Findings and Recommendations from the DoD/VA Joint Assessment Study

presented to
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TRICARE Management Activity

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Executive Summary

EXECUTIVE SUMMARY

Study Mandate and Objectives

Sharing and collaboration, at some level, have been ongoing between the Department of Defense (DoD) and the Department of Veterans Affairs (VA) health care systems for several decades. In the past five years, however, there has been increased emphasis on expanding the scope and extent of sharing and collaborative efforts between DoD and VA. Recent Congressional direction reflects this increased interest. Section 8147 of the FY02 Defense Appropriations Act mandates that the Secretaries of Defense and Veterans Affairs jointly conduct a comprehensive assessment to identify and evaluate changes to DoD and VA health care delivery policies, methods, practices and procedures, in order to provide improved health care services at reduced costs to the taxpayer.

The DoD/VA Health Executive Council, through the Joint Facility Work Group, was charged with overseeing this comprehensive assessment as part of its responsibility to address the need for collaboration between the two Departments. The Office of Special Programs, TRICARE Management Activity (TMA) contracted with Mitretek Systems, Inc. (Mitretek) to conduct the DoD/VA Joint Assessment Study (JAS).

The primary Study objective was to explore the sharing options that exist between DoD and the VA, and identify the most promising sharing opportunities to pursue, based upon their demonstrated potential to improve access to and the quality of the health care services provided, and to reduce costs to the taxpayer in the future. The Study focused on examining collaboration and sharing opportunities—and potential implementation actions—for three specific DoD/VA Market Areas: Puget Sound, Gulf Coast, and Hawaii.

The second objective of the Study was to develop a data repository and an analytical methodology that could be repeated at other sites or on a national scale. Thus the Study also included significant effort aimed at the development and subsequent assessment of the value of such a methodology.

Study Accomplishments

The subject of DoD/VA collaboration has been studied extensively over the past 20 years. It is a complex and difficult subject, requiring a thorough understanding of the health care requirements of the beneficiary population within a local market. The Joint Assessment Study was designed to complete a market-based evaluation of potential sharing opportunities using analytical methods. Major accomplishments of the Study include the following.

1. **Mitretek created a "Combined Beneficiary perspective" for evaluating sharing opportunities.**

   This Study adopted the perspective of a combined beneficiary population for a given market area in order to evaluate sharing opportunities in a holistic fashion rather than the potentially conflicting interests of the two delivery systems taken separately.

2. **Mitretek combined all the necessary planning data to comprehensively and systematically identify Market-wide opportunities.**

   This approach provides the most complete picture of the nature of these beneficiaries' demand for health care services in a market and the total resources that these two Federal agencies are currently committing to meet these needs.

3. **Mitretek produced tools and methods that can be consistently applied to evaluate the merits of sharing opportunities.**

   Tools and methods were created as part of the Study to measure both quantitative and qualitative factors important for assessing sharing opportunities.

4. **Mitretek met the Study objectives to measure the benefits of sharing opportunities on beneficiaries and the taxpayers.**

   Meeting the primary Study objective itself was a significant accomplishment in the evolution of joint planning efforts between DoD and VA.

5. **Mitretek built a foundation for future Federal planning initiatives.**

   The Study incorporates "lessons learned" from past and current sharing initiatives and builds upon those to provide a stronger foundation to support future efforts.

6. **Mitretek developed categories and lists of sharing opportunities common to all markets.**

   The Study identifies nine domains of collaboration and three levels of effort required to address the most promising sharing opportunities.

7. **Mitretek recognized that integration can happen at many different levels within organizations to achieve desired results.**

   This Study recognizes that full "integration" of services is not necessarily the best goal of DoD/VA sharing efforts; collaboration at lower levels within organizations in local markets may often provide the "best fit" between the needs of the populations and the specific clinical services available.

Approach to Conducting the Study

Mitretek designed and executed the Study around four major tasks, which are:

1. Conducting background research on DoD/VA sharing experiences;
2. Developing a standard, replicable methodology that includes two major components:
   - A standard data repository integrating relevant data from both DoD and VA sources and,
   - Analytic tools, methods and procedures using a common approach to address the primary Study question in detail;
3. Applying the methodology in three Study Market areas (Puget Sound, Gulf Coast, and Hawaii); and

4. Preparing a final report documenting the Study effort and its results.

Mitretek collected and reviewed relevant studies from DoD and VA related to current planning initiatives, such as the VA CARES process and the *President's Task Force to Improve Health Care Delivery for Our Nation's Veterans*. Mitretek also conducted field visits to three existing DoD/VA Joint Venture sites. These research activities informed the overall design and content orientation of the Joint Assessment Study methodology.

Mitretek developed two distinct frameworks as a part of this effort; one for measuring health care requirements and system capacity, and the other to frame the requirements for collaboration. This joint market planning approach and its underlying methodology can be readily adapted to the specific circumstances of other markets–that is, the methodology can be replicated.

The Study approach and methodology identified and assessed promising opportunities to achieve partial or full integration in areas where these efforts would have a favorable impact on access, cost or quality. The creation of a re-usable data repository and decision-support tools was an integral part of the approach developed in the Study.

Mitretek considered that the value and worth of any identified sharing opportunity would be judged by the extent to which it increased access, improved quality, or reduced costs—and potentially all of these. Identifying those sharing and collaboration opportunities that could improve access (as the starting point) required the creation of a comprehensive database, including information and data on:

- The demographics and origin of eligible and enrolled DoD and VA beneficiaries;
- Similar data for those beneficiaries using their respective health care delivery systems;
- The volume and characteristics of the services provided, including outpatient visits, inpatient discharges, bed-days of care, diagnoses, procedures, and locations of service, including direct and indirect care[1];
- The supply of resources—including staff and physical space—and the capacity of each facility to provide these services; and
- The costs of providing these services.

The assembled data supported the quantitative analyses performed to identify the most promising and desirable opportunities for increased sharing and collaboration through possible redistribution of care access points, providers, or locations where care can be most efficiently rendered to a Combined Beneficiary population. However, Mitretek determined that this result, while necessary, was insufficient to achieve the overall Study objectives; while *desirable*, these opportunities may not be completely *feasible* (recognizing that, in reality, there are two very large, mature, and well-entrenched health delivery systems already in place). The numerous mission, policy, infrastructure, and organizational culture issues that simultaneously distinguish and divide the health care delivery operations of the Departments of Defense and Veterans Affairs raise real and

[1] Indirect care is defined as purchased care by the DoD and fee-basis care by the VA.

practical challenges to implementing a large number of very important, promising, desirable sharing opportunities.

While both VA and DoD have patient care as a central focus of their health care delivery missions, each System approaches its respective tasks differently. Sharing opportunities, by definition, cut across the traditional boundaries between the Systems, and involve joint or combined execution of activities routinely accomplished by each System for its own purposes. These include clinical practices, electronic exchange of information, administrative practices, and the pursuit of educational and research agendas. Additionally, while both Systems have a national security component, it is a core concern for DoD, but only tangentially related to VA's day-to-day operations. Mediating the sometimes conflicting concerns of "readiness" and "health care" remains a challenge to any greater degree of collaboration and sharing between the two Systems.

Mitretek has approached the Study within this context: recognizing the thicket of these complex, real-world issues and concerns while simultaneously developing a quantitative methodology for highlighting potential sharing opportunities. This Study takes a holistic approach—both "calling it by the numbers" and respecting the many organizational barriers or enablers to collaboration.

While it appears true that "all health care is local," it is also desirable to plan for the delivery of health care services to Combined Beneficiaries from a comprehensive, data-driven, logically developed, analytic foundation, highlighting and respecting local issues and perspectives, but incorporating them systematically into a broader methodological context. Mitretek believes that the results documented in this report demonstrate that they have made significant progress in developing this analytic foundation through the Study methodology.

Results and Recommendations

When applied to the three Market areas, the Study methodology revealed the following examples of major potential sharing opportunities in each.

- Puget Sound Market – This example emphasizes access to primary care services, and uses the methodology to demonstrate how access performance can be improved significantly by opening new access points and redistributing capacity from facilities with excess capacity.
- Gulf Coast Market – This example focuses on inpatient services within a particular Submarket (Biloxi/Gulfport), using the methodology to demonstrate how inpatient resources can be consolidated to achieve long-term cost savings.
- Hawaii Market – This application of the methodology emphasizes improving business processes and collaboration, and the potential to recapture indirect care volume through greater collaboration.

The findings and results of the Joint Assessment Study include market-specific and general recommendations regarding DoD/VA sharing opportunities, as well as recommendations on the methodology and approach to the Study. The following recommendations apply specifically to the three Study Markets.

Puget Sound Market

The Study demonstrated that access to primary care services could be improved significantly by opening new access points and redistributing capacity from facilities with surplus capacity.

Mitretek recommends that the VA and DoD continue to move forward with their planning efforts to open new primary care access points in geographic areas that are currently underserved.

Additionally, on a broader scale,

Mitretek recommends that DoD and VA leaders in the Puget Sound Market area continue to use this data-driven methodological approach to further examine sharing opportunities in their Market.

Gulf Coast Market

Mitretek recommends that DoD and VA establish a joint task force to conduct an in-depth operational and facility assessment that includes a future model of consolidated Medical/Surgical care in Biloxi, MS, based on the present and projected demand of the beneficiaries.

This effort should set aside the uncertainty of policy-oriented issues such as BRAC and/or integration of GME programs. The detailed analysis should exhaust all avenues of care delivery models, with patient demand and health care needs as the central driver. Facility-specific considerations should be secondary in this planning process.

VA recently released the Realignment Study for VISN 16, which, through a cost/benefit analysis of several alternatives, concludes that all services currently offered at the Gulfport Division should be moved to Biloxi. This "preferred alternative" would allow for "prediction of the outcomes for veteran patient services in a single consolidated location, to produce a single standard of care."[2] A separate alternative included a "sharing agreement for provision of clinical services with Keesler" which was retained, as "local command support for sharing may change again during the CARES process."[3] The current direction of this VA study demonstrates a lack of collaborative planning on the part of both Departments.

Mitretek recommends that VHA refrain from drawing any conclusions (and retract any offered) until a detailed reexamination of the Keesler alternative is conducted with DoD representatives.

[2] Narrative component of VHA Realignment Study, VISN 16, November 21, 2003; p. 18.
[3] Realignment Study, p. 18

The current "preferred alternative" includes renovation of 123,000 DGSF and new construction of 155,000 DGSF with total capital costs of approximately $30M.[4] Having applied the Study methodology, Mitretek feels that it would be premature to draw conclusions before assessing a consolidated delivery model for services duplicated between DoD and VA, given the remarkable proximity of these three facilities.

Hawaii Market

During the Study site visits, DoD and VA stakeholders alike expressed need for additional specialists—particularly in Gastroenterology, Cardiology, and Dermatology. The Indirect Care analysis underscores the need for collaboration in physician recruitment and employment for these specialties.

Mitretek recommends that the two Departments work closely to analyze the volume and type of indirect care activity—especially in specialties where the combined indirect care volume could justify jointly employing a specialist.

For most specialties, the two Systems should first determine whether there is excess provider capacity in either System. For example, if DoD has excess capacity in a specialty, it should first attempt to recapture "leaking volume" to use up its capacity. If, after recapturing volume, some excess capacity remains, VA could take advantage of this opportunity to reduce fee-basis care.

Likewise, the Systems should identify and describe DoD indirect care activity for Mental Health and Rehabilitation and determine whether the DoD direct care system has capacity to recapture the purchased services. If so, DoD should encourage beneficiaries to use the direct care system. If not, the Systems should determine whether VA has capacity to support some of the DoD's needs.

Because of the dynamic nature of the deployment of DoD specialists, Mitretek recommends that DoD and VA together evaluate whether jointly employing specialists will help to equalize availability and access.

Mitretek recommends that the two organizations, using the Collaboration Framework, continue to pursue the opportunities identified during the site visits. However, these efforts need to proceed in an orderly, systematic, and information-driven manner. Leadership of both organizations must remain visionary and revitalize formal joint strategy, business, and facility planning efforts.

Other Sharing-Related Findings

Mitretek's field work revealed a large number of potentially valuable sharing opportunities that are applicable to all Markets. Mitretek characterized these into three levels, as shown below. The Study findings from Puget Sound, Gulf Coast, and Hawaii are specific examples of Level II-type findings. Mitretek believes this systematic

[4] Realignment Study, pp. 4 and 8.

description of the range of complexity and difficulty associated with collaboration provides a useful framework for continuing discussions between the two Systems.

- **Level 1 (Opportunistic)** sharing opportunities represent activities that mostly focus on logistics, staffing, and business and system processes and/or improvement of sharing activities currently in place. Mitretek considers Level I sharing to be largely invisible to patients, locally-managed, and easiest to accomplish.
- **Level II (Actionable)** sharing opportunities tend to involve patient movement, delivery resources, or development of patient care facilities. Level II opportunities imply capital or other types of investment, and some stakeholder resistance; they are thus harder to accomplish.
- **Level III (Transformational)** sharing activities are difficult to achieve and yet have the highest potential impact on cost, quality and/or access to care. Examples of Level III sharing opportunities include: development of interoperable IM/IT systems and common medical records, single governance and management within defined market areas, and unified GME and research programs. Additionally, Level III opportunities may involve major policy changes, and/or significant degrees of direction and guidance from national headquarters.

Findings and Recommendations Relative to the Data Repository and Analytical Methodology

Mitretek recommends that DoD and VA officials continue to develop and refine the quantitative methodologies used in this Study, with particular attention to addressing and resolving the following issues: Data Acquisition, Data Integration, and Demand and Capacity Conversion Factors.

This Study used patient-record-level detail as the major component of the Data Repository. This yields several challenges, including the enormous size of the requested data files, and patient confidentiality issues. When this Study methodology is repeated, the project timeline should consider that the size and confidentiality issues will result in a long lead time required to obtain the data.

Further, the data itself requires filters, assumptions, groupers, etc., in order to convert record-level detail into valuable decision-support information. It required considerable expertise in database management and health care planning, as well as familiarity with the structure and contents of the DoD and VA datasets, to accomplish this task.

Mitretek recommends that future Studies also employ a multidisciplinary team of database management and health care planning experts.

To determine where current and future imbalances between the demand and the supply in a particular market might exist, Mitretek converted demand into encounter-level/ workload data and converted supply counts into capacity. In most cases, the datasets included data at the workload level, sufficient for comparing demand to capacity. This Study developed initial Demand and Capacity Conversion Factors to facilitate such an analysis in the future.

Mitretek recommends that DoD and VA use the Collaboration Framework in other markets, adapting it as necessary to apply to any market.

The Collaboration Framework proved to be a highly useful and well-received means of addressing the complex dynamics experienced by those responsible for carrying out collaboration and sharing activities.

Summary

Adopting both the quantitative and qualitative frameworks developed in this effort allowed Mitretek to carry out the two major objectives of the Study. Specifically, the Study team was able to identify and assess multiple sharing opportunities available in each of the three Study Markets and to create a replicable methodology for use in other markets.

Mitretek believes that the DoD and VA should continue in their exploration, evaluation and implementation of collaboration initiatives. The methods developed in this Joint Assessment Study provide DoD and VA officials with additional decision-support tools that can be applied in other markets.

Study Report

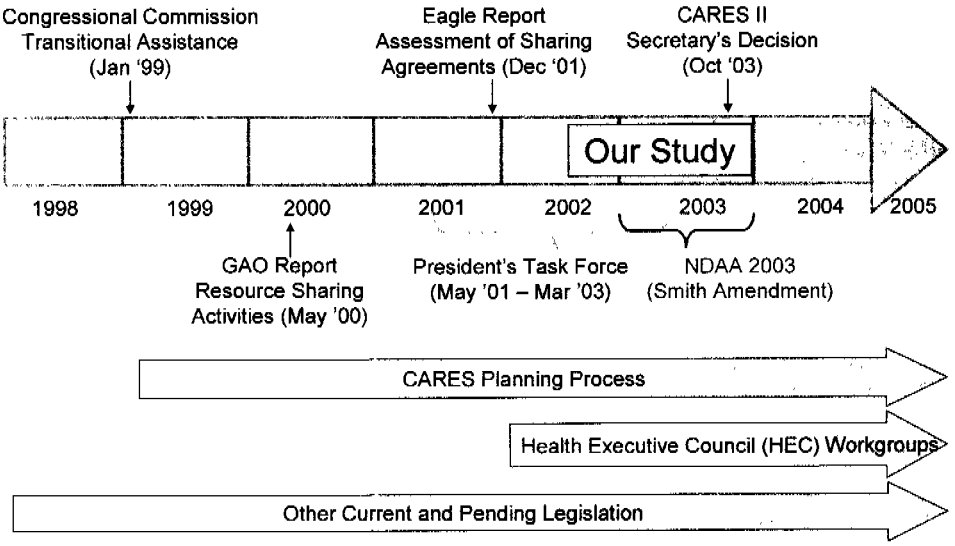
1.0 INTRODUCTION

1.1 The Problem and the Mandate

Since the passage in 1982 of the Veterans Administration[5] and Department of Defense Resource Sharing and Emergency Operations Act, VA and DoD have had a number of successful experiences in sharing resources and capabilities between their respective health care delivery systems, improving access and quality of care, and reducing costs. In April 2002, the VA/DoD Joint Executive Council (JEC) reported that there are currently over 600 sharing agreements in place between the two departments, covering over 6,000 instances of sharing services.[6]

However, the pressure for greater change has been increasing (see Figure below), in part because the pace of change has been relatively slow, and the results relatively modest, given the size of the respective organizations. In 2001, a VA study estimated that sharing and collaboration efforts between DoD and VA make up less than one percent of their combined health care budgets.[7] More recently, the *President's Task Force to Improve Health Care Delivery for Our Nation's Veterans* (PTF) reported that the VA and DoD have had a mixed record in carrying out the mandates to improve collaboration and sharing. The PTF concluded that substantial opportunities remain for increased collaboration between the two departments.

Figure 1: Increasing Pressure for Change



Recent Congressional direction reflects the increased emphasis on expanding the scope and extent of sharing and collaborative efforts between DoD and VA. Section 8147 of the FY02 Defense Appropriations Act mandates that the Secretaries of Defense and Veterans Affairs jointly conduct a comprehensive assessment to identify and evaluate

[5] Re-established in 1989 as the Department of Veterans Affairs.
[6] Joint Executive Council Strategic Plan
[7] Source: "Department of Veterans Affairs and Department of Defense Health Resources Sharing" Staff Report to the Committee on Veterans' Affairs, February 25, 2002.

changes to DoD and VA health care delivery policies, methods, practices and procedures, in order to provide improved health care services at reduced costs to the taxpayer.

1.2 Objectives of the Study

To implement the Congressional mandate, the Office of Special Programs, TRICARE Management Activity (TMA) contracted with Mitretek Systems (Mitretek) to conduct a Joint Assessment Study. There are two key objectives for the Study. The primary objective is to explore the sharing options that exist between DoD and the VA, and identify the most promising sharing opportunities to pursue, based upon their demonstrated potential to improve access to and the quality of the health care services provided, and to reduce costs to the taxpayer in the future.

The question that the Study addresses with respect to this objective is:

> *What is the best approach (or combination of approaches) for organizing the resources of the DoD and VA in a specific market area to deliver accessible, efficient, and high quality health care services to meet the needs of its respective eligible beneficiaries?*

The Study focused on examining collaboration and sharing opportunities—and potential implementation actions—for three specific DoD/VA Market Areas. TMA directed that, to be successful, the Study should include an "[assessment] of the probable first-order impacts of further integrating the DoD/VA systems," including "the impact of integration on beneficiary access, utilization efficiency, operating costs and capital investment requirements."

The second objective of the Study was to develop a data repository and analytical methodology that can be repeated at other sites or on a national scale. The questions that the Study addressed with respect to this objective were:

- *Can the Study team develop an effective joint market planning approach to identify market-specific opportunities to enhance beneficiary health care services through improved coordination, collaboration, and communication between the two Departments?*
- *Can this joint market planning approach and its underlying methodology be readily adapted to the specific circumstances of other markets, i.e., can the methodology be replicated?*
- *Will the Study approach and methodology identify the most promising opportunities to achieve partial or full integration in areas where these efforts would have a favorable impact?*

Mitretek is pleased to report that the answer to all of these questions is "Yes."

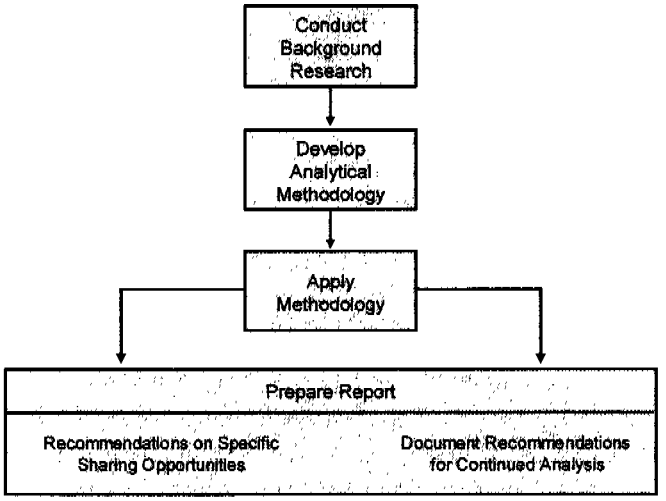
1.3 Required Efforts

As defined in the Statement of Work for this effort and depicted in the figure below, the Study Team was required to carry out four distinct efforts. These are:

- Conduct background research on the history and issues regarding sharing and collaboration between DoD and VA.

- Develop a standard, replicable methodology to identify the most promising sharing and collaboration efforts. The methodology was intended to include two major components:
  - A standard data repository integrating relevant data from both DoD and VA sources; and
  - Analytic tools, methods, and procedures using a common approach to address the primary Study question in detail.
- Apply the methodology in three Study Markets (Hawaii, Puget Sound, and the Gulf Coast) by:
  - Assembling the pertinent data;
  - Analyzing the data and information; and
  - Assessing sharing/collaboration opportunities and impacts, including market-specific opportunities, general opportunities, and recommendations regarding methodology.
- Prepare a final report documenting the Study effort and its results.

Figure 2: Joint Assessment Study Requirements



In developing its overall concept for executing these tasks, Mitretek considered that the value and worth of any identified sharing opportunity would be judged by the extent to which it increased access, improved quality, or reduced costs—and potentially all of these to some extent. Identifying those sharing and collaboration opportunities that could improve access (as the starting point) required the creation of a comprehensive database including information and data on:

- The demographics and origin of eligible and enrolled DoD and VA beneficiaries;

- Similar data for those beneficiaries using their respective health care delivery systems;
- The volume and characteristics of the services provided, including outpatient visits, inpatient discharges, bed-days of care, diagnoses, procedures, and locations of service, including direct and indirect care;[8]
- The supply of resources—including staff and physical space—and the capacity of each facility to provide these services; and
- The costs of providing these services.

The assembled data supported the quantitative analyses performed to identify the most promising and desirable opportunities for increased sharing and collaboration through possible redistribution of care access points, providers, or locations where care can be most efficiently rendered to a Combined Beneficiary population. However, Mitretek determined that this result, while necessary, was insufficient to achieve the overall Study objectives; while desirable, these opportunities may not be completely *feasible* (recognizing that, in reality, there are two very large, mature, and well-entrenched health delivery systems already in place). The numerous mission, policy, infrastructure, and organizational culture issues that simultaneously distinguish and divide the health care delivery operations of the Departments of Defense and Veterans Affairs raise practical challenges to implementing a large number of very important and desirable sharing opportunities.

