 COL15)
     COL10(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL11 COL12 COL13 COL14 COL15)
     COL11(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL12 COL13 COL14 COL15)
     COL12(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL13 COL14 COL15)
     COL13(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL14 COL15)
     COL14(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL15)
     COL15(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14)
;
   SET TAB1;

   IF COL2 NE . THEN OUTPUT COL2;
```

```
   IF COL3 NE . THEN OUTPUT COL3;
   IF COL4 NE . THEN OUTPUT COL4;
   IF COL5 NE . THEN OUTPUT COL5;
   IF COL6 NE . THEN OUTPUT COL6;
   IF COL7 NE . THEN OUTPUT COL7;
   IF COL8 NE . THEN OUTPUT COL8;
   IF COL9 NE . THEN OUTPUT COL9;
   IF COL10 NE . THEN OUTPUT COL10;
   IF COL11 NE . THEN OUTPUT COL11;
   IF COL12 NE . THEN OUTPUT COL12;
   IF COL13 NE . THEN OUTPUT COL13;
   IF COL14 NE . THEN OUTPUT COL14;
   IF COL15 NE . THEN OUTPUT COL15;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;
PROC SORT DATA=COL11; BY ROW; RUN;
PROC SORT DATA=COL12; BY ROW; RUN;
PROC SORT DATA=COL13; BY ROW; RUN;
PROC SORT DATA=COL14; BY ROW; RUN;
PROC SORT DATA=COL15; BY ROW; RUN;

DATA ALLROWS;
   LENGTH ROW 8.;
   DO ROW = 1 TO 5;
      OUTPUT;
   END;
RUN;

PROC SORT DATA=ALLROWS; BY ROW; RUN;

DATA TABLE1;
   MERGE COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11
         COL12 COL13 COL14 COL15 ALLROWS;
   BY ROW;
RUN;


*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;
FILENAME TBL DDE "EXCEL|TABLES!R3C10:R8C23";

DATA _NULL_;
   SET TABLE1;
   FILE TBL NOTAB LRECL=200;

   *3/28/2014 CREATE NEW VAR WITH ASTERISK FOR TABLE1;
   ARRAY CARE   COL2 COL3  COL4  COL5  COL6  COL7  ;
   ARRAY SIGS    COL9 COL10 COL11 COL12 COL13 COL14 ;

   ARRAY NEWVAR $ MAMM PAP HBP PRENATAL NONOBE NONSMOKE ;

   DO I = 1 TO 6;
      IF SIGS(I) IN (1,-1) THEN  NEWVAR(I)=CATS("*",PUT(ROUND(CARE(I),1),8.));
      ELSE IF  CARE(I) >=0 THEN NEWVAR(I)=PUT(ROUND(CARE(I),1),8.);

      ELSE IF CARE(I) <0 THEN NEWVAR(I) ='-';

   END;

   *no benchmark for counseled to quit;
   IF COL8>=0 THEN QUIT = PUT(ROUND(COL8,1),8.);
   ELSE QUIT='-';
   IF ROW=5 THEN QUIT='-';
```

```
   PUT MAMM '09'X  PAP  '09'X HBP   '09'X PRENATAL '09'X NONOBE '09'X NONSMOKE '09'X QUIT '09'X
       COL9 '09'X COL10 '09'X COL11 '09'X COL12    '09'X COL13  '09'X COL14    '09'X COL15;
RUN;

/*Run Excel macro signif,  May 9 2006, LLU*/

options noxsync;
*-- Specify XL filename ;

*%let excelf = &NAME..XLS ;

*-- Specify XL macro name ;
%let macron = signif ;


FILENAME CMDS DDE "EXCEL|SYSTEM";


DATA _NULL_;
  FILE CMDS;
  DDECommand = '[Run("' || "&macron" || '",0)]' ;
  put DDEcommand ;

RUN;


*FILENAME CMDS DDE "EXCEL|SYSTEM";
DATA _NULL_;
   FILE CMDS;
   PUT '[SAVE]';
   PUT '[CLOSE]';
RUN;




*******************************************************************************
       COMPARE SCORES AND SIG B/T CONSUMER WATCH AND REPORT CARDS.
       SET 0.015 DIFFERENCE AS THRESHOLD.
       LUCY LU 04/04/2006
*******************************************************************************;


PROC SORT DATA=FIG1(DROP=SCORE);            *FROM CONSUMER WATCH;
BY BENEFIT TIMEPD REGCAT;

PROC SORT DATA=FIG2(DROP=SCORE);
BY BENEFIT TIMEPD REGCAT;

PROC SORT DATA=FIG3(DROP=SCORE);
BY BENEFIT TIMEPD REGCAT;

PROC SORT DATA=FIG4(DROP=SCORE);
BY BENEFIT TIMEPD REGCAT;

PROC SORT DATA=FIG5AB OUT=FIG5;
BY BENEFIT TIMEPD REGCAT;

PROC SORT DATA=FIG6AB OUT=FIG6;
BY BENEFIT TIMEPD REGCAT;

PROC SORT DATA=FIG7AB OUT=FIG7;
BY BENEFIT TIMEPD REGCAT;
RUN;


%MACRO COMPARE(I=, TITL=);


PROC SORT DATA=CFIG&I;                   *FROM REPROT CARDS;
BY BENEFIT TIMEPD REGCAT;
RUN;

DATA COMBFIG&I;
```

```
   MERGE CFIG&I.(IN=F1) FIG&I(IN=F2);
BY BENEFIT TIMEPD REGCAT;


IF F1 AND F2;

FIG = &I;

IF FIG <=4 THEN DO;
   SCORE2=COL2*100;
   SIG2=COL3;
END;

ELSE IF FIG >4 THEN DO;
   IF COL2 >= 0 THEN SCORE2=COL2;
   ELSE IF COL4 >0 THEN SCORE2=COL4;

   IF COL6 >= .Z THEN SIG2=COL6;
   ELSE IF COL7>=.Z THEN SIG2=COL7;
END;


   SCOREDIF=SCORE2-SCORE;
   SIGDIF=SIG2-SIG;


IF ABS(SCOREDIF)>.015 OR SIGDIF>0 THEN FLAG=1;
ELSE FLAG=0;

KEEP BENEFIT TIMEPD REGCAT SCORE SIG SCORE2 SIG2 SCOREDIF SIGDIF FLAG;

LABEL
FLAG="DIFF IN SCORES >0.015 OR/AND DIFF IN SIG >0"
SCORE="SCORES FROM CONUS"
SCORE2="SCORES FROM CONSUMER WATCH"
SIG="SIG FROM CONUS"
SIG2="SIG FROM CONSUMER WATCH"
;


TITLE  "  ";
TITLE2 "*********************************************************";
TITLE3 "&YEAR. CATCHMENT CONSUMER WATCH, &AREA ";

PROC PRINT L NOOBS;
TITLE4 "Compare &TITL.";
RUN;


%MEND COMPARE;


%COMPARE(I=1, TITL=Health Care Rating);
%COMPARE(I=2, TITL=Health Plan Rating);
%COMPARE(I=3, TITL=Personal Provider Rating);
%COMPARE(I=4, TITL=Specialist Rating);

%COMPARE(I=5, TITL=Access composites);

%COMPARE(I=6, TITL=Office composites);
%COMPARE(I=7, TITL=Claims/Service composites);


%MEND RUNCW;
```

H.2.A ConsumerWatch\LISTOFMTF-NORTH.SAS - Produce the list of MTF to run automated consumer watch report in Word-North.

```
*****************************************************************************
* PROJECT: 6663-420
* PROGRAM: ListOfMTF-xxxxx.SAS
* PURPOSE: Produce the list of MTF to run automated consumer watch report in Word
* AUTHOR : Lucy Lu
* DATE   : 11/30/09
* NOTE   : Run listOfMTF-xxxxx.Sas first to copy the list of MTF in .lst file.
*****************************************************************************;

OPTIONS PS=120 LS=256 NOCENTER /*MPRINT*/ NOFMTERR SPOOL ;
LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadweb';


%LET REG=("North Air Force","North Army","North Navy","North Other","North Joint Service");
%LET FOLDER=North;


/*LLU 03/17/2005, REMOVE APOSTROPHE FROM VARIABLE REGCAT FOR EXCEL NAMING*/
DATA TREND_A;
   SET INT.TREND_A(RENAME=(REGCAT=XREGCAT) KEEP=REGCAT REGION);

   REGCAT=COMPRESS(XREGCAT,"'");

CMPRS=COMPRESS(REGCAT)||".xlsb";
CMPRS2=COMPRESS(REGCAT);

IF SUBSTR(REGCAT,1,16)="Out of Catchment" THEN DELETE;

LENGTH MTFLIST $200;
MTFLIST='%RUNWD'||'('||'AREA='||TRIM(LEFT(REGCAT))||','||'NAME='
         ||TRIM(LEFT(CMPRS))||','||'NAME2='||TRIM(LEFT(CMPRS2))||','||'FOLDER='
         ||"&FOLDER"||')'||';';


APPENLIST='%APPENDIX'||'('||'NAME='
          ||TRIM(LEFT(CMPRS2))||','||'NAME2='||TRIM(LEFT(REGCAT))||','||'FOLDER='
          ||"&FOLDER"||')'||';';



IF (REGION in &REG AND REGCAT not in &REG) THEN OUTPUT;

RUN;

PROC SORT DATA=TREND_A(KEEP=MTFLIST APPENLIST) OUT=MTFLIST NODUPKEY;
 BY MTFLIST APPENLIST; RUN;

TITLE "AREA = &FOLDER";
PROC PRINT DATA=MTFLIST NOOBS;
VAR MTFLIST;
RUN;


TITLE2 "LIST OF MACRO CALLS FOR APPENDIX PRODUCTION";
PROC PRINT DATA=MTFLIST NOOBS;
VAR APPENLIST;
RUN;
```

H.2.B ConsumerWatch\LISTOFMTF-OVERSEAS.SAS - Produce the list of MTF to run automated consumer watch report in Word-Overseas.

```
*******************************************************************************
* PROJECT: 6663-420
* PROGRAM: ListOfMTF.SAS
* PURPOSE: Produce the list of MTF to run automated consumer watch report in Word
* AUTHOR : Lucy Lu
* DATE   : 11/30/09
* NOTE   : Run listOfMTF-South.Sas first to copy the list of MTF in .lst file.
*******************************************************************************;

OPTIONS PS=120 LS=256 NOCENTER /*MPRINT*/ NOFMTERR SPOOL ;
LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadweb';

%LET REG=("Overseas Europe","Overseas Pacific");
%LET FOLDER=Overseas;

/*LLU 03/17/2005, REMOVE APOSTROPHE FROM VARIABLE REGCAT FOR EXCEL NAMING*/
DATA TREND_A;
   SET INT.TREND_A(RENAME=(REGCAT=XREGCAT) KEEP=REGCAT REGION);

   REGCAT=COMPRESS(XREGCAT,"'");

CMPRS=COMPRESS(REGCAT)||".xls";
CMPRS2=COMPRESS(REGCAT);

IF SUBSTR(REGCAT,1,16)="Out of Catchment" THEN DELETE;

LENGTH MTFLIST $200;
MTFLIST='%RUNWD'||'('||'AREA='||TRIM(LEFT(REGCAT))||','||'NAME='
         ||TRIM(LEFT(CMPRS))||','||'NAME2='||TRIM(LEFT(CMPRS2))||','||'FOLDER='
         ||"&FOLDER"||')'||';';


APPENLIST='%APPENDIX'||'('||'NAME='
          ||TRIM(LEFT(CMPRS2))||','||'NAME2='||TRIM(LEFT(REGCAT))||','||'FOLDER='
          ||"&FOLDER"||')'||';';


IF (REGION in &REG AND REGCAT not in &REG) THEN OUTPUT;

RUN;

PROC SORT DATA=TREND_A(KEEP=MTFLIST APPENLIST) OUT=MTFLIST NODUPKEY;
 BY MTFLIST APPENLIST; RUN;

TITLE "AREA = &FOLDER";
PROC PRINT DATA=MTFLIST NOOBS;
VAR MTFLIST;
RUN;


TITLE2 "LIST OF MACRO CALLS FOR APPENDIX PRODUCTION";
PROC PRINT DATA=MTFLIST NOOBS;
VAR APPENLIST;
RUN;
```

H.2.C ConsumerWatch\LISTOFMTF-SOUTH.SAS - Produce the list of MTF to run automated consumer watch report in Word-South.

```
*****************************************************************************
* PROJECT: 6663-420
* PROGRAM: ListOfMTF.SAS
* PURPOSE: Produce the list of MTF to run automated consumer watch report in Word
* AUTHOR : Lucy Lu
* DATE   : 11/30/09
*****************************************************************************;

OPTIONS PS=120 LS=256 NOCENTER /*MPRINT*/ NOFMTERR SPOOL ;
LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadweb';

%LET REG=("South Air Force","South Army","South Navy","South Other");
%LET FOLDER=South;


/*LLU 03/17/2005, REMOVE APOSTROPHE FROM VARIABLE REGCAT FOR EXCEL NAMING*/
DATA TREND_A;
   SET INT.TREND_A(RENAME=(REGCAT=XREGCAT) KEEP=REGCAT REGION);

   REGCAT=COMPRESS(XREGCAT,"'");

CMPRS=COMPRESS(REGCAT)||".xls";
CMPRS2=COMPRESS(REGCAT);
*%RUNWD(AREA=&&REGCAT&I,NAME=&&CMPRS&I,NAME2=&&CMPRS2&I,FOLDER=&FOLDER);

IF SUBSTR(REGCAT,1,16)="Out of Catchment" THEN DELETE;

LENGTH MTFLIST $400;
MTFLIST='%RUNWD'||'('||'AREA='||TRIM(LEFT(REGCAT))||','||'NAME='
         ||TRIM(LEFT(CMPRS))||','||'NAME2='||TRIM(LEFT(CMPRS2))||','||'FOLDER='
         ||"&FOLDER"||')'||';';


APPENLIST='%APPENDIX'||'('||'NAME='
          ||TRIM(LEFT(CMPRS2))||','||'NAME2='||TRIM(LEFT(REGCAT))||','||'FOLDER='
          ||"&FOLDER"||')'||';';




IF (REGION in &REG AND REGCAT not in &REG) THEN OUTPUT;

RUN;

PROC SORT DATA=TREND_A(KEEP=MTFLIST APPENLIST) OUT=MTFLIST NODUPKEY;
 BY MTFLIST APPENLIST; RUN;

TITLE "AREA = &FOLDER";
PROC PRINT DATA=MTFLIST NOOBS;
VAR MTFLIST;
RUN;


TITLE2 "LIST OF MACRO CALLS FOR APPENDIX PRODUCTION";
PROC PRINT DATA=MTFLIST NOOBS;
VAR APPENLIST;
RUN;
```

H.2.D ConsumerWatch\LISTOFMTF-WEST.SAS - Produce the list of MTF to run automated consumer watch report in Word-West.

```
*******************************************************************************
* PROJECT: 6663-420
* PROGRAM: ListOfMTF-xxxxx.SAS
* PURPOSE: Produce the list of MTF to run automated consumer watch report in Word
* AUTHOR : Lucy Lu
* DATE   : 11/30/09
* NOTE   : Run listOfMTF-xxxxx.Sas first to copy the list of MTF in .lst file.

* MODIFICATION:
  08/14/2014: ADDED CODE FOR
*******************************************************************************;

OPTIONS PS=120 LS=256 NOCENTER /*MPRINT*/ NOFMTERR SPOOL ;
LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadweb';


%LET REG=("West Air Force","West Army","West Navy","West Other");
%LET FOLDER=West;



/*LLU 03/17/2005, REMOVE APOSTROPHE FROM VARIABLE REGCAT FOR EXCEL NAMING*/
DATA TREND_A;
   SET INT.TREND_A(RENAME=(REGCAT=XREGCAT) KEEP=REGCAT REGION);

   REGCAT=COMPRESS(XREGCAT,"'");

CMPRS=COMPRESS(REGCAT)||".xls";
CMPRS2=COMPRESS(REGCAT);

IF SUBSTR(REGCAT,1,16)="Out of Catchment" THEN DELETE;

LENGTH MTFLIST APPENLIST $200;
MTFLIST='%RUNWD'||'('||'AREA='||TRIM(LEFT(REGCAT))||','||'NAME='
         ||TRIM(LEFT(CMPRS))||','||'NAME2='||TRIM(LEFT(CMPRS2))||','||'FOLDER='
         ||"&FOLDER"||')'||';';


APPENLIST='%APPENDIX'||'('||'NAME='
          ||TRIM(LEFT(CMPRS2))||','||'NAME2='||TRIM(LEFT(REGCAT))||','||'FOLDER='
          ||"&FOLDER"||')'||';';


IF (REGION in &REG AND REGCAT not in &REG) THEN OUTPUT;

RUN;

PROC SORT DATA=TREND_A(KEEP=MTFLIST APPENLIST) OUT=MTFLIST NODUPKEY;
 BY MTFLIST APPENLIST; RUN;

TITLE "AREA = &FOLDER";
PROC PRINT DATA=MTFLIST NOOBS;
VAR MTFLIST;
RUN;


TITLE2 "LIST OF MACRO CALLS FOR APPENDIX PRODUCTION";
PROC PRINT DATA=MTFLIST NOOBS;
VAR APPENLIST;
RUN;
```

H.3.A ConsumerWatch\CONSUMERWATCH-WORD-CNORTH.SAS - Run annual automated word MTF TRICARE Consumer Watch reports-North.

```
*******************************************************************************
PROJECT: 6663-420
PROGRAM: consumerwatch-word-CNorth.sas
PURPOSE: Automatet the Consumer Watch Report
         Only be able to automate one Word product at a time, multiple file-open
         and File-save causes SAS to lock up with JAWs screen reader unless
         fixing the problem by downloading "Hot Fix" in SAS institute website.
AUTHOR : Lucy Lu
DATE   : 11/30/09
NOTE   : This is the second step to automnate the Consumer Watch report.
         1. step 1--run listOfMTF-xxxx.sas
         2. Step 2--copy the list of MTF in listOfMTF.lst file and run this macro.
*******************************************************************************;
OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 MPRINT NOCENTER NOFMTERR SPOOL;


LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadweb';

/**********************/
/* TIME PERIOD MACROS */
/**********************/

%LET YEAR   = 2015;
%LET YEARP1 = 2014;
%LET YEARP2 = 2013;
%LET YOURSAY= MTF;

%LET PATH=N:\Project\40309_HCS\DC1\HCSDB\2015\Programs\ConsumerWatch;
%LET RATEPATH=..\..\Data\Response_Rate\xcatch;


/*LLU 03/17/2005, REMOVE APOSTROPHE FROM VARIABLE REGCAT FOR EXCEL NAMING*/

%INCLUDE "CONSUMERWATCH-CMACRO-WORD.INC";

/*
%RUNWD(AREA=66th Med Grp-Hanscom,NAME=66thMedGrp-Hanscom.xlsb,NAME2=66thMedGrp-
Hanscom,FOLDER=North);
%RUNWD(AREA=779th Med Grp-Andrews,NAME=779thMedGrp-Andrews.xlsb,NAME2=779thMedGrp-
Andrews,FOLDER=North);
%RUNWD(AREA=Blanchfield ACH-Ft. Campbell,NAME=BlanchfieldACH-
Ft.Campbell.xlsb,NAME2=BlanchfieldACH-Ft.Campbell,FOLDER=North);
%RUNWD(AREA=Naval Hlth Clinic New
England,NAME=NavalHlthClinicNewEngland.xlsb,NAME2=NavalHlthClinicNewEngland,FOLDER=North);
%RUNWD(AREA=NHC Annapolis,NAME=NHCAnnapolis.xlsb,NAME2=NHCAnnapolis,FOLDER=North);
%RUNWD(AREA=NMC Portsmouth,NAME=NMCPortsmouth.xlsb,NAME2=NMCPortsmouth,FOLDER=North);
%RUNWD(AREA=Womack AMC-Ft. Bragg,NAME=WomackAMC-Ft.Bragg.xlsb,NAME2=WomackAMC-
Ft.Bragg,FOLDER=North);


%RUNWD(AREA=375th Med Grp-Scott,NAME=375thMedGrp-Scott.xlsb,NAME2=375thMedGrp-
Scott,FOLDER=North);
%RUNWD(AREA=633rd Med Grp Langley-Eustis,NAME=633rdMedGrpLangley-
Eustis.xlsb,NAME2=633rdMedGrpLangley-Eustis,FOLDER=North);

%RUNWD(AREA=87th Med Grp-McGuire,NAME=87thMedGrp-McGuire.xlsb,NAME2=87thMedGrp-
McGuire,FOLDER=North);
%RUNWD(AREA=88th Med Grp-Wright-Patterson,NAME=88thMedGrp-Wright-
Patterson.xlsb,NAME2=88thMedGrp-Wright-Patterson,FOLDER=North);
%RUNWD(AREA=Blanchfield ACH-Ft. Campbell,NAME=BlanchfieldACH-
Ft.Campbell.xlsb,NAME2=BlanchfieldACH-Ft.Campbell,FOLDER=North);
%RUNWD(AREA=FHCC-Formerly NHC Great Lakes,NAME=FHCC-FormerlyNHCGreatLakes.xlsb,NAME2=FHCC-
FormerlyNHCGreatLakes,FOLDER=North);
%RUNWD(AREA=Ft Belvoir Community Hosp-FBCH,NAME=FtBelvoirCommunityHosp-
FBCH.xlsb,NAME2=FtBelvoirCommunityHosp-FBCH,FOLDER=North);
%RUNWD(AREA=Guthrie AHC-Ft. Drum,NAME=GuthrieAHC-Ft.Drum.xlsb,NAME2=GuthrieAHC-
Ft.Drum,FOLDER=North);
%RUNWD(AREA=Ireland ACH-Ft. Knox,NAME=IrelandACH-Ft.Knox.xlsb,NAME2=IrelandACH-
Ft.Knox,FOLDER=North);
```

```
%RUNWD(AREA=Kenner AHC-Ft. Lee,NAME=KennerAHC-Ft.Lee.xlsb,NAME2=KennerAHC-Ft.Lee,FOLDER=North);
%RUNWD(AREA=Kimbrough Amb Car Cen-Ft Meade,NAME=KimbroughAmbCarCen-
FtMeade.xlsb,NAME2=KimbroughAmbCarCen-FtMeade,FOLDER=North);
%RUNWD(AREA=McDonald AHC-Ft. Eustis,NAME=McDonaldAHC-Ft.Eustis.xlsb,NAME2=McDonaldAHC-
Ft.Eustis,FOLDER=North);
%RUNWD(AREA=NBHC Little Creek,NAME=NBHCLittleCreek.xlsb,NAME2=NBHCLittleCreek,FOLDER=North);
%RUNWD(AREA=NBHC Navsta
Sewells,NAME=NBHCNavstaSewells.xlsb,NAME2=NBHCNavstaSewells,FOLDER=North);
%RUNWD(AREA=NBHC Oceana,NAME=NBHCOceana.xlsb,NAME2=NBHCOceana,FOLDER=North);
*/
%RUNWD(AREA=NH Camp Lejeune,NAME=NHCampLejeune.xlsb,NAME2=NHCampLejeune,FOLDER=North);
%RUNWD(AREA=NHC Annapolis,NAME=NHCAnnapolis.xlsb,NAME2=NHCAnnapolis,FOLDER=North);
%RUNWD(AREA=NHC Cherry Point,NAME=NHCCherryPoint.xlsb,NAME2=NHCCherryPoint,FOLDER=North);
%RUNWD(AREA=NHC Patuxent River,NAME=NHCPatuxentRiver.xlsb,NAME2=NHCPatuxentRiver,FOLDER=North);
%RUNWD(AREA=NHC Quantico,NAME=NHCQuantico.xlsb,NAME2=NHCQuantico,FOLDER=North);
%RUNWD(AREA=Naval Hlth Clinic New
England,NAME=NavalHlthClinicNewEngland.xlsb,NAME2=NavalHlthClinicNewEngland,FOLDER=North);
%RUNWD(AREA=Walter Reed Natl Mil Med
Cntr,NAME=WalterReedNatlMilMedCntr.xlsb,NAME2=WalterReedNatlMilMedCntr,FOLDER=North);



/*--dont need to run for pdf report--;

%RUNWD(AREA=North Region-Air force,NAME=NorthRegion-Airforce.xlsb,NAME2=NorthRegion-
Airforce,FOLDER=North);
%RUNWD(AREA=North Region-Other,NAME=NorthRegion-Other.xlsb,NAME2=NorthRegion-
Other,FOLDER=North);
```

H.3.B ConsumerWatch\CONSUMERWATCH-WORD-COVERSEAS.SAS - Run annual automated word MTF TRICARE Consumer Watch reports-Overseas.