These sharing opportunities, which cut across traditional boundaries between the two Systems of health care delivery, may involve a host of commonly provided activities. These range from clinical practices to electronic exchange of information, to administrative practices, to pursuit of important educational agendas. The mission statements of both VA and DoD health care delivery systems articulate that patient care is the central focus. Both organizations have national security matters as a central component of their missions; in the case of the DoD, it is its reason for being, and VA serves as its contingency back up. Additionally, both organizations have similar goals in—but different approaches to—their education and research missions.

It is within this context that Mitretek has approached the Study: recognizing the thicket of complex matters while simultaneously developing a quantitative methodology to highlight potential sharing opportunities. This Study takes a holistic approach—both "calling it by the numbers" and also respecting the many organizational barriers and enablers to collaboration.

1.4 Highlights of Study Accomplishments

The following highlights reflect the major accomplishments of this Study. Mitretek:

- **Created the "Combined Beneficiary" perspective for evaluating sharing opportunities.**

  This Study demonstrated that every local market area can potentially have very different characteristics, which can be illuminated by the application of the

[8] Indirect care is defined as purchased care by the DoD and fee-basis care by the VA

market-based Combined Beneficiary perspective developed in this Study methodology. The degrees of sharing and/or collaboration that exist between agencies today, imbalances between the locations of populations needing care and the two agencies' resources, and how much care is being provided directly versus being purchased for these beneficiaries, are all variables that can be quantified for each local combined market. This is critical since the nature of those targets of opportunity for greater sharing that will most benefit the patients and the taxpayers will vary from market to market.

- **Combined all the necessary planning data to comprehensively and systematically identify market-wide sharing opportunities.**

  The combined market and delivery system perspective that the Study methodology creates incorporates data related to the services required by beneficiaries of both DoD and VA, the resources available within both systems combined to meet these needs, and the care purchased by these agencies for these beneficiaries. As such, this approach provides the most complete picture of the demand for health care services by these beneficiaries in a market, and of the total resources that these two Federal agencies have currently committed to meet these needs.

- **Produced tools and methods that can be consistently applied to evaluate the merits of sharing opportunities.**

  The Study methodology, which utilizes the quantitative workload and capacity information available from both systems, provides a useful "scorecard" and a relatively comprehensive approach for identifying and analyzing the impact on care delivery of greater sharing and collaboration between VA and DoD. During site visits, Mitretek observed that, while there were many sharing and collaboration issues and initiatives being considered by both systems, these discussions often occurred without an understanding of the overall range and depth of care delivery in the market. There was often a lack of context in which to frame the potential improvement represented by a particular initiative, no method to evaluate it, and no consistent way to compare it to other, equally intriguing ideas. The comprehensive, data-driven, market-wide perspective used in the methodology and analyses developed for this Study is a significant contribution to DoD and VA joint planning efforts, now and in the future.

- **Met the Study objectives to measure the benefits of sharing opportunities on beneficiaries and the taxpayers.**

  Meeting the primary Study objective itself was a significant accomplishment in the evolution of joint planning efforts between DoD and VA. The data-driven approach that has been developed through this Study can help to both identify opportunities for sharing that will have a beneficial impact on the systems' beneficiaries and the taxpayers, and measure the relative impact of options on overall access and system-wide costs.

- **Built a foundation for future Federal planning initiatives.**

  This approach incorporates extensive research on past and current sharing initiatives, builds upon those, and provides a stronger foundation to support other planning initiatives underway and/or on the horizon (e.g., Smith Amendment). The analytical tools and techniques developed as part of this Study methodology provide a valuable starting point for the two agencies to develop the type of uniform resource planning standards that are essential for the effective joint planning of their combined resources. Examples include the capacity conversion factors and the tools developed to map clinical workloads from the two Departments into commonly defined product and service lines.

- **Developed categories and lists of sharing opportunities common to all markets.**

  The list of promising opportunities is extensive; however, recognition of the impact of the disparate missions of these two organizations is a critical step in understanding barriers to collaboration. The approach and methods used in this Study are designed to enhance the respective missions by focusing on potential enablers necessary for the implementation of sharing activities. The Study identifies nine domains of collaboration and three levels of effort that are required to address the most promising sharing opportunities.

- **Recognized that integration can happen at many different levels within organizations to achieve desired results.**

  In applying the Study methodology, Mitretek interacted with DoD and VA stakeholders at many levels of the organization, from national leaders of both agencies to the department-level line managers. With this perspective from the field in addition to the view from national headquarters, Mitretek recognized that full "integration" of services is not necessarily the best goal of VA/DoD sharing efforts; often collaboration at lower levels within organizations in local markets best fits the needs of the populations or the specific clinical services in question and can achieve the desired results.

1.5 Organization of this Report

This report documents the results of the year-long Study. The main report (this volume) includes the following:

Executive Summary

1.0 Introduction

2.0 The Approach and Methodology

3.0 Findings and Recommendations from Applying the Methodology to the Study Market Areas

4.0 Findings and Recommendations from the Research and Field Work

5.0 Findings and Recommendations Regarding the Methodology and Continued Analysis and Sharing Opportunities

In addition, the Appendices provide much greater detail on several key areas of the Study. These include:

Appendix A: Market Assessments (for the three Study Markets)

Appendix B: Developing a Study Methodology – A Formula for Identifying and Assessing Sharing Opportunities in Other Markets

Mitretek believes that its efforts in conducting the Study, as documented in this report and the detailed supporting Appendices, successfully addresses the intended Study objectives and requirements.

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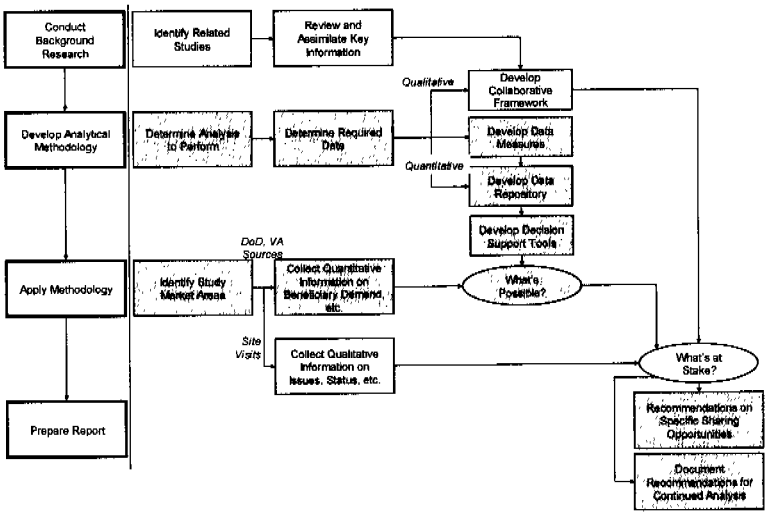
2.0 APPROACH AND METHODOLOGY

2.1 Overview

As described in Section 1.0, the Statement of Work for the Study required that Mitretek carry out four distinct efforts: conduct background research, develop the analytical methodology, apply the methodology to the three identified Market areas, and prepare a written report to document the Study results. The figure below depicts in more detail how Mitretek approached and carried out the Study.

Figure 3: How the Study Approach Was Carried Out



The overall approach to the Study involved considerable interaction with client teams through interviews, visits to existing DoD/VA Joint Venture sites, in-process reviews with members of the Joint Facilities Work Group of the Health Executive Council (HEC), and field work within each of the three Study Market areas. It also involved the development of a large Data Repository to collect and analyze beneficiary population and health care utilization and creation of decision-support tools used to assess potential sharing opportunities within the markets.

The major components of Mitretek's approach to conducting the Study are discussed in detail in the following four sections. For a complete description of the methodological approach, see *Appendix B: Developing a Study Methodology*.

2.2 Conduct Research

As part of the Joint Assessment Study, Mitretek conducted considerable research into the background factors affecting DoD/VA sharing and collaboration activities. This work was undertaken pursuant to the charge that *"the contractor shall review pertinent studies, reports, analysis, etc. as they relate to proposals or initiatives associated with the integration of DoD/VA systems or efforts in whole or in part."* In the Research effort, Mitretek had three main objectives to accomplish:

- To understand the context of DoD/VA organizational relationships.

- To get input into the Study design and methodology.
- To understand substantive matters: key elements, issues, barriers, and ingredients for successful collaboration.

2.2.1 Identify Related Studies and Existing Joint Ventures

The initial approach to conducting the research involved collecting and reviewing previously prepared documentation on the broad subject of DoD/VA sharing and collaboration. Mitretek reviewed a wide spectrum of reports, studies, websites, briefings and presentation materials. Information sources came from many government agencies, including the DoD and its component services, the VA, the Department of Health and Human Services (DHHS), Congressional committees and testimony, General Accounting Office (GAO), Office of Management and Budget (OMB), and the Congressional Budget Office (CBO). Additionally, the team referred to non-government documentation relating to the planning of large health delivery systems. A list of reference documents collected and reviewed as part of this research investigation is presented as *Attachment 1* of *Appendix B*.

2.2.2 Conduct Field Visits

Per the Statement of Work directive that Mitretek "conduct field visits to DoD/VA medical centers involved in significant joint ventures," Mitretek visited the following Joint Venture sites to investigate what is working well and what barriers the staff, leaders, and others have encountered in their sharing efforts:

- David Grant Medical Center (Travis AFB) *and* VA Northern California Health Care System in Sacramento and Fairfield, CA
- Kirtland AFB Clinic *and* Albuquerque VAMC in Albuquerque, NM
- Mike O'Callaghan Federal Hospital (Nellis AFB) *and* VA Southern Nevada Health Care System in Las Vegas, NV

A summary of findings and conclusions from the research was presented to the Joint Facilities Work Group and has been used in the development of methods and tools used to assess sharing opportunities in the Study.

2.3 Develop Analytical Methodology

Mitretek developed a methodology for the Study that includes both quantitative and qualitative frameworks for assessing sharing opportunities. The essential elements of these frameworks are highlighted below. Background information, specific assumptions, and detailed information about the methodology are contained in *Appendix B*.

2.3.1 Framework for Quantitative Analysis

This Study focuses its quantitative analysis on a population-based approach to measuring demand and supply of health care services in a given market area. The analysis of demand begins with the measurement of the combined DoD and VA beneficiary (Combined Beneficiary) populations and the historic workload

generated from these beneficiaries. The supply of health care services for a given market is measured by availability of clinical services, facilities and staff.

Mitretek based the quantitative analyses in this Study on the following major components:

- Population – The Study utilizes Combined Beneficiary populations, broken down by age, sex and beneficiary category. This includes all beneficiaries who are eligible for care, all those enrolled in either system, and all unique users who received care during the two-year timeframe used in the Study. Beneficiary population data were obtained from each System.
- Demand – The demand for clinical services is measured by actually counting workload generated by the beneficiary population in the individual Study Market areas. These data were obtained from record-level encounter data from the DoD and VA systems.
- Supply – The supply measures the availability of clinical services, staff, and facilities (staffed beds, productive spaces, etc.). Though this information was obtained primarily from the facilities in each market, Mitretek did obtain FTE data from national sources.
- Costs – Cost information is contained in the record-level encounter data and used extensively in measuring average costs at a clinical service-line level.

In the development of the quantitative measures used in this methodology, Mitretek created analytical tools to measure the gap, if any, between the demand and supply of clinical services. Mitretek developed additional tools to analyze the access to and costs of the clinical services within the defined Study markets. These analytical tools (and the data required to use the tools) are described below.

- Clinical Service and Product-Line Crosswalk Tables – Both the DoD and VA systems aggregate clinical services in various product lines. In order to "map" these product lines between the two systems, Mitretek created crosswalk tables to allow for common groupings of services necessary to measure demand, supply and cost and to better understand the capacity of each system to accommodate clinical service workloads.
- Capacity Conversion Factors – Mitretek developed these factors in order to convert the supply of services into capacity estimates. For example, in order to measure actual inpatient capacity within a market, analysts must convert the number of staffed beds into available bed days of care, using occupancy targets. Similarly, analysts must convert the supply of clinical providers into clinical full-time equivalent (CFTE) availability in order to factor in the non-clinical duties of the providers. These factors, which are explained in detail in *Appendix B*, were derived from published DoD, VA, and commercial standards, or were based on the experience of the Study team.
- Access Measures/Drive-Time Analysis – Mitretek measured access to primary care and to inpatient services–based upon beneficiary residence at a ZIP code

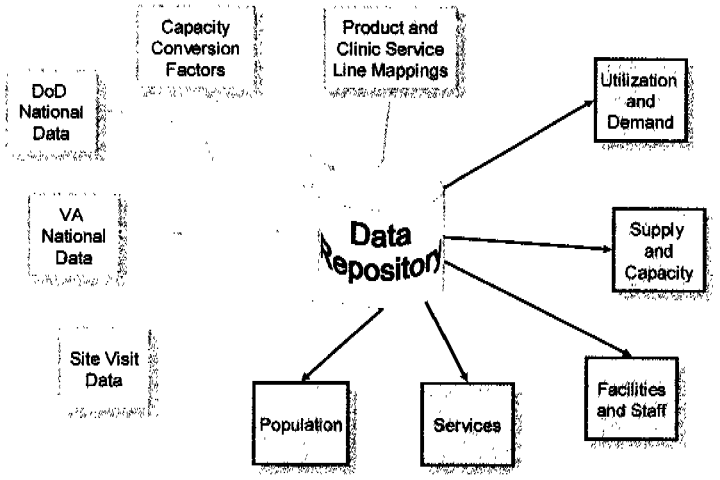
level–using geographic information systems technology. These data were also extracted from the record-level encounter data cited above.

The development of the quantitative analysis requirements and tools allowed the Study team to determine the appropriate data request and to develop, as part of the methodology, a Data Repository to receive and process large volumes of record-level and other data. The next section summarizes the essential elements of the Data Repository.

Design the Data Repository

Data sets obtained from DoD and VA sources were integrated with one another, and then with information collected in the field during site visits. The figure below represents both the quantitative inputs to the Data Repository, and the major resulting data sets that were extracted.

Figure 4: Data Repository Inputs and Outputs



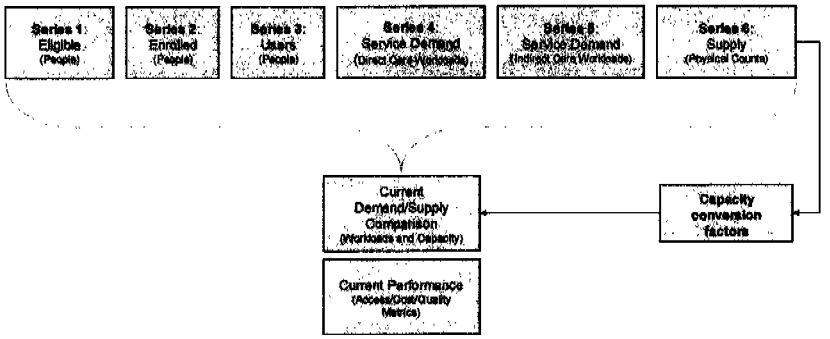
The purpose of the database design was to merge the different data sets together into one universal database. An Entity Relationship Diagram representing the data elements and tables in the design can be found in *Appendix B*.

In addition to the clinical service and product-line crosswalk tables described above, data mapping was required in order to categorize the pertinent data elements from the DoD and VA data. Mitretek team members examined field definitions outlined in the source data dictionaries, identified and categorized each field into the corresponding entity in the data model, and mapped key fields to the appropriate data elements for each service. For example, a Department Mapping table was created to group site-specific data into a standard set of operational departments.

Develop and Build Analysis & Decision Support Tools

Several data analysis and integration tools were developed after the Data Repository was created. Data analysis "shells" (or standard report templates) were developed in order to synthesize the data for analysis. This series of analytical data tables is illustrated in the figure below.

Figure 5: Illustration of the Series of Data Tables Employed in the Analysis



The data analysis shells used to create the report templates served as the basis for analysis. Stored procedures and queries were structured to produce the necessary outputs for each pivot table series. An iterative process of executing the queries and analyzing the results was essential to understanding the complexities of the data and to generating the final Market assessments.

Documentation of the Data Repository and decision-support tools provides an essential baseline for replicating the quantitative analysis in the Study (see *Appendix B* for more detail).

2.3.2 Framework for Qualitative Analysis

Another essential part of the Joint Assessment Study methodology involves measuring overall relationships between DoD and VA facilities and personnel within the Study markets. Mitretek developed a framework for assessing these relationships and for measuring the impacts on potential sharing opportunities. This Collaboration Framework is described in the following paragraphs.

There are four components to Mitretek's Collaboration Framework: identification of the major categories of collaboration, definitions of collaborative terminology, a "Gold Standard" or ideal effect of the collaboration categories, and a relationship continuum grid that combines these.

Mitretek's research suggests that collaboration activities and organizational relationships fall within one or more of nine domains: Clinical Workload, Facilities & Equipment, Staffing & HR, Governance & Management, Business Processes, Information Management/Information Technology (IM/IT), Logistics, Education & Training, and Research. Each of these domains is a potential

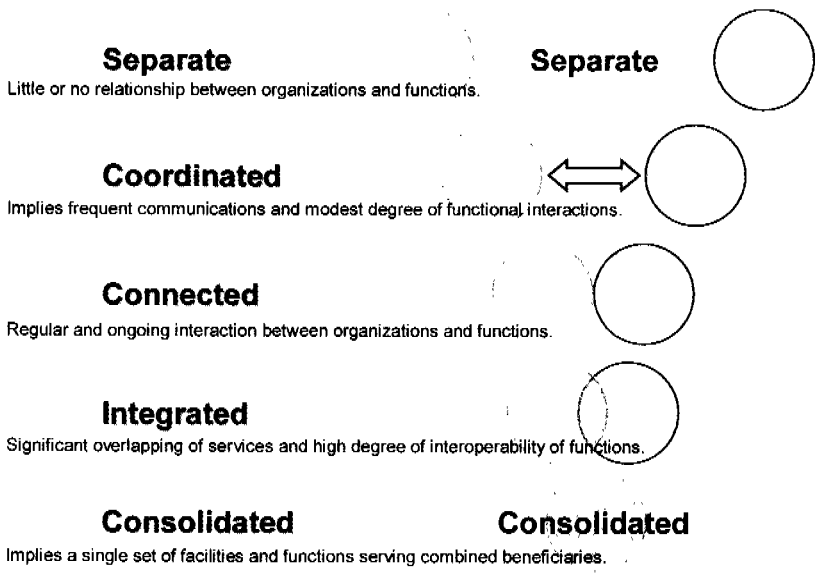
collaboration area, which can help to achieve effective care delivery. The table below details the influence of each of these domains on collaboration efforts.

Table 1: Domains of Collaboration and Their Influences

Domain	Influence on Collaboration
Clinical Workload	Determines need, demand, and patient flow
Facilities and Equipment	Influences supply/capacity
Staffing & Human Resources	Influences supply/capacity and skills maintenance
Governance and Management	Provides structure and leadership
Business Processes	Organizes work flow
Information Management/ Information Technology	Informs decision making throughout the organization
Logistics	Provides material support, including pharmaceuticals
Education & Training	Fuels development of competent workforce
Research	Enhances advancement and exchange of knowledge

Mitretek discovered in its field work that stakeholders in potential sharing endeavors were confused by inconsistent terminology for collaborative efforts. The figure below illustrates demarcations and definitions for several terms —Separate, Coordinated, Connected, Integrated, and Consolidated—that can be useful in discussing collaboration opportunities.

Figure 6: Suggested Definitions for Collaborative Spectrum of Terms



Essentially, these terms describe a continuum of possible degrees of relatedness that can exist among or between organizations. These are relative definitions

only; Consolidated is not necessarily the preferred end-state of a given joint sharing venture. This continuum can apply to multiple and differing levels of relationships within any organization or group of organizations (e.g., DoD-to-VA, or facility-to-facility relationships within a local market, or within specific service line or support service interactions among facilities).

The challenge in making these distinctions is to determine the level and extent of collaboration that could exist among and between organizations, while recognizing that usually multiple sets of functioning relationships are involved.

Market- and facility-specific information can be displayed in a relationship grid, which matches the five elements of the collaboration continuum with the nine domains of collaboration (see the table below).

Table 2: Relationship Grid/Relationship Continuum

	Separate	Coordinated	Connected	Integrative	Consolidated
Clinical Workload	Insignificant referrals	Regular communications	High numbers of referrals	Significant number of referrals as-one	
Facilities	Distant	Some sharing where duplication exists	Projects & facilities come from master planning	Many departments share space	
Staffing	Distinct	Support in peaks and valleys	Joint staff planning	Multiple examples of single/joint staffing	
Business Processes	Different	Reduce barriers	Work flows understood & acted on	Transparent	
Management/ Governance	No Relation	Joint planning sessions	Overlap of some key functions	Overlap of many key functions	
IM/IT	Separate systems	Evidence of electronic exchange of info	Moving toward systems interface	Complete interoperability	
Logistics	Little, if any, exchange	Borrowing, bartering and contractual exchange	Mutual examination of best pricing and service	Selective joint contracting in major areas of procurement	
Education & Training	Distinct	Selective exchange of methods	Frequent use of joint programs and curriculum	Most programs and curriculum are same/similar	
Research	Distinct	Selective exchange of protocols	Joint planning and review of many studies	Significant overlap of protocols and review	

While it is necessary to understand the nature and degree of collaboration present within a market, a far more important question is, "How effective is this collaborative relationship?" Measuring performance at any level within a health care organization (or group of organizations) is complex. In its simplest form, one can ask, "How are we doing generally within each domain?" One technique

is to articulate an ideal or "gold standard" for comparison. The table below presents statements of an ideal condition within each domain.

Table 3: Gold Standard/Ideal

Clinical Workload	Timely, best care placement, and follow-through of patient, based on population-generated demand, regardless of origin
Facilities	Attractive, accessible facilities and equipment sufficient to serve needs of population without duplication
Staffing	Provision of well-trained and competent staff appropriate to the demand
Business Processes	Ability to work in ways that are fast and accurate, exhibit smooth handoffs, and please constituents
Management/ Governance	Effective oversight of entire enterprise, and ability for timely and effective execution of line and staff activities
IM/IT	Electronic, appropriate, accurate, secure, interoperable
Logistics	Best quality, materials at the right place, right time, and best cost
Education & Training	Perpetual development of highly capable professional, technical, and service workforce
Research	Continual advancement of knowledge that contributes to improved performance and effective outcomes

Another useful approach entails a general assessment of the contribution of the collaboration to overall organizational performance–gauged against where the organization could or should be (with respect to an ideal state). This activity helps determine the degree of collaboration that best fits the needs of the affected facilities or services. Such an assessment can help organizational leaders make informed decisions about the relatedness and organizational models that may best serve the beneficiaries within a specific market and meet the needs of their organizations.

The quantitative and qualitative assessment frameworks described above were developed for the Joint Assessment Study and have been designed to be re-usable (or repeatable) as part of a consistently applied methodology with the potential for use in other markets. The following section summarizes the application of the combined assessment methodology to the Study Markets.

2.4 Apply the Methodology to Study Markets

2.4.1 Identify Study Market Areas

The Health Executive Council determined which general market areas were to be included; however, Mitretek further defined the market and submarket geographies as a first step in the Study methodology. Application of the methodology involves using ZIP code- and county-level information to find the best union of the existing VA and DoD market definitions. Mitretek defined market areas as the smallest geographically delimited area that encompasses both

the VA VISN market (and/or submarkets, where defined) and the catchment areas of the DoD Military Treatment Facilities (MTFs) located in this VA VISN market.

In the Joint Assessment Study, applying this logic resulted in the following Market areas:

- Puget Sound – Sixteen counties in western Washington, consistent with the VA CARES "Western Washington" submarket;
- Gulf Coast – Eighteen counties: seven in the western panhandle of Florida, four in southern Alabama, and seven in southern Mississippi. Although this Market is not congruent with the markets used for CARES planning, it is the current geographic area of responsibility of the VA Gulf Coast Health Care System, headquartered in Biloxi, MS.
- Hawaii – The entirety of the Hawaiian islands (5 counties, but only 4 with DoD or VA beneficiaries)

Maps of the three Market areas are included in *Appendix A*.

After Mitretek identified the proposed market areas for the Study, they used the geographic boundaries of the market areas as parameters in subsequent data requests and analyses.

2.4.2 Collect Information

Mitretek requested data from national VA and DoD sources and received more than 15 data sets and over 55 million records. These data were coordinated in the Data Repository (described above) that allowed information from disparate data sets and the two Systems to be viewed together for the first time in a decision support format. Combining these files in a relational database was an extremely complex task, but ultimately allowed Mitretek to view the population, demand, supply, cost and capacity data at a market (and submarket) level.

The Study team also requested market- and facility-specific data directly from the facilities in preparation for site visits to each Market area. (Delays in obtaining national source data necessitated that Mitretek retrieve supplemental population and workload data for each Market prior to the site visits). Additional data on facility-specific floor plans and site plans were gathered on site. The Study team also requested and received information about the facility- and market-specific joint sharing agreements (proposed or already in place), and general mission, vision and strategic planning information.

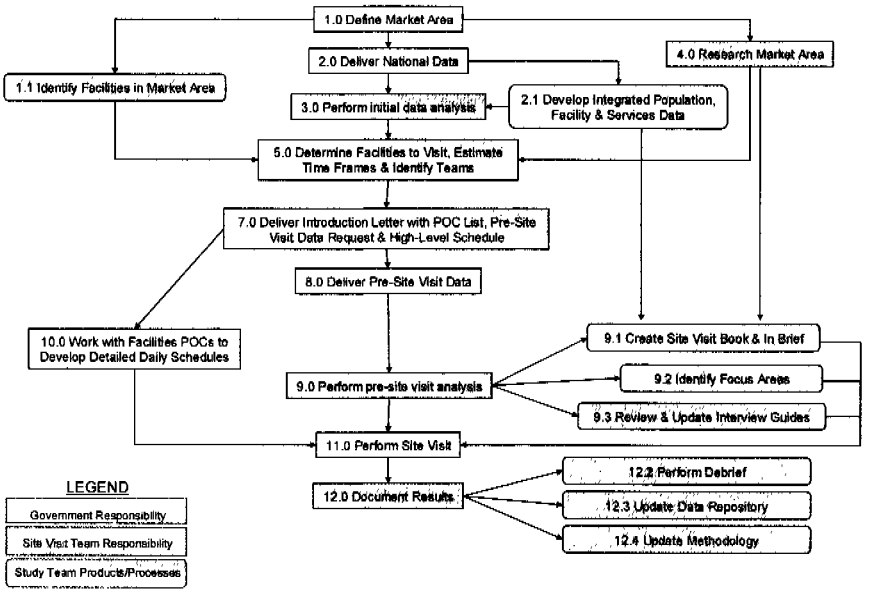
2.4.3 Conduct Assessment

The methodology for conducting the Market assessments included two site visits to each Study Market, first to collect and verify data, and then to test the initial results of the assessments.

The Study team met with leadership from both DoD and VA in each market, and conducted field visits to a total of 29 facilities. During the course of these visits, interviews were held with 395 individuals.

Activities related to preparing for and conducting the first site visit are displayed in the figure below.

Figure 7: Preparation and Execution of First Site Visits



Mitretek divided its members into four separate teams for interviews and facility tours during the first site visit. Each team's particular focus is described below.

- The **Leadership** team conducted interviews with executive and clinical leadership to gain perspective on current and future opportunities for improved collaboration. They verified populations served and performance of the current system, and captured viewpoints regarding planned or potential DoD and VA sharing opportunities and system changes that could improve care to beneficiaries in the future.
- The **Market** team conducted interviews with staff involved in planning and finance. They verified quantitative data and collected additional qualitative information related to beneficiary populations and current workload and provider staffing.
- The **Operations** team conducted interviews with key operational managers and clinicians and toured clinical areas to assess operations and facility capacity. They verified clinical capacity, assessed the appropriateness of a facility for current or projected future use, and identified any significant disconnects between actual capacity and required capacity
- The **Facilities** team toured major clinical buildings to assess facility condition. They documented their observations, findings, and impressions with

recommendations for further assessment. This information was later incorporated into the Study Data Repository.

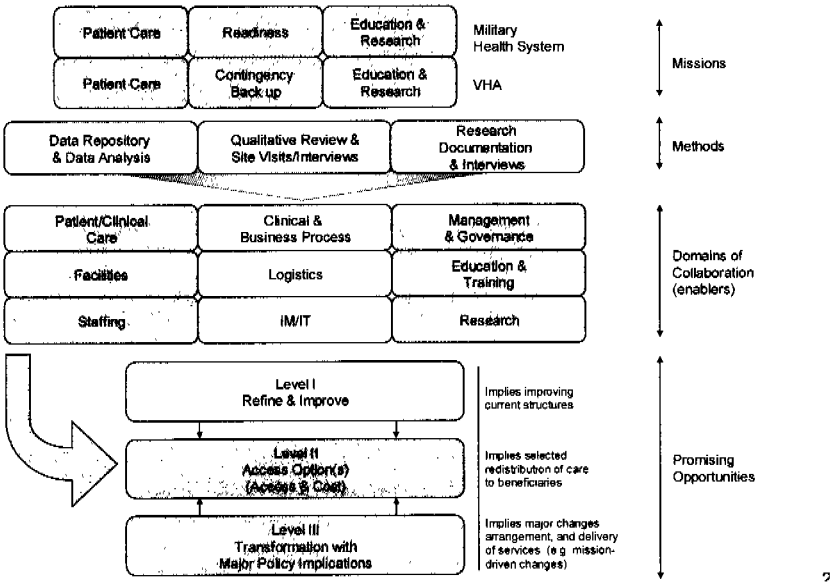
2.4.4 Conduct Analyses

Following the first set of site visits, Mitretek initiated analytical activities to:

- Determine the baseline demographics, workload, cost, access, and conversion factors.
- Perform a supply and demand analysis; examine the supply and demand "gaps" that may lead to sharing opportunities.
- Measure the cost and access benefits possible by implementation of these alternatives.
- Integrate the findings from the qualitative assessment (using the relationship continuum grid).

The composite efforts of the quantitative and qualitative Study work were merged in the formation of a diagram Mitretek refers to as "Promising Opportunities." This figure is shown below.

Figure 8: Promising Sharing Opportunities



The diagram shows how issues flowing from mission-driven considerations (both common and distinct) within DoD and VA inform both the domains of collaboration and the processing of opportunities within each domain, as well as the potential actions that DoD and VA officials could pursue.

Specifically, certain actions regarded as Level I (Opportunistic) can generally be undertaken by local authorities and are intended to refine and improve collaborations such as those involving local business processing matters. Level II (Actionable) opportunities have a significant patient care focus that influences the realignment of patient points of access. These opportunities are quantitatively

tested in the Study methodology. The Level III (Transformation) opportunities consider initiatives that are most effectively addressed at a national level.

Mitretek used a second round of site visit to review the progress of the Study, and to gain feedback from the field regarding the approach, methodologies, assumptions and overall findings related to opportunities uncovered in our interviews and data analysis. The team presented a high-level overview in a joint session with representatives from both organizations at the local level, and then conducted workshops to drill into the data, framework, and assumptions.

The team answered questions from the field regarding the process and methodology, and showed the staff in the field how the information could be useful, should they choose to undertake further investigations into sharing opportunities at the local level.

2.5 Develop and Prepare Report Recommendations

The application of the Study methodology resulted in several useful reports, including Market and Submarket profiles of health care demand and utilization patterns, information on beneficiary populations, summary data related to supply and capacity, and qualitative information regarding potential sharing opportunities.

During the course of the Study, Mitretek generated other informative reports covering topics such as a *Summary of the VA CARES Process*, relevant findings from *The President's Task Force (PTF)* reports, and a summary of *Research Findings on DoD/VA Joint Venture* site visits. Information from these internally developed reports has been incorporated into this overall Study Report.

2.5.1 Document Recommendations Regarding Potential Sharing Opportunities

Section 3.0 of this Report documents Market-specific findings and recommendations, which flow from the quantitative and qualitative assessments carried out as part of the Study. More detailed findings and Market profile information are documented in *Appendix A*. (Much of the information contained in the Market-specific reports was also presented to site leadership and other representatives during the course of the assignment. The briefing materials used during site visits and In-Process Reviews are available from the TMA Office of Special Programs.) General Study findings and recommendations are contained in *Section 4.0*.

2.5.2 Review Lessons Learned and Develop Recommendations Regarding Data Requirements, Methodology, Etc.

The Study methodology, including supporting tools (e.g., the Clinical Service/Product Line Crosswalk tables) is documented in *Appendix B*. This document is an integral part of the overall Study, and will be particularly useful in future efforts to repeat the Study methodology and process. The findings and recommendations related to the application of the Study methodology are contained in *Section 5.0*.

3.0 FINDINGS & RECOMMENDATIONS FROM APPLYING THE METHODOLOGY TO THE STUDY MARKETS

3.1 Introduction

This chapter summarizes and provides highlights of the application of the Joint Assessment Study methodology to three Market areas: Puget Sound, Gulf Coast, and Hawaii[9]. A number of the aspects of the applicable methodology that apply to all three Markets are discussed briefly in the subsections that follow. The individual Study Market assessments are summarized in *Sections 3.2, 3.3,* and *3.4*.

3.1.1 Combined Beneficiary Perspective

The Market assessments adopt a unique perspective—that of a Combined Beneficiary. A Combined Beneficiary is a current DoD, VA or dually eligible beneficiary, for whom health care access, cost and quality would be improved if sharing and collaboration between DoD and VA were increased. Adopting this perspective frames the Market assessments to address the common and best interests of the Combined Beneficiaries in the Market as a whole, rather than the potentially conflicting interests of the two delivery systems taken separately.

3.1.2 Defining Markets and Submarkets

In the DoD/VA Joint Assessment Study, each Market area was defined geographically, at both county and ZIP code levels. To the extent feasible, Mitretek used existing VA and DoD market definitions – i.e., a Market area in the Study is the smallest geographically-delimited area that encompassed both the VA VISN-based and DoD MTF catchment-based Market area definitions.

Additionally, Mitretek subdivided the Market area into smaller geographic units—Submarkets—for meaningful analysis. Submarkets were defined based on existing geo-political boundaries (i.e., counties), taking into account topographical features that may practically distinguish one Submarket from another (e.g., rivers, mountains, highway patterns, etc.).

It is important to remember that the designation of Market and Submarket areas are ultimately arbitrary; they are necessary to bound and limit the scope of the joint planning issues that the Study is trying to frame and address. The Market and Submarket area definitions can be expanded or contracted to accommodate changes in these issues.

In Puget Sound, the Study Market area consists of 16 counties in the state of Washington, consistent with the VA CARES "Western Washington" Market. This Market includes 14 DoD and VA health care facilities (including Troop Medical Clinics in Ft. Lewis). The Joint Assessment Study divided the Puget Sound Market along county lines into four Submarkets: North Sound, Seattle, South, and West Sound. Two of these regions contain both DoD and VA

[9] *Appendix A* contains more detailed information and data about the three markets and the application of the methodology to each of them.

facilities; the other two contain only VA (Seattle) or only DoD facilities (North Sound).

The Gulf Coast Market is comprised of 18 coastal counties, stretching approximately 240 miles from Panama City, FL to Biloxi, MS. This Market slices through VA's VISN 16 ("South Central") and DoD's Region 4 ("Gulfsouth"). This Market includes 18 DoD and VA health care facilities. The Market was divided into five geographically-based Submarkets: Biloxi/Gulfport, Eglin, Mobile, Panama City, and Pensacola. One of these Submarkets contains only DoD facilities (Eglin), and one of these Submarkets contains only VA facilities (Mobile).

In Hawaii, the Study Market is made up of four counties and four Submarkets.[11] The Submarkets are named for the main island in each county: Kauai, Maui, Oahu, and The Big Island (to avoid confusion with the Market name). This represents the DoD Hawaii TRICARE Region and the VA Pacific Basin Submarket (excluding Guam) of VISN 21. There are 14 DoD and VA healthcare facilities in this Market, four of which serve only active-duty beneficiaries.

3.1.3 Data Collection and Integration

The initial data collection goal was to obtain from each System data that are centrally stored and routinely maintained. Mitretek obtained data that are not centrally available from the local facilities via pre-site-visit surveys (and during the site visit process). The Study team developed methods and techniques to insure that the demand and supply data from DoD and VA could be aggregated to permit meaningful comparisons. As one of these methods, Mitretek developed a Product and Clinical Service Line Crosswalk,[12] to map the clinical volumes obtained from the data systems of each Department into consistent groups and categories, thus allowing for cross-Departmental analysis.

3.1.4 Demand and Workload

Mitretek estimated the demand for health care services by counting units of service used by the Combined Beneficiary population residing in each Submarket and Market. These demands, for both inpatient and outpatient services, may be accommodated at facilities within the Market area (in-market). Alternatively, beneficiaries may travel outside the Market to receive care (out-migration). Similarly, beneficiaries residing outside the Market may receive care from facilities within the Market (in-migration). The total health care workload at any facility is the combination of in-market and in-migration service volumes. Mitretek used discharges as the basic unit of service for inpatient care, and visits[13] as the basic unit of service for outpatient care.

[11] The firth county, Kalawao, is geographically very compact – and no Combined Beneficiaries live there.
[12] The PCSL Crosswalk can be found in *Appendix B-Attachment 3*.
[13] Called "clinic stops" in the VA and "clinic visits" in the DoD. A visit is defined as one appearance by a unique person at an outpatient care clinic. During the course of one trip to a health care facility, a person may generate multiple visits by going to different clinics (e.g., primary care, radiology, pharmacy, etc.)

3.1.5 Supply and Capacity

Mitretek distinguished between the *supply* of a resource at a facility, and the *capacity* of that facility to provide or deliver services. "Supply" is typically a count of a particular resource, such as beds or the number of staff. "Capacity" is an estimate of the volume of services that can be provided at a facility, to meet the demand. For inpatient services, for example, the total number of beds at a facility constitutes Supply, and the number days per year the beds are available for use is that facility's available Capacity. In outpatient services, it is necessary to convert Supply (number of FTE providers) into Capacity (number of annual visits these providers could perform). Mitretek developed methods for converting supply into capacity using a variety of measures for inpatient, outpatient, and diagnostic/therapeutic areas.

3.1.6 Identifying and Analyzing Options

A comparison of demand and supply identifies options for achieving balance within a Market or Submarket. Mitretek focused initially on the *desirability* of a particular option, specifically on the potential for a rearrangement of health care delivery volumes, capacity, and resources to improve access to care and/or to reduce the costs of delivering this care. Mitretek recognizes that this approach temporarily suspends consideration of the practical constraints on and real-world barriers to implementing the options that are identified as a result of this evolutionary process—their *feasibility*. Based on their site visits to the Markets, Mitretek is very aware of the specific challenges that influence opportunities for greater sharing and collaboration between DoD and VA. However, Mitretek believes that focusing on desirability first allows identification and calculation of the "benefits"—in improved access and reduced costs—of each option, and then to identification and estimation of the "costs" involved (i.e., the investments required to eliminate specific barriers to implementation).

3.1.7 Cost

Mitretek measured the cost performance of a particular sharing opportunity, or a set of opportunities bundled into one or more scenarios, by incremental changes to the total annual system cost in a particular market. The total baseline system-wide costs were established using FY02 data. These are the costs required to fund the care provided to the Combined Beneficiary population in the Study Markets, and include the annual costs associated with:

- Direct care services provided by the DoD and VA facilities located *within* the Study Markets to DoD and VA beneficiaries who reside within the Study Market area (in market);
- Direct care services utilized at *other* DoD and VA facilities outside the Study Market by beneficiaries who reside within the Market area (outmigration); and
- Indirect care services that are purchased *from other providers* by DoD and VA for their beneficiaries who reside within the Study Market area – i.e., purchased care.

Summing the FY02 cost data for each of these components of care delivery (i.e., all services provided directly by DoD and VA facilities, and those services purchased by DoD and VA for their beneficiaries who reside within the Market area) provides a complete picture of the total annual costs funded by DoD and VA to care for the Market Combined Beneficiary population.

3.1.8 Access

The Joint Assessment Study measures Access performance by the proportion of enrollees and/or patient care workloads–typically expressed as a percent–that are currently within the DoD/VA drive-time standards for geographic access to services. The access baseline for enrollees and for primary care workloads is measured based on the drive time to *any* facility within the beneficiary's respective system (i.e., Mitretek assumes that all patients go to the nearest facility at which they are eligible to receive care). Access for inpatient care is measured based on drive time to *any* inpatient facility within the beneficiary's respective system. The drive-time standards for DoD and VA are as follows:

Table 4: DoD and VA Drive Time Standards

Type of Service	DoD Standard	VA Standard	VA Rural Standard
Primary Care	30 minutes	30 minutes	30 minutes
Specialty Care	60 minutes	60 minutes	90 minutes
Inpatient Routine Care		60 minutes	90 minutes
Inpatient Tertiary Care		240 minutes	Within VISN

If a potential sharing opportunity increases the "percentage within standard" over the current access baseline, this represents improved access.

3.1.9 Facility Condition Assessments

Architects and engineers in the project team completed cursory reviews of many of the clinical buildings in the Markets. They subjectively scored the current conditions of clinical spaces and buildings so that service relocation options could be prioritized. Departments were scored on a Red/Amber/Green scale, and the buildings were scored on a Poor/Fair/Good/Very Good/Excellent scale. An explanation of the scoring and detailed scores of the many of the departments and buildings are available as Attachments to *Appendix A*.

3.1.10 Time

The Market assessments are based on a "snapshot in time" (FY02) and do not take into account the very dynamic nature of health care delivery in general and the policy changes affecting the DoD and VA in particular. For example, the impact of current decisions being made about provider availability, BRAC, CARES, and the next generation of TRICARE contracts are not accounted for in the Market assessments.

3.1.11 Collaboration Framework

As described in *Section 2.3.2*, Mitretek developed a Collaboration Framework to explore and systematically describe the domains in which sharing activities take place (such as business processes and information technology), and to identify the relative readiness and maturity of the local organizations involved to address and reduce the barriers to collaboration. Details about the methods and uses of the Collaboration Framework can be found in *Appendix B (Section 3.4)*.

3.1.12 Organization of the Study Market Summaries

The remainder of this chapter summarizes the findings and recommendations derived from applying the Study methodology to the Study Markets. Each Market-specific section is organized as follows:

3.x.1 A brief Market Description
3.x.2 Options for Sharing Identified
3.x.3 Findings from the Application of the Study Methodology to a Market Option
  - Baseline Situation
    - Market Demand
    - Supply and Capacity
    - Access
    - Cost
  - Impact of Options

3.x.4 Findings from the Assessment of this Market Using the Relationship Continuum
3.x.5 Recommendations

The central section of each market assessment summary (*3.x.3*) differs in its content, because each Market has unique issues, as detailed below.

Puget Sound: *Section 3.2.3* emphasizes access to primary care services, and uses the methodology to demonstrate how access performance can be improved significantly by opening new access points and redistributing capacity from facilities with surplus capacity.

Gulf Coast: *Section 3.3.3* focuses on the inpatient services within a particular Submarket, and uses the methodology to demonstrate how inpatient resources can be consolidated to achieve long-term cost savings.

Hawaii: *Section 3.4.3* emphasizes both improving business processes and collaboration (in a Market that already exhibits a high degree of physical integration), and the potential to recapture indirect care volume through greater collaboration.

These differences also highlight the flexibility and adaptability of the Study methodology to address the particular circumstances of local Markets. During its site visits to the Markets, Mitretek observed that, at the local level, these Markets are perceived as unique and, therefore, not easily subject to standard comparative analysis with other markets.

While it appears true that "all health care is local", it remains important to plan for the delivery of health care services to Combined Beneficiaries from a comprehensive, data-driven, logically-developed, analytic foundation that highlights and respects local issues and perspectives, but incorporates them systematically into a broader methodological context. Mitretek believes that the results documented in this chapter demonstrate that significant progress has been achieved in developing this analytic foundation through the Study methodology.

3.2 Puget Sound

3.2.1 Market Overview

The Puget Sound Market consists of the following Submarkets, counties, and facilities.

Table 5: Study Market Area Definition for Puget Sound

Submarket	County	DoD Facilities	VA Facilities
North Sound	Chelan Island San Juan Skagit Snohomish Whatcom	– NH Oak Harbor – BMC Everett	
Seattle	King Kittitas		– VA Medical Center - Seattle – Seattle Shoreline Clinic (Contract)
South	Lewis Pierce Thurston	– Madigan Army Medical Center (Ft. Lewis) – 62nd Medical Group - McChord AFB – Okubo Family Practice Clinic – Ft. Lewis – Troop Medical Clinic #1 - Ft Lewis	– VA American Lake Medical Center
West Sound	Clallam Grays Harbor Jefferson Kitsap Mason	– NH Bremerton – BMC Bangor – BMC Keyport – BMC Puget Sound	– Bremerton CBOC

The Puget Sound Market area is unique in that is has two tertiary facilities (Seattle VAMC and Madigan), and that access to facilities is complicated by the many waterways in the area. Further, the area is known as a popular location for DoD retirees—thus there are a high number of "dual eligible" beneficiaries (i.e., those who are eligible for both DoD and VA benefits). This presents both challenges and opportunities. Although the combination of the using populations in the Systems is large, it may not be large enough to support two tertiary programs in some Service Lines (e.g., offering open-heart surgery at both VAMC Seattle and Madigan).

The topography of the Market makes meeting primary care access drive-time standards difficult—since towns that appear near to each other on the map are sometimes distant in terms of drive time (e.g., the need to take a ferry increases drive time). Since both Systems have 30-minute drive time standards for access to primary care, and in some Submarkets facilities exist for only one System, opening access to each other's facilities has the potential to improve overall

access for beneficiaries in these Submarkets. (An analysis of the opportunity and impact of rationalizing access to primary care follows in *Section 3.2.3.*)

Beneficiary Populations

In 2002, the Puget Sound Market Area had approximately 740,000 eligible Combined Beneficiaries—approximately 55,000 of whom are "dual eligible" for both DoD and VA benefits. Sixty-four percent of the eligible population is VA eligible and thirty-six percent are DoD eligible. In this Market, the total enrolled VA population is less than 20% of the total eligible Veterans population. For the DoD, enrollment data actually exceeds DoD eligible data in select beneficiary cohorts, particularly among active duty family members.