```
*******************************************************************************
PROJECT: 6663-420
PROGRAM: consumerwatch-word-Coverseas.sas
PURPOSE: Automatet the Consumer Watch Report
         Only be able to automate one Word product at a time, multiple file-open
         and File-save causes SAS to lock up with JAWs screen reader unless
         fixing the problem by downloading "Hot Fix" in SAS institute website.
AUTHOR : Lucy Lu
DATE   : 11/30/09
NOTE   : This is the second step to automnate the Consumer Watch report.
         1. step 1--run listOfMTF-xxxx.sas
         2. Step 2--copy the list of MTF in listOfMTF.lst file and run this macro.
*******************************************************************************;
OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 MPRINT NOCENTER NOFMTERR SPOOL;


LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadweb';

/**********************/
/* TIME PERIOD MACROS */
/**********************/

%LET YEAR   = 2015;
%LET YEARP1 = 2014;
%LET YEARP2 = 2013;
%LET YOURSAY= MTF;

%LET PATH=N:\Project\40309_HCS\DC1\HCSDB\2015\Programs\ConsumerWatch;
%LET RATEPATH=..\..\Data\Response_Rate\xcatch;

/*LLU 03/17/2005, REMOVE APOSTROPHE FROM VARIABLE REGCAT FOR EXCEL NAMING*/

%INCLUDE "consumerwatch-Cmacro-word.inc";
*%RUNWD(AREA=Landstuhl Regional
Medcen,NAME=LandstuhlRegionalMedcen.xls,NAME2=LandstuhlRegionalMedcen,FOLDER=Overseas);
*%RUNWD(AREA=NH Yokosuka,NAME=NHYokosuka.xls,NAME2=NHYokosuka,FOLDER=Overseas);


%RUNWD(AREA=18th Med Grp-Kadena AB,NAME=18thMedGrp-KadenaAB.xls,NAME2=18thMedGrp-
KadenaAB,FOLDER=Overseas);


%RUNWD(AREA=48th Med Grp-Lakenheath,NAME=48thMedGrp-Lakenheath.xls,NAME2=48thMedGrp-
Lakenheath,FOLDER=Overseas);
%RUNWD(AREA=52nd Med Group-Spangdahlem,NAME=52ndMedGroup-Spangdahlem.xls,NAME2=52ndMedGroup-
Spangdahlem,FOLDER=Overseas);
%RUNWD(AREA=86th Medical Group-Ramstein,NAME=86thMedicalGroup-
Ramstein.xls,NAME2=86thMedicalGroup-Ramstein,FOLDER=Overseas);
%RUNWD(AREA=Bavaria Meddac,NAME=BavariaMeddac.xls,NAME2=BavariaMeddac,FOLDER=Overseas);
%RUNWD(AREA=Brian Allgood ACH-Seoul,NAME=BrianAllgoodACH-Seoul.xls,NAME2=BrianAllgoodACH-
Seoul,FOLDER=Overseas);
%RUNWD(AREA=NH Guam-Agana,NAME=NHGuam-Agana.xls,NAME2=NHGuam-Agana,FOLDER=Overseas);


/*--dont need to run for pdf report--;
%RUNWD(AREA=Pacific-Air force,NAME=Pacific-Airforce.xls,NAME2=Pacific-Airforce,FOLDER=Overseas);
%RUNWD(AREA=Europe-Air force,NAME=Europe-Airforce.xls,NAME2=Europe-Airforce,FOLDER=Overseas);
%RUNWD(AREA=Europe-Navy,NAME=Europe-Navy.xls,NAME2=Europe-Navy,FOLDER=Overseas);
```

H.3.C ConsumerWatch\CONSUMERWATCH-WORD-CSOUTH.SAS - Run annual automated word MTF TRICARE Consumer Watch reports-South.

```
*******************************************************************************
PROJECT: 6663-420
PROGRAM: consumerwatch-word-Coverseas.sas
PURPOSE: Automatet the Consumer Watch Report
         Only be able to automate one Word product at a time, multiple file-open
         and File-save causes SAS to lock up with JAWs screen reader unless
         fixing the problem by downloading "Hot Fix" in SAS institute website.
AUTHOR : Lucy Lu
DATE   : 11/30/09
NOTE   : This is the second step to automnate the Consumer Watch report.
         1. step 1--run listOfMTF-xxxx.sas
         2. Step 2--copy the list of MTF in listOfMTF.lst file and run this macro.
*******************************************************************************;
OPTIONS PS=63 LS=200 ERRORS=2 MPRINT NOCENTER NOFMTERR SPOOL;


LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadweb';

/**********************/
/* TIME PERIOD MACROS */
/**********************/

%LET YEAR   = 2015;
%LET YEARP1 = 2014;
%LET YEARP2 = 2013;
%LET YOURSAY= MTF;

%LET PATH=N:\Project\40309_HCS\DC1\HCSDB\&YEAR.\Programs\ConsumerWatch;
%LET RATEPATH=..\..\Data\Response_Rate\xcatch;


/*LLU 03/17/2005, REMOVE APOSTROPHE FROM VARIABLE REGCAT FOR EXCEL NAMING*/

%INCLUDE "CONSUMERWATCH-CMACRO-WORD.INC";
%RUNWD(AREA=7th Med Grp-Dyess,NAME=7thMedGrp-Dyess.xls,NAME2=7thMedGrp-Dyess,FOLDER=South);
/*
%RUNWD(AREA=59th Med Wing-Lackland,NAME=59thMedWing-Lackland.xls,NAME2=59thMedWing-
Lackland,FOLDER=South);
%RUNWD(AREA=359th Med Grp-Randolph,NAME=359thMedGrp-Randolph.xls,NAME2=359thMedGrp-
Randolph,FOLDER=South);


%RUNWD(AREA=14th Med Grp-Columbus,NAME=14thMedGrp-Columbus.xls,NAME2=14thMedGrp-
Columbus,FOLDER=South);
%RUNWD(AREA=20th Med Grp-Shaw,NAME=20thMedGrp-Shaw.xls,NAME2=20thMedGrp-Shaw,FOLDER=South);
%RUNWD(AREA=45th Med Grp-Patrick,NAME=45thMedGrp-Patrick.xls,NAME2=45thMedGrp-
Patrick,FOLDER=South);
%RUNWD(AREA=78th Med Grp-Robins,NAME=78thMedGrp-Robins.xls,NAME2=78thMedGrp-
Robins,FOLDER=South);
%RUNWD(AREA=81st Med Grp-Keesler,NAME=81stMedGrp-Keesler.xls,NAME2=81stMedGrp-
Keesler,FOLDER=South);

%RUNWD(AREA=NHC Corpus Christi,NAME=NHCCorpusChristi.xls,NAME2=NHCCorpusChristi,FOLDER=South);
%RUNWD(AREA=19th Medical Group-Little Rock,NAME=19thMedicalGroup-
LittleRock.xls,NAME2=19thMedicalGroup-LittleRock,FOLDER=South);
%RUNWD(AREA=1st Spec Ops Med Grp-Hurlburt,NAME=1stSpecOpsMedGrp-
Hurlburt.xls,NAME2=1stSpecOpsMedGrp-Hurlburt,FOLDER=South);
%RUNWD(AREA=2nd Med Grp-Barksdale,NAME=2ndMedGrp-Barksdale.xls,NAME2=2ndMedGrp-
Barksdale,FOLDER=South);
%RUNWD(AREA=6th Med Grp-MacDill,NAME=6thMedGrp-MacDill.xls,NAME2=6thMedGrp-
MacDill,FOLDER=South);
%RUNWD(AREA=NBHC Mayport,NAME=NBHCMayport.xls,NAME2=NBHCMayport,FOLDER=South);

%RUNWD(AREA=17th Med Grp-Goodfellow,NAME=17thMedGrp-Goodfellow.xls,NAME2=17thMedGrp-
Goodfellow,FOLDER=South);
%RUNWD(AREA=325th Med Grp-Tyndall,NAME=325thMedGrp-Tyndall.xls,NAME2=325thMedGrp-
Tyndall,FOLDER=South);
```

```
%RUNWD(AREA=42nd Medical Group-Maxwell,NAME=42ndMedicalGroup-Maxwell.xls,NAME2=42ndMedicalGroup-
Maxwell,FOLDER=South);
%RUNWD(AREA=72nd Med Grp-Tinker,NAME=72ndMedGrp-Tinker.xls,NAME2=72ndMedGrp-
Tinker,FOLDER=South);

%RUNWD(AREA=82nd Med Grp-Sheppard,NAME=82ndMedGrp-Sheppard.xls,NAME2=82ndMedGrp-
Sheppard,FOLDER=South);
%RUNWD(AREA=96th Med Grp-Eglin,NAME=96thMedGrp-Eglin.xls,NAME2=96thMedGrp-Eglin,FOLDER=South);
%RUNWD(AREA=Bayne-Jones ACH-Ft. Polk,NAME=Bayne-JonesACH-Ft.Polk.xls,NAME2=Bayne-JonesACH-
Ft.Polk,FOLDER=South);
%RUNWD(AREA=Brooke AMC-Ft. Sam Houston,NAME=BrookeAMC-Ft.SamHouston.xls,NAME2=BrookeAMC-
Ft.SamHouston,FOLDER=South);
%RUNWD(AREA=Darnall ACH-Ft. Hood,NAME=DarnallACH-Ft.Hood.xls,NAME2=DarnallACH-
Ft.Hood,FOLDER=South);
%RUNWD(AREA=Eisenhower AMC-Ft. Gordon,NAME=EisenhowerAMC-Ft.Gordon.xls,NAME2=EisenhowerAMC-
Ft.Gordon,FOLDER=South);
%RUNWD(AREA=Fox AHC-Redstone Arsenal,NAME=FoxAHC-RedstoneArsenal.xls,NAME2=FoxAHC-
RedstoneArsenal,FOLDER=South);
%RUNWD(AREA=Lyster AHC-Ft. Rucker,NAME=LysterAHC-Ft.Rucker.xls,NAME2=LysterAHC-
Ft.Rucker,FOLDER=South);
%RUNWD(AREA=Martin ACH-Ft. Benning,NAME=MartinACH-Ft.Benning.xls,NAME2=MartinACH-
Ft.Benning,FOLDER=South);
%RUNWD(AREA=Moncrief ACH-Ft. Jackson,NAME=MoncriefACH-Ft.Jackson.xls,NAME2=MoncriefACH-
Ft.Jackson,FOLDER=South);
%RUNWD(AREA=NH Jacksonville,NAME=NHJacksonville.xls,NAME2=NHJacksonville,FOLDER=South);
%RUNWD(AREA=NH Pensacola,NAME=NHPensacola.xls,NAME2=NHPensacola,FOLDER=South);

%RUNWD(AREA=Naval Health Clinic
Charleston,NAME=NavalHealthClinicCharleston.xls,NAME2=NavalHealthClinicCharleston,FOLDER=South);
%RUNWD(AREA=Reynolds ACH-Ft. Sill,NAME=ReynoldsACH-Ft.Sill.xls,NAME2=ReynoldsACH-
Ft.Sill,FOLDER=South);
%RUNWD(AREA=Winn ACH-Ft. Stewart,NAME=WinnACH-Ft.Stewart.xls,NAME2=WinnACH-
Ft.Stewart,FOLDER=South);


/*--dont need to run for pdf report--;
%RUNWD(AREA=South Region-Air force,NAME=SouthRegion-Airforce.xls,NAME2=SouthRegion-
Airforce,FOLDER=South);
```

H.3.D ConsumerWatch\CONSUMERWATCH-WORD-CWEST.SAS - Run annual automated word MTF TRICARE Consumer Watch reports-West.

```
*******************************************************************************
PROJECT: 6663-420
PROGRAM: consumerwatch-word-Coverseas.sas
PURPOSE: Automatet the Consumer Watch Report
         Only be able to automate one Word product at a time, multiple file-open
         and File-save causes SAS to lock up with JAWs screen reader unless
         fixing the problem by downloading "Hot Fix" in SAS institute website.
AUTHOR : Lucy Lu
DATE   : 11/30/09
NOTE   : This is the second step to automnate the Consumer Watch report.
         1. step 1--run listOfMTF-xxxx.sas
         2. Step 2--copy the list of MTF in listOfMTF.lst file and run this macro.
*******************************************************************************;
OPTIONS PS=63 LS=200 ERRORS=2 MPRINT NOCENTER NOFMTERR SPOOL;


LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadweb';

/**********************/
/* TIME PERIOD MACROS */
/**********************/

%LET YEAR   = 2015;
%LET YEARP1 = 2014;
%LET YEARP2 = 2013;
%LET YOURSAY= MTF;
%LET PATH=N:\Project\40309_HCS\DC1\HCSDB\&YEAR.\Programs\ConsumerWatch;
%LET RATEPATH=..\..\Data\Response_Rate\xcatch;


/*LLU 03/17/2005, REMOVE APOSTROPHE FROM VARIABLE REGCAT FOR EXCEL NAMING*/

%INCLUDE "CONSUMERWATCH-CMACRO-WORD.INC";

%RUNWD(AREA=10th Med Group-USAF Academy CO,NAME=10thMedGroup-
USAFAcademyCO.xls,NAME2=10thMedGroup-USAFAcademyCO,FOLDER=West);
%RUNWD(AREA=21st Med Grp-Peterson,NAME=21stMedGrp-Peterson.xls,NAME2=21stMedGrp-
Peterson,FOLDER=West);


%RUNWD(AREA=30th Med Grp-Vandenberg,NAME=30thMedGrp-Vandenberg.xls,NAME2=30thMedGrp-
Vandenberg,FOLDER=West);
%RUNWD(AREA=341st Med Grp-Malmstrom,NAME=341stMedGrp-Malmstrom.xls,NAME2=341stMedGrp-
Malmstrom,FOLDER=West);
%RUNWD(AREA=355th Med Grp-Davis Monthan,NAME=355thMedGrp-DavisMonthan.xls,NAME2=355thMedGrp-
DavisMonthan,FOLDER=West);
%RUNWD(AREA=366th Med Grp-Mountain Home,NAME=366thMedGrp-MountainHome.xls,NAME2=366thMedGrp-
MountainHome,FOLDER=West);
%RUNWD(AREA=377th Med Grp-Kirtland,NAME=377thMedGrp-Kirtland.xls,NAME2=377thMedGrp-
Kirtland,FOLDER=West);
%RUNWD(AREA=3rd Med Grp-Elmendorf,NAME=3rdMedGrp-Elmendorf.xls,NAME2=3rdMedGrp-
Elmendorf,FOLDER=West);
%RUNWD(AREA=509th Med Grp-Whiteman,NAME=509thMedGrp-Whiteman.xls,NAME2=509thMedGrp-
Whiteman,FOLDER=West);
%RUNWD(AREA=55th Med Grp-Offutt,NAME=55thMedGrp-Offutt.xls,NAME2=55thMedGrp-Offutt,FOLDER=West);
%RUNWD(AREA=56th Med Grp-Luke,NAME=56thMedGrp-Luke.xls,NAME2=56thMedGrp-Luke,FOLDER=West);
%RUNWD(AREA=5th Med Grp-Minot,NAME=5thMedGrp-Minot.xls,NAME2=5thMedGrp-Minot,FOLDER=West);
%RUNWD(AREA=60th Med Grp-Travis,NAME=60thMedGrp-Travis.xls,NAME2=60thMedGrp-Travis,FOLDER=West);
%RUNWD(AREA=61st Med Group-Los Angeles,NAME=61stMedGroup-LosAngeles.xls,NAME2=61stMedGroup-
LosAngeles,FOLDER=West);
%RUNWD(AREA=75th Med Grp-Hill,NAME=75thMedGrp-Hill.xls,NAME2=75thMedGrp-Hill,FOLDER=West);
%RUNWD(AREA=90th Med Grp-F.E. Warren,NAME=90thMedGrp-F.E.Warren.xls,NAME2=90thMedGrp-
F.E.Warren,FOLDER=West);
%RUNWD(AREA=92nd Med Grp-Fairchild,NAME=92ndMedGrp-Fairchild.xls,NAME2=92ndMedGrp-
Fairchild,FOLDER=West);
%RUNWD(AREA=95th Med Grp-Edwards,NAME=95thMedGrp-Edwards.xls,NAME2=95thMedGrp-
Edwards,FOLDER=West);
%RUNWD(AREA=99th Med Grp-OCallaghan Hosp,NAME=99thMedGrp-OCallaghanHosp.xls,NAME2=99thMedGrp-
OCallaghanHosp,FOLDER=West);
```

```
%RUNWD(AREA=Bassett ACH-Ft. Wainwright,NAME=BassettACH-Ft.Wainwright.xls,NAME2=BassettACH-
Ft.Wainwright,FOLDER=West);
%RUNWD(AREA=Evans ACH-Ft. Carson,NAME=EvansACH-Ft.Carson.xls,NAME2=EvansACH-
Ft.Carson,FOLDER=West);
%RUNWD(AREA=Irwin ACH-Ft. Riley,NAME=IrwinACH-Ft.Riley.xls,NAME2=IrwinACH-Ft.Riley,FOLDER=West);
%RUNWD(AREA=L. Wood ACH-Ft. Leonard Wood,NAME=L.WoodACH-Ft.LeonardWood.xls,NAME2=L.WoodACH-
Ft.LeonardWood,FOLDER=West);
%RUNWD(AREA=Madigan AMC-Ft. Lewis,NAME=MadiganAMC-Ft.Lewis.xls,NAME2=MadiganAMC-
Ft.Lewis,FOLDER=West);
%RUNWD(AREA=Munson AHC-Ft. Leavenworth,NAME=MunsonAHC-Ft.Leavenworth.xls,NAME2=MunsonAHC-
Ft.Leavenworth,FOLDER=West);
%RUNWD(AREA=NBHC NAS North
Island,NAME=NBHCNASNorthIsland.xls,NAME2=NBHCNASNorthIsland,FOLDER=West);
%RUNWD(AREA=NBHC NTC San Diego,NAME=NBHCNTCSanDiego.xls,NAME2=NBHCNTCSanDiego,FOLDER=West);
%RUNWD(AREA=NBHC Port Hueneme,NAME=NBHCPortHueneme.xls,NAME2=NBHCPortHueneme,FOLDER=West);
%RUNWD(AREA=NH Bremerton,NAME=NHBremerton.xls,NAME2=NHBremerton,FOLDER=West);
%RUNWD(AREA=NH Camp Pendleton,NAME=NHCampPendleton.xls,NAME2=NHCampPendleton,FOLDER=West);
%RUNWD(AREA=NH Oak Harbor,NAME=NHOakHarbor.xls,NAME2=NHOakHarbor,FOLDER=West);
%RUNWD(AREA=NH Twentynine Palms,NAME=NHTwentyninePalms.xls,NAME2=NHTwentyninePalms,FOLDER=West);
%RUNWD(AREA=NHC Hawaii,NAME=NHCHawaii.xls,NAME2=NHCHawaii,FOLDER=West);
%RUNWD(AREA=NMC San Diego,NAME=NMCSanDiego.xls,NAME2=NMCSanDiego,FOLDER=West);
%RUNWD(AREA=R W Bliss AHC-Ft. Huachuca,NAME=RWBlissAHC-Ft.Huachuca.xls,NAME2=RWBlissAHC-
Ft.Huachuca,FOLDER=West);
%RUNWD(AREA=TRICARE Outpatient-Chula Vista,NAME=TRICAREOutpatient-
ChulaVista.xls,NAME2=TRICAREOutpatient-ChulaVista,FOLDER=West);
%RUNWD(AREA=Tripler AMC-Ft. Shafter,NAME=TriplerAMC-Ft.Shafter.xls,NAME2=TriplerAMC-
Ft.Shafter,FOLDER=West);
%RUNWD(AREA=Weed ACH-Ft. Irwin,NAME=WeedACH-Ft.Irwin.xls,NAME2=WeedACH-Ft.Irwin,FOLDER=West);
%RUNWD(AREA=William Beaumont AMC-Ft. Bliss,NAME=WilliamBeaumontAMC-
Ft.Bliss.xls,NAME2=WilliamBeaumontAMC-Ft.Bliss,FOLDER=West);


/*--dont need to run for pdf report--;
%RUNWD(AREA=West Region-Air force,NAME=WestRegion-Airforce.xls,NAME2=WestRegion-
Airforce,FOLDER=West);
```

H.3.E - ConsumerWatch\CONSUMERWATCH-WORD-CUS.SAS - Run annual automated word MTF TRICARE Consumer Watch reports-US.