The combined number of DoD/VA unique users of either the direct or indirect[5] care system (net of dual users) was equal to 81% of the combined enrolled population. The number of unique DoD users of either direct or indirect care was equal to 91% of the number of DoD enrolled. The number of unique VA users was equal to 69% of the VA enrolled. For direct care, 9% of users were dual users (who used both systems).

Service Demand Workloads

Residents of the Puget Sound Market area consumed approximately 23,750 admissions and 117,000 inpatient days of *direct* care in Medicine (including Rehab), Surgery, Behavioral Health (including Substance Abuse), and OB/Newborn. Users in the Puget Sound Market also generated 635 direct Extended Care admissions and approximately 72,000 Extended Care days. In addition, they generated more than 1.7 million direct care outpatient visits. This outpatient activity includes visits to providers, diagnostic departments (such as Radiology), therapeutic departments (such as Physical Therapy), and emergency departments. These data include out-migration (to providers outside of the Market).

The case mix for DoD and VA are quite different. Of the VA's patient days, 43% were for Behavioral Health and 45% for Medicine. This compares to only 3% and 38% respectively for the DoD. Of the DoD's inpatient direct care days, 26% were Surgery—compared to only 13% for VA. Seattle VAMC manages 47% of the total Puget Sound Market area patient days and Madigan manages 34%. More than 2,400 of Madigan's days and more than 18,000 of the Seattle VA's days originated from outside the Puget Sound Market.

In 2002, more than 50% of the total outpatient workload (including diagnostics and therapeutics) seen at the facilities in this Market was in the Clinical Service Lines of Internal Medicine, Family Practice, Mental Health, and Rehabilitation. As would be expected, Seattle VAMC and

[55] Indirect care is defined as purchased care in the DoD, and fee-basis care in the VA.

Madigan (combined) provided about two-thirds of the outpatient care in the Market.

Users in this Market also consumed nearly 350,000 indirect care outpatient visits. Eighty-five percent of this activity came from the DoD. Users also consumed nearly 9,000 indirect care admissions, 97% of which were DoD.

Resource Supply and Capacity

Most of the major hospital buildings in the Puget Sound Market were built more than 20 years ago—and many were built more than 50 years ago. However, some of the DoD clinics are very new. In a cursory review of the clinical spaces, the architects scored the inpatient units and ambulatory clinics as either Green or Amber for size and configuration, (on a Red/Amber/Green scale, with Green being the best). However, they observed that most spaces are not ADA compliant. See *Appendix A* for more detail on the facility reviews.

Since both the DoD and VA use 85% inpatient bed occupancy as a planning standard for Medical/Surgical beds, and 65% occupancy is a commonly accepted high level Critical Care planning standard, Mitretek did an initial assessment of Medical/Surgical, Psychiatry, and Critical Care bed capacity versus demand using these standards. The Market has 398 staffed beds and 415 available beds in these categories. In 2002, the Puget Sound Market had a weighted-average staffed-bed occupancy of 64%. (80-85% occupancy—not 100%—is a practical planning standard.) This figure is reduced by very low occupancies at the Naval Hospital Oak Harbor, the Naval Hospital Bremerton, and the Medical/Surgical unit at VA American Lake (which will transfer to Madigan in '04).

Mitretek also completed an analysis of Primary Care capacity and demand; that example is described in *Section 3.2.3*.

Current Market Performance

Cost

The total baseline system-wide cost required to fund the care provided to the beneficiary population in the Puget Sound Market includes annual costs associated with both direct and indirect care. Summing the FY02 cost data for each of these components provides the total annual baseline costs for the Puget Sound Combined Beneficiary population. The current baseline cost performance for the Puget Sound Market is illustrated in the table that follows.

Table 6: Baseline Total Annual Cost of Care to DoD & VA Beneficiaries in Puget Sound Market

Cost Figures in Thousands ('000s)	PUGET SOUND COSTS BY AGENCY		
	DoD	VA	Total
In-Market Direct Care Provided			
Inpatient Care	100,393	106,149	206,542
Outpatient Care	212,183	188,651	400,834
Total In-Market	312,576	294,801	$ 607,377
Out-Migration (Direct Care Provided Outside Market)			
Inpatient Care	2,000	6,075	8,075
Outpatient Care	5,798	2,620	8,418
Total Out-Migratio	7,798	8,694	$ 16,492
Non-Direct Care (Purchased/Fee Basis Care)			
Inpatient Care	18,958	679	19,637
Outpatient Care	111,120	2,022	113,142
Total Non-Direct	130,078	2,701	$ 132,779
Total Delivery Costs			
Inpatient Care	121,351	112,903	234,254
Outpatient Care	329,101	193,293	522,394
TOTAL	**450,452**	**306,196**	**$ 756,648**
Total Costs per Enrollee and per User *(Population and Per Capita Cost Figures are NOT in Thousands)*			
Total Enrollees (1)	312,206	87,073	399,279
Total Cost per Enrollee	*$ 1,443*	*$ 3,517*	*$ 1,895*
Total Market Users (1)	290,283	69,858	360,141
Total Cost per User	*$ 1,552*	*$ 4,383*	*$ 2,101*

(1) Market enrollees and market users for FY2002 extracted from the Joint Assessment Study Series 4 Database

Access

Nearly 90% of DoD enrolled and 70% of the VA enrolled beneficiaries are within 30-minute drives of some facility within their respective Systems. More than 97% of DoD and more than 83% of VA live within a 60-minute drive. In all Submarkets except Seattle, 88% or more of the DoD enrollees are within 30 minutes of a DoD facility. In the Seattle Submarket, only 62% of DoD enrollees are within 30 minutes, but 96% are within 60 minutes. The VA has the opposite profile: only in the Seattle Submarket are 90% of the VA enrollees within 30 minutes of any VA facility. The percent within 30 minutes drops to 75% in the South, 57% in the West Sound, and only 38% in the North Sound. In the North Sound, only 55% of VA enrollees are even within 60 minutes of any VA facility. Given that there are DoD facilities in the North Sound and West Sound Submarkets (NH Oak Harbor, BMC Everett, NH Bremerton) and that there are VA facilities in the Seattle Submarket (VAMC Seattle, Shoreline Clinic), opening access to each other's beneficiaries will improve the access for residents of these Submarkets.

A more detailed description of Primary Care access is presented in *Section 3.2.3.*

3.2.2 Options for Sharing/Collaboration Identified

There is a long list of potential ways to share access points in this Market. Some of them involve small shifts of volume, while others require more systematic change. These options are detailed in *Appendix A – Attachment 1.* Overall, there is an opportunity to improve access for the Veterans while providing a richer case mix of patients for the DoD. At the highest level there appears to be opportunity to rationalize and realign primary, specialty, and inpatient care.

3.2.3 Findings from the Application of the Study Methodology to the Opportunity to Rationalize Primary Care

Baseline Situation

Market Demand for Primary Care Services

Mitretek obtained data on primary care visits to Puget Sound facilities from the outpatient direct care standard data files maintained by VA and DoD. They summarized the detailed visit data into an overall estimate of total workload, using one Product Line (PL) for Primary Care, and including four Clinical Service Lines (CSL): Family Practice, Internal Medicine, Pediatrics, and Women's Health. DoD facilities (as a whole) have workloads in each Clinical Service Line, although Family Practice and Pediatric workloads occur only in DoD facilities. DoD and VA share the Internal Medicine workloads, and VA dominates in Women's Health.

Supply and Capacity

To estimate the available capacity to provide primary care services at each facility, Mitretek applied an analytic approach incorporating "capacity conversion factors" to the supply of primary care FTE providers at each facility. While the estimated total capacity of a facility, expressed in visits, included Pediatric provider FTEs, Pediatric volumes and capacity were not included in the impact analysis. The VA has no current capacity in Pediatrics, and shifting this volume from DoD to VA facilities was not considered practical.

The table below reflects the initial comparison of the baseline values for both primary care visit workload and primary care capacity at each facility in the Puget Sound Market.

Table 7: Baseline Primary Care Capacity in Puget Sound

Submarket	Facility	Baseline PC Workload (Visits)	Net Capacity Available/ (Needed)	Current PC Capacity (Visits)
North Sound	NH Oak Harbor	50,774	7,329	58,103
	NMCL Everett	17,300	1,871	19,171
Seattle	Seattle VAMC	98,330	24,135	122,465
South	62nd MG-McChord	33,000	1,823	34,823
	American Lake	80,994	(8,514)	72,480
	Madigan (Adjusted)	264,046	20,425	284,471
West Sound	Bremerton CBOC	4,190	4,990	9,180
	BMC Subase Bangor	20,352	(1,617)	18,735
	NH Bremerton	76,982	39,985	116,967
Total		**645,968**	**90,428**	**736,396**

Access

Both DoD and VA use the same performance standard for geographic access to primary care services. Access is considered acceptable if primary care services are located within a 30-minute drive-time distance from a beneficiary's residence. Because specific address information was not available in the data, Mitretek used ZIP-code centroid as a proxy for location of residence, and conducted drive-time analyses using GIS software. The drive-time analyses identified the proportion of the current in-Market primary care visit workload that met the 30-minute standard. These proportions, expressed as a percent, establish the access performance baseline for each Submarket and the Puget Sound Market as a whole. The access performance baseline is shown in the table below.[15]

Table 8: Access Performance Baseline for Puget Sound

	In-Market PC Volume		Volume Meeting Access Standard		% Volume Meeting Access Standard		
Submarket	DoD	VA	DoD	VA	DoD	VA	Comb'd
North Sound	66,010	19,808	58,177	5,492	88.1%	27.7%	**74.2%**
Seattle	8,324	56,800	4,263	50,805	51.2%	89.4%	**84.6%**
South	286,218	80287	257,444	52,190	89.9%	65.0%	**84.5%**
West Sound	97,857	20,646	89,357	3,080	91.3%	14.9%	**78.0%**
Total Market	**458,409**	**177,541**	**409,241**	**111,567**	**89.3%**	**62.8%**	**81.9%**

Cost

The total costs incurred by both DoD and VA to provide primary care to the in-market beneficiaries in FY02 represents the baseline cost performance for this analysis. This cost analysis identified those costs

[15] The visit volumes shown in Tables 8 & 9, while correct for the Market as a whole, differ from the Submarket totals in Tables 7 and 10. This is because Tables 8 & 9 reflect patient origin, rather than facility location, as the basis for the Submarket designation.

associated with the current in-Market primary care visit workload reflected in the access performance table above. The cost performance baseline is shown in the table below.

Table 9: Cost Performance Baseline for Primary Care in Puget Sound

	In-Market Primary Care Volume		In-Market Primary Care Costs		Average Total Cost per Visit		
Submarket	**DoD**	**VA**	**DoD**	**VA**	**DoD**	**VA (1)**	**Combined**
North Sound	66,010	19,808	$9,998,000	$3,045,000	$ 151	$ 154	**$ 152**
Seattle	8,324	56,800	$1,448,000	$8,733,000	$ 174	$ 154	**$ 156**
South	286,218	80,287	$46,940,000	$12,344,000	$ 164	$ 154	**$ 162**
West Sound	97,857	20,646	$21,546,000	$3,174,000	$ 220	$ 154	**$ 209**
Total Market	**458,409**	**177,541**	**79,932**	**27,297**	**$ 174**	**$ 154**	**$ 169**

Sources: SADR data by visit for FY2002 for DoD volumes; VA DSS Data Extracts for FY2002 for VA

(1) Total Puget Sound system average costs used for VA by submarket in this analysis

Impact of Primary Care Rationalization

Analytical Approach

Mitretek rationalized primary care in the Puget Sound Market by applying three analytical steps to the baseline data. These steps are briefly described below.

Step 1 – Rationalize Access. Rationalizing access is accomplished by opening the facilities of each system to the beneficiaries of the other. The primary care visit workload that is affected by this change is generated from ZIP codes (and counties) that are closer to the newly-opened facility than the facility where this workload was previously accommodated. During the site visits, staff at both VA and DoD facilities reported that some beneficiaries of the "other" system were driving past their facilities to receive services from more distant locations.

This step moves these primary care volumes to the nearest facility *with available capacity*, either DoD or VA, in three Clinical Service Lines: Family Practice, Internal Medicine, and Women's Health. The VA has no capability to provide Pediatric services, so these workload volumes remain at DoD facilities. Additionally, no workload is shifted from VA to DoD "sick call" facilities (e.g., TMC #1 – Ft. Lewis). These actions result in some workload moving from DoD facilities to VA facilities, from VA facilities to DoD facilities, and within DoD or VA, if a different facility is closer than the one currently providing primary care services.

Step 2 – Rationalize Resources. The objective of Step 2 is to shift or reallocate volumes and resources among facilities—maintaining the performance against the 30-minute access standard achieved above—to achieve better operating efficiencies at these facilities, and reduce or eliminate the extent to which any facility is "overstretched."

Step 3 – Rationalize Access Points. The objective of Step 3 is to continue to improve the overall performance of the delivery system in the Puget Sound Market compared to the access standard by opening new primary care access points. During its site visit, Mitretek learned that the VA was assessing the potential of opening several Community-Based Outpatient Clinics (CBOCs) in the Market, in areas that had relatively significant numbers of veteran users residing outside the access standards. In this example, Step 3 assumes that all three of these CBOCs will be opened.

Results

The results of applying this three-step approach are shown in the table below.

Table 10: Puget Sound Primary Care Demand and Supply – Impact of Rationalization

Submarket	Facility	Baseline PC Visits Required	Step 3 Change	Step 3 PC Visits Required	Net Capacity Available/ (Needed)	PC Visit Capacity	Step 3 Capacity Changes
North Sound	NH Oak Harbor	58,654	(2,505)	56,149	1,954	58,103	
	BMC Everett	17,300		17,300	1,871	19,171	
	Bellingham CBOC		2,505	2,505	0	2,505	2,505
Seattle	Seattle VAMC	96,375		96,375	23,585	119,960	(2,505)
South	62d MG-McChord	32,179		32,179	2,644	34,823	
	American Lake	75,092	(16,193)	58,899	6,568	65,467	(16,19
	Centralia CBOC		6,433	6,433	0	6,433	6,4
	Olympia CBOC		9,760	9,760	0	9,760	9,760
	Madigan	257,389		257,389	27,082	284,471	
West Sound	~~Bremerton OC~~	0		0	(0)	(0)	
	BMC Subase Bangor	20,352		20,352	(1,617)	18,735	
	NH Bremerton	88,627		88,627	28,340	116,967	
Total Market		**645,968**	**0**	**645,968**	**90,428**	**736,396**	**0**

Mitretek finds that, based on this example, access performance can be improved significantly by opening new access points and redistributing capacity from facilities with surplus capacity. This is true even intra-VA or intra-DoD, if rationalizing access through policy action cannot be accomplished.

Opening three new VA CBOCs in Bellingham, Centralia, and Olympia improves *VA-only* Market performance from a baseline of 62.8% to 70.7%. Opening new VA primary care access points, and changing policy to permit access to the closest facility regardless of System, increases overall Market-wide access performance to 97.2%, a significant improvement over the 62.8% baseline.

Cost Impact of the Rationalization

For this analysis of the opportunity to rationalize primary care in the Puget Sound Market, the baseline costs to provide primary care to the in-market

beneficiaries incurred by both DoD and VA in FY02 were established as the baseline cost performance for the system under status quo operations. Assuming the implementation of these three sequential steps to rationalize primary care in the market, Mitretek projected the expected incremental operating cost impact on each facility that shows a measurable improvement in access.

With the primary care service data that are available in the Study database, the FY02 Puget Sound facility-specific operating costs—both the average total cost per visit and the variable cost per visit— can be calculated and identified with the specific patient volumes being redistributed. In the cost analysis of this opportunity to rationalize primary care, no assumptions were made as to the ability of the two Systems to take advantage of any of the excess provider capacity that might exist and could be leveraged to achieve greater productivity in any of the current service locations. The cost impact illustrated in the table below assumes that the full average variable cost associated with the current visits by location will be redistributed with the visit volumes.

The results of applying this variable cost impact analysis to the three-step redistribution of primary care visit workloads to improve access are shown in the table below.

Table 11: Puget Sound Primary Care – Cost Impact of Rationalization

		Net Volume Changes by Facility			Incremental Cost Impact of Redistribution of Volumes			
Submarket	Facility	Baseline PC Visits	Net PC Visit Change After Step 3	Total PC Visits After Step 3	Baseline PC Costs ($ in thousands)	Baseline Average Variable Cost/Visit (1)	Costs After Step 3 Changes ($ in thousands)	Step 3 Cost Changes
North Sound	NH OAK HARBOR	50,774	5,375	56,149	$ 7,690,246	$ 123	$ 8,278,250	$ 588,004
	NMCL EVERETT	17,300	0	17,300	$ 3,338,666	$ 155	$ 3,338,666	$ -
	Bellingham CBOC (2)	0	2,505	2,505	$ -	$ -	286,045.12	$ 286,045
Seattle	Seattle	98,330	-1,955	96,375	$ 15,147,833	$ 116	$ 14,921,956	$ (225,877)
South	62nd MED GRP-MCCHORD	33,000	-821	32,179	$ 6,754,010	$ 168	$ 6,616,033	$ (137,977)
	American Lake	80,994	-22,095	58,899	$ 11,813,907	$ 109	$ 9,396,799	$ (2,417,108)
	Centralia CBOC (2)	0	6,433	6,433	$ -	$ -	$ 863,889	$ 863,889
	Olympia CBOC (2)	0	9,760	9,760	$ -	$ -	$ 1,088,558	$ 1,088,558
	MADIGAN AMC (Adjusted)	264,046	-6,657	257,389	$ 42,242,079	$ 129	$ 41,380,996	$ (861,083)
West Sound	Bremerton OC (3)	4,190	-4,190	0	$ 1,247,845	$ 223	$ 311,961	$ (935,884)
	BRMCL SUBASE BANGOR	20,352	0	20,352	$ 3,872,945	$ 153	$ 3,872,945	$ -
	NH BREMERTON	76,982	11,645	88,627	$ 16,949,750	$ 178	$ 18,701,182	$ 1,751,432
Total Market		**645,968**	**0**	**645,968**	**$ 109,057,282**	**$ 134**	**$ 109,057,282**	**$ (0)**

(1) Variable costs per visit from DoD from SADR patient record level cost data; VA average variable cost estimated at 75% of total for this analysis. In this analysis, the full variable cost of the visit at the originating facility is assumed to move with the patient to the new facility. No potential efficiencies from increased utilization of any excess capacity in the system are assumed in this analysis.

(2) Transition costs to develop these new access points are not included in this illustration of operational cost impact of the redistribution of care

(3) Reduction in fixed expenses achieveable with the redistribution of Bremerton volumes are not included in this illustration of operational cost impact

3.2.4 Findings from the Assessment Applying the Collaboration Framework

According to the 2002 DoD/VA Sharing Database, there were six master sharing agreements between the VA Puget Sound Health Care System and the military facilities in the region, covering a wide range of clinical and administrative activities. The primary focus of VA and DoD planning during the past year has been the impending initiative to move inpatient Medical/Surgical patients from VA American Lake to Madigan. Local officials regard this as a significant sharing accomplishment.

During the second site visit, both the quantitative methods used (rationalization of primary care example) and the Collaboration Framework were reviewed. Mitretek also presented and facilitated discussion about more than 50 opportunities for increased DoD/VA collaboration in the Market. These opportunities included ideas that were applicable to all Markets (grouped into the Collaboration Framework) as well as ideas specific to the Puget Sound Market and/or specific to certain facilities in the Market. *Appendix B - Attachment 1* provides detail about these opportunities.

One of the tools in the Collaboration Framework is a Relationship Grid. Along a continuum of Separate→Coordinated→Connected→Integrated→Consolidated, most of the relationships among the major hospitals in the Market are either Separate or Coordinated. In terms of clinical workload, VA and Madigan are considered Coordinated because there is regular communication between the two hospitals. However, Mitretek found the relationships between the VA and the two Naval Hospitals (Bremerton and Oak Harbor) to be less well-developed (rated as Separate) due to the low volume of referrals between them. In terms of Staffing, VA and Madigan are also considered Coordinated since there is some sharing where duplication exists and some cross-staffing support to balance peak workloads. In terms of Facilities, all of the hospitals are currently rated as Separate since they are distant from each other and cannot share physical space; this reinforces the idea of distributing primary care volumes among the facilities of each System. VA and Madigan also work together more closely than VA and the Naval Hospitals in other domains; they are Coordinated in Information Management/Information Technology, Governance and Logistics.

Feedback during the second site visit affirmed the Collaboration Framework as a useful tool for looking at the relationship between VA and DoD within a market. The framework highlights the many dimensions of collaboration, and can be used as a frame of reference in future planning.

3.2.5 Recommendations for the Puget Sound Market

The opportunity to rationalize primary care analyzed in the application of this Study Methodology provides a basis for some relatively stable recommendations that can be used as a basis for future planning in the Puget Sound Market (and potentially elsewhere).

Mitretek recommends that the VA and DoD continue to move forward with their planning efforts to open new primary care access points in geographic areas that are currently underserved.

The analysis in this Report, based on the quantitative workload and capacity information available from both systems, provides a useful "scorecard" and a relatively comprehensive approach for identifying and analyzing care delivery issues in the Market, especially–but not limited to–those involving sharing and collaboration between VA and DoD. In the site visits, Mitretek observed that while both systems were considering many collaboration issues and initiatives, these discussions often occurred without an understanding of the overall range and depth of care delivery in the Market. That is, there was often a lack of context for framing the potential improvement represented by a particular initiative, no method to evaluate it, and no consistent method for comparing it to other, equally intriguing ideas. Mitretek believes that the comprehensive, data-driven, Market-wide perspective used in the methods and analysis described in this Report represents a significant contribution to DoD and VA joint planning efforts, for primary care and other categories of health care services.

Mitretek recommends that the VA and DoD use the Collaboration Framework to assist the organizations as they consider, plan for, and act on most of the identified opportunities.

These opportunities represent the present avenues for improving care delivery to military and veteran beneficiaries residing in the Market. All such actions should proceed from a deliberate joint planning process.

3.3 Gulf Coast

3.3.1 Market Overview

The table below identifies the Submarkets, counties, and facilities in the Gulf Coast Study Market. (A reference map is available in *Appendix A, Section 3.*)

Table 12: Study Market Area Definition for Gulf Coast

Submarket	County	DoD Facilities	VA Facilities
Biloxi/Gulfport	George Greene Hancock Harrison Jackson Pearl River Stone	– Keesler Medical Center – BMC Pascagoula – BMC Gulfport	VA Gulf Coast Veterans Health Care System: - VA Biloxi Division - VA Gulfport Division
Mobile	Baldwin Mobile Washington, AL		– Mobile CBOC
Eglin	Okaloosa Walton	– Eglin AF Hospital – 16th MG, Hurlburt Field	
Panama City	Bay Holmes Washington, FL	– BMC Panama City – Tyndall AFB	– Panama City CBOC
Pensacola	Escambia, AL Escambia, FL Santa Rosa	– NH Pensacola – NTTC Corry Station – NATTC Pensacola – NAS Pensacola Clinic – BMC Whiting Field	– Pensacola CBOC

The Gulf Coast Market Area is unique in that it encompasses a very large geographic area, some parts of which are sparsely populated. The geography is also dominated by the Gulf of Mexico—resulting in a 250-mile linear distance between the two ends of the Market. Further, the area (particularly Florida) is a popular location for DoD retirees; thus, there are a high number of "dual eligibles".