```
*******************************************************************************
PROJECT: 6663-420
PROGRAM: consumerwatch-word-Coverseas.sas
PURPOSE: Automatet the Consumer Watch Report
         Only be able to automate one Word product at a time, multiple file-open
         and File-save causes SAS to lock up with JAWs screen reader unless
         fixing the problem by downloading "Hot Fix" in SAS institute website.
AUTHOR : Lucy Lu
DATE   : 11/30/09
NOTE   : This is the second step to automnate the Consumer Watch report.
         1. step 1--run listOfMTF-xxxx.sas
         2. Step 2--copy the list of MTF in listOfMTF.lst file and run this macro.
*******************************************************************************;
OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 MPRINT NOCENTER NOFMTERR SPOOL SYMBOLGEN;


LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadweb';

/**********************/
/* TIME PERIOD MACROS */
/**********************/

%LET YEAR   = 2015;
%LET YEARP1 = 2014;
%LET YEARP2 = 2013;
%LET YOURSAY= MTF;

%LET PATH=N:\Project\40309_HCS\DC1\HCSDB\&YEAR.\Programs\ConsumerWatch;
%LET RATEPATH=..\..\Data\Response_Rate\xcatch;


%INCLUDE "consumerwatch-Cmacro-word.inc";
%RUNWD(AREA=USA MHS,NAME2=USAMHS,FOLDER=USAMHS);
```

H.3.F ConsumerWatch\CONSUMERWATCH-CMACRO-WORD.INC - Produce numbers for annual Consumer Watch reports.

```
*******************************************************************************
* PROJECT: 6077-420
* PROGRAM: CONSUMERWATCH-Cmarco-WORD.INC
*
* AUTHOR : LUCY LU
* PURPOSE: Automate the copy and paste process, update the year, region,
*          response rate and sample size for annual catchment Consumer
*          Watch report.
*
* DATE   : 10/29/2009
* modified
* 08/27/2015 LLu, changed calling template from .doc to .docm for 2010 Word
* 09/02/2015 Llu, changed MTF1 and MTF3 from Arial to Times New Roman font.
*
* OUTPUT : WORD DOCUMENTS
*******************************************************************************;

OPTIONS NOXWAIT SPOOL NOXSYNC;


%MACRO RUNWD(AREA=,NAME=,NAME2=,FOLDER=);
*LLU 7/21/2010--DETECTING AVAILABILITY OF EXCEL, MINIMIZE WAITING TIME
 Wait until Excel ready;

FILENAME CMDS DDE "EXCEL|SYSTEM";

DATA _NULL_;

   LENGTH FID RC START STOP TIME 8;
   FID = FOPEN('CMDS' , 'S');
   IF (FID LE 0) THEN DO;
      RC = SYSTEM('START EXCEL');
      START = DATETIME();
      STOP = START + 10;
      DO WHILE (FID LE 0);
         FID = FOPEN('CMDS' , 'S');
         TIME = DATETIME();
         IF (TIME GE STOP) THEN FID = 1;
      END;
   END;
   RC = FCLOSE(FID);
RUN;


%MACRO SETUP;
   DATA TEST _NULL_;

   SINGLE="'";
   DOUBLE='"';

   LENGTH OPENXLS OPENWRD SAVEWRD $120;
 *11/28/2010, temporary fix for xls.xlsb problem to meet the dealine. Need
   perm fix in Excel pmg;
   OPENXLS=SINGLE||"[OPEN("||DOUBLE||"&PATH.\&FOLDER.\&NAME2..xlsb"||DOUBLE||")]"||SINGLE;
   OPENWRD=SINGLE||"[FileOpen.Name="||DOUBLE||"&PATH.\templateAnnual.docm"||DOUBLE||"]"||SINGLE;

SAVEWRD=SINGLE||"[FileSaveAs.Name="||DOUBLE||"&PATH.\&FOLDER.\&NAME2..docm"||DOUBLE||"]"||SINGLE
;

   CALL SYMPUT ("OPENXLS",TRIM(OPENXLS));
   CALL SYMPUT ("OPENWRD",TRIM(OPENWRD));
   CALL SYMPUT ("SAVEWRD",TRIM(SAVEWRD));

RUN;

%MEND SETUP;
%SETUP;

DATA _NULL_;
 FILE CMDS;
```

```
PUT &OPENXLS;
X=SLEEP(1);
PUT '[app.minimize()]';
RUN;

*7/23/2010 LLU, Wait until Word ready;
FILENAME CMNDS DDE "WINWORD|SYSTEM";

DATA _NULL_;
  LENGTH FID RC START STOP TIME 8;
  FID=FOPEN('CMNDS','S');
  IF (FID LE 0) THEN DO;
    RC=SYSTEM('START WINWORD');
    START=DATETIME();
    STOP=START+10;
    DO WHILE (FID LE 0);
      FID=FOPEN('CMNDS','S');
      TIME=DATETIME();
      IF (TIME GE STOP) THEN FID=1;
      END;
    END;
  RC=FCLOSE(FID);
RUN;

DATA _NULL_;
  FILE CMNDS;
  PUT &OPENWRD;
  X=SLEEP(1);
  PUT &SAVEWRD;
  PUT '[APPMINIMIZE]';
RUN;


%MACRO COPYIT;
%DO I=1 %TO 8;

   %IF &I NE 7 %THEN %DO;
      %LET WDMACRO=NEWPASTE&I;
      %LET EXMACRO=COPY&I;


      FILENAME CMDS DDE "EXCEL|SYSTEM";

      DATA _NULL_;
         FILE CMDS;
      X=SLEEP(1);
      RUN;


      DATA _NULL_;
      FILE CMDS;
      DDECommand = '[Run("' || "&exmacro" || '",0)]' ;
      PUT DDEcommand ;

      RUN;
      FILENAME CMDS CLEAR;

      FILENAME CMNDS DDE 'WINWORD|SYSTEM';

      DATA _NULL_;
      X=SLEEP(1);
      RUN;


      DATA _NULL_;
      FILE CMNDS;
      put '[ToolsMacro .Name = "' "&wdmacro" '", .Run]';
      RUN;

      FILENAME CMNDS CLEAR;

      RUN;

   %END;
```

```
%END;
%MEND COPYIT;
%COPYIT;

/*
FILENAME CMDS DDE "EXCEL|SYSTEM";

DATA _NULL_;
   FILE CMDS;
   PUT '[SAVE]';
   PUT '[QUIT]';
RUN; */

*READ THE SAMPLE SIZE AND RESPONSE RATE IN .OUT FILES
 AND CREATE MACRO VARIABLES for Word document;
%MACRO RATE1 (DAT);
  DATA &DAT;

      INFILE "&RATEPATH.\&DAT..OUT" LRECL=9999 RECFM=V;
      INPUT LINEIN $100 @; DROP LINEIN;
      IF _N_ GE 7 THEN DO;
         INPUT
            @001 DOMAIN    $CHAR40.
            @141 FRR_UNWT  4.3
            @147 POP       $CHAR7.;
            ;
          OUTPUT;
     END;
  RUN;

*MS 2007 doesnt take comma7 format. This is to hard code the comma into the text;
DATA &DAT;
   SET &DAT;
 LENGTH POP_UNWT $10;
   POP1=SUBSTR(RIGHT(POP),1,1);
   POP2=SUBSTR(RIGHT(POP),2,3);
   POP3=SUBSTR(RIGHT(POP),5,3);
   POP_UNWT=CATX(',',POP1,POP2,POP3);
RUN;

%MEND RATE1;

%RATE1(TABLE02A);  /*for USA MHS*/
%RATE1(XCATCH);    /*for catchment area*/

DATA ALLRATE;
  SET TABLE02A
      XCATCH
      ;

   DOMAIN=UPCASE(COMPRESS(DOMAIN,"' "));

   IF DOMAIN='' THEN DOMAIN="USAMHS";
   FRR_UNWT=FRR_UNWT*100;

 *PUT POP_UNWT=  FRR_UNWT=;
 IF DOMAIN=UPCASE("&NAME2") THEN OUTPUT;

RUN;


%LET FORMAT=FORMAT1;

%LET MARK1=MTF1;
%LET MARK2=size;
%LET MARK3=rate;
%LET MARK4=MTF2;
%LET MARK5=YourSay;
%LET MARK6=MTF3;



DATA _NULL_;
   SET ALLRATE;
```

```
CALL SYMPUT ("TEXT1", "&AREA");
CALL SYMPUT ("TEXT2", COMPRESS(POP_UNWT));
CALL SYMPUT ("TEXT3", COMPRESS(FRR_UNWT));
CALL SYMPUT ("TEXT4", "&AREA");
CALL SYMPUT ("TEXT5", "&YOURSAY");
CALL SYMPUT ("TEXT6", "&AREA");

RUN;

FILENAME CMNDS DDE "WINWORD|SYSTEM";
DATA _NULL_;
   FILE CMNDS;
   *X=SLEEP(2);
   PUT '[AppMinimize]';
RUN;


DATA _NULL_;
 FILE CMNDS;
 *X=SLEEP(.2);
 put '[EditGoto.Destination="MTF1"]';
 put '[FormatFont.Font="Times New Roman",.Points="20"]';
 PUT "&TEXT1";
RUN;

DATA _NULL_;
 FILE CMNDS;
 *X=SLEEP(.2);
 put '[EditGoto.Destination="SIZE"]';
 put '[FormatFont.Font="Arial",.Points="8"]';
 PUT "&TEXT2";
RUN;

DATA _NULL_;
 FILE CMNDS;
 *X=SLEEP(.2);
 put '[EditGoto.Destination="RATE"]';
 put '[FormatFont.Font="Arial",.Points="8"]';
 PUT "&TEXT3";
RUN;

DATA _NULL_;
 FILE CMNDS;
 *X=SLEEP(.2);
 put '[EditGoto.Destination="MTF2"]';
 put '[FormatFont.Font="Arial",.Points="8"]';
 PUT "&TEXT4";
RUN;

DATA _NULL_;
 FILE CMNDS;
 *X=SLEEP(.2);
 put '[EditGoto.Destination="YourSay"]';
 put '[FormatFont.Font="Times New Roman",.Points="11"]';
 PUT "&TEXT5";
RUN;

DATA _NULL_;
 FILE CMNDS;
 *X=SLEEP(.2);
 put '[EditGoto.Destination="MTF3"]';
 put '[FormatFont.Font="Times New Roman",.Points="16"]';
 PUT "&TEXT6";
RUN;

/* The Triplet doeasn't work for MS 2007/SAS 9. Comment out here;
%MACRO DOWORD;

%DO I= 1 %TO 6;     *LLU 2/15/08. Problem with Banner in Word. No change in banner this time;

FILENAME CMNDS DDE "WINWORD|&PATH.\&FOLDER.\&FOLDER..doc!&&MARK&I." NOTAB;
```

```
DATA _NULL_;
 FILE CMNDS;

 PUT "&&TEXT&I.";

RUN;

FILENAME CMNDS CLEAR;

%END;

%MEND;

%DOWORD;

FILENAME CMNDS DDE 'WINWORD|SYSTEM';
DATA _NULL_;
 FILE CMNDS;

 PUT '[ToolsMacro .Name = "' "&FORMAT" '", .Run]';

RUN;
*/
*copy and paste figure 7--must do after changing subtitle on page 2;
%LET WDMACRO7=NEWPASTE7;
%LET EXMACRO7=COPY7;


FILENAME CMDS DDE "EXCEL|SYSTEM";

DATA _NULL_;
    FILE CMDS;
X=SLEEP(1);
RUN;

DATA _NULL_;
  FILE CMDS;
  DDECommand = '[Run("' || "&exmacro7" || '",0)]' ;
  PUT DDEcommand ;

RUN;
FILENAME CMDS CLEAR;

FILENAME CMNDS DDE 'WINWORD|SYSTEM';

DATA _NULL_;
  FILE CMNDS;
put '[ToolsMacro .Name = "' "&wdmacro7" '", .Run]';
RUN;

FILENAME CMNDS CLEAR;

RUN;


DATA _NULL_;
X=SLEEP(.2);
RUN;

*savs as pdf;
%LET CMACRO=SaveAspdf;

FILENAME CMNDS DDE 'WINWORD|SYSTEM';
DATA _NULL_;
 FILE CMNDS;

PUT '[ToolsMacro .Name = "' "&CMACRO" '", .Run]';
run;


FILENAME CMDS DDE "EXCEL|SYSTEM";

DATA _NULL_;
   FILE CMDS;
```

```
   *PUT '[SAVE]';  *no save for Excel;
   PUT '[CLOSE(FALSE)]';
   PUT '[QUIT]';
RUN;

/*The following code is reserved for future use;
FILENAME CMNDS DDE 'WINWORD|SYSTEM';

DATA _NULL_;
 FILE CMNDS;

 PUT '[fileSave] ';
 PUT '[FileClose 2] ';
RUN;*/

%MEND;
```

H.4.A Q3FY2015\PROGRAMS\ConsumerWatch\CONSUMERWATCH.SAS - Run CONUS TRICARE Consumer Watch reports - Run Quarterly.

```
*******************************************************************************
* PROJECT: 6077-420
* PROGRAM: CONSUMERWATCH.SAS
* PURPOSE: CALL CONSUMERWATCH MACRO PROGRAM
*          TO PRODUCE EXCEL TABLE.
*
* WRITTEN: 02/10/2005 BY LUCY LU FOR Q4 2004.
*
* UPDATE:  4/26/2005 FOR Q1 2005.
* UPDATE:  8/4/2005 FOR Q2 2005.
* UPDATE:  12/15/2005 FOR Q4 2005.
* UPDATE:  04/04/2006 FOR Q2 FISCAL YEAR 2006, LUCY Lu. STARTING THIS QUARTER,
*          THE PERIOD IS CHANGED TO FISCAL YEAR.
* UPDATE:  09/01/2006 Lucy Lu FOR FY 3 2006.
* UPDATE:  10/05/2006 Lucy Lu FOR FY 4 2006.
* MODIFIED 7/30/2007 BY LUCY LU
*          UNIFY THE PERDIOD MACRO VARIABLES WITH BENEFICIARY REPORT CARDS PROGRAMS
*          CURRNT  ===> PERIOD4
*          CURRNTQ ===> PERIOD4Q
*          PREV1   ===> PERIOD3
*          PREV1Q  ===> PERIOD3Q
*          PREV2   ===> PERIOD2
*          PREV2Q  ===> PERION2Q
*          PREV3   ===> PERIOD1
*          PREV3Q  ===> PERIOND1Q
* UPDATED  12/27/2008 BY LUCY LU FOR Q1 FY 2008
*          AUTOMATE THE CONSUMER WATCH REPORT PRODUCTION
* MODIFIED 5/11/09 BY LUCY LU
*          1.MACRO INCLUDE PROGRAM IS MODIFIED BY REMOVING VALUE OF
*            'Courteous and Helpful Office Staff'. THE PROGRAM WILL DELETE
*            RELATED CODE.
*          2.THE EXCEL AND WORD TEMPLATES ARE MODIFIED TO REMOVE THE CHARTS
*            FOR  'Courteous and Helpful Office Staff'.
*          3.MACRO VARIABLES %LET PERIODxQ WILL BE FIXED AT Q4-Q1.
*            NO CHANGE NEEDED IN EACH QUARTER SINCE THEY ARE THE PROXIES FOR
*            DATASET NAMES ONLY.
*
* MODIFIED 7/22/2010 LUCY LU
*          MODIFY MACRO VARIABLES TO REFLECT THE CHANGE OF INCLUDE MACRO
*          PROGRAM. SEE consumerwatch-macro.inc FOR DETAILS.
*          1.CONSOLIDATE USMHS, REGION, SERVICE PROGRAMS INTO ONE SAS PROGRAM.
*          2.REPLACE PERIOD MACRO VARIABLES WITH CURRENTQ AND CURRENTY.
* MODIFIED 1/28/2015 BY LUCY LU.
*          UPDATED THE PATH AFTER MOVING TO SAS SERVER
* MODOFIED 3/16/2015 BY LUCY LU,
*          CREATED NEW MACRO VAR TO RECODE 9999 TO MISSING
*          FOR Q4 DATA--WAS MISSING IN THE PREVIOUS REPORT BUT CHANGED
*          9999 THIS QUARTER THUS ARTIFICIALLY INFLATE VALUE IN THE CHARTS
*
* INPUT  : DATA FROM CONSUMER REPORTS: ..\..\PROGRAMS\LOADWEB\TOTAL_Q.SAS7BDAT
*
* OUTPUT : INTO EXCEL SPREADSHEET
*
* PROGRAM TO CALL: CONSUMERWATCH-MACRO.INC
*******************************************************************************;
OPTIONS MPRINT;

LIBNAME CURNTR '..\Loadweb';

*LIBNAME CURNTR 'L:\Q3FY2010\Programs\LoadWeb'; *TEMP;

*starting 2006, the period is changed to fiscal year, LLU 4/5/06;

%LET CURRENTY=2015;        *CURRENT FISCAL YEAR;
%LET CURRENTQ=3;           *CURRENT FISCAL QUARTER;
%LET Q4MISSING=July, 2014; *ADDED TO RESET Q4 VALUE FROM 9999 TO MISSING;

%LET PATH=N:\Project\40309_HCS\DC1\HCSDB\Q&CURRENTQ.FY&CURRENTY.\Programs\ConsumerWatch;
*%LET PATH=L:\Q4FY&CURRENTY.\Programs\ConsumerWatch; *TEMP;
```

```
TITLE "DOD CONSUMER WATCH Q&CURRENTQ FY &CURRENTY";

%INCLUDE "CONSUMERWATCH_MACRO.INC";


%RUNCW(AREA=USA MHS,FOLDER=USMHS);
%RUNCW(AREA=Overseas Pacific,FOLDER=Pacific);
%RUNCW(AREA=NORTH,FOLDER=North);
%RUNCW(AREA=JOINT SERVICE,FOLDER=JointService);
%RUNCW(AREA=Overseas Europe,FOLDER=Europe);
%RUNCW(AREA=SOUTH,FOLDER=South);
%RUNCW(AREA=NAVY,FOLDER=Navy);
%RUNCW(AREA=AIR FORCE,FOLDER=AirForce);
%RUNCW(AREA=ARMY,FOLDER=Army);
%RUNCW(AREA=WEST,FOLDER=West);
```

H.4.B - Q3FY2015\PROGRAMS\ConsumerWatch\CONSUMERWATCH_MACRO.INC - Produce numbers for quarterly Consumer Watch reports.