The topography of the Market makes providing adequate access to care difficult. Since the Market area is so large and long, determining whether or not to provide services (particularly inpatient services) in a specific location is a challenge. In many individual locations (especially east of Biloxi/Gulfport), each System has a population that is important to serve—but there may not be sufficient population to warrant an individual hospital for each System. At the same time, there are two major hospital facilities adjacent to each other in Biloxi, MS—with a third nearby in Gulfport. In the eastern Submarkets, where the only inpatient facilities are DoD, and in the Mobile Submarket where there is only a VA outpatient center, access to each other's facilities has the potential to improve access for beneficiaries. In the Biloxi/Gulfport Submarket, where there are three inpatient hospitals—all with significant capital requirements—an opportunity exists to simultaneously reduce long-term capital costs and to enrich the Graduate Medical

Education (GME) experience by "opening" access and combining some of the services of these facilities. An example analysis that demonstrates the impact of rationalizing access to inpatient care follows in *Section 3.3.3*.

Beneficiary Populations

The Gulf Coast Market Area has approximately 509,000 eligible Combined Beneficiaries—approximately 55,000 of whom are "dual eligible". The eligible population is fairly evenly split between DoD and VA. The overall enrolled population is equal to 70% of the eligible population. Specifically, the enrolled Veterans equaled 25% of eligible Veterans, while the number of DoD enrolled exceeds the number of eligibles on average for the whole Market (but it is equal to less than 25% of the eligible population in some specific counties).

The number of unique users of either the direct or indirect care system equaled 92% of the enrolled population (net of dual users). The number of DoD users of either direct or indirect care was similar to the number of DoD enrolled in 2002, while the number of unique VA users was equal to 77% of the VA enrolled population. For *direct* care, 7% of users were dual users (beneficiaries who used both systems).

Service Demand Workloads

In 2002, residents of the Gulf Coast Market generated about 17,850 admissions and 93,200 inpatient days of direct care in Medicine (including Rehab), Surgery, Behavioral Health (including Substance Abuse), and Obstetrics/Newborn (Post Partum and Nursery days both counted). In addition, the users in the Gulf Coast Market generated approximately 540 direct Extended Care admissions and approximately 76,000 Extended Care days.

The case mixes for DoD and VA are quite different—especially for Behavioral Health and Surgery: 47% of the VA's patient days were for Behavioral Health and 10% were for Surgery. This compares to 3% BH and 30% Surgery for the DoD.

For outpatient workload, residents of the Gulf Coast Market generated more than 1.4 million direct care visits. This outpatient activity includes visits to providers, diagnostics departments (such as radiology), therapeutic departments (such as physical therapy), and emergency departments, and includes out-migration. From the perspective of the facilities (rather than the Market), about 57% of total Combined Beneficiary workload (provider, diagnostic, and therapeutic activity combined) was in the Clinical Service Lines of Internal Medicine, Family Practice, Mental Health, and Rehabilitation.

Users in this Market also produced more than 715,000 indirect care (purchased and fee-based) outpatient visits. This volume is nearly twice that of the whole Puget Sound Market, and 95% of the volume is DoD

volume. One-third of the DoD volume was for people over the age of 65 (presumably TRICARE for Life[16] users) and two-thirds was for people over the age of 45. Users in this Market also generated more than 15,600 indirect care admissions, nearly 99% of which were DoD. The DoD indirect care use rates per 1,000 enrollees in the Gulf Coast for both outpatient and inpatient care were twice that of the other Study Markets.

Resource Supply and Capacity

Most of the major hospital buildings were built more than 20 years ago—and some were built more than 50 years ago. A cursory review of the clinical spaces by architects shows a mix of functionality in the inpatient units and ambulatory clinics. Many of the inpatient units score as either Green or Amber for size and configuration (on a Red/Amber/Green scale—with Green being the best). However, quite a few spaces received Red scores, including size and configuration of the Critical Care units at VAMC Biloxi; size and configuration of the Medical/Surgical inpatient units at Eglin, NH Pensacola, and VA Gulfport; and configuration of several clinics at Keesler. In addition, the architects noted that most spaces are not ADA compliant. The Engineers rated the major buildings at Tyndall, VAMC Biloxi, and Whiting Field as Fair. The condition of BMC Panama City was rated as Poor. See *Appendix A-Attachment 9* for more detailed facility reviews.

Since both the DoD and VA use 85% inpatient bed occupancy as a planning standard for Medical/Surgical beds, and 65% occupancy is a commonly accepted high level Critical Care standard, this Study uses these standards in an initial assessment of Medical/Surgical, Psychiatry, and Critical Care bed capacity versus demand. The Market has 281staffed beds and 344 available beds in these categories. In FY02, the Gulf Coast Market had a weighted average, staffed-bed occupancy of 59% (note that the target occupancy is usually 80-85%, not 100%).

Current Market Performance

Cost

The total baseline system-wide cost required to fund the care provided to the beneficiary population in the Gulf Coast Market includes annual costs associated with both direct and indirect care. Totaling the FY02 cost data for each of these components of care delivery provides an annual baseline cost for the Gulf Coast Combined Beneficiary population. The current baseline cost performance for the Gulf Coast Market is illustrated in the table below.

[16] **TRICARE For Life (TFL):** New benefits (October 1, 2001) for Medicare-eligible uniformed service retirees (and Medicare-eligible family members). TRICARE is a secondary payer to Medicare.

Table 13: Baseline Total Annual Cost of Care to DoD & VA Beneficiaries in Gulf Coast Market

Cost Figures in Thousands ('000s)	GULF COAST COSTS BY AGENCY		
	DoD	VA	Total
In-Market Direct Care Provided			
Inpatient Care	72,792	50,031	122,823
Outpatient Care	205,912	104,729	310,641
Total In-Market	278,704	154,761	$ 433,465
Out-Migration (Direct Care Provided Outside Market)			
Inpatient Care	3,071	14,832	17,903
Outpatient Care	8,824	6,063	14,887
Total Out-Migratio	11,895	20,896	$ 32,791
Non-Direct Care (Purchased/Fee Basis Care)			
Inpatient Care	36,534	968	37,502
Outpatient Care	141,064	1,550	142,614
Total Non-Direct	177,598	2,518	$ 180,116
Total Delivery Costs			
Inpatient Care	112,397	65,832	178,229
Outpatient Care	355,800	112,343	468,143
TOTAL	**468,197**	**178,175**	**$ 646,372**
Total Delivery Costs per Enrollee and per User *(Per Capita Cost Figures are NOT in Thousands)*			
Total Enrollees (1)	296,230	61,805	358,035
Total Cost per Enrollee	*$ 1,581*	*$ 2,883*	*$ 1,805*
Total Market Users (1)	368,157	61,545	429,702
Total Cost per User	*$ 1,272*	*$ 2,895*	*$ 1,504*

(1) Market enrollees and market users for FY2002 extracted from the Joint Assessment Study Series 4 Database

Access

Nearly 95% of DoD enrolled and 71% of the VA enrolled beneficiaries are within a 30-minute drive of some facility within their respective Systems. Opening access so that VA and DoD beneficiaries can obtain primary care services at any VA or DoD facility dramatically improves the percent of visits that would meet the 30-minute drive time standard—especially for the VA. With *current* practices, only 67% of VA primary care visits were within 30 minutes of any VA facility; the percent within standard ranges from a low of 0% in the Eglin Submarket to a high of 83% in the Pensacola Submarket. For DoD, 93% of primary care visits in the entire Market were within a 30-minute drive of a DoD facility. The percent within standard is 90% or greater in all Submarkets except Mobile, in which only 46% of DoD primary care visits originated from ZIP codes within 30 minutes' drive of a DoD facility.

By allowing Combined Beneficiaries to go to the nearest VA or DoD facility for primary care, the percent of VA visits within 30 minutes of any facility increases to 95% or better in all Submarkets. For the DoD,

opening access to the Mobile CBOC would increase the number of visits within 30 minutes from 46% of total to 79% for the beneficiaries living in the Mobile Submarket.

None of the roughly 900 VA inpatient admissions that originated from VA beneficiaries outside of the Biloxi/Gulfport Submarket were within a 60-minute drive to any VA inpatient facility. For DoD, more than 90% of admissions were within a 60-minute drive of a DoD inpatient facility in all Submarkets except for Mobile (80% within 60 minutes) and Panama City (only 8% within 60 minutes). These overall statistics could be improved if the DoD allowed Veterans to receive care in DoD facilities.

3.3.2 Options for Sharing/Collaboration Identified

There is a long list of potential sharing opportunities in this Market; some of them involve small shifts of volume, while others require much more systematic change. These options are listed in detail in *Appendix A – Attachment 6*. Overall, there is an opportunity to improve access for the Veterans while providing a richer case mix of patients for the DoD. At the highest level there appears to be opportunity to rationalize and realign primary, specialty, and inpatient care.

3.3.3 Findings from the Application of the Study Methodology to the Opportunity to Consolidate Inpatient Care in Biloxi/Gulfport

Overview

This subsection provides the results of an analysis that examined the opportunity to consolidate inpatient care (Medical/Surgical care, including Critical Care) in the Biloxi/Gulfport Submarket. Two scenarios are provided to demonstrate the capacity impact and economic implications of centralizing care at Keesler Medical Center (Scenario A) or at VAMC Biloxi (Scenario B). Also embedded in this analysis are assumptions about opening or expanding VA access to Eglin Hospital and NH Pensacola in the Florida Submarkets.

Of the 48 health care facilities included in this Study (in all three Markets), Keesler and VAMC Biloxi are the only two health care facilities that offer a similar mix of inpatient services from each System side-by-side (separated by only a few hundred yards). In an era when DoD/VA sharing has become a key initiative for the Federal government, Mitretek is certainly not the first to inquire about the possibility of consolidation, given the close proximity of these two hospitals. In July, for example, members of the VA CARES Commission paid a visit to the VA Biloxi and Gulfport Divisions as well as to Keesler Medical Center and met with VA and DoD leadership, including the commanding General. The site visit notes raise several points associated with opportunities for increased collaboration between VAMC Biloxi and Keesler, including one future delivery model option in which Keesler would "take care of inpatient

services while VA would take care of outpatient services."[17] One month later, in a CARES Commission Post Hearing Summary for VISN 16, the Commissioners recommended that an "additional study needs to be undertaken to assess the cost/benefit of the options available at VA Biloxi, including partnership with Keesler."[18] The application of this Study's methodology takes the next step—exploring this opportunity based on the current performance of these two Federal assets.

Baseline Situation

Demand for Inpatient Services

Demand for this analysis focuses on Medical/Surgical and Critical Care inpatient utilization by beneficiaries who reside in the Gulf Coast Market. The table below shows the total discharges and average lengths of stay for in-market consumption, out-migration (to other Federal providers) and indirect care (by private network providers). The FY02 volume in this exhibit excludes Mental Health, Rehabilitation, Extended Care, and Obstetrics/Newborns. A full profile of inpatient and outpatient care demand in the Gulf Coast can be found in *Appendix A*.

Table 14: Total Utilization of Inpatient Medical/Surgical Care by Gulf Coast Beneficiaries

Submarket	In-Market (a)			Out-Migration (b)			Non-Direct Care (c)			Total
	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total	
Biloxi/Gulfport	2,869	1,289	4,158	72	261	333	2,209	18	2,227	6,718
Eglin	2,722	65	2,787	97	59	156	3,642	14	3,656	6,599
Mobile	249	245	494	23	105	128	1,816	55	1,871	2,493
Panama City	42	41	83	22	66	88	2,784	34	2,818	2,989
Pensacola	2,379	138	2,517	122	108	230	3,886	81	3,967	6,714
Total Discharges	8,261	1,778	10,039	336	599	935	14,337	202	14,539	25,513
ALOS	*4.53*	*7.12*	*4.99*	*4.15*	*7.12*	*6.05*	*6.82*	*4.11*	*6.78*	*6.05*

(a) Utilization by resides of each submarket at federal facilities in the Gulf Coast.
(b) Beneficiaries living in the Gulf Coast receiving care by a federal provider outside the Market.
(c) Services provided by non-federal providers through fee-basis care (VA) and purchased care (DoD).

The in-market volume above reflects care provided by the four facilities offering Medical/Surgical care in the Gulf Coast (excluding Gulfport) to beneficiaries who reside in this Market. Of the 14,337 DoD indirect care discharges, over half represent patients 65 years of age or older (mostly TRICARE For Life enrollees). If patients over 65 are excluded from DoD indirect care, 57% of the remaining inpatient demand (including direct care) is accommodated by DoD and VA hospitals in the Gulf Coast.

With respect to the Biloxi/Gulfport Submarket, roughly 71% (or 2,048) of the 2,869 DoD in-market discharges were generated by retirees and their

[17] CARES Commission Site Visit Report, page 2; Visit: July 2, 2003; Prepared by K. Collier, July 14, 2003
[18] CARES Commission Post Hearing Summary, Section V., page 4; August 26, 2003

family members. Not surprisingly, nearly all of this care was provided at Keesler (11 total discharges at Eglin and NH Pensacola combined). Similarly, nearly all of the 1,289 VA in-market direct discharges took place at VAMC Biloxi. In terms of VA out-migration, 185 of the 261 discharges occurred at the VA Medical Center in New Orleans, which is the VA's tertiary care hospital serving the Gulf Coast Market and Southeast Louisiana.

Supply

The five inpatient facilities in the Gulf Coast Market include two in the eastern end of the Market, and three hospitals in the Biloxi/Gulfport Submarket. These facilities are:

- Eglin Hospital (96th Medical Group at Eglin AFB) (a.k.a. Eglin)
- Naval Hospital Pensacola (NH Pensacola)
- Keesler Medical Center (81st Medical Group at Keesler AFB) (a.k.a. Keesler)
- VA Gulf Coast Veterans Health Care System – Biloxi Division (VAMC Biloxi)
- VA Gulf Coast Veterans Health Care System – Gulfport Division (VA Gulfport)

Eglin and NH Pensacola are located approximately 50 miles apart in the Eglin and Pensacola Submarkets. Each facility caters primarily to the needs of the active duty and their family members in their separate and distinct service areas (centered by Eglin AFB and Naval Air Base Pensacola, respectively). The facilities are similar in terms of their size, service mix, and volume.

Eglin is a 65-bed hospital (available beds) which had an average daily census of 28 in FY02. Roughly 44% of its total workload (5,000 discharges) was Obstetrics/Newborn. In terms of Medical/Surgical care, Eglin has available capacity of 55% (7,285 bed days), with an occupancy target of 85% for Medical/Surgical and 65% for Critical Care.

NH Pensacola, located west of Eglin, is a 60-bed facility with an average daily census of 25; 37% of its total discharges (3,600) in FY02 were attributed to Obstetrics/Newborn. The hospital currently has a sharing agreement with the VA for inpatient care, and because demand by the veterans/retirees is steadily increasing, there are plans to reevaluate the agreement to allow greater VA access. In FY02, VA enrollees accounted for 87 discharges (according to a patient classification field in the DoD national data). Its current workload levels suggest that NH Pensacola has available capacity of 82% (10,193 bed days) for Medical/Surgical care (with an 85% occupancy target).

The Gulfport Division of the VA Gulf Coast Veterans Health Care System (GCVHCS) provides inpatient and outpatient Mental Health services, and houses an Alzheimer's dementia unit. Through a collaborative agreement

with Keesler AFB, VA Gulfport also accommodates the needs of military personnel with acute mental health care needs. This facility was excluded from the Medical/Surgical Scenarios discussed later in this section (it currently has one Medical/Surgical bed), but it plays a vital role in providing behavioral health services to the entire Gulf Coast Market. Its future delivery model and location (currently under review by the VA) will have a direct impact on the other two facilities in Biloxi/Gulfport.

The facilities included in this analysis, VAMC Biloxi and Keesler Medical Center, are located in Biloxi, 8 miles northeast of the Gulfport facility. The VA Biloxi campus includes 37 buildings on approximately 125 acres of land. It is surrounded on the east and west by Keesler AFB housing. VAMC Biloxi serves as the only VA general medical facility for the Gulf Coast Market, with 40 Medical/Surgical beds and 9 Intensive Care beds. Neighboring Keesler is a 90-bed tertiary care center, originally constructed as a 300-bed facility, which currently has a reported 63 Medical/Surgical beds and 22 Intensive Care Unit beds (available beds). The space for the approximately 200 unused beds currently houses outpatient services and administrative functions. The workload, capacity and operating costs for these two facilities are provided in the balance of this section.

Capacity

For purposes of the analysis provided in this section, Medical/Surgical and Critical Care capacity was measured only for VAMC Biloxi and Keesler. An 85% occupancy standard for Medical/Surgical care and 65% occupancy standard for Critical Care was used to measure the Net Maximum Capacity based on available beds. Capacity is measured in a status quo environment with the analytical assumption that each facility is now operating with adequate resources to meet the Medical/Surgical care needs of their respective populations. The following table represents the baseline workload and estimated available capacity for inpatient Medical/Surgical and Critical Care services at Keesler and VAMC Biloxi.

Table 15: Estimated Medical/Surgical Capacity at Keesler and VAMC Biloxi

	Keesler Medical Center			Biloxi VAMC		
	Med/Surg	Critical Care	Total	Med/Surg	Critical Care	Total
Baseline Capacity						
Available Beds Reported	63	22	**85**	40	9	**49**
Max Net Capacity (85/65) (a)	19,546	5,220	**24,765**	12,410	2,135	**14,545**
Baseline Bed Days (FY02)	10,596	3,761	**14,357**	12,695	912	**13,607**
Max Net Occupancy (%)	54%	72%	**58%**	102%	43%	**85%**
Avg Daily Census	29	10	**39**	35	2	**37**
Baseline Discharges	3,021	696	**3,717**	1,757	161	**1,918**
Avg Length of Stay	3.5	5.4	**3.9**	7.2	5.7	**7.1**
Net Capacity Available (b)						
Estimated Bed Days	8,950	1,459	**10,408**	(285)	1,223	**938**
Estimated Discharges	2,552	270	**2,822**	(39)	216	**177**
Equivalent Beds	25	4	**29**	(1)	3	**2**

(a) Estimated capacity of the available beds (in days) based on 85% target occupancy for med/surg and 65% for critical care.
(b) Discharges and equivalent beds based on current ALOS.

Based on the number of available beds (85) at Keesler, this would suggest that 25 Medical/Surgical beds and 4 Critical Care beds are available for incremental volume. To the contrary, VAMC Biloxi baseline Medical/Surgical days and available beds suggest the facility has essentially no available capacity with an estimated three critical care beds available (based on the 85% Medical/Surgical and 65% Critical Care occupancy targets). The capacity estimates clarify the simple point that if there was a significant influx of Medical/Surgical volume in Biloxi/Gulfport (or neighboring Submarkets), Keesler would be in a better position to handle the incremental volume (assuming a status quo mode_. This reinforces conclusions drawn during the VA CARES process.

As illustrated in the table below, the vast majority of the capacity (shown in bed days) is utilized by patients originating from within the Gulf Coast Market with a moderate amount (8%-9%) of in-migration.

Table 16: Bed Days by Patient Origin at Keesler & VAMC Biloxi

Patient Origin	Keesler	Biloxi
Biloxi/Gulfport	**10,618**	**8,957**
Mobile	438	1,968
Pensacola	**716**	**948**
Eglin	1,063	445
Panama City	**212**	**216**
In-Migration	1,310	1,073
Total M/S & ICU Days	**14,357**	**13,607**

The total number of bed days from the three eastern Submarkets to VAMC Biloxi is 1,609 – or 12% of its total. Despite the 3½ to 4½ hours of drive time from these points, this figure still appears relatively low, considering the fact that VAMC Biloxi is the only acute care facility in the Market. From a VA planning standpoint, the true demand from the nearly 135,000 eligible veterans residing in the Florida Panhandle is suppressed to some extent because all the veterans who seek inpatient services are not necessarily emerging in the VA data. At least one-third of this eligible population is over 65 years of age, which means one can assume that a sizeable portion of these veterans are relying on Medicare, although some most likely supplement this with benefits through the DoD TRICARE program (many through the TRICARE for Life plan). An additional 24,000 are retirees (dual eligible) under 65 who may also enroll with TRICARE. According to FY02 TRICARE claims data, private hospitals in the Pensacola area received over 2,000 Medical/Surgical admissions of Combined Beneficiaries 65 years and older who reside in the Pensacola Submarket. An additional 1,500 admissions came from patients originating in the Eglin Submarket. In general, there exists a growing demand in the Florida panhandle from aging veterans who choose not to or cannot travel to Biloxi for care, but would utilize VA inpatient services if a hospital were located in one of the eastern Submarkets. For planning purposes, this makes it difficult to estimate the true level of VA inpatient demand in this Market.

Cost

FY02 operating costs were compiled from several sources for Keesler and VAMC Biloxi to gauge the estimated delivery costs associated with inpatient services, particularly Medical/Surgical care. The purpose of introducing operating costs into this analysis is not to compare operating cost efficiency between the two facilities and/or delivery systems, but to appreciate in the aggregate what different resources are required by the two Systems to offer similar inpatient services to their respective patient populations.

The total combined operating cost of Keesler and VAMC Biloxi is $300.8M (DoD, $167.8M; VA $133M). This includes all health care services provided at the facility as well as other system-specific missions (e.g., Readiness Programs at Keesler). With a focus on inpatient services, the exhibit below provides FY02 operating costs for Keesler and VAMC Biloxi for Medical/Surgical and Critical Care.

Table 17: Total Operating Costs for Inpatient Medical/Surgical Care in Biloxi

FY 2002	Keesler Medical Center (a)			Biloxi VAMC (b)		
	Med/Surg	Critical Care	Total	Med/Surg	Critical Care	Total
Operating Costs (in '000s)						
Variable Cost	17,389	8,382	**25,771**	15,139	1,343	**16,482**
Fixed Cost	4,977	2,144	**7,121**	4,333	344	**4,676**
Total Cost	$22,366	$10,526	**$32,891**	$19,471	$1,687	**$21,158**
Average Cost per (actual $)						
Discharge	$7,403	$15,123	**$8,849**	$11,082	$10,477	**$11,031**
Bed Day	$2,111	$2,799	**$2,291**	$1,534	$1,850	**$1,555**

(a) Costs were captured from MEPRS and SADR data. Fixed and variable were estimated at a SEEC code level.
(b) Cost data was obtained from DSS National Data Extracts. Variable costs were drawn from Account Level Budget Cost Center Detailed Reports.

The amounts shown above are a "preview" of the operating costs associated with this select inpatient volume for each facility. On a per discharge basis, it is not surprising that VA is $1,000 higher than DoD given the difference in case mix. Similarly, the average cost per day is less for VAMC Biloxi due to the greater average length of stay (double that of Keesler's). With an average combined operating cost per bed day of about $1,900, future operating cost savings realized through increased collaboration or consolidation can be viewed as an investment in the future health care needs of the Combined Beneficiaries.

Impact of Realigning Inpatient Services

Analytical Approach

Mitretek assessed the opportunity to consolidate Medical/Surgical care in Biloxi/Gulfport by showing the impact of centralizing this care at Keesler (Scenario A) or at VAMC Biloxi (Scenario B). These scenarios were built on the baseline performance of each facility, their current capacity, and the following key assumptions:

1. *Eastern Submarket Facilities Recapture Medical/Surgical Care.* This assumes that DoD and VA beneficiaries currently residing in the Eglin and Pensacola Submarkets would have access (eligibility) to receive care at the nearest Federal hospital with available capacity, namely NH Pensacola or Eglin (and on the private network if necessary). In the two scenarios, the bed days of care for these beneficiaries were identified and deducted from the baseline for the measurement of capacity at VAMC Biloxi and Keesler. Additionally, bed days of beneficiaries in the Mobile Submarket who have nearly equal access (in drive time), to the Biloxi hospitals and NH Pensacola were

deducted from the baseline at 50% of the total, to adjust for the likelihood of their utilizing Biloxi hospitals.

2. *Practice Patterns Held Constant.* In the scenarios, the Medical/Surgical volume is transferred between these facilities without making adjustments to account for the different ways in which DoD and VA may deliver clinical services. This is accomplished by simply transferring all the bed days from one facility to the other without altering the average lengths of stay (ALOS).
3. *Operating Cost Savings of 10%.* An in-depth cost accounting analysis would be required to measure the potential operating cost savings to be realized by consolidating the Medical/Surgical services of the two facilities. This analysis assumes that operating costs, less 10%, are transferred with the volume. This is a conservative placeholder, given that fixed indirect costs can be as high as 20% on an average per discharge/bed day basis.
4. *Capital Requirements Excluded.* It is unrealistic to develop a complete estimation of capital costs and incremental recurring expenditures associated with the consolidation options presented because of the many uncertainties that are linked to each end of the transfer. Renovation and new construction costs on a per bed basis are offered as a reference point. While capital costs play a pivotal role in any decision-making process relating to the integration of clinical services, this assessment instead focuses its attention on gauging the *feasibility* of consolidation with consideration given to access, capacity levels, and service mix.

As reflected in the Study methodology, Mitretek approached this opportunity from the perspective of the Combined Beneficiaries who currently rely on these systems, as well as the U.S. taxpayers who financially support the Departments. As in the Puget Sound example, this approach focuses initially on the *desirability* of a particular option–specifically, on the potential for the realignment of health care delivery to improve patient access to care and/or to reduce the costs of delivering care. The VAMC Biloxi-Keesler example places less emphasis on access in this portion of the Market, given the location and capabilities of these two facilities, and allocates more attention to the possible economic benefits which could result from a future delivery model in which the resources could be leveraged to offer the same (if not a higher) quality of care at a reduced cost. From a Federal dollar perspective, logic would suggest that any cost savings in operations or capital expenditures would be shifted elsewhere in the Systems to enhance the delivery of health care services, to the benefit of the patients.

Scenarios A (Keesler as receiving facility) and B (VAMC Biloxi receiving) are summarized in two tables below. The estimate of the incremental capacity needed to absorb the transfer of Medical/Surgical

volume (in each direction) is based on a status quo environment (excepting the eastern Submarket patient migration assumptions noted earlier).

Table 18: Scenario A - Consolidating Inpatient Care in Biloxi/Gulfport Submarket

SCENARIO A	Biloxi VAMC - Status Quo			Keesler - Status Quo			Post-Transfer at Keesler		
	M/S	ICU	Total	M/S	ICU	Total	M/S	ICU	Total
Capacity (Bed Days)									
Baseline Demand (a)	12,695	912	13,607	10,596	3,761	14,357	23,291	4,673	27,964
Less: Pt. Migration from East (b)	(2,434)	(159)	(2,593)	(1,555)	(655)	(2,210)	(3,989)	(814)	(4,803)
Status Quo Demand	10,261	753	11,014	9,041	3,106	12,147	**19,302**	**3,859**	**23,161**
Maximum Net Capacity (c)	12,410	2,135	14,545	19,546	5,220	24,765	19,546	5,220	24,765
Capacity Surplus/Deficit	**2,149**	**1,382**	**3,531**	**10,505**	**2,114**	**12,618**	**244**	**1,361**	**1,604**
Equivalent Additional Beds Required							-	-	-
Status Quo Operating Costs									
Operating Cost per Day	$1,534	$1,850	**$1,555**	$2,111	$2,799	**$2,291**	$1,723	$2,577	**$1,865**
Baseline Operating Cost ($million)	$19.4M	$1.7M	**$21.1M**	$22.4M	$10.5M	**$32.9M**	$33.2M	$9.9M	**$43.1M**
Operating Cost less Migration	$15.7M	$1.4M	**$17.1M**	$19.0M	$8.7M	**$27.7M**			

(a) FY 2002 total medical/surgical and critical care bed days of care.
(b) Bed days of patients who reside in Eglin, Pensacola and Panama City and 50% of total bed days from Mobile Submarket patients.
(c) Total capacity calculated based on available beds at 85% medical/surgical occupancy and 65% critical care occupancy.

The results shown in Scenario A indicate that Keesler, from a capacity standpoint, could assume the Medical/Surgical volume currently provided at VAMC Biloxi without the need for renovation or new construction (based on these static figures). Clearly, this does not suggest that other operational and facility-related requirements would not surface if such a transfer occurred. If additional beds were required (now or in the future), a total upgrade of existing space per bed would cost roughly $121,000 (assuming 600 BGSF/bed and including project costs) in the Biloxi area.[19] New construction per bed (at 700 BGSF/bed) would cost an estimated $189,000.[20]

This transfer could result in recurring cost savings on several fronts. The figures above show $1.7M of annual savings in operations. As noted earlier, this uses a conservative discount of 10% from the total operating costs per unit – in this case, VAMC Biloxi's total delivery costs. Other recurring costs, such as facility maintenance and repair (M&R), are difficult to estimate, but VAMC Biloxi currently spends an estimated $2.6 million per year to maintain its inpatient facility.[21] How the freed space at VAMC Biloxi is used post-transfer would determine the actual amount of savings or cost avoidance. For example, the M&R costs would be unchanged if VAMC Biloxi backfilled the space with extended care services, but it would be considered a "savings" in terms of annual M&R attributed to the future delivery of Medical/Surgical inpatient care. This

[19] Marshall & Swift Level III renovation estimate (complete restructuring/total upgrade) adjusted for Biloxi area of $144.48/BGSF and assuming 600 BGSF/bed with 40% project costs.
[20] Marshall & Swift; $192.62/BGSF (adjusted for Biloxi area).
[21] Estimated at 3% of the $86.5 million Plant Replacement Value (PRV); VA CARES Valuation Study, 2002.

example would also apply to the $1.3 million in deferred maintenance currently estimated for VAMC Biloxi.[22]

Scenario B centralizes all Medical/Surgical care at VAMC Biloxi, and indicates a need for at least 24 additional beds to accommodate the incremental volume from Keesler. As noted in Scenario A, the capital requirements would start at $4.5 million for new construction of 24 beds.[23] More importantly, this Scenario illustrates that, regardless of the number of beds needed, new construction would be required at VAMC Biloxi. This presents a host of additional challenges in terms of facility planning and the need for a mix of renovation and expansion.

Table 19: Scenario B - Consolidating Inpatient Care in Biloxi/Gulfport

SCENARIO B	Biloxi VAMC - Status Quo			Keesler - Status Quo			Post-Transfer at Biloxi VAMC		
	M/S	ICU	Total	M/S	ICU	Total	M/S	ICU	Total
Capacity (Bed Days)									
Baseline Demand (a)	12,695	912	13,607	10,596	3,761	14,357	23,291	4,673	27,964
Less: Pt. Migration from East (b)	(2,434)	(159)	(2,593)	(1,555)	(655)	(2,210)	(3,989)	(814)	(4,803)
Status Quo Demand	10,261	753	11,014	9,041	3,106	12,147	**19,302**	**3,859**	**23,161**
Maximum Net Capacity (c)	12,410	2,135	14,545	19,546	5,220	24,765	12,410	2,135	14,545
Capacity Surplus/Deficit	**2,149**	**1,382**	**3,531**	**10,505**	**2,114**	**12,618**	**(6,892)**	**(1,724)**	**(8,616)**
Equivalent Additional Beds Required							**19**	**5**	**24**
Status Quo Operating Costs									
Operating Cost per Day	$1,534	$1,850	**$1,555**	$2,111	$2,799	**$2,291**	$1,705	$2,577	**$1,850**
Baseline Operating Cost ($million)	$19.4M	$1.7M	**$21.1M**	$22.4M	$10.5M	**$32.9M**	$32.9M	$9.9M	**$42.8M**
Operating Cost less Migration	$15.7M	$1.4M	**$17.1M**	$19.0M	$8.7M	**$27.7M**			

(a) FY 2002 total medical/surgical and critical care bed days of care.
(b) Bed days of patients who reside in Eglin, Pensacola and Panama City and 50% of total bed days from Mobile Submarket patients.
(c) Total capacity calculated based on available beds at 85% medical/surgical occupancy and 65% critical care occupancy.

Scenario B also presents an opportunity for recurring cost savings. The figures above place the operating cost savings at $2M. As with Scenario A, other recurring costs, such as facility maintenance and repair (M&R) could also be avoided, depending on how DoD uses the freed space at Keesler after the transfer. Currently, M&R for Keesler Medical Center is an estimated $4.8M per year.[24]

3.3.4 Findings from the Assessment Applying the Collaboration Framework

The VA and DoD have 13 sharing agreements in effect in the Gulf Coast Market, involving the VA Gulf Coast Veterans Health Care System (GCVHCS) and six military facilities. At the time of Mitretek's first site visit, the dollar value of these exchanges was approximately $2M, affecting inpatient, outpatient, and administrative services. Examples of these include agreements between GCVHCS and Keesler for Behavioral Health services, and with NH Pensacola

[22] VA CARES Valuation Study, 2002.
[23] Marshall & Swift new construction estimate adjusted for Biloxi area of $192.64/BGSF and assuming 700 BGSF/bed with 40% project costs.
[24] Estimated at 3% of the $160 million Plant Replacement Value (using $200/sf @ 800,000 sf). Estimate supported by VFA review.

Mitretek recommends that DoD and VA establish a joint task force to move forward with an in-depth operational and facility assessment that includes a future consolidated model of Medical/Surgical care in Biloxi, based on the present and projected demand of the beneficiaries.

This near-term effort should set aside the uncertainty of policy-oriented issues such as BRAC and/or integration of GME programs. The detailed analysis should exhaust all avenues in terms of care delivery models, with patient demand and health care needs as the central drivers. Facility-specific considerations should be secondary in this planning process.

Mitretek recommends that the VA refrain from drawing any conclusions until DoD representatives have conducted a detailed reexamination of the Keesler alternative.

VA recently released the Realignment Study for VISN 16, which—through a cost/benefit analysis of several alternatives—concludes that all services currently offered at the Gulfport Division should be moved to VAMC Biloxi. This "preferred alternative" would allow for the "prediction of the outcomes for veteran patient services in a single consolidated location, to produce a single standard of care."[25] A separate alternative included a "sharing agreement for provision of clinical services with Keesler" which was "retained, as local command support for sharing may change again during the CARES process."[26] The current direction of this VA study signals a lack of collaborative planning on the part of both Departments.

Mitretek recommends the VA refrain from drawing any conclusions (and retract any offered) until a detailed reexamination of the Keesler alternative with DoD representatives is conducted. The current VA "preferred alternative" includes renovation of 123,000 DGSF and new construction of 155,000 DGSF with total capital costs of approximately $30M.[27] Having applied the Study methodology to this issue, Mitretek feels it would be premature to draw conclusions before assessing a consolidated DoD/VA delivery model for services duplicated between DoD and VA, given the remarkable proximity of these three facilities.

Mitretek recommends that the organizations continue to consider, plan for, and act on most of the identified opportunities in the Market.

These identified opportunities present possible avenues for improving care delivery to military and veteran beneficiaries residing in the Market. All such actions should proceed from a deliberate, joint planning process.

[25] Narrative component of VHA Realignment Study, VISN 16, November 21, 2003; p. 18.
[26] Realignment Study, p. 18
[27] Realignment Study, pgs. 4 and 8.

3.4 Hawaii

3.4.1 Market Overview

The Hawaii Market is divided into four geographically-based Submarkets: Kauai, Maui, Oahu, and The Big Island. The Submarkets, counties and facilities in this Market are delineated in the table below.

Table 20: Study Market Area Definition for Hawaii

Submarket	County	DoD Facilities	VA Facilities
Oahu	Honolulu	– Tripler AMC 15th Med Group – Hickam AF Clinic – BMC Makalapa – BMC Kaneohe Bay – BMC Pearl Harbor Naval Shipyard – Schofield Barracks – BMC Camp Smith – TMC-1-Schofield – TMC Pohakuloa – East Pac Annex	– VAMROC Honolulu
Maui	Maui		– Wailuku CBOC
Kauai	Kauai		– Lihue CBOC
The Big Island	Hawaii		– Hilo CBOC – Kona CBOC

Beneficiary Populations

In FY02, the Hawaii Market had approximately 248,500 eligible Combined Beneficiaries—approximately 15,000 of whom are "dual eligible". The eligible population is divided almost evenly between DoD and VA; 55% of the eligible population is DoD.

The number of enrolled Veterans was equal to about 25% of the eligible Veterans. The DoD enrolled population exceeds the eligible population in Oahu, but is equal to less than 16% of the eligible population in the other Submarkets.

Unique users of the combined DoD/VA Systems equaled 88% of the combined enrolled population (net of dual users). The number of unique DoD users of either the direct care or indirect care system was equal to 96% of the DoD eligible population. The number of VA users equaled 55% of the VA enrolled. The percent of VA enrollees who used the system is much lower than in the other Markets (where it was 69-77%). In the DoD, 31% of the total users accessed indirect care. In the VA, 18% used indirect care. This is the highest use of VA indirect care in the three Study Markets. For *direct* care, 4% of users were dual users (used both systems).

and Eglin for Medical/Surgical care. VA and DoD officials have devoted a great deal of attention to two significant projects: the planning of a 140,000 square foot ambulatory care center adjacent to NH Pensacola, and a CBOC adjacent to Eglin AFB Hospital.

During the second site visit, both the quantitative methods used in rationalizing inpatient care and the qualitative Collaboration Framework were reviewed. Mitretek also presented and facilitated discussion about more than 50 opportunities for increased DoD/VA collaboration in the Market. These opportunities included ideas that were applicable to all Markets (grouped into the Collaboration Framework) as well as ideas specific to the Gulf Coast Market and/ or specific to certain facilities in the Market. *Appendix B - Attachment 6* provides detail about these opportunities.

Along a continuum of Separate→Coordinated→Connected→Integrated→ Consolidated, most of the relationships among the hospitals in the Gulf Coast Market are either Separate or Coordinated. In terms of clinical workload, VA GCVHCS and Keesler are classified as Connected because there are a high number of referrals between the two (e.g., DoD Psych is at VAMC Gulfport). They are also Connected in Logistics, since there is some mutual examination of best pricing and service. The relationship in staffing is Coordinated, as there is some sporadic cross-support. Management and Education are also Coordinated, with some joint planning and selective exchange of teaching methods. However, Facilities, Business Processes, IM/IT, and Research are all Separate in the Gulf Coast.

The relationships between VAMC Biloxi and Eglin and between VAMC Biloxi and NH Pensacola have the same profile: Connected for Clinical Workload, Coordinated for Management and Logistics, but Separate for Facilities, Staffing, Business Processes, Education/Training, and Research.

Feedback sessions during the second site visit confirmed that the Collaboration Framework is a useful way tool for looking at the relationships between VA and DoD within a Market. The framework can be used as a reference in future planning.

3.3.5 Recommendations for the Gulf Coast Market

The two Scenarios presented in this analysis illustrate opportunities for consolidation anchored by the fundamental measurement of capacity. The analysis finds that Keesler and VAMC Biloxi are currently independently well-positioned to meet the demands of their respective populations (without a capacity surplus). However, if immediate consolidation was required, these two Federal providers could merge Medical/Surgical care in a status quo environment without jeopardizing the existing mix of services, access to care, and/or the recurring costs of delivery. This analysis justifies the need to explore a future delivery model of centralized acute care services in Biloxi, MS. Mitretek offers the following recommendations:

Service Demand Workloads

Residents of the Hawaii Market area generated about 13,700 admissions and about 60,600 inpatient days of direct care in Medicine (including Rehab), Surgery, Behavioral Health (including Substance Abuse), and OB/Newborn (Post Partum and Nursery days were both counted). These volumes include out-migration, but exclude indirect care and extended care. Users from the Hawaii Market generated 138 Extended Care direct care admissions and approximately 13,800 Extended Care direct care inpatient days. During the site visits, Mitretek noted that access to long-term care is a challenge for the VA (and an Island-wide problem). Residents of the Hawaii Market generated nearly 1 million direct care visits—including out-migration—to providers, diagnostics, therapeutics, and emergency departments.

Because most of the admissions and inpatient days are at Tripler, it is necessary to use the Patient Classification System to identify the Veterans (K-61) who generate workload at Tripler. (Note that the while the K-61 patients have Veteran status, they were not necessarily under the care of, nor referred by, the VA system.) Using this methodology, it appears that veterans generated 16% of the admissions and 34% of the direct care inpatient days. DoD patients generated 84% of the admissions and 66% of the bed days. Veterans generated 85% of direct care Behavioral Health days while DoD patients generated 62% of total direct care Medicine days and 75% of the direct care Surgery days.

In 2002, the Service Lines of Internal Medicine, Family Practice, Mental Health, and Rehabilitation constituted nearly 50% of the total direct care outpatient workload (including visits to diagnostic departments such as radiology and therapeutic departments such as physical therapy) in this Market.

For outpatient direct care activity to *providers* (excluding diagnostics and therapeutics), more than 52% of volume in this Market is Primary Care (a combination of Family Practice, Internal Medicine, and Pediatric Service Lines). The outpatient visit case mix for DoD and VA are similar—except for Behavioral Health.

Indirect care is a major expense in this Market, and there is an opportunity to reduce this expense through more joint "resource planning" between the DoD and VA. It is possible that, while the individual volumes of the various Services in the DoD and the VA are too small to justify employing some specialists, the combined DoD and VA volumes will be sufficient in some specialties to employ a shared physician. A more detailed assessment of indirect care in this Market follows in *Section 3.4.3*.

Resource Supply and Capacity

The Hawaii Market area contains 15 DoD and VA facilities—one hospital and 14 outpatient centers (including four for active duty only). Tripler

was built in 1948, and the Study engineers rated the major buildings as Fair. The Study architects, who recently completed a Master Plan at Tripler, scored most of the clinical spaces Green for size and configuration (on a Red/Amber/Green scale—with Green being the best). A few spaces rate as Amber. They also noted that most spaces are not ADA compliant. Other facilities in this Market were not toured.

Both the DoD and VA use 85% inpatient bed occupancy as a planning standard for Medical/Surgical beds, and 65% occupancy is a commonly accepted high level Critical Care standard. This Study included an initial assessment of Medical/Surgical, Psychiatry, and Critical Care bed capacity versus demand. The Market has 190 staffed beds and 223 available beds in these categories. In 2002, Tripler had a weighted average staffed-bed occupancy of 63%.

Current Market Performance

Cost

The total baseline system-wide costs required to fund the care provided to Combined Beneficiaries in the Hawaii Market includes annual costs associated with both direct care (in-market and outmigration) and indirect care. Looking at the FY02 cost data for each of these components of care delivery provides the total annual baseline cost for the Combined Beneficiary population in Hawaii, as illustrated in the table that follows.

Table 21: Baseline Total Annual Care Cost to DoD & VA Beneficiaries in the Hawaii Market

Cost Figures in Thousands ('000s)	HAWAII COSTS BY AGENCY		
	DoD	VA	Total
In-Market Direct Care Provided			
Inpatient Care	93,149	11,253	104,402
Outpatient Care	153,434	49,457	202,891
Total In-Market	246,583	60,710	$ 307,293
Out-Migration (Direct Care Provided Outside Market)			
Inpatient Care	1,789	669	2,458
Outpatient Care	3,833	490	4,323
Total Out-Migratio	5,622	1,159	$ 6,781
Non-Direct Care (Purchased/Fee Basis Care)			
Inpatient Care	7,606	2,899	10,505
Outpatient Care	23,609	1,725	25,334
Total Non-Direct	31,215	4,624	$ 35,839
Total Delivery Costs			
Inpatient Care	102,544	14,822	117,366
Outpatient Care	180,876	51,672	232,548
TOTAL	**283,420**	**66,493**	**$ 349,913**
Total Delivery Costs per Enrollee and per User *(Per Capita Cost Figures are NOT in Thousands)*			
Total Enrollees (1)	203,712	29,624	233,336
Total Cost per Enrollee	*$ 1,391*	*$ 2,245*	*$ 1,500*
Total Market Users (1)	197,754	22,998	220,752
Total Cost per User	*$ 1,433*	*$ 2,891*	*$ 1,585*

(1) Market enrollees and market users for FY2002 extracted from the Joint Assessment Study Series 4 Database

Access

Drive time analysis in Hawaii is limited to drive times within each island. In Oahu, all enrollees are within 60 minutes of a facility within their respective Systems. In the other Submarkets, which provide only outpatient clinic services, only VA beneficiaries are within 60 minutes of a facility. Although the DoD population in these Submarkets is small, opening the VA clinics to these beneficiaries will improve their access, and thus overall access measures for the Hawaii Market.

3.4.2 Options For Sharing/Collaboration Identified

Mitretek identified a list of potential sharing opportunities for Hawaii—some of which involve small shifts of volume, and others which will require more comprehensive change. Details are available in *Appendix A-Attachment 11*.

3.4.3 Findings from the Application of the Study Methodology to the Opportunity to Recapture Purchased Care

The geography of the islands and the distance from the mainland makes out-migration to other DoD or VA facilities less feasible than it is in other regions.

Thus, in situations where the existing DoD or VA facilities cannot provide care, the Departments must purchase needed care from the private sector.

There are opportunities for the VA and DoD in Hawaii to improve their performance in clinical and business processes such as coordination of care, utilization review, and clinical resource management. For currently purchased clinical services in which there are high volumes, complaints about poor access, and/or high costs, the two Systems should work together to recruit specialists to serve the Combined Beneficiaries.

As an attempt to begin to describe the magnitude of care that is "leaking from the system," Mitretek analyzed outpatient indirect care for the DoD and VA in Hawaii. The level of detail available for this report *touches on* the levels of activity—but more detailed review of workload volumes would be required for the purposes of physician planning.

Table 22: Outpatient Indirect Care Activity by Product Line

Product Line	DoD	VA	Grand Total
Behavioral Health	14,808	602	15,410
Medical Specialty (incl. Rehab)	33,256	19,240	52,496
OB/GYN	5,074		5,074
Outpatient Specialty	8,469	45	8,514
Primary Care	93,360	1,786	95,146
Surgical Specialty	15,330	6,170	21,500
Grand Total	**170,297**	**27,843**	**198,140**

Note: Much of the DoD Primary Care is provided through managed care contracts[28].

When broken down by Clinical Service Line, there are some specialties in which the combined indirect care volume of the two systems might be sufficient to jointly employ a physician—and thus improve access for the Combined Beneficiaries. Due to the way the data are grouped, it is possible that much of this "specialty" volume actually occurs in the offices of Internal Medicine practitioners—particularly for the VA. However, the magnitude of the visit activity in these Clinical Service Lines makes them worthy of additional research. Some of the highest-volume Clinical Service Lines include Cardiology, Gastroenterology, Nephrology, Neurology, General Surgery, Orthopedics, and Dermatology, as shown in the table below.