```
*******************************************************************************
* PROJECT: 6077-420
* PROGRAM: CONSUMERWATCH-MACRO.INC
* PURPOSE: To produce numbers that go into data sheet in Excel to produce graphs
*          for regional consumer watch
* AUTHOR : MIKI SATAKE
* DATE   : 4/24/01
* UPDATED: 7/16/01 FOR QUARTER 2 BY NATALIE JUSTH
* UPDATED: 10/16/01 FOR QUARTER 3 BY NATALIE JUSTH
* UPDATED: 1/11/02 FOR QUARTER 4 BY NATALIE JUSTH
* UPDATED AND RENAMED: 4/9/02 FOR QUARTER 1 2002 BY NATALIE JUSTH
* UPDATED: 7/5/02 FOR QUARTER 2 2002 BY NATALIE JUSTH
* UPDATED: 7/15/02 FOR QUARTER 3 2002 BY NATALIE JUSTH
* UPDATED: 11/12/02 FOR QUARTER 4 2002 BY NATALIE JUSTH
* UPDATED: 4/3/03 FOR QUARTER 1 2003 BY NATALIE JUSTH
* UPDATED: 5/19/03 FOR QUARTER 2 2003 BY NATALIE JUSTH
* UPDATED: 8/28/03 FOR QUARTER 3 2003 BY NATALIE JUSTH
* UPDATED: 11/14/03 FOR QUARTER 4 2003 BY NATALIE JUSTH
* UPDATED: 05/18/2004 FOR QUARTER 1 2004 BY KEITH RATHBUN
* UPDATED: 06/30/2004 FOR QUARTER 2 2004 BY LUCY LU
* UPDATED: 06/30/2004 FOR QUARTER 3 2004 BY LUCY LU. CHANGING XREGION TO XTNEXREG.
* UPDATED: 10/07/2004 BY LUCY LU. ADD THE CODE TO COMPARE CONSUMER WATCH
*          WITH REPORT CARDS IN SCORES AND SIGNIFICANCE.*
* MODIFIED 2/10/05 BY LUCY LU:
*          1). CREATE UNIVERSAL MACRO PROGRAM BASED ON PROGRAM CONSUMERWATCH-R.SAS
*              TO ELIMINATE REDUNDANCY AND INCREASE THE EFFECTIVENESS OF PROGRAMMING.
*          2). ADD ADDITIONAL PREVENTION MEASURE "SMOKING CESSATION"
*              INTO PREVENTIVE CARE TABLE.
* MODIFIED 06/2/2005 BY LUCY LU FOR Q1 2005:
*          1). REMOVE CHOLESTEROL MEASUREMENT AND ADD BMI MEASUREMENT
*          2). COMMENT OUT DISENROLL CODE--NO DISENROLL DATA IN Q1 2005
*          3). ADD SPECIALIST RATING.
* MODIFIED 11/16/2006 BY LUCY LU FOR FY Q4 2006
*           ADD PURCHASE CARE VERSION-- CHANGE PRIME ENROLLEE TO
*           Enrollees with Civilian PCM.
* MODIFIED 6/4/2007 BY LUCY LU. UNIFY THE MACRO PROGRAMS FOR CONSUMER WATCH.
*          !! NEED TO DEFIND MACRO VARIABLE &POP IN SAS PROGRAMS:
*          DIRECT CARE CONSUMDER WATCH:  &POP=='Prime Enrollees'
*          PURCHASE CARE CONSUMDER WATCH:  &POP=='Enrollees with Civilian PCM'
* MODIFIED 7/30/2007 BY LUCY LU
*          UNIFY THE PERDIOD MACRO VARIABLES WITH BENEFICIARY REPORT CARDS PROGRAMS
*          CURRNT  ===> PERIOD4
*          CURRNTQ ===> PERIOD4Q
*          PREV1   ===> PERIOD3
*          PREV1Q  ===> PERIOD3Q
*          PREV2   ===> PERIOD2
*          PREV2Q  ===> PERION2Q
*          PREV3   ===> PERIOD1
*          PREV3Q  ===> PERIOND1Q
* MODIFIED 5/11/09 BY LUCY LU
*          1. STARTING THIS QUARTER, THE DATA DOES NOT INCLUDE THE VALUE OF
*            'Courteous and Helpful Office Staff'. THE PROGRAM WILL DELETE
*             RELATED CODE.
*          2. DELTED MACRO VAR &VAL AND REPLACED BY EXISTING MACRO VAR &AREA.
*
* MODIFIED 7/22/2010 BY LUCY LU
*          1. AUTOMATE PERIOD (QAURTER/YEAR) TO MINIMIZE POSSIBLE ERROR
*          2. ADD MACRO TO MINIMIZE EXCEL WAITING, REDUCE PROGRAM
*             RUNNING TIME
*          3. ELIMINATE UNNECESSARY MACRO VARIABLES PERIOD1Q-PERIOD4Q AND
*             CONSOLIDATE MACRO PROGRAM
*          4. REPLACE MACRO VAR &POP WITH 'Prime Enrollees'.
*
* MODIFIED 4/8/2014 BY LUCY LU
*          MODIFIED CODE FOR 508 COMPLIANCE
*          1. CREATE NEW VAR WITH ASTERISK FOR FIGURES 1-4
*          2  CREATE NEW VAR WITH ASTERISK FOR PREVENTIVE CARE TABLE
*          3. RECODED ALL MISSING DATA TO DASH '-'
* MODOFIED 3/16/2015 BY LUCY LU, RECODED 9999 TO MISSING
```

```
*          RECODED Q4 DATA--WAS MISSING IN THE PREVIOUS REPORT BUT CHANGED
*          9999 THIS QUARTER THUS ARTIFICIALLY INFLATE VALUE IN THE CHARTS
*
* INPUT  : DATA FROM CONSUMER REPORTS:..\..\PROGRAMS\LOADWEB\TOTAL_Q.SAS7BDAT
*
* OUTPUT : INTO EXCEL SPREADSHEET
*******************************************************************************;

OPTIONS PS=60 LS=120 ERRORS=2 NOCENTER NOFMTERR NOXWAIT NOXSYNC SPOOL;

*LLU 7/21/2010--AUTOMATING PERIOD, MINIMIZE POSSIBLE ERROR;
DATA M1;

*Set the first month of each quarter with order of running quarter 1 in FY;
DO MONTH='October', 'July', 'April', 'January';
   OUTPUT;
END;
RUN;

%GLOBAL  PERIOD4 PERIOD3 PERIOD2 PERIOD1;
DATA _NULL_;
   SET M1;

INDEX=_N_;
IF &CURRENTQ =1 THEN DO;
   ORDER=INDEX; YR= &CURRENTY -1;
END;
IF &CURRENTQ = 2 THEN DO;
   IF INDEX = 4 THEN DO; ORDER=1; YR=&CURRENTY; END; ELSE
   IF INDEX < 4 THEN DO; ORDER = INDEX+1; YR=&CURRENTY-1; END;
END;
IF &CURRENTQ = 3 THEN DO;
   IF INDEX >=3 THEN DO; ORDER=INDEX-2; YR=&CURRENTY; END; ELSE
   IF INDEX < 3 THEN DO; ORDER=INDEX+2; YR=&CURRENTY-1; END;
END;
IF &CURRENTQ = 4 THEN DO;
   IF INDEX IN (2,3,4) THEN DO; ORDER=INDEX-1; YR=&CURRENTY; END; ELSE
   IF INDEX =1 THEN DO;  ORDER=4; YR=&CURRENTY-1;  END; /*ELSE
   IF INDEX =4 THEN DO;  ORDER=3; YR=&CURRENTY;  END;*/
END;

LENGTH PERIOD $15;
PERIOD=TRIM(LEFT(MONTH))||','||' '||(PUT(YR,4.));
IF ORDER=1  THEN CALL SYMPUT('PERIOD4', TRIM(LEFT(PERIOD)));
IF ORDER=2  THEN CALL SYMPUT('PERIOD3', TRIM(LEFT(PERIOD)));
IF ORDER=3  THEN CALL SYMPUT('PERIOD2', TRIM(LEFT(PERIOD)));
IF ORDER=4  THEN CALL SYMPUT('PERIOD1', TRIM(LEFT(PERIOD)));

RUN;

%PUT PERIOD4 = &PERIOD4(current quarter);
%PUT PERIOD3 = &PERIOD3;
%PUT PERIOD2 = &PERIOD2;
%PUT PERIOD1 = &PERIOD1;

*3/16/2015 BY LUCY LU, RECODED 9999 TO MISSING;
DATA TOTAL_Q;
  SET CURNTR.TOTAL_Q;

  IF TIMEPD = "&Q4MISSING"  AND SCORE=9999 THEN SCORE=.;
RUN;


%MACRO RUNCW (AREA=,         /* Region/Service/conus                    */
              FOLDER=,       /* Folder containing excel template        */
              CURRENT=TOTAL_Q
              );

FILENAME CMDS DDE "EXCEL|SYSTEM";

DATA _NULL_;

   LENGTH FID RC START STOP TIME 8;
   FID = FOPEN('CMDS' , 'S');
```

```
   IF (FID LE 0) THEN DO;
      RC = SYSTEM('START EXCEL');
      START = DATETIME();
      STOP = START + 10;
      DO WHILE (FID LE 0);
         FID = FOPEN('CMDS' , 'S');
         TIME = DATETIME();
         IF (TIME GE STOP) THEN FID = 1;
      END;
   END;
   RC = FCLOSE(FID);
RUN;



*LLU 7/21/2010--DETECTING AVAILABILITY OF EXCEL, MINIMIZE WAITING TIME;
%MACRO SETUP;

DATA _NULL_;
    SINGLE="'";
    DOUBLE='"';

LENGTH OPENXLS SAVEXLS $120;
   OPENXLS=SINGLE||"[OPEN("||DOUBLE||"&PATH.\TEMPLATE.XLSB"||DOUBLE||")]"||SINGLE;
   SAVEXLS=SINGLE||"[SAVE.AS("||DOUBLE||"&PATH.\&FOLDER.\&FOLDER..XLSB"||DOUBLE||")]"||SINGLE;

   CALL SYMPUT ("OPENXLS",TRIM(OPENXLS));
   CALL SYMPUT ("SAVEXLS",TRIM(SAVEXLS));

RUN;

%MEND SETUP;
%SETUP;

DATA _NULL_;

   FILE CMDS;
   PUT &OPENXLS;
   X=SLEEP(2);
   PUT '[ERROR(FALSE)]';
   PUT &SAVEXLS;
   PUT '[app.minimize()]';

RUN;


TITLE2 "&AREA.";

/* This macro pulls data from the specified dataset to be used in the Consumer Watch */
%MACRO GETDATA (DATASET=,    /* Current quarter data set  */
                MAJGRP=,     /* Value of variable MAJGRP  */
                REGION=,     /* Value of variable REGION  */
                REGCAT=,     /* Value of variable REGCAT  */
                BENEFIT=,    /* Value of variable BENEFIT */
                BENTYPE=,    /* Value of variable BENTYPE */
                TIMEPD=,     /* Value of variable TIMEPD  */
                OUTDATA=     /* Name of output data set   */
                );
PROC FREQ NOPRINT DATA=&DATASET;
   WHERE MAJGRP = &MAJGRP
     AND REGION IN &REGION
     AND REGCAT IN &REGCAT
     AND BENEFIT IN &BENEFIT
     AND BENTYPE = &BENTYPE
     AND TIMEPD = &TIMEPD;
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SCORE*N_OBS*N_WGT*SIG/ OUT=&OUTDATA(DROP=COUNT
PERCENT);
RUN;
%MEND GETDATA;

/* This macro re-calculates SCORE based on the quarterly benchmark */
%MACRO NEWSCORE (FIGURE=);     * Figure number in consumer watch reports;
*/
```

```
*-----------------------------------------------------------------------
 7/20/2010 LLu, eliminate macro variables  PERIOD1Q-PERIOD4Q and
 consolidate the macro code:
       Figx_1=current quarter
       Figx_2=previous quarter 1
       Figx_3=previous quarter 2
       Figx_4=previous quarter 3
-----------------------------------------------------------------------;

%DO QUARTER = 1 %TO 4;

DATA FIG&FIGURE._&QUARTER FIGB_&QUARTER(KEEP=SCORE N);
   SET FIG&FIGURE._&QUARTER;
N=1;
   IF REGION='Benchmark' THEN OUTPUT FIGB_&QUARTER;
      ELSE OUTPUT FIG&FIGURE._&QUARTER;

RUN;

/*ADD CODE HERE TO PRESERVE ABOVE DATASET FOR LATER COMPARISON. LLU 10/7/04*/

DATA CFIG&FIGURE._&QUARTER;
   SET FIG&FIGURE._&QUARTER;

KEEP MAJGRP REGION BENEFIT BENTYPE TIMEPD SCORE SIG;
RUN;


DATA FIG&FIGURE._&QUARTER(DROP=RSCORE);
   MERGE FIGB_&QUARTER(RENAME=(SCORE=RSCORE))
         FIG&FIGURE._&QUARTER;
BY N;
 *  SCORE=SCORE-RSCORE;
RUN;
%END;

DATA FIG&FIGURE(DROP=BSCORE);
   SET BENCH FIG&FIGURE._1 FIG&FIGURE._2 FIG&FIGURE._3 FIG&FIGURE._4;
   RETAIN BSCORE;
   IF REGION = 'Benchmark' THEN DO;
      ROW = 3;
      BSCORE=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD1" THEN DO;
      ROW = 4;
  *    SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF TIMEPD = "&PERIOD2" THEN DO;
      ROW = 5;
   *   SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF TIMEPD = "&PERIOD3" THEN DO;
      ROW = 6;
    *  SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF TIMEPD = "&PERIOD4" THEN DO;
      ROW=7;
   *   SCORE=SCORE+BSCORE;
   END;
   COL2 = SCORE;   *3/4/08 LLu, increase the score by 100 to align with fig. 5-10;

   COL3 = SIG;

   *3/28/2014 CREATE NEW VAR WITH ASTERISK FOR FIGURES 1-4;
 IF COL3 IN (1, -1) THEN NEWCOL2=CATS("*",PUT(ROUND(COL2,1),8.));
 ELSE IF COL2 >0 THEN NEWCOL2=PUT(ROUND(COL2,1),8.);

  * FILL THE MISSING SIG FOR Q4 DATA, WHICH CAUSES PROBLEM IN CHART;
 IF COL3 =. THEN COL3=0;
```

```
RUN;
PROC SORT;
   BY ROW;
RUN;

%MEND NEWSCORE;

*****************************************************************************
* FIGURE 1: Health Care Rating
*****************************************************************************;
TITLE2 'Figure 1: Health Care Rating';
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD4"),
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD4"),
          OUTDATA=FIG1_1);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD3"),
          OUTDATA=FIG1_2);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD2"),
          OUTDATA=FIG1_3);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD1"),
          OUTDATA=FIG1_4);

%NEWSCORE (FIGURE=1);



****************************************************************************
* DDE LINK
****************************************************************************;
FILENAME TBL DDE "EXCEL|RATINGS!R18C2:R22C4";

DATA _NULL_;
   SET FIG1;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL2 '09'X COL3 '09'X NEWCOL2;
RUN;

*****************************************************************************
* FIGURE 2: Health Plan Rating
*****************************************************************************;
TITLE2 'Figure 2: Health Plan Rating';
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
```

```
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD4"),
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD4"),
          OUTDATA=FIG2_1);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD3"),
          OUTDATA=FIG2_2);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD2"),
          OUTDATA=FIG2_3);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Plan'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD1"),
          OUTDATA=FIG2_4);

%NEWSCORE (FIGURE=2);


*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;
FILENAME TBL DDE "EXCEL|RATINGS!R18C6:R22C8";

DATA _NULL_;
   SET FIG2;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL2 '09'X COL3 '09'X NEWCOL2;
RUN;

******************************************************************************
* FIGURE 3: Personal Provider Rating
******************************************************************************;
TITLE2 'Figure 3: Personal Provider Rating';
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Personal Doctor'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD4"),
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Personal Doctor'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD4"),
```

```
          OUTDATA=FIG3_1);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Personal Doctor'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD3"),
          OUTDATA=FIG3_2);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Personal Doctor'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD2"),
          OUTDATA=FIG3_3);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Personal Doctor'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD1"),
          OUTDATA=FIG3_4);

%NEWSCORE (FIGURE=3);


*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;
FILENAME TBL DDE "EXCEL|RATINGS!R18C10:R22C12";

DATA _NULL_;
   SET FIG3;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL2 '09'X COL3 '09'X NEWCOL2;
RUN;

******************************************************************************
* FIGURE 4: Specialist Rating--added for Q1 2005, LLu 6/2/05
******************************************************************************;
TITLE2 'Figure 4: Specialist Rating';
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Specialty Care'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD4"),
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Specialty Care'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD4"),
          OUTDATA=FIG4_1);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Specialty Care'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD3"),
          OUTDATA=FIG4_2);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Specialty Care'),
```

```
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD2"),
          OUTDATA=FIG4_3);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Specialty Care'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD1"),
          OUTDATA=FIG4_4);

%NEWSCORE (FIGURE=4);



*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;
FILENAME TBL DDE "EXCEL|RATINGS!R18C14:R22C16";

DATA _NULL_;
   SET FIG4;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL2 '09'X COL3 '09'X NEWCOL2;
RUN;

******************************************************************************
* FIGURE 5: Access Composites
******************************************************************************;
TITLE2 'Figure 5: Access Composites';
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Getting Needed Care','Getting Care Quickly'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD4"),
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Getting Needed Care','Getting Care Quickly'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD4"),
          OUTDATA=FIG5_1);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Getting Needed Care','Getting Care Quickly'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD3"),
          OUTDATA=FIG5_2);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Getting Needed Care','Getting Care Quickly'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD2"),
          OUTDATA=FIG5_3);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Getting Needed Care','Getting Care Quickly'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD1"),
          OUTDATA=FIG5_4);

*MOD 7/20/2010 LLu;
```

```
%MACRO COMPSCORE (FIGNUM=);     *Use macro for figures 5, 6, and 7;

%DO QUARTER = 1 %TO 4;

DATA FIG&FIGNUM._&QUARTER FIGB_&QUARTER (KEEP=SCORE BENEFIT SIG);
   SET FIG&FIGNUM._&QUARTER;
   IF REGION = 'Benchmark' THEN OUTPUT FIGB_&QUARTER;
      ELSE OUTPUT FIG&FIGNUM._&QUARTER;
RUN;
PROC SORT DATA=FIG&FIGNUM._&QUARTER;
   BY BENEFIT;
RUN;
PROC SORT DATA=FIGB_&QUARTER;
   BY BENEFIT;
RUN;


/*ADD CODE HERE TO PRESERVE THE SCORES IN CONUS_Q DATASET FOR LATER COMPARISON. LLU 10/7/04*/
DATA CFIG&FIGNUM._&QUARTER;
   SET FIG&FIGNUM._&QUARTER;

KEEP MAJGRP REGION BENEFIT BENTYPE TIMEPD SCORE SIG;
RUN;


DATA FIG&FIGNUM._&QUARTER(DROP=RSCORE);
   MERGE FIGB_&QUARTER(RENAME=(SCORE=RSCORE))
         FIG&FIGNUM._&QUARTER;
   BY BENEFIT;
*   SCORE=SCORE-RSCORE;
RUN;
%END;

%MEND COMPSCORE;

%COMPSCORE (FIGNUM=5);

/*LLU 10/8/04, TO PRESERVE KEY VARS FOR LATER COMPARISON*/
DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
     COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
     COL4(DROP=SCORE RENAME=(SCORE1=COL4))
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL6(KEEP=ROW SIG RENAME=(SIG=COL6))
     COL7(kEEP=ROW SIG RENAME=(SIG=COL7))
     ;
   SET BENCH FIG5_1 FIG5_2 FIG5_3 FIG5_4;
   BY BENEFIT;
   RETAIN BSCORE;
   IF REGION = 'Benchmark' THEN DO;
      BSCORE=SCORE;
      ROW = 18;
      SCORE1 = SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD1" THEN DO;
      ROW = 18;
*      SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD2" THEN DO;
      ROW = 19;
 *     SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD3" THEN DO;
      ROW = 20;
  *    SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD4" THEN DO;
      ROW = 21;
```

```
   *   SCORE=BSCORE+SCORE;
      SCORE1 = SCORE;
   END;

   IF (BENEFIT = 'Getting Needed Care' AND REGION NE 'Benchmark') THEN OUTPUT COL2 COL6;
   IF (BENEFIT = 'Getting Needed Care' AND REGION = 'Benchmark') THEN OUTPUT COL3;
   IF (BENEFIT = 'Getting Care Quickly' AND REGION NE 'Benchmark') THEN OUTPUT COL4 COL7;
   IF (BENEFIT = 'Getting Care Quickly' AND REGION = 'Benchmark') THEN OUTPUT COL5;

RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;


/*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 5. LLU 10/7/04*/

DATA FIG5A;
   MERGE COL2 COL6;
  BY ROW;
RUN;

DATA FIG5B;
   MERGE  COL4 COL7;
  BY ROW;
RUN;

DATA FIG5AB;
   SET FIG5A FIG5B;
  BY ROW;
RUN;



DATA FIG5;
   MERGE COL2 COL3 COL4(KEEP=ROW COL4)
         COL5 COL6 COL7;
   BY ROW;
RUN;


**********************************************
* DDE LINK (EXCEL file has to be open )
**********************************************;
FILENAME TBL DDE "EXCEL|COMPOSITES!R18C2:R21C2";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL2;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C3:R18C3";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL3;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C4:R21C4";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL4;
RUN;
```

```
FILENAME TBL DDE "EXCEL|COMPOSITES!R18C5:R18C5";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL5;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R23C2:R26C4";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL6 '09'X '09'X COL7;
RUN;

*****************************************************
* FIGURE 6: Office Composites
*****************************************************;
 /*LLU 5/11/09, DELETE datasets COL2,3,6 WITH SCORES OF
     'Courteous and Helpful Office Staff'*/

TITLE2 'Figure 6: Office Composites';
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD4"),
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD4"),
          OUTDATA=FIG6_1);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD3"),
          OUTDATA=FIG6_2);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD2"),
          OUTDATA=FIG6_3);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD1"),
          OUTDATA=FIG6_4);

%COMPSCORE (FIGNUM=6);

/*LLU 10/8/04, TO PRESERVE KEY VARS FOR LATER COMPARISON*/
DATA COL4(DROP=SCORE RENAME=(SCORE1=COL4))
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL7(kEEP=ROW SIG RENAME=(SIG=COL7))
     ;
```

```
   SET BENCH FIG6_1 FIG6_2 FIG6_3 FIG6_4;
   BY BENEFIT;
   RETAIN BSCORE;
   IF REGION = 'Benchmark' THEN DO;
      BSCORE=SCORE;
      ROW = 18;
      SCORE1 = SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD1" THEN DO;
      ROW = 18;
  *    SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD2" THEN DO;
      ROW = 19;
   *   SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD3" THEN DO;
      ROW = 20;
    *  SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD4" THEN DO;
      ROW = 21;
     * SCORE=BSCORE+SCORE;
      SCORE1 = SCORE;
   END;

   IF (BENEFIT = 'How Well Doctors Communicate' AND REGION NE 'Benchmark') THEN OUTPUT COL4
COL7;
   IF (BENEFIT = 'How Well Doctors Communicate' AND REGION = 'Benchmark') THEN OUTPUT COL5;

RUN;


PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;


DATA FIG6;
   MERGE COL4(KEEP=ROW COL4)
         COL5 COL7;
   BY ROW;
RUN;