Table 23: Outpatient Indirect and Direct Care Activity by Selected Clinical Service LIne

Service Line	DoD Indirect Volume	DoD Direct Volume	VA Indirect Volume	VA Direct Volume	% of DoD total that is indirect	% of VA total that is indirect
Cardiology	3,233	17,271	3,610	877	16%	80%
Gastroenterology	2,840	4,438	2,038	2,174	39%	48%
Nephrology	821	7,027	3,797	299	10%	93%
Neurology	1,550	0	848	1,378	100%	38%

[28] **Managed Care Support Contracts (MCSC)** = Risk contracts with civilian provider networks to complement the health care services provided in the Military Treatment Facilities.

Service Line	DoD Indirect Volume	DoD Direct Volume	VA Indirect Volume	VA Direct Volume	% of DoD total that is indirect	% of VA total that is indirect
General Surgery	2,122	8,432	1,648	0	20%	100%
Orthopedics	3,318	31,806	2,474	2,143	9%	54%
Dermatology	3,163	10,837	350	777	23%	31%

It is interesting to compare indirect care volumes to direct care volumes in these service lines. In Cardiology, Nephrology, and Orthopedics, it is possible that the DoD could recapture their volume without additional providers, because indirect care activity accounts for 16% or less of the activity. For the VA, however, indirect care accounts for 54% or more of the volume in all of these specialties (recall, however, that the specialty volumes for VA include activity that may have occurred with an Internal Medicine doctor). The Combined Beneficiaries purchased over 5,000 visits in Gastroenterology—sufficient volume to jointly employ at least one physician.

Much of the DoD activity is likely to be TRICARE for Life, meaning patients over 65 in this category. Overall, 22% of DoD activity is over age 65, but between 24% and 55% of the activity in the Clinical Service Lines noted above is for patients over age 65.

It is also interesting to see that the DoD is purchasing a high volume of care in Mental Health and in Rehabilitation—traditionally two areas of VA clinical excellence. It could be worth evaluating whether the VA has capacity to serve some DoD beneficiaries in these two specialties.

Table 24: DoD Outpatient Indirect Care Activity

Mental Health	14,808
Rehabilitation	19,431

Overall, the outpatient indirect use rate of visits per 1,000 enrolled population is 836 for the DoD and 940 for the VA. The VA indirect care use rate is more than 60% larger in Hawaii than the other two markets. Of note, for inpatient activity, the indirect inpatient admission use rate per 1,000 enrolled beneficiaries was 8.4 for DoD and 11.7 for VA. The VA inpatient use rate is almost four times higher than in the other Markets, but the DoD use rate is only 1/3 that of the other Markets. Given the Hawaiian geography, one would expect to see lower indirect care rates than in other Markets since the majority of the beneficiary population in Hawaii lives near the Federal facilities (making access easier) and there are fewer alternatives for private care on the other islands.

If the two Departments work closely to analyze the volume and type of indirect care activity, they might consider joint recruitment in key specialties. As will be discussed in the next section, there is opportunity for DoD and VA in this Market to enhance their collaboration in business processes and leadership/governance. Physician resource management is affected by both of these domains of collaboration and could serve as excellent next step in coordination of efforts.

3.4.4 Findings from the Assessment of this Market along the Relationship Continuum Grid

Background

Mitretek found the examination of the Hawaii Market to be highly instructive in understanding the many dimensions (opportunities and challenges) of collaboration and in aiding the evolutionary development and application of the Study methodology. These dimensions are briefly described below.

The Hawaii Market has a history of VA and DoD sharing over a period of decades. Significantly, a close physical and organizational bond emerged in the mid- to late-1990s, when the VA needed to replace obsolete facilities at its downtown Honolulu locations and gain better access to inpatient and specialized care for veterans. VA moved to the Tripler Army Medical Center site. VA and DoD cooperatively developed four major capital projects: the Ambulatory Care Center (ACC), the Center for Aging (CFA), a Parking Garage, and a lease arrangement that placed VA administrative functions in an entirely renovated wing (E) of the hospital. This transition has been hailed as a major accomplishment and is credited with saving tens of millions of taxpayer dollars (compared to the alternative of building separate VA facilities in other locations).

At the time of their first site visit, Mitretek learned of many organizational accomplishments that have occurred in recent years. For example, the VA and DoD have jointly developed a master sharing agreement, which affects more than 25 distinct functions (annexes) and describes policies and procedures used to manage the arrangements. Interviewees frequently cited examples of existing successful sharing arrangements, including:

- Emergency Room
- Inpatient Medical Surgical Care (including shared use of hospitalists)
- Inpatient Psychiatry
- Dietetics
- Physical plant –housekeeping, security, and plant maintenance
- The active development of a shared Telehealth program (called The Pacific Telehealth Hui)

Tripler and VAMROC officials maintain records on sharing activities and noted that, in 2002, reimbursement exchanges between the two organizations totaled approximately $18M for medical care and $15M in administrative services. These are significant amounts, but relatively small in comparison to the $349.9M cost of care rendered to Combined Beneficiaries within this Market.

First Round Site Visits

Interviews during the first site visits also surfaced a number of issues, concerns, and challenges facing VA and DoD staff as they attempt to

address the broad subject of sharing within the Hawaii Market. Examples of these include:

- IM/IT incompatibilities top the list of barriers for almost everyone.
- Apparently high levels of support for collaboration at both the national and local levels, but significant breakdowns as decisions move up the chain of command
- The need for single-point responsibility
- Lack of access to invest in collaborative initiatives and the need to pool financial savings to support other initiatives
- Significant gap between national, regional, and local leadership (and the front line) related to vision, strategy, and expectations
- Major differences in the use of language/terminology – Is the goal to cooperate, integrate, consolidate? What do these terms really mean?
- Mixed feelings re: whether momentum has been lost ("feeling stuck")
- Different views re: how the relationship should be structured
- Strong views on the impact significantly different "missions and cultures" of the two organizations have on collaboration efforts
- Much too much time pursuing authorizations and reimbursement
- Huge need for common policies and standards
- Different medical staff and credentialing processes
- Frustrations with the lack of a useful and comparable data base

The site visit also revealed that, while there were examples of demand and supply imbalances, most individuals regarded these as peripheral to the other, more compelling sets of issues noted above.

The interview process uncovered more than 50 opportunities that may be pursued. Details of these are found in *Appendix A – Attachment 11*. Some of these relate to continued action or improvement on things that Tripler and VAMROC are already doing; others relate to ideas being planned or in process (such as development of ways to integrate product lines within the Department of Medicine). Interviewees identified many ideas on new actions or activities that the VA and DoD could pursue in the future. (The critical questions on the table were: Which of these initiatives should be preserved? Who is making these decisions? Who is going to be held accountable?)

The field visits further emphasized that VA and DoD officials on the Islands are interested in exploring completely new paradigms for improving their relationships, and in serving common patient needs throughout the Western Pacific region. Moreover, leadership had already conducted a planning retreat that described a proposed vision or "end state" that would make Tripler and VAMROC into an "integrated academic health care system" with one budget, one information system, one graduate medical education program, one research program, one logistic system, and one standard of care. Additionally, leaders of the two organizations wished to develop plans to explore, develop, and fund these

notions. VA and DoD officials hoped the Joint Assessment Study would help to move their organizations forward in these endeavors.

Application of the Collaboration Framework to the relationship between VAMROC and Tripler highlights many complex issues in the domains of collaboration. These include:

Patient Care/Clinical Workloads – The assessment involving Tripler and VAMROC indicated that the two organizations are largely Connected for outpatient services and Integrated for inpatient services. Participants emphasized that further drilldown of patient care activities by Clinical Service and/or Product Line is possible and would be necessary to depict an accurate picture of the relationships that exist within the patient care domain. Moreover, patient care and clinical workload issues are often "constants" in any sharing initiative because they are the motivating force behind most ideas. In a sense, the other collaboration domains are all in service of this domain when talking about the common patient care mission of the two organizations.

Facilities – Participants described their facilities as Connected, but not Integrated, which reflects how the facilities were developed. Clearly, acquisition of certain equipment and development of facilities should continue to proceed from joint capital planning.

Staffing – DoD and VA leadership speak of staffing collaboration as Integrated, citing many examples like the joint hospitalist program. At the same time, concerns about recruitment and retention of scarce physician and technical/professional services prompt leadership to recognize that collaboration on staffing can be greatly improved and will require detailed attention to human resource policies, procedures, and practices.

Business and Clinical Processes – Participants assessed these processes as, at best, Coordinated. For the most part, they are different and supportive of the separate work of the two organizations, reflecting entirely different accounting, fiscal, admission/discharge, medical records, and utilization management systems. Actions to improve collaboration in this domain should be a primary focus of the forthcoming Smith Amendment demonstration project.

Management and Governance – Participants rated the Management and Governance relationship as Coordinated, noting that VA and DoD already have two layers of structure in place: an Executive Management Board and a Joint Venture Steering Group. Generally, participants regarded historical organizational relationships as too often focused on reimbursement matters. They found the Joint Assessment Study process (both quantitative and qualitative) helpful in orienting the teams to longer range strategic matters as well as in dealing with ongoing daily operational concerns.

IM/IT – Participants scored this area as Coordinated, although most participants are highly critical of the lack of interoperability between information systems at the local level. While attainment of this objective will flow from national IM/IT initiatives, the two departments expect to continue to devise ways to communicate electronically in as many areas and activities as possible.

Logistics – The participants scored this area as Coordinated. Further collaboration in Logistics is regarded as dependent on national direction.

Education and Training – Participants scored their relationship in this domain as Connected, citing shared access to education programs and use of classroom facilities. There are attempts to collaborate on GME efforts, but the programs are largely distinct. Most parties see advantages in improving the triangular relationship between the VA, DoD, and the University of Hawaii.

Research – Both the VA and DoD have active research programs, which are Separate; each has its own funding sources (which tend to follow different protocols). The Systems completed a study that addresses the possibility of developing a joint biomedical research facility on the Tripler campus.

The table below summarizes the status of the VAMROC-Tripler relationships in a Relationship Grid.

Table 25: Tripler and VAMROC Relationship Grid

Domain	Separate	Coordinated	Connected	Integrated	
Clinical Workload	Insignificant referrals	Regular communications	High numbers of referrals	Significant number of referrals as one	Protocol-driven placement of all patients
Facilities	Distant	Some sharing where duplica-tion exists	Projects & facilities come from master planning	Many departments share space	One facility or set of facilities
Staffing	Distinct	Support in peaks and valleys	Joint staff planning	Multiple examples of single joint staffing	Single staffing
Business Processes	Different	Reduce barriers	Work flows understood & acted on	Transparency	Single system
Management/ Governance	No Relation	Joint planning sessions	Overlap of key functions	Overlap of key functions	One Governance & management structure
IM/IT	Separate systems	Evidence of "E" exchange of info	Moving toward systems interface	Complete interoperability	One system
Logistics	Little if any exchange	Borrowing, bartering and contractual exchange	Mutual examination of best pricing and service	Selective joint contracting in major areas of procurement	One supply chain
Education & Training	Distinct	Selective exchange of methods	Frequent use of joint programs and curriculum	Most programs and curriculum are same/similar	Unified program
Research	Distinct	Selective exchange of protocols	Joint planning and review of many studies	Significant overlap of protocols and review	Unified program

3.4.5 Recommendations for the Hawaii Market

Mitretek recommends that the two Departments work together closely to analyze indirect care activity—especially in specialties where the combined volume could justify jointly employing a specialist.

During the site visits, the DoD and VA both expressed need for additional specialists---particularly in Gastroenterology, Cardiology, and Dermatology. The Indirect Care analysis underscores the need to collaborate in physician recruitment and employment in these specialties. The two Departments should work closely together to analyze the volume and type of indirect care activity and determine in which specialties the combined indirect care volume could justify joint employment of a specialist, such as a Gastroenterologist. This is particularly useful if DoD wishes to recapture the volume of TRICARE for Life beneficiaries.

Mitretek recommends that the two Systems examine provider capacity levels in most specialties to determine whether there is excess provider capacity in either System.

For most specialties, the two Systems should first determine whether there is excess provider capacity in either of the Systems. For example, if DoD has excess capacity in a specialty, it should first attempt to recapture "leaking volume" to use up its capacity. If, after recapturing volume, some excess capacity remains, VA could take advantage of this opportunity to reduce fee-basis care.

Likewise, the Systems should identify and describe DoD indirect care activity for Mental Health and Rehab and determine whether DoD direct care system has capacity to recapture the purchased services. If so, the DoD should encourage beneficiaries to use the direct care system. If not, the Systems should determine whether VA has capacity to support some of the DoD's needs.

Mitretek recommends that the DoD and VA together evaluate whether jointly employing specialists will help equalize availability and access.

Because of the dynamic nature of the deployment of DoD specialists, Mitretek recommends that DoD and VA together evaluate whether jointly employing specialists will help "even out" availability and access.

Mitretek recommends that, using the Collaboration Framework, the two Systems continue to pursue the 50 plus opportunities identified during the site visit.

However, these efforts need to proceed in an orderly, systematic, and information-driven manner. Leaders of both organizations must remain visionary and revitalize formal joint strategy, business, and facility planning efforts.

4.0 FINDINGS & RECOMMENDATIONS FROM RESEARCH AND FIELD WORK

As noted in previous sections, Research and field work has been an integral part of the design and execution of the Joint Assessment Study. Mitretek recommends that any other Market Assessments performed based on this methodology include Research and field work. Specific findings, and the exact manner in which they will be applied, should be tailored to the unique circumstances of those markets.

Any such future studies must consider historical trends and the current forces that are driving change. The perceptions of the involved individuals will inform the parameters of important issues and will greatly assist in setting the stage for change in any market. Described following are findings and recommendations stemming from the research and field work conducted as a part of the Joint Assessment Study.

4.1 Nature of Sharing Opportunities

The sharing legislation authorizes VA Medical Centers (VAMCs) and DoD's MTFs to become partners and enter into sharing agreements to buy, sell, and barter medical and support services. The law allows for the head of each medical facility (of either agency) to enter into agreements, and mandates that VA and DoD headquarters officials review the proposals for final approval.

Historically, VA and DoD sharing activities have fallen into one or more of three categories:

- Local sharing agreements, which allow VAMCs and MTFs to exchange health and support services to maximize their resources;
- Joint venture sharing agreements, which aim to avoid costs by pooling VA and DoD resources to build new facilities or to capitalize on existing facilities; or
- National sharing initiatives, which identify and implement interagency initiatives on a national scale. For example, VA and DoD have collaborated on the joint purchasing of pharmaceuticals, laboratory services, medical supplies and equipment, and other support services.

4.2 Organization and Reporting of Sharing Activities

As required by the Sharing Act, VA and DoD report annually to Congress on the status of DoD/VA sharing. The VA maintains a joint sharing database of sharing agreements, which has been used as the basis for reporting on these relationships.

Since 1997, the DoD/VA Joint Executive Council—and more recently a sub-council of this group: the DoD/VA Health Executive Council—has provided coordination and operational oversight of these affiliation activities.

The database maintained by the VA captures all DoD/VA-recorded sharing agreements. It details agreement information by number, DoD branch and facility, VA facility, effective dates, and contact information. It also details agreement information by affected service and whether the provider was VA, DoD, or both.

- In 2002, the database referenced 622 agreements in force throughout the US (all VISN and TRICARE regions).
- Each sharing agreement may affect one or multiple services or functions operating within a facility. These number more than 150 different services when tallied; some individual sharing agreements affect as many as 40 distinct services.
- Taken together, these 622 agreements affect some 6,017 services, or about ten services per agreement.

In addition to the central DoD/VA sharing database, sharing arrangements are maintained by each military service and by each VISN. For example, the Army Medical Department (AMEDD) maintains and regularly reports statistical and financial information on sharing arrangements by various Army Medical Centers. Thus, there is a wealth of data regarding the kind of sharing relationships the leadership in any market might consider.

4.3 Increasing Pressure for Change

Figure 1 in *Section 1.0*, entitled *Increasing Pressure for Change*, illustrates major planning processes and key studies that directly relate to the Joint Assessment Study. These trends and studies underscore the context that DoD and VA officials must acknowledge as they seek to move forward in strengthening their collaboration efforts. At least one major government investigation has been conducted each year since 1999 including: the 1999 Congressional Commission on Transitional Assistance (The Principi Study), a 2000 GAO Report on Resource Sharing Activities, the 2001 Assessment Report on Sharing Activities (Eagle Study), and the 2001-2003 Presidential Task Force process and reporting. The latter report, which has overlapped the conduct of the Joint Assessment Study, stressed the need to address four areas of concern; provide clearer leadership, create a seamless transition from the military to the VA, remove barriers to VA and DoD collaboration, and address the mismatch between VA demand and resources.

Each of these studies called for change and the adoption of principles that would foster fundamental improvements in the manner and structures by which VA and DoD relate to each other. A few prevailing themes, which were instructive to Mitretek in the design and conduct of the Study, include the following:

- The Status Quo is unsustainable.
- Performance shortfalls–Expectations have been met at neither national nor local levels.
- Health care collaboration and integration is inherently complex and difficult to implement.
- Successful collaboration is fundamentally a local market phenomenon but requires alignment at the national, regional, and local levels.
- Effective collaboration always involves interaction of people, and is therefore dependent on three things: leadership, trust, and communication.

Federal officials have recognized the issues raised when addressing any of the themes noted above. In recent years, initiatives that have a system-wide impact on both departments have begun. These include CARES, The Next Generation of TRICARE,

current and pending legislation such as the National Defense Authorization Act (NDAA '03) with particular reference to the Smith Amendment, and the ongoing work of the DoD/VA Joint Executive Committee (JEC) and Health Executive Committee (HEC).

Each of these initiatives calls for VA and DoD to consider, actively plan for, and carry out substantive collaborative activities in a wide range of subject areas including, but not limited to: information systems, capital asset planning, financial management, and clinical practice guidelines.

4.4 Three Levels of Sharing Opportunities (Levels I, II and III)

Mitretek's field work revealed a large number of sharing opportunities worthy of pursuit that are common to all markets. These cut across all departments and functional entities in both Systems. Mitretek categorized these, placing them within the nine domains and into the context of the three levels of potential action developed by the Study team (see *Figure 8* in *Section 2.4.4*).

This framework provides a structure for categorizing various sharing opportunities in three distinct levels.

Level 1 (Opportunistic) sharing opportunities represent activities that mostly focus on logistics, staffing and business and system processes and/or improvement of sharing activities currently in place. Characteristics of Level 1 sharing opportunities include:

- Existing sharing activities; (refine and improve)
- Largely invisible to the patient
- Locally managed
- Easiest to accomplish

Recognizing that major barriers exist (such as lack of integrated information management systems, billing and coding procedures, and reimbursement issues), Level 1 activities tend to be local and opportunistic. Many DoD and VA facilities have found temporary local solutions to these major barriers in order to sustain existing sharing activities. National solutions to these major barriers, as discussed previously, will enable increased sharing activities and will free up resources currently engaged in "bridging" disparate business and clinical support processes at a local level. In the interim, improvements in current structures, even if temporary, should continue for those facilities that are engaged in or are contemplating expansion of sharing initiatives

Level 1 sharing opportunities cut across all nine domains in the Collaboration Framework, as displayed in *Table 26,* below.

Level II (Actionable) Sharing Opportunities also cut across all 9 domains; however, these often involve movement of patients (patient care domain) or development of patient care facilities (facilities domain). Characteristics of Level II sharing opportunities include:

- Implies moving patients to facilities or modifying facilities to accommodate expansion of services

- Implies capital cost/investments
- Harder to accomplish

Level II Opportunities, such as the *redistribution of care sites*, represent significant challenges to local and regional markets. As discussed in this Study Report, the opportunity to consolidate care delivery between the DoD and VA is hampered by inconsistent policies, lack of incentives, and a myriad of disparities in mission, patient populations and the mix of clinical services within each delivery system. As demonstrated in this Joint Assessment Study, a true "market perspective" of the demand and supply requirements for care of the Combined Beneficiary populations can point to opportunities for redistributing clinical services and access points. These opportunities must also be examined from a qualitative perspective. The Puget Sound Market example shows that access to primary care services could be improved by re-distributing assets as well as changing policies and procedures. The Biloxi/Gulfport Submarket example demonstrates potential improvements in quality and cost by combining select inpatient services. *Redistribution of existing care* implies potential consolidation of select services, opening new or closing existing access points, and focusing on improvements in the sharing of specialty services.

Another example of a Level II activity is in the provision of *Behavioral Health services*. Both organizations provide outstanding Mental and Behavioral Health services as part of the clinical services core. The VA has an outstanding reputation for advances in Behavioral Health and, in fact, spends a significant portion of its health care dollar treating veterans with Behavioral Health issues. The DoD has very robust Mental Health, Family Advocacy, Social Services, ambulatory and inpatient Behavioral Health services. There are compelling reasons for each Department to maintain separate and distinct Behavioral Health services, depending on the requirements of the patient; however, there are also certain services that could be combined at a local market level to provide a uniform benefit to the beneficiaries. Inpatient Mental Health, as demonstrated in the Hawaii and Gulf Coast Markets, can benefit from combined resources and a more unified service offering.

Both the DoD and VA have established *special clinical programs* (formerly called Centers of Excellence) for concentrating resources, education and training, and facilities in highly specialized centers. Examples include Spinal Cord Injury, Traumatic Brain Injury, Post Traumatic Stress Disorder, Cardiovascular and other sub-specialty programs. Recruitment and retention of specialized providers, special equipment requirements and generally high unit costs have compelled each Department to concentrate these services. Additionally, the volume of patients requiring many of these highly specialized services is not sufficient to develop programs in every facility within all markets.

Currently, reimbursement issues provide a disincentive for the two Departments to collaborate in special clinical programs. GME and other requirements also impact decisions regarding the establishment and/or placement of such highly specialized services. In many cases, the low volume of patients in these centers, particularly patients requiring inpatient care, prohibit the individual programs

from achieving cost efficiencies. These programs are constantly scrutinized for opportunities to reduce costs and/or eliminate duplication within a given market or geography. As such, efforts to redistribute these care sites can be examined using methodologies like those presented in this Study.

Level III (Transformational) sharing activities are difficult to achieve and yet have the highest potential impact on cost, quality and/or access to care. Examples of Level III sharing opportunities include: development of interoperable IM/IT systems and common medical records, single governance and management within defined market areas, unified GME and research programs. Additional Level III examples are displayed in *Table 26*. Other characteristics of Level III (Transformational) sharing opportunities include:

- Major policy changes required
- Imply direction and guidance from National Headquarters
- Highest degree of difficulty
-

The following table displays examples of sharing opportunities derived from this Study. Although there are level I, II and III components to almost all sharing opportunities, the table below categorizes the opportunities into their primary levels.