/*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 6. LLU 10/7/04*/
DATA FIG6AB;
   MERGE  COL4 COL7;
  BY ROW;
RUN;


************************************************************
* DDE LINK (EXCEL file has to be open )
************************************************************;


FILENAME TBL DDE "EXCEL|COMPOSITES!R18C9:R21C9";

DATA _NULL_;
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL4;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C10:R18C10";
```

```
DATA _NULL_;
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL5;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R23C9:R26C9";

DATA _NULL_;
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL7;
RUN;

*************************************************************
* FIGURE 7: Claims/Service Composites
*************************************************************;
TITLE2 'Figure 7: Claims/Service Composites';
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD4"),
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD4"),
          OUTDATA=FIG7_1);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD3"),
          OUTDATA=FIG7_2);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD2"),
          OUTDATA=FIG7_3);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="Prime Enrollees",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          BENTYPE=('Composite'),
          TIMEPD=("&PERIOD1"),
          OUTDATA=FIG7_4);

%COMPSCORE (FIGNUM=7);

/*LLU 10/8/04, TO PRESERVE KEY VARS FOR LATER COMPARISON*/
DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
     COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
     COL4(DROP=SCORE RENAME=(SCORE1=COL4))
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL6(KEEP=ROW SIG RENAME=(SIG=COL6))
     COL7(kEEP=ROW SIG RENAME=(SIG=COL7));
   SET BENCH FIG7_1 FIG7_2 FIG7_3 FIG7_4;
   BY BENEFIT;
   RETAIN BSCORE;
   IF REGION = 'Benchmark' THEN DO;
```

```
      BSCORE=SCORE;
      ROW = 18;
      SCORE1 = SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD1" THEN DO;
      ROW = 18;
  *    SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD2" THEN DO;
      ROW = 19;
   *   SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD3" THEN DO;
      ROW = 20;
    *  SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD4" THEN DO;
      ROW = 21;
     * SCORE=BSCORE+SCORE;
      SCORE1 = SCORE;
   END;

   IF (BENEFIT = 'Customer Service' AND REGION NE 'Benchmark') THEN OUTPUT COL2 COL6;
   IF (BENEFIT = 'Customer Service' AND REGION = 'Benchmark') THEN OUTPUT COL3;
   IF (BENEFIT = 'Claims Processing' AND REGION NE 'Benchmark') THEN OUTPUT COL4 COL7;
   IF (BENEFIT = 'Claims Processing' AND REGION = 'Benchmark') THEN OUTPUT COL5;

RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;


/*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 7. LLU 10/7/04*/

DATA FIG7A;
   MERGE COL2 COL6;
  BY ROW;
RUN;

DATA FIG7B;
   MERGE  COL4 COL7;
  BY ROW;
RUN;

DATA FIG7AB;
   SET FIG7A FIG7B;
  BY ROW;
RUN;


DATA FIG7;
   MERGE COL2 COL3 COL4(KEEP=ROW COL4) COL5 COL6 COL7;
   BY ROW;
RUN;


*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;
FILENAME TBL DDE "EXCEL|COMPOSITES!R18C14:R21C14";

DATA _NULL_;
   SET FIG7;
```

```
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL2;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C15:R18C15";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL3;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C16:R21C16";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL4;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C17:R18C17";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL5;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R23C14:R26C16";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL6 '09'X '09'X COL7;
RUN;

*******************************************************************************
* TABLE 1: Preventive Care
*******************************************************************************;
/*3/16/2015 CHANGED DATA FROM &CURENT TO CURNTR.TOTAL_Q TO KEEP ROW FROM COLAPSE*/
PROC FREQ NOPRINT DATA=CURNTR.TOTAL_Q;
   WHERE MAJGRP IN ("Prime Enrollees",'Benchmark')
     AND REGION = "&AREA"
     AND REGCAT = "&AREA"
     AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                     'Percent Not Obese', 'Non-Smoking Rate','Counselled To Quit')
     AND TIMEPD = "&PERIOD4";
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/ OUT=TAB1_1(DROP=COUNT PERCENT);
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*N_OBS/ OUT=TAB2_1(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=CURNTR.TOTAL_Q;
   WHERE MAJGRP = "Prime Enrollees"
     AND REGION = "&AREA"
     AND REGCAT = "&AREA"
     AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                   'Percent Not Obese','Non-Smoking Rate','Counselled To Quit')
     AND TIMEPD = "&PERIOD3";
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/ OUT=TAB1_2(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=CURNTR.TOTAL_Q;
   WHERE MAJGRP = "Prime Enrollees"
     AND REGION = "&AREA"
     AND REGCAT = "&AREA"
     AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                     'Percent Not Obese','Non-Smoking Rate','Counselled To Quit')
     AND TIMEPD = "&PERIOD2";
```

```
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/ OUT=TAB1_3(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=CURNTR.TOTAL_Q;
   WHERE MAJGRP = "Prime Enrollees"
     AND REGION = "&AREA"
     AND REGCAT = "&AREA"
     AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                     'Percent Not Obese','Non-Smoking Rate','Counselled To Quit')
     AND TIMEPD = "&PERIOD1";
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/ OUT=TAB1_4(DROP=COUNT PERCENT);
RUN;
DATA TAB1_1;
   SET TAB1_1;
   IF MAJGRP = 'Benchmark' THEN DO;
      ROW=42;
      IF BENTYPE='Mammography' THEN COL2=SCORE;
         ELSE IF BENTYPE='Pap Smear' THEN COL3=SCORE;
         ELSE IF BENTYPE='Hypertension' THEN COL4=SCORE;
         ELSE IF BENTYPE='Prenatal Care' THEN COL5=SCORE;
         ELSE IF BENTYPE='Percent Not Obese' THEN COL6=SCORE;
         ELSE IF BENTYPE = 'Non-Smoking Rate' THEN COL7=SCORE;
         ELSE IF BENTYPE ='Counselled To Quit' THEN COL8=SCORE;
   END;
      ELSE DO;
      ROW = 40;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL9=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL10=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL11=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL12=SIG;
      END;
      ELSE IF BENTYPE='Percent Not Obese' THEN DO;
         COL6=SCORE;
         COL13=SIG;
      END;
      ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
         COL7=SCORE;
         COL14=SIG;
      END;
      ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
         COL8=SCORE;
         COL15=SIG;
      END;
    END;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB2_1;
   SET TAB2_1;
   ROW=41;
   IF MAJGRP="Prime Enrollees";
   IF BENTYPE='Mammography' THEN COL2=N_OBS;
      ELSE IF BENTYPE='Pap Smear' THEN COL3=N_OBS;
      ELSE IF BENTYPE='Hypertension' THEN COL4=N_OBS;
      ELSE IF BENTYPE='Prenatal Care' THEN COL5=N_OBS;
      ELSE IF BENTYPE='Percent Not Obese' THEN COL6=N_OBS;
      ELSE IF BENTYPE='Non-Smoking Rate' THEN COL7=N_OBS;
       ELSE IF BENTYPE='Counselled To Quit' THEN COL8=N_OBS;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB1_2;
   SET TAB1_2;
```

```
   ROW=39;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL9=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL10=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL11=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL12=SIG;
      END;
      ELSE IF BENTYPE='Percent Not Obese' THEN DO;
         COL6=SCORE;
         COL13=SIG;
      END;
      ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
         COL7=SCORE;
         COL14=SIG;
      END;
      ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
         COL8=SCORE;
         COL15=SIG;
      END;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB1_3;
   SET TAB1_3;
   ROW=38;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL9=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL10=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL11=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL12=SIG;
      END;
      ELSE IF BENTYPE='Percent Not Obese' THEN DO;
         COL6=SCORE;
         COL13=SIG;
      END;
  ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
         COL7=SCORE;
         COL14=SIG;
      END;
      ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
         COL8=SCORE;
         COL15=SIG;
      END;
   PROC SORT;
   BY ROW;

RUN;
DATA TAB1_4;
   SET TAB1_4;
   ROW=37;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL9=SIG;
      END;
```

```
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL10=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL11=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL12=SIG;
      END;
      ELSE IF BENTYPE='Percent Not Obese' THEN DO;
         COL6=SCORE;
         COL13=SIG;
      END;
    ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
         COL7=SCORE;
         COL14=SIG;
      END;
      ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
         COL8=SCORE;
         COL15=SIG;
      END;
   PROC SORT;
   BY ROW;
RUN;

DATA TAB1;
   MERGE TAB1_4 TAB1_3 TAB1_2 TAB1_1 TAB2_1;
   BY ROW;
RUN;
DATA COL2(DROP=COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL3(DROP=COL2 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL4(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL5(DROP=COL2 COL3 COL4 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL6(DROP=COL2 COL3 COL4 COL5 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL7(DROP=COL2 COL3 COL4 COL5 COL6 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL8(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL9(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL10 COL11 COL12 COL13 COL14 COL15)
     COL10(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL11 COL12 COL13 COL14 COL15)
     COL11(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL12 COL13 COL14 COL15)
     COL12(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL13 COL14 COL15)
  COL13(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL14 COL15)
    COL14(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL15)
    COL15(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14);

   SET TAB1;

   IF COL2 NE . THEN OUTPUT COL2;
   IF COL3 NE . THEN OUTPUT COL3;
   IF COL4 NE . THEN OUTPUT COL4;
   IF COL5 NE . THEN OUTPUT COL5;
   IF COL6 NE . THEN OUTPUT COL6;
   IF COL7 NE . THEN OUTPUT COL7;
   IF COL8 NE . THEN OUTPUT COL8;
   IF COL9 NE . THEN OUTPUT COL9;
   IF COL10 NE . THEN OUTPUT COL10;
   IF COL11 NE . THEN OUTPUT COL11;
   IF COL12 NE . THEN OUTPUT COL12;
   IF COL13 NE . THEN OUTPUT COL13;
   IF COL14 NE . THEN OUTPUT COL14;
   IF COL15 NE . THEN OUTPUT COL15;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;
```

```
PROC SORT DATA=COL11; BY ROW; RUN;
PROC SORT DATA=COL12; BY ROW; RUN;
PROC SORT DATA=COL13; BY ROW; RUN;
PROC SORT DATA=COL14; BY ROW; RUN;
PROC SORT DATA=COL15; BY ROW; RUN;

DATA TABLE1;
   MERGE COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15;
   BY ROW;
RUN;

*****************************************************************************
* DDE LINK (EXCEL file has to be open )
*****************************************************************************;
FILENAME TBL DDE "EXCEL|TABLES!R3C10:R8C24";

DATA _NULL_;
   SET TABLE1;
   FILE TBL NOTAB LRECL=200;


   *3/28/2014 CREATE NEW VAR WITH ASTERISK FOR TABLE1;
   ARRAY CARE   COL2 COL3  COL4  COL5  COL6  COL7  COL8;
   ARRAY SIGS    COL9 COL10 COL11 COL12 COL13 COL14 COL5;

   ARRAY NEWVAR $ MAMM PAP HBP PRENATAL NONOBE NONSMOKE QUIT;

   DO I = 1 TO 7;

   *3/16/2015 RECODED 9999 TO MISSING FOR Q4 DATA;
      IF TIMEPD = "&Q4MISSING" THEN DO;
         IF CARE(I) =9999 THEN CARE(I)=.;
      END;

      IF SIGS(I) IN (1,-1) THEN  NEWVAR(I)=CATS("*",PUT(ROUND(CARE(I),1),8.));
      ELSE IF  CARE(I) >=0 THEN NEWVAR(I)=PUT(ROUND(CARE(I),1),8.);

      ELSE IF CARE(I) <0 THEN NEWVAR(I) ='-';

   END;

     *no benchmark for counseled to quit;
   IF ROW=42 THEN QUIT='-';


  *IF ROW NE 42 THEN DO;
   PUT MAMM '09'X  PAP '09'X HBP '09'XPRENATAL '09'X NONOBE '09'X NONSMOKE'09'X QUIT'09'X
       COL9 '09'X COL10 '09'X COL11 '09'X COL12 '09'X COL13 '09'X COL14 '09'X COL15;

RUN;

/*Run Excel macro signif,  May 9 2006, LLU*/

options noxsync;
*-- Specify XL filename ;

*%let excelf = &FOLDER..XLSB ;

*-- Specify XL macro name ;
%let macron = signif ;


FILENAME CMDS DDE "EXCEL|SYSTEM";


DATA _NULL_;
  FILE CMDS;
  DDECommand = '[Run("' || "&macron" || '",0)]' ;
  put DDEcommand ;

RUN;

/*
DATA _NULL_;
```

```
   FILE CMDS;
   PUT '[SAVE]';
   PUT '[QUIT]';
RUN; */

DATA _NULL_;
   FILE CMDS;
   PUT '[CLOSE(TRUE)]';
RUN;

*******************************************************************************
       COMPARE SCORES AND SIG B/T CONSUMER WATCH AND REPORT CARDS.
       SET 0.015 DIFFERENCE AS THRESHOLD.
       LUCY LU 10/07/2004
*******************************************************************************;

PROC SORT DATA=FIG1(DROP=SCORE);               *FROM CONSUMER WATCH. LLU 10/8/04;
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=FIG2(DROP=SCORE);
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=FIG3(DROP=SCORE);
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=FIG5AB OUT=FIG5;
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=FIG6AB OUT=FIG6;
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=FIG7AB OUT=FIG7;
BY BENEFIT TIMEPD REGION;
RUN;




%MACRO COMPARE(I=, TITL=);


DATA CFIG&I;                  *FROM CONUS. LLU 10/8/04;

  SET CFIG&I._1
      CFIG&I._2
      CFIG&I._3
      CFIG&I._4
      ;
RUN;


PROC SORT DATA=FIG&I;
BY BENEFIT TIMEPD REGION;
RUN;

PROC SORT DATA=CFIG&I;
BY BENEFIT TIMEPD REGION;
RUN;

DATA COMBFIG&I;
   MERGE CFIG&I.(IN=F1) FIG&I(IN=F2);
BY BENEFIT TIMEPD REGION;


IF F1 AND F2;

FIG = &I;

IF FIG <=4 THEN DO;
   SCORE2=COL2;
   SIG2=COL3;
END;

ELSE IF FIG >4 THEN DO;
```

```
   IF COL2 >= 0 THEN SCORE2=COL2;
   ELSE IF COL4 >0 THEN SCORE2=COL4;

   IF COL6 >= .Z THEN SIG2=COL6;
   ELSE IF COL7>=.Z THEN SIG2=COL7;
END;


   SCOREDIF=SCORE2-SCORE;
   SIGDIF=SIG2-SIG;


IF ABS(SCOREDIF)>.015 OR SIGDIF>0 THEN FLAG=1;
ELSE FLAG=0;

KEEP BENEFIT TIMEPD REGION SCORE SIG SCORE2 SIG2 SCOREDIF SIGDIF FLAG;

LABEL
FLAG="DIFF IN SCORES >0.015 OR/AND DIFF IN SIG >0"
SCORE="SCORES FROM CONUS"
SCORE2="SCORES FROM CONSUMER WATCH"
SIG="SIG FROM CONUS"
SIG2="SIG FROM CONSUMER WATCH"
;


TITLE  "  ";
TITLE2 "*********************************************************";
TITLE3 "CONSUMER WATCH, &AREA ";

PROC PRINT L NOOBS;
TITLE4 "Compare &TITL.";
RUN;


%MEND COMPARE;


%COMPARE(I=1, TITL=Health Care Rating);
%COMPARE(I=2, TITL=Health Plan Rating);
%COMPARE(I=3, TITL=Personal Provider Rating);
%COMPARE(I=4, TITL=Specialist Rating);

%COMPARE(I=5, TITL=Access composites);

%COMPARE(I=6, TITL=Office composites);
%COMPARE(I=7, TITL=Claims/Service composites);



%MEND RUNCW;
```

H.5.A Q3FY2015\PROGRAMS\ConsumerWatch\CONSUMERWATCH_WORD.SAS - Run the automation of the MS Word Consumer Watch report production.

```
*******************************************************************************
* PROJECT: 6077-420
* PROGRAM: CONSUMERWATCH-Word.SAS
*
* PURPOSE: CALL CONSUMERWATCH-MACRO-WORD.INC PROGRAM
*          TO PRODUCE WORD DOCUMENT FOR Consumer Watch report.
*
* WRITTEN: 2/21/2008 LUCY LU
*
* INPUT  : EXCEL CHARTS
*
* OUTPUT : WORD DOCUMENTS
*
* PROGRAM TO CALL: CONSUMERWATCH-MACRO-WORD.INC
* MODIFIED : 4/2/2010 BY LUCY LU, SEE COMMENT ON INCLUDE FILE.
* MODIFIED : 7/23/2010 BY LUCY LU. COMBINE ALL 3 WORD PROGRAMS (USMHS,
*            REGION, SERVICE) INTO A SINGLE PROGRAM.
* MODIFIED : 1/28/2015 BY LUCY LU. UPDATED THE PATH AFTER MOVING TO SAS SERVER
*******************************************************************************;
OPTIONS MPRINT;


%LET QUARTER=3;                                *CURRENT QUARTER;
%LET PERIOD=April 2014 to March 2015;          *FISCAL YEAR PRIOR TO CURRENT QUARTER;
%LET YEAR=2015;                                *CURRENT FISCAL YEAR;
%LET QUARTER3=third;                           *CURRENT QUARTER;


%LET PATH=N:\Project\40309_HCS\DC1\HCSDB\Q&QUARTER.FY&YEAR.\Programs\ConsumerWatch;
%LET RATEPATH=..\..\Data\Afinal\Response_Rate;
*%LET RATEPATH=L:\Q3FY2014\Data\AFinal\Response_Rate;             *TEMP;

%INCLUDE "consumerwatch_macro_word.inc";

*%RUNWD(FOLDER=USMHS,NAME=US MHS,YOURSAY=US MHS);


%RUNWD(FOLDER=West,YOURSAY=your region);
%RUNWD(FOLDER=South,YOURSAY=your region);
%RUNWD(FOLDER=Navy,YOURSAY=your service);
%RUNWD(FOLDER=JointService,NAME=Joint Service,YOURSAY=your service);
%RUNWD(FOLDER=Europe,YOURSAY=your region);
%RUNWD(FOLDER=Pacific,YOURSAY=your region);

%RUNWD(FOLDER=Army,YOURSAY=your service);
%RUNWD(FOLDER=North,YOURSAY=your region);
%RUNWD(FOLDER=AirForce,NAME=Air Force,YOURSAY=your service);
```

H.5.B Q3FY2015\PROGRAMS\ConsumerWatch\CONSUMERWATCH_MACRO_WORD.INC - Automate the MS Word Consumer Watch report production.

```
*******************************************************************************
* PROJECT: 6077-420
* PROGRAM: CONSUMERWATCH-marco-WORD.INC
*
* AUTHOR : LUCY LU
* PURPOSE: Automate the copy and paste process, update the year, region,
*          response rate and sample size for quarterly Consumer
*          Watch report.
*
* DATE   : 03/31/2009
*
* OUTPUT : WORD DOCUMENTS
* MODIFIED: 04/12/2010 BY LUCY LU
*           1. Charts in Word are linked to Excel and automated updated once Excel
*              makes change.
*           2. Excel Triplet doeasn't work for MS 2007/SAS 9. Using direct VBA
*              code in SAS.
*           3. The final product is in pdf format. Word report is intentionally
*              unsaved to reserve bookmarks.
* MODIFIED: 06/4/2010 BY LUCY LU
*           1. Replicating the template of Q2 2010 report found the lower quality
*              of charts in Word report. Using copy and paste instead of link.
*           2. The final products are in Word and pdf format.
* MODIFIED 7/23/2010 BY LUCY LU
*           ADD MACRO TO MINIMIZE EXCEL AND WORD WAITING, REDUCE PROGRAM
*           RUNNING TIME
* MODIFIED 2/25/2013 BY LUCY LU
*           ADD NEW FILE TO READ RESPONSE RATE FOR JOINT SERVICE
* MODIFIED 4/8/2014 BY LUCY LU, MOD FOR 508 COMPLIANCE
*          -- COMMENTED OUT FONT & SIZE, USING STYLE IN WORD
*******************************************************************************;

OPTIONS NOXWAIT SPOOL NOXSYNC;

*LLU 7/21/2010--DETECTING AVAILABILITY OF EXCEL, MINIMIZE WAITING TIME;


%MACRO RUNWD(FOLDER=,NAME=&FOLDER,YOURSAY= );

*7/23/2010 LLU, Wait until Excel ready;

FILENAME CMDS DDE "EXCEL|SYSTEM";

DATA _NULL_;

   LENGTH FID RC START STOP TIME 8;
   FID = FOPEN('CMDS' , 'S');
   IF (FID LE 0) THEN DO;
      RC = SYSTEM('START EXCEL');
      START = DATETIME();
      STOP = START + 10;
      DO WHILE (FID LE 0);
         FID = FOPEN('CMDS' , 'S');
         TIME = DATETIME();
         IF (TIME GE STOP) THEN FID = 1;
      END;
   END;
   RC = FCLOSE(FID);
RUN;


%MACRO SETUP;
   DATA TEST _NULL_;

   SINGLE="'";
   DOUBLE='"';

   LENGTH OPENXLS OPENWRD SAVEWRD $120;
   OPENXLS=SINGLE||"[OPEN("||DOUBLE||"&PATH.\&FOLDER.\&FOLDER..xlsb"||DOUBLE||")]"||SINGLE;
   OPENWRD=SINGLE||"[FileOpen.Name="||DOUBLE||"&PATH.\template.docm"||DOUBLE||"]"||SINGLE;
```

```
SAVEWRD=SINGLE||"[FileSaveAs.Name="||DOUBLE||"&PATH.\&FOLDER.\&FOLDER..DOCM"||DOUBLE||"]"||SINGL
E;

   CALL SYMPUT ("OPENXLS",TRIM(OPENXLS));
   CALL SYMPUT ("OPENWRD",TRIM(OPENWRD));
   CALL SYMPUT ("SAVEWRD",TRIM(SAVEWRD));

RUN;

%MEND SETUP;
%SETUP;

DATA _NULL_;
 FILE CMDS;
PUT &OPENXLS;
X=SLEEP(2);
PUT '[app.minimize()]';
RUN;

*7/23/2010 LLU, Wait until Word ready;
FILENAME CMNDS DDE "WINWORD|SYSTEM";

DATA _NULL_;
  LENGTH FID RC START STOP TIME 8;
  FID=FOPEN('CMNDS','S');
  IF (FID LE 0) THEN DO;
    RC=SYSTEM('START WINWORD');
    START=DATETIME();
    STOP=START+10;
    DO WHILE (FID LE 0);
      FID=FOPEN('CMNDS','S');
      TIME=DATETIME();
      IF (TIME GE STOP) THEN FID=1;
      END;
    END;
  RC=FCLOSE(FID);
RUN;

DATA _NULL_;
  FILE CMNDS;
  PUT &OPENWRD;
  X=SLEEP(2);
  PUT &SAVEWRD;
  PUT '[APPMINIMIZE]';
RUN;

%MACRO COPYIT;
%DO I=1 %TO 8;


    %LET WDMACRO=NEWPASTE&I;
    %LET EXMACRO=COPY&I;

FILENAME CMDS DDE "EXCEL|SYSTEM";

      DATA _NULL_;
      FILE CMDS;
      DDECommand = '[Run("' || "&exmacro" || '",0)]' ;
      PUT DDEcommand ;

      RUN;
      FILENAME CMDS CLEAR;

      FILENAME CMNDS DDE 'WINWORD|SYSTEM';

      /*DATA _NULL_;
      X=SLEEP(2);
      RUN;*/


      DATA _NULL_;
      FILE CMNDS;
      put '[ToolsMacro .Name = "' "&wdmacro" '", .Run]';
```

```
      RUN;

      FILENAME CMNDS CLEAR;

      RUN;


%END;
%MEND COPYIT;
%COPYIT;


*READ THE SAMPLE SIZE AND RESPONSE RATE IN .OUT FILES
 AND CREATE MACRO VARIABLES for Word document;
%MACRO RATE1 (DAT);
  DATA &DAT;

      INFILE "&RATEPATH.\&DAT..OUT" LRECL=9999 RECFM=V;
      INPUT LINEIN $100 @; DROP LINEIN;
      IF _N_ GE 7 THEN DO;
         INPUT
            @001 DOMAIN    $CHAR40.
            @141 FRR_UNWT  4.3
            @147 POP       $CHAR7.;
            ;
          OUTPUT;
     END;
  RUN;

*MS 2007 doesnt take comma7 format. This is hard code the comma into text;
DATA &DAT;
   SET &DAT;
 LENGTH POP_UNWT $10;
   POP1=SUBSTR(RIGHT(POP),1,1);
   POP2=SUBSTR(RIGHT(POP),2,3);
   POP3=SUBSTR(RIGHT(POP),5,3);
   POP_UNWT=CATX(',',POP1,POP2,POP3);
RUN;

%MEND RATE1;

%RATE1(TABLE02A);
%RATE1(XTNEXREG);
%RATE1(XOCONUS);
%RATE1(SERVAFF);
%RATE1(JSFLAG);

DATA ALLRATE;
  SET TABLE02A
      XTNEXREG
      XOCONUS
      SERVAFF
      JSFLAG
      ;

   DOMAIN=COMPRESS(DOMAIN);
   IF UPCASE(DOMAIN)=UPCASE('WesternPacific') THEN DOMAIN='PACIFIC';
   IF UPCASE(DOMAIN)=UPCASE('Y') THEN DOMAIN='JOINTSERVICE';

   IF DOMAIN='' THEN DOMAIN="USMHS";
   FRR_UNWT=FRR_UNWT*100;

 *PUT POP_UNWT=  FRR_UNWT=;
 IF UPCASE("&FOLDER.")=UPCASE(DOMAIN) THEN OUTPUT;

RUN;


DATA _NULL_;
   SET ALLRATE;


CALL SYMPUT ("SIZE1", COMPRESS(POP_UNWT));
CALL SYMPUT ("RATE1", COMPRESS(FRR_UNWT));
```

```
RUN;

FILENAME CMNDS DDE "WINWORD|SYSTEM";
/*
DATA _NULL_;
   FILE CMNDS;
   *X=SLEEP(2);
   PUT '[AppMinimize]';
RUN;
*/

DATA _NULL_;
 FILE CMNDS;
 put '[EditGoto.Destination="Region1"]';
 *put '[FormatFont.Font="Arial",.Points="20"]';
 PUT "&NAME";
RUN;

DATA _NULL_;
 FILE CMNDS;
 put '[EditGoto.Destination="Quarter1"]';
 *put '[FormatFont.Font="Arial",.Points="20"]';
 PUT "&QUARTER";
RUN;

DATA _NULL_;
 FILE CMNDS;
 put '[EditGoto.Destination="Year1"]';
 *put '[FormatFont.Font="Arial",.Points="20"]';
 PUT "&YEAR";
RUN;


DATA _NULL_;
 FILE CMNDS;
 put '[EditGoto.Destination="SIZE"]';
 *put '[FormatFont.Font="Arial",.Points="10"]';
 PUT "&SIZE1";
RUN;

DATA _NULL_;
 FILE CMNDS;
 *X=SLEEP(.2);
 put '[EditGoto.Destination="RATE"]';
 *put '[FormatFont.Font="Arial",.Points="10"]';
 PUT "&RATE1";
RUN;

DATA _NULL_;
 FILE CMNDS;
 put '[EditGoto.Destination="Region2"]';
 *put '[FormatFont.Font="Arial",.Points="10"]';
 PUT "&NAME";
RUN;

DATA _NULL_;
 FILE CMNDS;
 *X=SLEEP(.2);
 put '[EditGoto.Destination="YourSay"]';
 *put '[FormatFont.Font="Times New Roman",.Points="11"]';
 PUT "&YOURSAY";
RUN;

DATA _NULL_;
 FILE CMNDS;
 put '[EditGoto.Destination="Quarter3"]';
 *put '[FormatFont.Font="Times New Roman",.Points="11"]';
 PUT "&QUARTER3";
RUN;

DATA _NULL_;
 FILE CMNDS;
 put '[EditGoto.Destination="year3"]';
```

```
 *put '[FormatFont.Font="Times New Roman",.Points="11"]';
 PUT "&YEAR";
RUN;

DATA _NULL_;
 FILE CMNDS;
 put '[EditGoto.Destination="Period"]';
 *put '[FormatFont.Font="Times New Roman",.Points="11"]';
 PUT "&PERIOD";
RUN;



DATA _NULL_;
 FILE CMNDS;
 *X=SLEEP(.2);
 put '[EditGoto.Destination="Region3"]';
 *put '[FormatFont.Font="Arial",.Points="16"]';
 PUT "&NAME";
RUN;

DATA _NULL_;
 FILE CMNDS;
 *X=SLEEP(.2);
 put '[EditGoto.Destination="Quarter2"]';
 *put '[FormatFont.Font="Arial",.Points="16"]';
 PUT "&QUARTER";
RUN;

DATA _NULL_;
 FILE CMNDS;
 *X=SLEEP(.2);
 put '[EditGoto.Destination="Year2"]';
 *put '[FormatFont.Font="Arial",.Points="16"]';
 PUT "&YEAR";
RUN;

*savs as pdf;
%LET CMACRO=SaveAspdf;

FILENAME CMNDS DDE 'WINWORD|SYSTEM';
DATA _NULL_;
 FILE CMNDS;

PUT '[ToolsMacro .Name = "' "&CMACRO" '", .Run]';
run;


FILENAME CMDS DDE 'EXCEL|SYSTEM';

DATA _NULL_;
   FILE CMDS;
   *PUT '[SAVE]';  *no save for Excel;
   PUT '[CLOSE(FALSE)]';
   PUT '[ERROR(FALSE)]';
   PUT '[QUIT]';
RUN;


/* reserved for future use;
FILENAME CMNDS DDE 'WINWORD|SYSTEM';
DATA _NULL_;
 FILE CMNDS;

 PUT '[fileSave] ';
 PUT '[FileClose 2] ';
RUN;*/

%MEND;
```

APPENDIX I

SAS CODE FOR STATISTICAL AND WEB SPECIFICATIONS FOR THE 2015 TRICARE PURCHASED CARE BENEFICIARY REPORTS - QUARTERS I-III

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I.1.A Q3FY2015\PROGRAMS\PurchasedConsumerWatch\consumerwatch_PurchasedCare.sas - Run Purchased Care TRICARE Consumer Watch reports - Run Quarterly.

```
*******************************************************************************
* PROJECT: 6077-420
* PROGRAM: CONSUMERWATCH_PurchasedCare.SAS
* PURPOSE: CALL CONSUMERWATCH MACRO PROGRAM
*          TO PRODUCE EXCEL TABLE FOR PURCHASED CAR>E REPORT.
*
* WRITTEN: 02/10/2005 BY LUCY LU FOR Q4 2004.
*
* UPDATE:  4/26/2005 FOR Q1 2005.
* UPDATE:  8/4/2005 FOR Q2 2005.
* UPDATE:  12/15/2005 FOR Q4 2005.
* UPDATE:  04/04/2006 FOR Q2 FISCAL YEAR 2006, LUCY Lu. STARTING THIS QUARTER,
*          THE PERIOD IS CHANGED TO FISCAL YEAR.
* UPDATE:  09/01/2006 Lucy Lu FOR FY 3 2006.
* UPDATE:  10/05/2006 Lucy Lu FOR FY 4 2006.
* MODIFIED 7/30/2007 BY LUCY LU
*          UNIFY THE PERDIOD MACRO VARIABLES WITH BENEFICIARY REPORT CARDS PROGRAMS
*          CURRNT  ===> PERIOD4
*          CURRNTQ ===> PERIOD4Q
*          PREV1   ===> PERIOD3
*          PREV1Q  ===> PERIOD3Q
*          PREV2   ===> PERIOD2
*          PREV2Q  ===> PERION2Q
*          PREV3   ===> PERIOD1
*          PREV3Q  ===> PERIOND1Q
* MODIFIED 8/29/2007 BY LUCY LU TO RUN CONSUMERWATCH_MACRO_COMB.INC
*          STARTING Q4 2007 CONSUMERWATCH_R(REGION) AND CONSUMERWATCH_CONUS RUN A SINGLE
*          MACRO TO PRODUCE CHARTS FOR BOTH PRIME ENROLLEES AND CIVILIAN PCM POPULATION
* MODIFIED 5/14/09 BY LUCY LU
*          1.MACRO INCLUDE PROGRAM IS MODIFIED BY REMOVING THE VALUE OF
*            'Courteous and Helpful Office Staff'. THE PROGRAM WILL DELETE
*            RELATED CODE.
*          2.THE EXCEL AND WORD TEMPLATES ARE MODIFIED TO REMOVE THE CHARTS
*            FOR  'Courteous and Helpful Office Staff'.
* MODIFIED 7/23/2010 LUCY
*          Rename CONSUMERWATCH_MACRO_COMB.INC to
*                 CONSUMERWATCH_PurchasedCare_MACRO.INC
*          MODIFY MACRO VARIABLES TO REFLECT THE CHANGE OF INCLUDE MACRO
*          PROGRAM. SEE consumerwatch_PurchasedCare_macro.inc FOR DETAILS.
*          1.CONSOLIDATE USMHS AND REGION PROGRAMS INTO ONE SAS PROGRAM.
*          2.REPLACE PERIOD MACRO VARIABLES WITH CURRENTQ AND CURRENTY.
*
* INPUT  : DATA FROM CONSUMER REPORTS: ..\..\PROGRAMS\&DAT.LOADWEB\TOTAL_Q.SD2
*
* OUTPUT : INTO EXCEL SPREADSHEET
*
* PROGRAM TO CALL: CONSUMERWATCH_PURCHASEDCARE_MACRO.INC
*******************************************************************************;


/* LIBNAME IS EMBEDDED IN MACRO PROGRAM */

*starting 2006, the period is changed to fiscal year, LLU 4/5/06;

%LET CURRENTQ=3;       *CURRENT FISCAL QUARTER;
%LET CURRENTY=2015;    *CURRENT FISCAL YEAR;
*%LET PATH = L:\Q4FY2010\Programs\PurchasedConsumerWatch;  *TEMP;
%LET PATH =
N:\Project\40309_HCS\DC1\HCSDB\Q&CURRENTQ.FY&CURRENTY.\Programs\PurchasedConsumerWatch;

TITLE "DOD PURCASED CARE CONSUMER WATCH Q&CURRENTQ, FY &CURRENTY";


%INCLUDE "&PATH.\CONSUMERWATCH_PURCHASEDCARE_MACRO.INC";


%RUNCW(AREA=USA MHS,FOLDER=USMHS);
```

```
%RUNCW(FOLDER=NORTH);
%RUNCW(FOLDER=SOUTH);
%RUNCW(FOLDER=WEST);
```

I.1.B Q3FY2015\PROGRAMS\PurchasedConsumerWatch\consumerwatch_PurchasedCare_macro.inc - produce numbers for Purchased Care TRICARE Consumer Watch reports.

```
*******************************************************************************
* PROJECT: 6077-420
* PROGRAM: consumerwatch_PurchasedCare_macro.inc
* PURPOSE: To produce numbers that go into data sheet in Excel to produce graphs
*          for regional consumer watch
* AUTHOR : MIKI SATAKE
* DATE   : 4/24/01
* UPDATED: 7/16/01 FOR QUARTER 2 BY NATALIE JUSTH
* UPDATED: 10/16/01 FOR QUARTER 3 BY NATALIE JUSTH
* UPDATED: 1/11/02 FOR QUARTER 4 BY NATALIE JUSTH
* UPDATED AND RENAMED: 4/9/02 FOR QUARTER 1 2002 BY NATALIE JUSTH
* UPDATED: 7/5/02 FOR QUARTER 2 2002 BY NATALIE JUSTH
* UPDATED: 7/15/02 FOR QUARTER 3 2002 BY NATALIE JUSTH
* UPDATED: 11/12/02 FOR QUARTER 4 2002 BY NATALIE JUSTH
* UPDATED: 4/3/03 FOR QUARTER 1 2003 BY NATALIE JUSTH
* UPDATED: 5/19/03 FOR QUARTER 2 2003 BY NATALIE JUSTH
* UPDATED: 8/28/03 FOR QUARTER 3 2003 BY NATALIE JUSTH
* UPDATED: 11/14/03 FOR QUARTER 4 2003 BY NATALIE JUSTH
* UPDATED: 05/18/2004 FOR QUARTER 1 2004 BY KEITH RATHBUN
* UPDATED: 06/30/2004 FOR QUARTER 2 2004 BY LUCY LU
* UPDATED: 06/30/2004 FOR QUARTER 3 2004 BY LUCY LU. CHANGING XREGION TO XTNEXREG.
* UPDATED: 10/07/2004 BY LUCY LU. ADD THE CODE TO COMPARE CONSUMER WATCH
*          WITH REPORT CARDS IN SCORES AND SIGNIFICANCE.*
* MODIFIED 2/10/05 BY LUCY LU:
*          1). CREATE UNIVERSAL MACRO PROGRAM BASED ON PROGRAM CONSUMERWATCH-R.SAS
*              TO ELIMINATE REDUNDANCY AND INCREASE THE EFFECTIVENESS OF PROGRAMMING.
*          2). ADD ADDITIONAL PREVENTION MEASURE "SMOKING CESSATION"
*              INTO PREVENTIVE CARE TABLE.
* MODIFIED 06/2/2005 BY LUCY LU FOR Q1 2005:
*          1). REMOVE CHOLESTEROL MEASUREMENT AND ADD BMI MEASUREMENT
*          2). COMMENT OUT DISENROLL CODE--NO DISENROLL DATA IN Q1 2005
*          3). ADD SPECIALIST RATING.
* MODIFIED 11/16/2006 BY LUCY LU FOR FY Q4 2006
*           ADD PURCHASE CARE VERSION-- CHANGE PRIME ENROLLEE TO
*           Enrollees with Civilian PCM.
* MODIFIED 6/4/2007 BY LUCY LU. UNIFY THE MACRO PROGRAMS FOR CONSUMER WATCH.
*          !! NEED TO DEFIND MACRO VARIABLE &POP IN SAS PROGRAMS:
*          DIRECT CARE CONSUMDER WATCH:  &POP=='Prime Enrollees'
*          PURCHASE CARE CONSUMDER WATCH:  &POP=='Enrollees with Civilian PCM'
* MODIFIED 8/30/2007 BY LUCY LU
*          1). COMBINE CONSUMERWATCH-MACRO.INC and CONSUMERWATCH-MACRO_PURCHASE.INC
*              PRODUCE CHARTS CONTAINING BOTH DIRECT CARE AND PURCAHSE CARE DATA
*          2). CREATE DUMMY ID FOR MERGE. SAS 9 doesn't allow merge without by variable
* MODIFIED 9/4/2007 BY LUCY LU. START Q4 2007,
*          DIRECT CARE CONSUMER WATCH &POP='Enrollees with Military PCM'
* MODIFIED 5/14/09 BY LUCY LU
*          1.MACRO INCLUDE PROGRAM IS MODIFIED BY REMOVING VALUE OF
*            'Courteous and Helpful Office Staff'. THE PROGRAM WILL DELETE
*            RELATED CODE.
*          2.THE EXCEL AND WORD TEMPLATES ARE MODIFIED TO REMOVE THE CHARTS
*            FOR  'Courteous and Helpful Office Staff'.
* MODIFIED 7/23/2010 BY LUCY LU
*          1. AUTOMATE PERIOD (QAURTER/YEAR) TO MINIMIZE POSSIBLE ERROR
*          2. ADD MACRO TO MINIMIZE EXCEL WAITING, REDUCE PROGRAM
*             RUNNING TIME
*
* MODIFIED 4/14/2014 BY LUCY LU
*          MODIFIED CODE FOR 508 COMPLIANCE
*          1. CREATE NEW VAR WITH ASTERISK FOR FIGURES 1-4
*          2  CREATE NEW VAR WITH ASTERISK FOR PREVENTIVE CARE TABLE
*          3. RECODED ALL MISSING DATA TO DASH '-'
*
* INPUT  : DATA FROM CONSUMER REPORTS: ..\..\PROGRAMS\&DAT.LOADWEB\TOTAL_Q.SD2
*
* OUTPUT : INTO EXCEL SPREADSHEET
*******************************************************************************;
```

```
OPTIONS PS=60 LS=120 ERRORS=2 NOCENTER NOFMTERR NOXWAIT SPOOL MPRINT;


*LLU 7/23/2010--AUTOMATING PERIOD, MINIMIZE POSSIBLE ERROR;

DATA M1;

*Set the first month of each quarter with order of running quarter 1 in FY;
DO MONTH='October', 'July', 'April', 'January';
   OUTPUT;
END;
RUN;


DATA _NULL_;
   SET M1;

INDEX=_N_;
IF &CURRENTQ =1 THEN DO;
   ORDER=INDEX; YR= &CURRENTY -1;
END;
IF &CURRENTQ = 2 THEN DO;
   IF INDEX = 4 THEN DO; ORDER=1; YR=&CURRENTY; END; ELSE
   IF INDEX < 4 THEN DO; ORDER = INDEX+1; YR=&CURRENTY-1; END;
END;
IF &CURRENTQ = 3 THEN DO;
   IF INDEX >=3 THEN DO; ORDER=INDEX-2; YR=&CURRENTY; END; ELSE
   IF INDEX < 3 THEN DO; ORDER=INDEX+2; YR=&CURRENTY-1; END;
END;
IF &CURRENTQ = 4 THEN DO;
   IF INDEX IN (2,3,4) THEN DO; ORDER=INDEX-1; YR=&CURRENTY; END; ELSE
   IF INDEX =1 THEN DO;  ORDER=4; YR=&CURRENTY-1;  END;
END;

LENGTH PERIOD $15;
PERIOD=TRIM(LEFT(MONTH))||','||' '||(PUT(YR,4.));
IF ORDER=1  THEN CALL SYMPUT('PERIOD4', TRIM(LEFT(PERIOD)));
IF ORDER=2  THEN CALL SYMPUT('PERIOD3', TRIM(LEFT(PERIOD)));
IF ORDER=3  THEN CALL SYMPUT('PERIOD2', TRIM(LEFT(PERIOD)));
IF ORDER=4  THEN CALL SYMPUT('PERIOD1', TRIM(LEFT(PERIOD)));

RUN;

%PUT PERIOD4 = &PERIOD4(current quarter);
%PUT PERIOD3 = &PERIOD3;
%PUT PERIOD2 = &PERIOD2;
%PUT PERIOD1 = &PERIOD1;

%MACRO RUNCW (AREA=&FOLDER,  /* Region/Service/conus                        */
              FOLDER=,       /* Folder containing excel template            */
              CURRENT=CURNTR.TOTAL_Q    /* Libname and dataset for the current quarter */
              );


*LLU 7/21/2010--DETECTING AVAILABILITY OF EXCEL, MINIMIZE WAITING TIME;
FILENAME CMDS DDE "EXCEL|SYSTEM";

DATA _NULL_;

   LENGTH FID RC START STOP TIME 8;
   FID = FOPEN('CMDS' , 'S');
   IF (FID LE 0) THEN DO;
      RC = SYSTEM('START EXCEL');
      START = DATETIME();
      STOP = START + 10;
      DO WHILE (FID LE 0);
         FID = FOPEN('CMDS' , 'S');
         TIME = DATETIME();
         IF (TIME GE STOP) THEN FID = 1;
      END;
```

```
   END;
   RC = FCLOSE(FID);
RUN;

%MACRO SETUP;

   DATA _NULL_;
    SINGLE="'";
    DOUBLE='"';

LENGTH OPENXLS SAVEXLS $120;
   OPENXLS=SINGLE||"[OPEN("||DOUBLE||"&PATH.\Template_PurchasedCare.xlsb"||DOUBLE||")]"||SINGLE;

SAVEXLS=SINGLE||"[SAVE.AS("||DOUBLE||"&PATH.\&FOLDER.\&FOLDER._PurchasedCare.XLSB"||DOUBLE||")]"
||SINGLE;

   CALL SYMPUT ("OPENXLS",TRIM(OPENXLS));
   CALL SYMPUT ("SAVEXLS",TRIM(SAVEXLS));

RUN;

%MEND SETUP;
%SETUP;


DATA _NULL_;

   FILE CMDS;
   PUT &OPENXLS;
   X=SLEEP(2);
   PUT '[ERROR(FALSE)]';
   PUT &SAVEXLS;
   PUT '[app.minimize()]';
RUN;


%MACRO RUNPOP(MAJPOP=, POP=,DAT=);

TITLE2 "&AREA.";

LIBNAME CURNTR "..\&DAT.Loadweb";
*LIBNAME CURNTR "L:\Q3FY2010\Programs\\&DAT.Loadweb"; *--TEMP;

/* This macro pulls data from the specified dataset to be used in the Consumer Watch */
%MACRO GETDATA (MAJGRP=,    /* Prime enrollee or civilian PCM  */
                REGION=,    /* Value of variable REGION  */
                REGCAT=,    /* Value of variable REGCAT  */
                BENEFIT=,   /* Value of variable BENEFIT */
                TIMEPD=,    /* Value of variable TIMEPD  */
                OUTDATA=,   /* Name of output data set   */
                FIGURE=     /* Figure number in consumer watch reports */
                );

PROC FREQ NOPRINT DATA=&CURRENT;
   WHERE MAJGRP = &MAJPOP
     AND REGION IN &REGION
     AND REGCAT IN &REGCAT
     AND BENEFIT IN &BENEFIT
     AND BENTYPE = 'Composite'
     AND TIMEPD = &TIMEPD;
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SCORE*N_OBS*N_WGT*SIG/OUT=&OUTDATA (DROP=COUNT
PERCENT);
RUN;

%MEND GETDATA;

%MACRO NEWSCORE (FIGURE=);
/* This macro re-calculates SCORE based on the quarterly benchmark */
%DO QUARTER=1 %TO 4;

DATA FIG&FIGURE&QUARTER FIG&FIGURE.B&QUARTER(KEEP=SCORE N);
```

```
   SET FIG&FIGURE.P&QUARTER;
   N=1;                          * DUMMY ID FOR NEXT MERGE STEP;
   IF REGION='Benchmark' THEN OUTPUT FIG&FIGURE.B&QUARTER;
      ELSE OUTPUT FIG&FIGURE&QUARTER;

RUN;

/*ADD CODE HERE TO PRESERVE ABOVE DATASET FOR LATER COMPARISON. LLU 10/7/04*/

DATA CFIG&FIGURE&QUARTER;
   SET FIG&FIGURE&QUARTER;

KEEP MAJGRP REGION BENEFIT BENTYPE TIMEPD SCORE SIG;
RUN;


DATA FIG&FIGURE.P&QUARTER(DROP=RSCORE);
   MERGE FIG&FIGURE.B&QUARTER(RENAME=(SCORE=RSCORE))
         FIG&FIGURE&QUARTER;
BY N;
*   SCORE=SCORE-RSCORE;
RUN;
%END;
%MEND NEWSCORE;


%MACRO COMBDATA(FIGURE=);

DATA &POP.FIG&FIGURE(DROP=BSCORE);
   SET BENCH FIG&FIGURE.P1 FIG&FIGURE.P4 FIG&FIGURE.P3 FIG&FIGURE.P2;
   RETAIN BSCORE;
   IF REGION = 'Benchmark' THEN DO;
      ROW = 3;
      BSCORE=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD1" THEN DO;
      ROW = 4;
  *    SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF TIMEPD = "&PERIOD2" THEN DO;
      ROW = 5;
   *   SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF TIMEPD = "&PERIOD3" THEN DO;
      ROW = 6;
    *  SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF TIMEPD = "&PERIOD4" THEN DO;
      ROW=7;
 *     SCORE=SCORE+BSCORE;
   END;
   &POP.SCORE = SCORE;;   *3/4/08 LLu, increase the score by 100 to align with fig. 5-10;
   &POP.SIG = SIG;



RUN;
PROC SORT;
   BY ROW;
RUN;

%MEND COMBDATA;

*******************************************************************************
* FIGURE 1: Health Care Rating
*******************************************************************************;
TITLE2 'Figure 1: Health Care Rating';
```

```
%GETDATA (MAJGRP=&MAJPOP,
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Health Care'),
          TIMEPD="&PERIOD4",
          OUTDATA=BENCH);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          TIMEPD="&PERIOD4",
          OUTDATA=FIG1P4);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          TIMEPD="&PERIOD3",
          OUTDATA=FIG1P3);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          TIMEPD="&PERIOD2",
          OUTDATA=FIG1P2);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          TIMEPD="&PERIOD1",
          OUTDATA=FIG1P1);
%NEWSCORE(FIGURE=1);
%COMBDATA(FIGURE=1);


*******************************************************************************
* FIGURE 2: Health Plan Rating
*******************************************************************************;
TITLE2 'Figure 2: Health Plan Rating';

%GETDATA (MAJGRP=&MAJPOP,
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Health Plan'),
          TIMEPD="&PERIOD4",
          OUTDATA=BENCH);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Plan'),
          TIMEPD="&PERIOD4",
          OUTDATA=FIG2P4);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Plan'),
          TIMEPD="&PERIOD3",
          OUTDATA=FIG2P3);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Plan'),
          TIMEPD="&PERIOD2",
          OUTDATA=FIG2P2);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Plan'),
          TIMEPD="&PERIOD1",
          OUTDATA=FIG2P1);
%NEWSCORE(FIGURE=2);
```

```
%COMBDATA(FIGURE=2);


*****************************************************************************
* FIGURE 3: Personal Provider Rating
*****************************************************************************;
TITLE2 'Figure 3: Personal Provider Rating';

%GETDATA (MAJGRP=&MAJPOP,
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Personal Doctor'),
          TIMEPD="&PERIOD4",
          OUTDATA=BENCH);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Personal Doctor'),
          TIMEPD="&PERIOD4",
          OUTDATA=FIG3P4);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Personal Doctor'),
          TIMEPD="&PERIOD3",
          OUTDATA=FIG3P3);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Personal Doctor'),
          TIMEPD="&PERIOD2",
          OUTDATA=FIG3P2);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Personal Doctor'),
          TIMEPD="&PERIOD1",
          OUTDATA=FIG3P1);
%NEWSCORE(FIGURE=3);
%COMBDATA(FIGURE=3);


*****************************************************************************
* FIGURE 4: Specialist Rating--added for Q1 2005, LLu 6/2/05
*****************************************************************************;
TITLE2 'Figure 4: Specialist Rating';

%GETDATA (MAJGRP=&MAJPOP,
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Specialty Care'),
          TIMEPD="&PERIOD4",
          OUTDATA=BENCH);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Specialty Care'),
          TIMEPD="&PERIOD4",
          OUTDATA=FIG4P4);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Specialty Care'),
          TIMEPD="&PERIOD3",
          OUTDATA=FIG4P3);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Specialty Care'),
          TIMEPD="&PERIOD2",
          OUTDATA=FIG4P2);
```

```
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Specialty Care'),
          TIMEPD="&PERIOD1",
          OUTDATA=FIG4P1);
%NEWSCORE(FIGURE=4);
%COMBDATA(FIGURE=4);


*****************************************************************************
* FIGURE 5 & 6: Access Composites
*****************************************************************************;
TITLE2 'Figure 5 & 6: Access Composites';


%GETDATA (MAJGRP=&MAJPOP,
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Getting Needed Care','Getting Care Quickly'),
          TIMEPD="&PERIOD4",
          OUTDATA=BENCH);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Getting Needed Care','Getting Care Quickly'),
          TIMEPD="&PERIOD4",
          OUTDATA=FIG5P4);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Getting Needed Care','Getting Care Quickly'),
          TIMEPD="&PERIOD3",
          OUTDATA=FIG5P3);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Getting Needed Care','Getting Care Quickly'),
          TIMEPD="&PERIOD2",
          OUTDATA=FIG5P2);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Getting Needed Care','Getting Care Quickly'),
          TIMEPD="&PERIOD1",
          OUTDATA=FIG5P1);

/*Use macro for figures 5-10 */

%MACRO COMPSCORE (FIGNUM=
                 );

%DO QUARTER = 1 %TO 4;

DATA FIG&FIGNUM.P&QUARTER FIGB&QUARTER(KEEP=SCORE BENEFIT SIG);
   SET FIG&FIGNUM.P&QUARTER;
   IF REGION = 'Benchmark' THEN OUTPUT FIGB&QUARTER;
      ELSE OUTPUT FIG&FIGNUM.P&QUARTER;
RUN;
PROC SORT DATA=FIG&FIGNUM.P&QUARTER;
   BY BENEFIT;
RUN;
PROC SORT DATA=FIGB&QUARTER;
   BY BENEFIT;
RUN;


/*ADD CODE HERE TO PRESERVE THE SCORES IN CONUS_Q DATASET FOR LATER COMPARISON. LLU 10/7/04*/

DATA CFIG&FIGNUM.&QUARTER;
   SET FIG&FIGNUM.P&QUARTER;
```

```
KEEP MAJGRP REGION BENEFIT BENTYPE TIMEPD SCORE SIG;
RUN;


DATA FIG&FIGNUM.&QUARTER(DROP=RSCORE);
   MERGE FIGB&QUARTER(RENAME=(SCORE=RSCORE))
         FIG&FIGNUM.P&QUARTER;
   BY BENEFIT;
 *  SCORE=SCORE-RSCORE;
RUN;
%END;

%MEND COMPSCORE;

%COMPSCORE (FIGNUM=5);

DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
     COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
     COL4(DROP=SCORE RENAME=(SCORE1=COL4))         /*LLU 10/8/04, TO PRESERVE KEY VARS FOR LATER
COMPARISON*/
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL6(KEEP=ROW SIG RENAME=(SIG=COL6))
     COL7(kEEP=ROW SIG RENAME=(SIG=COL7))
     ;
   SET BENCH FIG54 FIG53 FIG52 FIG51;
   BY BENEFIT;
   RETAIN BSCORE;
   IF REGION = 'Benchmark' THEN DO;
     BSCORE=SCORE;
      ROW = 18;
      SCORE1 = SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD1" THEN DO;
      ROW = 18;
 *     SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD2" THEN DO;
      ROW = 19;
  *    SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD3" THEN DO;
      ROW = 20;
  *    SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD4" THEN DO;
      ROW = 21;
 *     SCORE=BSCORE+SCORE;
      SCORE1 = SCORE;
   END;

   IF (BENEFIT = 'Getting Needed Care' AND REGION NE 'Benchmark') THEN OUTPUT COL2 COL6;
   IF (BENEFIT = 'Getting Needed Care' AND REGION = 'Benchmark') THEN OUTPUT COL3;
   IF (BENEFIT = 'Getting Care Quickly' AND REGION NE 'Benchmark') THEN OUTPUT COL4 COL7;
   IF (BENEFIT = 'Getting Care Quickly' AND REGION = 'Benchmark') THEN OUTPUT COL5;

RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
```

```
/*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 5. LLU 10/7/04*/

DATA FIG5A;
   MERGE COL2 COL6;
  BY ROW;
RUN;

DATA FIG5B;
   MERGE  COL4 COL7;
  BY ROW;
RUN;

DATA FIG5AB;
   SET FIG5A FIG5B;
  BY ROW;
RUN;



DATA &POP.FIG5;
   MERGE COL2 COL3 COL4(KEEP=ROW COL4) COL5 COL6 COL7;
   BY ROW;
RUN;
/*
DATA &POP.FIG6;
   MERGE COL4(KEEP=ROW COL4) COL5 COL7;
   BY ROW;
RUN;
*/


*******************************************************************************
* FIGURE 7:  Doctors Communicate
*******************************************************************************;
TITLE2 'Figure 7 :  Doctors Communicate';

%GETDATA (MAJGRP=&MAJPOP,
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          TIMEPD="&PERIOD4",
          OUTDATA=BENCH);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          TIMEPD="&PERIOD4",
          OUTDATA=FIG7P4);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          TIMEPD="&PERIOD3",
          OUTDATA=FIG7P3);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          TIMEPD="&PERIOD2",
          OUTDATA=FIG7P2);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          TIMEPD="&PERIOD1",
          OUTDATA=FIG7P1);

%COMPSCORE (FIGNUM=7);
```

```
DATA COL4(DROP=SCORE RENAME=(SCORE1=COL4))         /*LLU 10/8/04, TO PRESERVE KEY VARS FOR LATER
COMPARISON*/
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL7(kEEP=ROW SIG RENAME=(SIG=COL7))
     ;
   SET BENCH FIG74 FIG73 FIG72 FIG71;
   BY BENEFIT;
   RETAIN BSCORE;
   IF REGION = 'Benchmark' THEN DO;
      BSCORE=SCORE;
      ROW = 18;
      SCORE1 = SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD1" THEN DO;
      ROW = 18;
 *     SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD2" THEN DO;
      ROW = 19;
  *    SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD3" THEN DO;
      ROW = 20;
   *   SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD4" THEN DO;
      ROW = 21;
   *   SCORE=BSCORE+SCORE;
      SCORE1 = SCORE;
   END;

   IF (BENEFIT = 'How Well Doctors Communicate' AND REGION NE 'Benchmark') THEN OUTPUT COL4
COL7;
   IF (BENEFIT = 'How Well Doctors Communicate' AND REGION = 'Benchmark') THEN OUTPUT COL5;

RUN;

PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;



/*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 6. LLU 10/7/04*/

DATA FIG7AB;
   MERGE  COL4 COL7;
  BY ROW;
RUN;


DATA &POP.FIG7;
   MERGE  COL4(KEEP=ROW COL4) COL5 COL7;
   BY ROW;
RUN;

*****************************************************************************
* FIGURE 8 & 9: Claims/Service Composites
*****************************************************************************;
TITLE2 'Figure 8 & 9: Claims/Service Composites';
%GETDATA (MAJGRP=&MAJPOP,
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          TIMEPD="&PERIOD4",
```

```
          OUTDATA=BENCH);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          TIMEPD="&PERIOD4",
          OUTDATA=FIG9P4);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          TIMEPD="&PERIOD3",
          OUTDATA=FIG9P3);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          TIMEPD="&PERIOD2",
          OUTDATA=FIG9P2);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          TIMEPD="&PERIOD1",
          OUTDATA=FIG9P1);

%COMPSCORE (FIGNUM=9);

DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
     COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
     COL4(DROP=SCORE RENAME=(SCORE1=COL4))         /*LLU 10/8/04, TO PRESERVE KEY VARS FOR LATER
COMPARISON*/
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL6(KEEP=ROW SIG RENAME=(SIG=COL6))
     COL7(kEEP=ROW SIG RENAME=(SIG=COL7));
   SET BENCH FIG94 FIG93 FIG92 FIG91;
   BY BENEFIT;
   RETAIN BSCORE;
   IF REGION = 'Benchmark' THEN DO;
      BSCORE=SCORE;
      ROW = 18;
      SCORE1 = SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD1" THEN DO;
      ROW = 18;
 *     SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD2" THEN DO;
      ROW = 19;
  *    SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD3" THEN DO;
      ROW = 20;
   *   SCORE=BSCORE+SCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
         ELSE SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&PERIOD4" THEN DO;
      ROW = 21;
    *  SCORE=BSCORE+SCORE;
      SCORE1 = SCORE;
   END;

   IF (BENEFIT = 'Customer Service' AND REGION NE 'Benchmark') THEN OUTPUT COL2 COL6;
   IF (BENEFIT = 'Customer Service' AND REGION = 'Benchmark') THEN OUTPUT COL3;
   IF (BENEFIT = 'Claims Processing' AND REGION NE 'Benchmark') THEN OUTPUT COL4 COL7;
   IF (BENEFIT = 'Claims Processing' AND REGION = 'Benchmark') THEN OUTPUT COL5;
```

```
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;


/*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 7. LLU 10/7/04*/

DATA FIG9A;
   MERGE COL2 COL6;
  BY ROW;
RUN;

DATA FIG9B;
   MERGE  COL4 COL7;
  BY ROW;
RUN;

DATA FIG9AB;
   SET FIG9A FIG9B;
  BY ROW;
RUN;


DATA &POP.FIG9;
   MERGE COL2 COL3 COL4(KEEP=ROW COL4) COL5 COL6 COL7;
   BY ROW;
RUN;



*******************************************************************************
* TABLE 1: Preventive Care
*******************************************************************************;
PROC FREQ NOPRINT DATA=&CURRENT;
   WHERE MAJGRP IN (&MAJPOP,'Benchmark')
     AND REGION = "&AREA"
     AND REGCAT = "&AREA"
     AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                     'Percent Not Obese', 'Non-Smoking Rate','Counselled To Quit')
     AND TIMEPD = "&PERIOD4";
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/ OUT=TAB1_P4(DROP=COUNT
PERCENT);
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*N_OBS/ OUT=TAB2_P4(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=&CURRENT;
   WHERE MAJGRP = &MAJPOP
     AND REGION = "&AREA"
     AND REGCAT = "&AREA"
     AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                   'Percent Not Obese','Non-Smoking Rate','Counselled To Quit')
     AND TIMEPD = "&PERIOD3";
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/ OUT=TAB1_P3(DROP=COUNT
PERCENT);
RUN;
PROC FREQ NOPRINT DATA=&CURRENT;
   WHERE MAJGRP = &MAJPOP
     AND REGION = "&AREA"
     AND REGCAT = "&AREA"
     AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                     'Percent Not Obese','Non-Smoking Rate','Counselled To Quit')
     AND TIMEPD = "&PERIOD2";
```

```
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/ OUT=TAB1_P2(DROP=COUNT
PERCENT);
RUN;
PROC FREQ NOPRINT DATA=&CURRENT;
   WHERE MAJGRP = &MAJPOP
     AND REGION = "&AREA"
     AND REGCAT = "&AREA"
     AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                     'Percent Not Obese','Non-Smoking Rate','Counselled To Quit')
     AND TIMEPD = "&PERIOD1";
   TABLES MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/ OUT=TAB1_P1(DROP=COUNT
PERCENT);
RUN;
DATA TAB1P4;
   SET TAB1_P4;
   IF MAJGRP = 'Benchmark' THEN DO;
      ROW=42;
      IF BENTYPE='Mammography' THEN COL2=SCORE;
         ELSE IF BENTYPE='Pap Smear' THEN COL3=SCORE;
         ELSE IF BENTYPE='Hypertension' THEN COL4=SCORE;
         ELSE IF BENTYPE='Prenatal Care' THEN COL5=SCORE;
         ELSE IF BENTYPE='Percent Not Obese' THEN COL6=SCORE;
         ELSE IF BENTYPE = 'Non-Smoking Rate' THEN COL7=SCORE;
         ELSE IF BENTYPE ='Counselled To Quit' THEN COL8=SCORE;
   END;
      ELSE DO;
      ROW = 40;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL9=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL10=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL11=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL12=SIG;
      END;
      ELSE IF BENTYPE='Percent Not Obese' THEN DO;
         COL6=SCORE;
         COL13=SIG;
      END;
      ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
         COL7=SCORE;
         COL14=SIG;
      END;
      ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
         COL8=SCORE;
         COL15=SIG;
      END;
    END;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB2P4;
   SET TAB2_P4;
   ROW=41;
   IF MAJGRP=&MAJPOP;
   IF BENTYPE='Mammography' THEN COL2=N_OBS;
      ELSE IF BENTYPE='Pap Smear' THEN COL3=N_OBS;
      ELSE IF BENTYPE='Hypertension' THEN COL4=N_OBS;
      ELSE IF BENTYPE='Prenatal Care' THEN COL5=N_OBS;
      ELSE IF BENTYPE='Percent Not Obese' THEN COL6=N_OBS;
      ELSE IF BENTYPE='Non-Smoking Rate' THEN COL7=N_OBS;
       ELSE IF BENTYPE='Counselled To Quit' THEN COL8=N_OBS;
```

```
   PROC SORT;
   BY ROW;
RUN;
DATA TAB1P3;
   SET TAB1_P3;
   ROW=39;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL9=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL10=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL11=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL12=SIG;
      END;
      ELSE IF BENTYPE='Percent Not Obese' THEN DO;
         COL6=SCORE;
         COL13=SIG;
      END;
      ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
         COL7=SCORE;
         COL14=SIG;
      END;
      ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
         COL8=SCORE;
         COL15=SIG;
      END;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB1P2;
   SET TAB1_P2;
   ROW=38;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL9=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL10=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL11=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL12=SIG;
      END;
      ELSE IF BENTYPE='Percent Not Obese' THEN DO;
         COL6=SCORE;
         COL13=SIG;
      END;
  ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
         COL7=SCORE;
         COL14=SIG;
      END;
      ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
         COL8=SCORE;
         COL15=SIG;
      END;
   PROC SORT;
   BY ROW;
```

```
RUN;
DATA TAB1P1;
   SET TAB1_P1;
   ROW=37;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL9=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL10=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL11=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL12=SIG;
      END;
      ELSE IF BENTYPE='Percent Not Obese' THEN DO;
         COL6=SCORE;
         COL13=SIG;
      END;
    ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
         COL7=SCORE;
         COL14=SIG;
      END;
      ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
         COL8=SCORE;
         COL15=SIG;
      END;
   PROC SORT;
   BY ROW;
RUN;

DATA TAB1;
   MERGE TAB1P1 TAB1P2 TAB1P3 TAB1P4 TAB2P4;
   BY ROW;
RUN;
DATA COL2(DROP=COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL3(DROP=COL2 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL4(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL5(DROP=COL2 COL3 COL4 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL6(DROP=COL2 COL3 COL4 COL5 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL7(DROP=COL2 COL3 COL4 COL5 COL6 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL8(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL9(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL10 COL11 COL12 COL13 COL14 COL15)
     COL10(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL11 COL12 COL13 COL14 COL15)
     COL11(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL12 COL13 COL14 COL15)
     COL12(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL13 COL14 COL15)
  COL13(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL14 COL15)
    COL14(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL15)
    COL15(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14);

   SET TAB1;

   IF COL2 NE . THEN OUTPUT COL2;
   IF COL3 NE . THEN OUTPUT COL3;
   IF COL4 NE . THEN OUTPUT COL4;
   IF COL5 NE . THEN OUTPUT COL5;
   IF COL6 NE . THEN OUTPUT COL6;
   IF COL7 NE . THEN OUTPUT COL7;
   IF COL8 NE . THEN OUTPUT COL8;
   IF COL9 NE . THEN OUTPUT COL9;
   IF COL10 NE . THEN OUTPUT COL10;
   IF COL11 NE . THEN OUTPUT COL11;
   IF COL12 NE . THEN OUTPUT COL12;
   IF COL13 NE . THEN OUTPUT COL13;
   IF COL14 NE . THEN OUTPUT COL14;
   IF COL15 NE . THEN OUTPUT COL15;
```

```
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;
PROC SORT DATA=COL11; BY ROW; RUN;
PROC SORT DATA=COL12; BY ROW; RUN;
PROC SORT DATA=COL13; BY ROW; RUN;
PROC SORT DATA=COL14; BY ROW; RUN;
PROC SORT DATA=COL15; BY ROW; RUN;

DATA &POP.TABLE1;
   MERGE COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15;
   BY ROW;
RUN;




*******************************************************************************
       COMPARE SCORES AND SIG B/T CONSUMER WATCH AND REPORT CARDS.
       SET 0.015 DIFFERENCE AS THRESHOLD.
       LUCY LU 10/07/2004
*******************************************************************************;

PROC SORT DATA=&POP.FIG1(DROP=SCORE);               *FROM CONSUMER WATCH. LLU 10/8/04;
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=&POP.FIG2(DROP=SCORE);
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=&POP.FIG3(DROP=SCORE);
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=FIG5AB OUT=&POP.FIG5;
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=FIG7AB OUT=&POP.FIG7;
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=FIG9AB OUT=&POP.FIG9;
BY BENEFIT TIMEPD REGION;
RUN;




%MACRO COMPARE(I=, TITL=);

TITLE "DATA=&MAJPOP";

DATA CFIG&I;                  *FROM CONUS. LLU 10/8/04;

  SET CFIG&I.1
      CFIG&I.2
      CFIG&I.3
      CFIG&I.4
      ;
RUN;


PROC SORT DATA=&POP.FIG&I;
BY BENEFIT TIMEPD REGION;
RUN;
```

```
PROC SORT DATA=CFIG&I;
BY BENEFIT TIMEPD REGION;
RUN;

DATA COMBFIG&I;
   MERGE CFIG&I(IN=F1) &POP.FIG&I(IN=F2);
BY BENEFIT TIMEPD REGION;


IF F1 AND F2;

FIG = &I;

IF FIG <=4 THEN DO;
   SCORE2=&POP.SCORE;
   SIG2=&POP.SIG;
END;

ELSE IF FIG >4 THEN DO;
   IF COL2 >= 0 THEN SCORE2=COL2;
   ELSE IF COL4 >0 THEN SCORE2=COL4;

   IF COL6 >= .Z THEN SIG2=COL6;
   ELSE IF COL7>=.Z THEN SIG2=COL7;
END;


   SCOREDIF=SCORE2-SCORE;
   SIGDIF=SIG2-SIG;


IF ABS(SCOREDIF)>.015 OR SIGDIF>0 THEN FLAG=1;
ELSE FLAG=0;

KEEP BENEFIT TIMEPD REGION SCORE SIG SCORE2 SIG2 SCOREDIF SIGDIF FLAG;

LABEL
FLAG="DIFF IN SCORES >0.015 OR/AND DIFF IN SIG >0"
SCORE="SCORES FROM CONUS"
SCORE2="SCORES FROM CONSUMER WATCH"
SIG="SIG FROM CONUS"
SIG2="SIG FROM CONSUMER WATCH"
;

TITLE2 "*********************************************************";
TITLE3 "CONSUMER WATCH, &AREA, DATA=&MAJPOP ";

PROC PRINT L NOOBS;
TITLE4 "Compare &TITL.";
RUN;

%MEND COMPARE;

%COMPARE(I=1, TITL=Health Care Rating);
%COMPARE(I=2, TITL=Health Plan Rating);
%COMPARE(I=3, TITL=Personal Provider Rating);
%COMPARE(I=4, TITL=Specialist Rating);

%COMPARE(I=5, TITL=Access composites);

%COMPARE(I=7, TITL=Office composites);
%COMPARE(I=9, TITL=Claims/Service composites);


*prepare to merge data;

DATA &POP.FIG5(RENAME=(COL2=&POP.SCORE COL6=&POP.SIG))
     &POP.FIG6(RENAME=(COL4=&POP.SCORE COL7=&POP.SIG));
   SET &POP.FIG5;
   IF BENEFIT='Getting Needed Care' THEN OUTPUT &POP.FIG5;
   ELSE IF BENEFIT = 'Getting Care Quickly' THEN OUTPUT &POP.FIG6;
```

```
RUN;

DATA &POP.FIG7(RENAME=(COL4=&POP.SCORE COL7=&POP.SIG));
   SET &POP.FIG7;
   IF BENEFIT = 'How Well Doctors Communicate' THEN OUTPUT;
RUN;

DATA &POP.FIG8(RENAME=(COL2=&POP.SCORE COL6=&POP.SIG))
     &POP.FIG9(RENAME=(COL4=&POP.SCORE COL7=&POP.SIG));
   SET &POP.FIG9;
   IF BENEFIT='Customer Service' THEN OUTPUT &POP.FIG8;
   ELSE IF BENEFIT ='Claims Processing' THEN OUTPUT &POP.FIG9;
RUN;

%DO I= 1 %TO 9;
PROC SORT DATA=&POP.FIG&I;
BY ROW;
RUN;
%END;

%MEND RUNPOP;

%RUNPOP(MAJPOP='Enrollees with Military PCM', POP=DC,DAT=);
%RUNPOP(MAJPOP='Enrollees with Civilian PCM', POP=PC,DAT=PURCHASED);

%DO I=1 %TO 9;
DATA FIG&I;
   MERGE DCFIG&I PCFIG&I;
   BY ROW;
RUN;
%END;


DATA DCTABLE1;
  SET DCTABLE1;

  ROW=ROW-.5;      *CHANGE DIRECT CARES ROW NUMBER TO PREPARE NEXT STEP;
RUN;

DATA TABLE1;
   SET DCTABLE1 PCTABLE1;
   BY ROW;
RUN;



*****************************************************************************
* DDE LINK:  FIGURE 1-4: Health Care Rating
*****************************************************************************;

%MACRO RUNXLS1;

%DO I = 1 %TO 4;

FILENAME TBL DDE "EXCEL|RATINGS!R17C%EVAL(&I*7-5):R21C%EVAL(&I*7)";

DATA _NULLGFIG&I;
   SET FIG&I;

 *4/14/2014 CREATE NEW VARS WITH ASTERISK FOR FIGURES 1-4;
 IF DCSIG IN (1, -1) THEN NEWDCSCORE=CATS("*",PUT(ROUND(DCSCORE,1),8.));
 ELSE IF DCSCORE >=0 THEN NEWDCSCORE=PUT(ROUND(DCSCORE,1),8.);


 IF PCSIG IN (1, -1) THEN NEWPCSCORE=CATS("*",PUT(ROUND(PCSCORE,1),8.));
 ELSE IF PCSCORE >=0 THEN NEWPCSCORE=PUT(ROUND(PCSCORE,1),8.);


 *.S CREATED PROBLEM IN EXCEL SHEET, RECODED IT;
 IF DCSCORE <0 THEN DCSCORE=.;
 IF PCSCORE <0 THEN PCSCORE=.;
```

```
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT DCSCORE '09'X PCSCORE '09'X DCSIG '09'X PCSIG '09'X NEWDCSCORE '09'X NEWPCSCORE;

RUN;
%END;
%MEND;
%RUNXLS1;

*****************************************************************************
* DDE LINK:  FIGURE 5-9: Composites
*****************************************************************************;

%MACRO RUNXLS2;
%DO I = 5 %TO 9;
FILENAME TBL DDE "EXCEL|Composites!R18C%EVAL((&I.-4)*5-3):R21C%EVAL((&I.-4)*5-1)";

DATA _NULL_;
   SET FIG&I;

 *.S CREATED PROBLEM IN EXCEL SHEET, RECODED IT;
 IF DCSCORE < 0 THEN DCSCORE=.;
 IF PCSCORE < 0 THEN PCSCORE=.;


   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT DCSCORE '09'X PCSCORE '09'X BSCORE;
RUN;

FILENAME TBL DDE "EXCEL|Composites!R23C%EVAL((&I.-4)*5-3):R26C%EVAL((&I.-4)*5-1)";

DATA _NULL_;
   SET FIG&I;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT DCSIG '09'X PCSIG;
RUN;

%END;
%MEND;
%RUNXLS2;

*****************************************************************************
* DDE LINK: TABLE 1: Preventive Care
*****************************************************************************;
FILENAME TBL DDE "EXCEL|TABLES!R3C11:R14C25";

DATA _NULL_;
   SET TABLE1;
   FILE TBL NOTAB LRECL=200;


   *4/14/2014 CREATE NEW VAR WITH ASTERISK FOR TABLE1;
   ARRAY CARE   COL2- COL8;
   ARRAY SIGS   COL9 -COL15;

   ARRAY NEWVAR $ MAMM PAP HBP PRENATAL NONOBE NONSMOKE QUIT;

   DO I = 1 TO 7;
      IF SIGS(I) IN (1,-1) THEN  NEWVAR(I)=CATS("*",PUT(ROUND(CARE(I),1),8.));
      ELSE IF  CARE(I) >=0 THEN NEWVAR(I)=PUT(ROUND(CARE(I),1),8.);

      ELSE IF CARE(I) <0 THEN NEWVAR(I) ="-";

   END;


     *no benchmark for counseled to quit;
    IF ROW=42 THEN QUIT="-";
```

```
  PUT MAMM '09'X  PAP '09'X HBP '09'XPRENATAL '09'X NONOBE '09'X NONSMOKE'09'X QUIT'09'X
       COL9 '09'X COL10 '09'X COL11 '09'X COL12 '09'X COL13 '09'X COL14 '09'X COL15;

   /*
   IF ROW <=41 THEN DO;
   PUT COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7 '09'X COL8 '09'X COL9 '09'X
COL10
       '09'X COL11 '09'X COL12 '09'X COL13 '09'X COL14 '09'X COL15;
   END;
   ELSE IF ROW=42 THEN DO;    *no benchmark for counselling;
   PUT COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7 '09'X '-' '09'X COL9 '09'X
COL10
       '09'X COL11 '09'X COL12 '09'X COL13 '09'X COL14 '09'X COL15;
   END;*/

RUN;

/*Run Excel macro signif,  May 9 2006, LLU*/

options noxsync;
*-- Specify XL filename ;

*%let excelf = &FOLDER..XLS ;

*-- Specify XL macro name ;
%let macron = sig2.signif2 ;


FILENAME CMDS DDE "EXCEL|SYSTEM";


DATA _NULL_;
  FILE CMDS;
  DDECommand = '[Run("' || "&macron" || '",0)]' ;
  put DDEcommand ;

RUN;


DATA _NULL_;
   FILE CMDS;
   PUT '[CLOSE(TRUE)]';
RUN;
/*
DATA _NULL_;
   FILE CMDS;
   PUT '[SAVE]';
   PUT '[QUIT]';
RUN; */

%MEND RUNCW;
```

I.2.A Q3FY2015\PROGRAMS\PurchasedConsumerWatch\consumerwatch_PurchasedCare_word.sas - Run program that generates MS Word Purchased Care TRICARE Consumer Watch reports - Run Quarterly.

```
*******************************************************************************
* PROJECT: 6077-420
* PROGRAM: CONSUMERWATCH_PurchasedCare_Word.SAS
*
* PURPOSE: CALL CONSUMERWATCH_PurchasedCare_MACRO.INC PROGRAM
*          TO PRODUCE WORD DOCUMENT FOR Purchased Care Consumer Watch report.
*
* WRITTEN: 2/21/2008 LUCY LU
*
* INPUT  : EXCEL CHARTS
*
* OUTPUT : WORD DOCUMENTS
*
* PROGRAM TO CALL: CONSUMERWATCH_PurchasedCare_MACRO_WORD.INC
* MODIFIED : 4/14/2010 BY LUCY LU, SEE COMMENT ON INCLUDE FILE.
* MODIFIED : 7/23/2010 BY LUCY LU
*            Rename CONSUMERWATCH_MACRO_COMB_WORD.INC to
*                   CONSUMERWATCH_purchasedcare_MACR_WORD.INC
*            CONSOLIDATE USMHS AND REGION INTO ONE SAS PROGRAM
*
*******************************************************************************;
OPTIONS MPRINT;

%LET QUARTER=3;                                *CURRENT FISCAL QUARTER;
%LET YEAR=2015;                                *CURRENT FISCAL YEAR;

%LET PATH=N:\Project\40309_HCS\DC1\HCSDB\Q&QUARTER.FY&YEAR.\Programs\PurchasedConsumerWatch;

*%LET PATH=L:\Q4FY2010\Programs\PurchasedConsumerWatch; *TEMP;

%INCLUDE "consumerwatch_PURCHASEDCARE_macro_word.inc";


%RUNWD(FOLDER=USMHS,NAME=US MHS,YOURSAY=US MHS);

%RUNWD(FOLDER=North,YOURSAY=your region);
%RUNWD(FOLDER=South,YOURSAY=your region);
%RUNWD(FOLDER=West,YOURSAY=your region);
```

I.2.B Q3FY2015\PROGRAMS\PurchasedConsumerWatch\consumerwatch_Purchased Care_macro_word.inc - Generate MS Word quarterly Purchased Care TRICARE Consumer Watch reports.

```
*******************************************************************************
* PROJECT: 6077-420
* PROGRAM: consumerwatch_PurchasedCare_macro_word.inc
*
* AUTHOR : LUCY LU
* PURPOSE: Automate the copy and paste process, update the year, region,
*          response rate and sample size for quarterly Consumer
*          Watch report.
*
* DATE   : 03/12/2009
*
* OUTPUT : WORD DOCUMENTS
* MODIFIED: 06/4/2010 BY LUCY LU
*           NOTE: 1. Replicating the template of Q2 2010 report found the lower quality
*                    of charts in Word report. Using copy and paste instead of link.
*                 2. Excel Triplet doeasn't work for MS 2007/SAS 9. Using direct VBA
*                    code in SAS.
*                 3. The final products are in Word and pdf format.
* MODIFIED: 7/23/2010 BY LUCY LU
*           ADD MACRO TO MINIMIZE EXCEL AND WORD WAITING, REDUCE PROGRAM
*           RUNNING TIME
* MODIFIED: 4/18/2014 BY LUCY LU, MOD FOR 508 COMPLIANCE
*          -- COMMENTED OUT FONT & SIZE, USING STYLE IN WORD
*******************************************************************************;

OPTIONS NOXWAIT SPOOL NOXSYNC;


%MACRO RUNWD(FOLDER=,NAME=&FOLDER,YOURSAY=);

*7/23/2010 LLU, Wait until Excel ready;

FILENAME CMDS DDE "EXCEL|SYSTEM";

DATA _NULL_;

   LENGTH FID RC START STOP TIME 8;
   FID = FOPEN('CMDS' , 'S');
   IF (FID LE 0) THEN DO;
      RC = SYSTEM('START EXCEL');
      START = DATETIME();
      STOP = START + 10;
      DO WHILE (FID LE 0);
         FID = FOPEN('CMDS' , 'S');
         TIME = DATETIME();
         IF (TIME GE STOP) THEN FID = 1;
      END;
   END;
   RC = FCLOSE(FID);
RUN;


%MACRO SETUP;
   DATA _NULL_;

   SINGLE="'";
   DOUBLE='"';

   LENGTH OPENXLS OPENWRD SAVEWRD $130;

OPENXLS=SINGLE||"[OPEN("||DOUBLE||"&PATH.\&FOLDER.\&FOLDER._PurchasedCare.xlsb"||DOUBLE||")]"||S
INGLE;

OPENWRD=SINGLE||"[FileOpen.Name="||DOUBLE||"&PATH.\Template_purchasedcare.docm"||DOUBLE||"]"||SI
NGLE;
```

```
SAVEWRD=SINGLE||"[FileSaveAs.Name="||DOUBLE||"&PATH.\&FOLDER.\&FOLDER._PurchasedCare.docm"||DOUB
LE||"]"||SINGLE;


   CALL SYMPUT ("OPENXLS",TRIM(OPENXLS));
   CALL SYMPUT ("OPENWRD",TRIM(OPENWRD));
   CALL SYMPUT ("SAVEWRD",TRIM(SAVEWRD));

RUN;

%PUT "OPEN XLS"= &OPENXLS/
     "OPEN WORD"=&OPENWRD/
     "SAVE WORD"=&SAVEWRD ;

%MEND SETUP;
%SETUP;

DATA _NULL_;
 FILE CMDS;
PUT &OPENXLS;
X=SLEEP(2);
PUT '[app.minimize()]';
RUN;


*7/23/2010 LLU, Wait until Word ready;
FILENAME CMNDS DDE "WINWORD|SYSTEM";

DATA _NULL_;
  LENGTH FID RC START STOP TIME 8;
  FID=FOPEN('CMNDS','S');
  IF (FID LE 0) THEN DO;
    RC=SYSTEM('START WINWORD');
    START=DATETIME();
    STOP=START+10;
    DO WHILE (FID LE 0);
      FID=FOPEN('CMNDS','S');
      TIME=DATETIME();
      IF (TIME GE STOP) THEN FID=1;
      END;
    END;
  RC=FCLOSE(FID);
RUN;

DATA _NULL_;
  FILE CMNDS;
  PUT &OPENWRD;
  X=SLEEP(2);
  PUT &SAVEWRD;
  PUT '[APPMINIMIZE]';
RUN;


%MACRO COPYIT;
%DO I=1 %TO 10;


      %LET WDMACRO=NEWPASTE&I;
      %LET EXMACRO=COPY&I;


      FILENAME CMDS DDE "EXCEL|SYSTEM";
      DATA _NULL_;
      X=SLEEP(1);
      RUN;

      DATA _NULL_;
      FILE CMDS;
      DDECommand = '[Run("' || "&exmacro" || '",0)]' ;
      PUT DDEcommand ;
```

```
      RUN;
      FILENAME CMDS CLEAR;

      FILENAME CMNDS DDE 'WINWORD|SYSTEM';

      DATA _NULL_;
      X=SLEEP(2);
      RUN;


      DATA _NULL_;
      FILE CMNDS;
      put '[ToolsMacro .Name = "' "&wdmacro" '", .Run]';
      RUN;



%END;
%MEND COPYIT;
%COPYIT;


DATA _NULL_;
 FILE CMNDS;
 put '[EditGoto.Destination="Region1"]';
 *put '[FormatFont.Font="Arial",.Points="20"]';
 PUT "&NAME";
RUN;

DATA _NULL_;
 FILE CMNDS;
 put '[EditGoto.Destination="Quarter1"]';
 *put '[FormatFont.Font="Arial",.Points="20"]';
 PUT "&QUARTER";
RUN;

DATA _NULL_;
 FILE CMNDS;
 put '[EditGoto.Destination="Year1"]';
 *put '[FormatFont.Font="Arial",.Points="20"]';
 PUT "&YEAR";
RUN;


DATA _NULL_;
 FILE CMNDS;
 *X=SLEEP(.2);
 put '[EditGoto.Destination="YourSay"]';
 *put '[FormatFont.Font="Times New Roman",.Points="11"]';
 PUT "&YOURSAY";
RUN;


DATA _NULL_;
 FILE CMNDS;
 X=SLEEP(.2);
 put '[EditGoto.Destination="Region2"]';
 *put '[FormatFont.Font="Arial",.Points="16"]';
 PUT "&NAME";
RUN;

DATA _NULL_;
 FILE CMNDS;
 *X=SLEEP(.2);
 put '[EditGoto.Destination="Quarter2"]';
 *put '[FormatFont.Font="Arial",.Points="16"]';
 PUT "&QUARTER";
RUN;

DATA _NULL_;
```

```
 FILE CMNDS;
 put '[EditGoto.Destination="Year2"]';
 *put '[FormatFont.Font="Arial",.Points="16"]';
 PUT "&YEAR";
RUN;

*savs as pdf;
%LET CMACRO=SaveAspdf;

FILENAME CMNDS DDE 'WINWORD|SYSTEM';
DATA _NULL_;
 FILE CMNDS;

PUT '[ToolsMacro .Name = "' "&CMACRO" '", .Run]';
run;


FILENAME CMDS DDE "EXCEL|SYSTEM";

DATA _NULL_;
   FILE CMDS;
   *PUT '[SAVE]';  *no save for Excel;
   PUT '[CLOSE(FALSE)]';
   PUT '[QUIT]';
RUN;

/*reserved for future use;
FILENAME CMNDS DDE 'WINWORD|SYSTEM';

DATA _NULL_;
 FILE CMNDS;

 PUT '[fileSave] ';
 PUT '[FileClose 2] ';
RUN;
*/

%MEND;
```