Table 26: Common Opportunities for Sharing within the Domains of Collaboration

Domains of Collaboration	Examples of Sharing Opportunities	Level
Patient Care	• Develop common health promotion and prevention programs	I
	• Develop coordinated home care programs	I
	• Develop coordinated telemedicine programs	I
	• Develop uniform clinical practice guidelines	I
	• Share audiology services	II
	• Create joint hospitalist program	II
	• Develop joint ambulatory surgery programs	II
	• Coordinated mental health services and substance abuse programs	II
	• Develop comprehensive long-term care program	II
	• Create joint substance abuse program	II
	• Develop coordinated special clinical programs (e.g., cancer management, cardiology)	II
	• Consolidate inpatient medical service programs	II
	• Coordinate placement of primary care centers	II
	• Offer integrated clinical programs – all specialties	II
	• Develop shared Family Practice Residency program	III
Facilities	• Share library space	I
	• Share education space	I
	• Share available clinical space	II
	• Construct a joint ambulatory care center	II
	• Construct or renovate building for long-term care services	II
	• Consolidate ancillary services (e.g., radiology)	II

Domains of Collaboration	Examples of Sharing Opportunities	Level
Staffing	• Coordinate recruitment and retention activities	I
	• Create joint "float" pools	I
	• Coordinate home care program staffing	I
	• Assign staff to cross-program/facilities	II
Clinical and Business Processes	• Develop coordinated QM/QI functions	I
	• Develop unified utilization management programs	I
	• Develop useful Balanced Scorecard metrics	III
	• Coordinate billing systems	III
	• Coordinate benefits eligibility	III
	• Coordinate HR policies, particularly pay scales	III
Governance and Management	• Establish coordinated, uniform approach to dealing with local community hospitals	I
	• Create a local joint planning office	I
	• Create single governance infrastructure	III
	• Develop joint management teams	III
IM/IT	• Institute joint procurement of IT systems (software and hardware)	II
	• Develop interoperable IM/IT system	III
	• Develop uniform medical record system	III
Logistics	• Implement joint transportation services	I
	• Share housekeeping services	I
	• Share laundry services	I
	• Share engineering and maintenance	I
	• Jointly investigate acquisition of new technology	II
	• Institute joint procurement of medical equipment	II
	• Offer single DoD and VA pharmacy formulary	III
	• Joint procurement of supplies (national contracts)	III
Education	• Coordinate training and education programs	I
	• Develop coordinated Residency programs	II
	• Create unified GME program	III
Research	• Seek funding for joint research projects	I
	• Share research space	II
	• Coordinate research activities with GME programs	II
	• Develop shared guidelines for principal investigators	II
	• Establish uniform research protocols	III

4.5 Recommendations from Research and Field Work

The following recommendations flow from the research and field work conducted as part of the Joint Assessment Study. Mitretek recommends the following "next steps" for consideration by the HEC:

1. Use the findings from the research, field work and application of the Study methodology to identify promising opportunities for sharing.

   A significant message from the research and field work indicates that past sharing efforts have been "reactive" in nature, without reference to an overall construct for sharing.

2. Consider adopting the Domains of Collaboration and Level I, II, and III construct presented in the Joint Assessment Study as a way to resolve concerns from the field regarding the tension between local initiatives and national mandates.

   Interviews with both national leaders and representatives in the Study Market areas revealed a disconnect between the needs, expectations and decision-making requirements at various levels within both the DoD and VA.

3. Use quantitative methods developed in the Joint Assessment Study to address Level I and II opportunities.

   These quantitative tools can be extremely useful in verifying the dimension of an opportunity, informing its resolution (e.g., Level II opportunities highlighted in the JAS), and produce additional metrics for measuring the success of future collaborations.

4. Proceed with development of joint planning efforts at a market level. Include in these efforts strategic, business, operational and facility planning in order to implement sharing or collaboration ideas.

   Collaboration efforts must be sustainable in order to overcome inherent challenges related to trust, communications and changes due to leadership turnover.

5. Use the findings from the Joint Assessment Study to inform other government initiatives, including the VA CARES process, Smith Amendment demonstration projects, and changes in TRICARE operations.

   Members of the Joint Facility Work Group of the HEC and representatives from the Study Markets indicated that the methodologies used in the Joint Assessment Study will be useful in continued joint DoD and VA initiatives.

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5.0 FINDINGS & RECOMMENDATIONS FROM THE STUDY METHODOLOGY

Section 3.0 of this Report discussed the application of the Study Methodology in the three Study Markets. This final chapter summarizes several lessons learned, and makes general recommendations regarding the methodology (including both quantitative and qualitative dimensions) and its overall application in the Study.

Mitretek learned that both quantitative and qualitative issues must be assessed. The quantitative and qualitative aspects of the methodology are interdependent, leading to a holistic approach and methodology. The quantitative analysis can identify promising opportunities for increased sharing and collaboration by showing the "numeric" impact of rationalization or redistribution of access points and providers. While the quantitative/ numeric outcome might appear quite *desirable*, it might not be completely *feasible* due to the numerous mission, policy, infrastructure, and organizational culture issues that raise practical barriers to implementation. The quantitative analysis demonstrates the numeric impact of an option and the qualitative analysis addresses the organizational impact and readiness for change.

Mitretek recommends that future sharing Studies recognize the value of a holistic approach, balancing the rigor of a quantitative analysis within the reality of a qualitative framework.

5.1 Quantitative Issues

5.1.1 Data Acquisition and Output

This Study used patient-record-level detail as a major component of the Data Repository. This yields several challenges, including the enormous size of the requested data files and patient confidentiality issues. If this Study methodology is repeated, the project timeline should consider that the size and confidentiality issues will result in long lead times to obtain the data.

Mitretek recommends that subsequent Study teams obtain the national data before embarking on site visits.

Further, the data itself requires filters, assumptions, groupers, etc., in order to convert record-level detail into valuable decision support information. Considerable expertise in database management and health care planning is required—as well as familiarity with the structure and contents of the DoD and VA datasets—to accomplish this task.

Mitretek recommends that future Studies continue to use a multi-disciplinary team of database management and health care planning experts.

The Study team needed to extract data from the Data Repository for multiple analysts who were studying different aspects of the Markets at the same time. To meet this need, Mitretek created a Decision Support Tool based on data extracted from the Oracle database (and dropped into Pivot Tables in MS Excel). Mitretek quickly realized that this tool had enormous potential to assist the health care planners in the Departments.

Mitretek recommends that the Pivot Table tool be further developed as a user-friendly decision support tool.

5.1.2 Significant Data Integration Is Required

The Study utilized over 15 datasets and 55.6 million records. Costs, inpatient volumes, outpatient volumes, indirect care, FTE's, enrolled beneficiaries, etc., each have different nomenclature and are measured differently between the two Departments. The ability to overcome this obstacle is a major accomplishment.

There are commonly used "groupers" for categorizing DRGs, ICD-9s, and CPT codes to product and service lines. Unfortunately, the groupers for each of the different kinds of workload data use different structures and hierarchies. Some data (particularly CPT level) are at too granular a level to use as encounter-level workload. In order to view the clinical activity from a marketplace perspective and to compare activity between the two Departments, a mapping of the hundreds of MEPRS codes and VA work units to a common set of clinical service lines and product lines is necessary. The Product and Clinical Service Line "Crosswalk" developed for this Study was an invaluable tool for and contribution to the analysis. It allowed the Study team to map inpatient activity, outpatient activity, indirect care, and FTEs to a consistently defined set of Product Lines and Clinical Service Lines.

Mitretek recommends that the two Departments review and agree upon a Product Line and Clinical Service Line Crosswalk prior to assessing another Market.

The electronic data from the DoD and VA were for the fiscal years 2002 and 2000. The site level data (mostly non-FTE supply data) were obtained via survey and site visits, and were for the year 2003. The analysis is based on a "snapshot in time," and cannot take into account the dynamic nature of health care delivery in general, and the policy changes affecting the DoD and VA in particular.

Some of the site staff in the Markets viewed the national data as unreliable, due to inconsistencies in reporting by individual facilities. For example, the sites perceive that the MEPRS FTE data does not accurately reflect the true allocation of the providers' time. Nonetheless, a data-driven methodology must use data. The data contained in the datasets used are presumably the best data available for these kinds of analyses—especially as the purpose of this Study is *planning* and not detailed operational analysis.

The Data Repository and the assessments in this Study provide a unique and valuable snapshot of the marketplaces from the perspective of the Combined Beneficiary. As with any analysis, many assumptions must be made in order to gain useful decision support from the data. The Report should be considered an excellent high-level planning tool, and a starting point from which to begin "field testing" before undertaking any actions based on the analysis.

Mitretek recommends that the Departments strive to improve the reporting of data such that DoD and VA staff will more readily accept analyses based on those data.

5.1.3 Demand and Capacity Conversion Factors Are Required

In order to determine where current and future imbalances between the demand and the supply in a particular market exist, it is important to convert demand into encounter-level workload data and convert supply counts into capacity. In most cases, the datasets have data at the workload level, sufficient for comparing demand to capacity. For example, Bed Days of Care is a workload-level unit against which one can compare capacity (either inpatient beds or FTE's) to support that workload. However, should the Departments wish to compare demand to capacity in some of the ancillary services, such as surgery or imaging, it is necessary to convert the data provided (at the MEPRS, Work Unit, CPT, ICD-9, or DRG level) into "cases" in order to compare demand/workload against the capacity to provide it. This Study developed initial "Demand Conversion Factors" to facilitate such an analysis in the future.

As stated elsewhere in this Report, supply is not the same thing as capacity. It was necessary to create "Capacity Conversion Factors" to convert, for example, a primary care provider into the capacity to provide primary visits. This Study developed an initial set of factors—based on DoD, VA, and/or Commercial standards—to convert supply into capacity. Although only a few factors were used in the base analysis, one deliverable with this project report is *an initial set of standards that can be evaluated for use by both Departments for the purposes of capacity planning*. The Departments may not agree with the factors used in this Study, and achieving consensus between the Departments on a common set of factors will be a complicated task. The Capacity Conversion Factors in this Study provide a "head start" on what will be a necessary tool for future sharing studies.

Mitretek recommends that the two Systems individually develop common measures for resource planning.

The process begins by clearly and consistently defining the measures and inputs (e.g., "an FTE is 2080 hours", "an Available Bed is one that can be converted into use within 72 hours", "the measure will be cases per OR rather than procedures per OR") within each System. Ideally, the two Systems would develop common definitions for the measures and inputs. Then, realistic standards for each System must be developed. For example, the DoD could have a different standard for the

number of annual visits per provider than the VA if there are obvious reasons why the DoD productivity and VA productivity would be different. When possible, the standard should be developed at the lowest common denominator (such as visits per hour, rather than visits per year), as this will allow for better cross-referencing of the standards between the two Departments. This will also allow future assessment studies to measure capacity and plan resources in consistent and meaningful ways.

Mitretek recommends that DoD and VA officials continue to develop and refine the quantitative methodologies used in this Study, with particular attention to addressing and resolving the following issues: Data Acquisition, Data Integration, and Demand and Capacity Conversion Factors.

5.2 Use of the Collaboration Framework

The Collaboration Framework is a highly useful and generally well-received means of addressing the complex dynamics experienced by those responsible for carrying out collaboration and sharing activities. Its appeal seemed to rest in its elegant simplicity in helping Market representatives to view complex material, yet probe ways to apply and consider taking action.

Feedback on each of the four elements of the Collaboration Framework is described briefly below.

- The *collaboration continuum* proved useful in addressing problems of language and terminology which had been continually raised in the interviews and alluded to in some of the studies reviewed. The continuum shows levels of collaboration (Separate→Coordinated→Connected→Integrated→Consolidated) along with proposed definitions, which enabled participants to both understand and visualize the varying degrees of possible collaboration.
- The *domains of collaboration* was helpful in describing the major elements of collaboration. Field participants suggested use of the terms *enablers* and *disablers* to describe the vitality of these concepts when addressing the subject of collaboration. Several participants noted that most activities conducted within a hospital or health care setting could be grouped in to one or more of these categories. Others noted that actual language and descriptive use of such terms could be subject to interpretation, and language changes may be appropriate to a specific set of circumstances.
- The use of the *gold standard* helped to underscore the value of thinking about these domains as a "pulling" force toward a common vision, rather than merely to address problems to be solved. Most authoritative sources on organizational behavior state that it is more effective for an organization to pursue compelling goals than to focus on problem avoidance, detection, and solution. Moreover, the reference to ideal standards greatly helped in facilitating discussions regarding reasons that collaboration on a particular topic might be important. Reference to the gold standard provided a frame of reference for assessing where an organization might be placed

along the continuum and enabled participants to discuss the merits (and demerits) of increasing the levels of collaboration.

- The application of the *relationship grid* was an effective exercise in each of the second site visits. Its greatest utility lies in the recognition that *the nature and degree of collaboration that is appropriate for any market or designation of facilities will vary*. Variations will occur based on the type of service or function being considered and the unique circumstances of the market and set of facilities being examined.

Most of the assessment discussions revolved around the use and application of the elements of the relationship grid, as discussed below.

Patient Care/Clinical Workload

The patient care/clinical workload category evoked a lot of discussion in each of the second site visits. Examination of this domain clearly highlighted the value of undertaking a collaborative endeavor in the interest of patient care. A profile of clinical workload answers the question "What business are we in?" and underscores the value of having a commonly accessible data repository. It is helpful to have access to a side-by-side quantitative profiling of the departments or service lines, which provides a fact-based platform from which to address collaborative patient care initiatives.

The existing or desired degree of collaboration within the domain of patient care will typically vary by inpatient versus outpatient, and certainly by Product Line or Clinical Service Line.

Facilities and Equipment

Discussions concerning the domain of facilities and equipment focused on the geographic distance between two or more facilities. The "availability" (of space and equipment) and the physical and functional condition of affected buildings and departments highlight the need to undertake extensive levels of facility planning. Participants noted that facility-dominated collaboration is generally considered when a major capital asset is required.

Big payoff is possible in this domain. Tens of millions of dollars have been saved by the DoD and VA based upon the decision that beneficiaries of one System can use the acute care services of the other System or that an ambulatory care facility of one System could be co-located on the acute hospital campus of the other. Examples of these advantages have been experienced in each Market (and particularly in Hawaii), and promise to be more important in the future as each Department makes capital asset decisions.

It is expected that both VA and DoD will continue to emphasize the domain of facilities collaboration in the future. Participants pointed out the greater value of planning a new facility together (it is more effective and easier) rather than attempting to "undo" an existing set of facilities.

Staffing

The domain of staffing and the broad subject of allocating human resources can have a significant impact upon both the need and the ability to collaborate – i.e., it can be a *driver* or it can become a *barrier*. Participants pointed out that the extent to which scarce talents are shared, integrated or otherwise coordinated represents one of the best ways to help deliver patient care and affected support services. This is particularly important when considering the many serious staffing shortages that plague VA and DoD care providers throughout the nation.

On the other hand, participants consistently stated how important it is to understand some of the key variables within both Systems that impact the access to staff and the capabilities of staff. For example, the readiness mission of the DoD, and the DoD policy of transfers approximately every two years, have a significant impact on local staffing needs. Additionally, VA physicians' and clinical staff's lack of experience with delivering babies or caring for very sick children is a reality that may bound collaborative possibilities.

Different pay scales and/or union contracts also greatly influence staffing challenges. Discussions around staffing issues alone highlight how critically important well-established patterns for ongoing communication are.

Business Processes

The domain of collaborating on business and clinical processes addresses the importance of having smooth and efficient handling of clinical, administrative or support functions affecting inter-organizational transactions. Site visit discussions confirmed that developing other forms of system integration (e.g., IM/IT) without integrating business processes, can present a significant barrier to achieving expected efficiencies and cost savings. Site visit feedback also suggested that clinical processes have both patient care and business process implications.

The potential list of sharing examples and opportunities within this domain is long and varied. Most reengineering projects undertaken within health care facilities focus primarily on business and clinical processes. Sometimes it is difficult to measure precisely the impact of these processes; however, both staff and beneficiaries often describe these processes as the determinants of efficiency. A business or clinical process collaboration can be very helpful in addressing a particular process (such as utilization management or provider credentialing), but it needs to consider other domains.

Management & Governance

The management and governance domain engendered much discussion in the second site visit work sessions. Participants emphasized that leadership is a driving force in inspiring and bringing about any hope of success in VA/DoD collaboration. Structural and control issues must be framed to ensure that direction is clear and that orderly actions can be established. Thus, management and governance issues are of central importance as enablers of effective

collaboration. While there is debate about whether management and governance issues should precede or follow the development of collaboration plans, there is no doubt that a concept of rigorous joint planning is needed at all levels of the VA and DoD. There is evidence that these processes have begun, both nationally and in each of the markets, and they must continue.

Information Management/Information Technology

During local site visits, the lack of integrated information systems was consistently identified as one of the major barriers to substantive integration of services. Major investment of capital dollars will be required to address the problem in order to garner the needed support for system integration efforts.

Most authoritative inquiries on the subject of health care services (and every interview that Mitretek conducted in every facility) pointed to effective information management and integrated information systems as the single most important enabler to the safe and efficient delivery of care and to effective operation of administrative support activities. Achieving this goal, within the context of integrating the services of two separate organizations which have evolved in different ways over many years, clearly requires an evaluation of the opportunities for integrating both hardware and software systems at national, regional, and local levels. The need for easy access to both clinical and business information affects everyone in both Systems: clinicians, executive personnel, employees throughout the organization, and patients. IM/IT accessibility can either "make or break" the success of many collaborative activities.

The newly formed VA-DoD Joint Strategic Planning initiative identifies integration of information systems as one of its primary strategic goals. This written strategic plan states the intention to "Enable the efficient sharing of beneficiary data, medical records, and other information through secure and interoperable information management systems."

Logistics (including Pharmacy)

VA and DoD participants in each Market pointed to the inherent logic in pursuing collaboration when managing the logistics of a health care enterprise. After all, both Departments must acquire and manage very similar supplies and equipment in carrying out their patient care duties. Yet, there are difficulties in dealing with multiple contracts and vendors, many of which are established nationally. The need for action is longstanding, and numerous activities are underway nationally to improve procurement and acquisition processes, establish standards for purchasing goods and services, and leverage favorable pricing capabilities.

A particular area of focus has been the desire to develop a common pharmaceutical formulary and apply it in ways that may mitigate the extraordinary cost of drugs commonly used by VA and DoD beneficiaries. The introduction of robotic pharmacies at both DoD and VA facilities provides a solid platform to support such goals.

Education

The domain of education was discussed in a number of ways in each site visit. Education is regarded as an area worthy of collaboration, despite differences between the two Departments.

The subject of GME was subsumed under this category and many participants felt that the force of GME within both organizations was so strong that it should be separately investigated as a distinct category within each market. Discussion often focused on the perception that the affiliations VA has with medical schools are (usually inflexible and) very different from the GME mission within the military. However, the military physicians' need for clinical volumes, which are often present within the VA environment, presents a rich opportunity for collaboration.

Research

The domain of research has strong potential for greater collaboration. Both organizations have strong research agendas, particularly at a national level. However, due primarily to different funding and research protocols, collaboration in research activities is relatively sparse. Many participants involved in the Study see collaboration in the rich and robust research activities as an untapped treasure that could greatly strengthen quality of care outcomes.

5.2.1 Recommendations

Mitretek recommends that the two Systems use the Collaboration Framework in other markets, as it can be replicated or modified as appropriate and applied to any market.

The Collaboration Framework allows for a commonly understood visual and language-specific frame of reference to discuss either current or desired models of organizational relationships. It implies that relationships are fluid and dynamic.

Reference to the Collaboration Framework may be less threatening to those involved when they are able to visualize and comprehend an appropriate pattern or level of relatedness that will be useful to their organizations. The framework leaves room for the possibility that "effectiveness" can exist within any of the domains of relatedness within the relationship grid. As such, a "snake diagram" may in fact be the optimal way to portray relationships between VA and DoD organizations on a collaboration grid.

Simultaneously, the framework can be improved upon by expanding on its use by each clinical service within the domain of patient care. GME should also be expanded and given special consideration because of its importance in most markets.

The framework concept lends itself to the application of metrics. Metrics can be applied to inform the degree of relatedness that currently exists within any of the domains of collaboration. Metrics can also be used to establish progress toward

(quantitatively) expressed goals. In this regard, the concept could leverage the balanced score card process with which both the VA and DoD are currently experimenting.

5.3 Identifying & Assessing Promising Opportunities

A substantial part of the Study mandate was to examine collaboration opportunities within the respective markets, using a methodology flexible enough to allow multiple perspectives on current and future possibilities within the specific market. These opportunities were derived from a combination of efforts involving interviews, document review at specific sites, data analysis, and feedback discussions.

- The site briefings included documentation on sharing activities in each Market, providing insight into the nature and extent of current efforts. The Mitretek team learned about the background and nuances involved in potential sharing activities through the interview process. Insights gained by looking at sharing opportunities for a given set of facilities from the perspective of leadership, market activities, facilities, and operations confirmed the many dimensions of the collaboration dynamic. These viewpoints resulted in the compilation of opportunities that could be addressed in different ways.
- Listing collaboration opportunities by Market (and for specific facilities) identified the common and unique opportunities most often cited by interview participants.
- Sorting the collaboration ideas into the nine domains was useful in two ways. First, it tested the validity of the domains as a logical way to segment opportunities. Second, it demonstrated the strong implications of collaboration ideas on one or more domains of activity. In the second round of work sessions, participants consistently expressed a desire to further segment patient care and clinical workload ideas as the principal driver in most of the options that are worthy of pursuit.
- Preparation of common "roll up" lists of collaboration possibilities informed the quantitative examination of distinct changes that could be made in the care location or points of access within each market.
- Finally, the examination of opportunities within each Market allowed formation of ideas for implementation actions available to VA and DoD officials.

Mitretek recommends that every Market adopt this comprehensive market assessment methodology and planning process in order to identify the range of opportunities open to it.

These opportunities are not difficult to discover; they can come from almost any quarter. The challenge is to systematically apply a holistic view in considering these opportunities. Above all, opportunistic initiatives must be supported by reference to valid and useful information, such as those developed in this Joint Assessment Study.

DoD/VA Joint Assessment Study
Appendix A
Market Assessments

presented to

Office of Special Programs
TRICARE Management Activity

31 December 2003

by

Mitretek Systems
Falls Church, VA & Lexington, MA

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7. Functional Assessment Definitions
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9. Facility Condition Grid for the Gulf Coast Market
10. Supply Counts for the Gulf Coast Market

Attachments *(continued)*

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1 INTRODUCTION TO THE MARKET ASSESSMENTS

This Appendix includes, first, a summary of overall Study findings that can be applied to all Markets. Second, it contains three Market-specific summaries of the findings and recommendations assessing the Markets and applying the Study methodology. A detailed assessment of the baseline conditions of the Market (such as population, demand, supply, and cost) is followed by an application of the methodology to the individual markets. Finally, there are recommendations for each Market. Each Market Assessment also has Attachments: Opportunities, Functional Assessment, Facility Condition, and Supply Counts.

The applications of the methodology differ in their content, because each market has unique issues as highlighted below:

- Puget Sound: This summary emphasizes access to primary care services, and uses the methodology to demonstrate how access performance can be improved significantly by opening new access points and redistributing capacity from facilities with surplus capacity.
- Gulf Coast: This summary is focused on the inpatient services within a particular Submarket, and uses the methodology to demonstrate how inpatient resources can be consolidated to achieve long-term cost savings.
- Hawaii: This summary emphasizes improving business processes and collaboration in a Market that already exhibits a high degree of physical integration, and the potential to recapture indirect care volume through greater collaboration in this area.

The differences noted above also highlight the flexibility and adaptability of the Study methodology to address the particular circumstances of local Markets. During our site visits to the Markets, Mitretek observed that, at the local level, these Markets are often perceived as being unique and not subject to standard comparison analysis with other markets. While it does appear true that "all health care is local", it is also desirable that planning for the delivery of health care services to Combined Beneficiaries should proceed from a comprehensive, data-driven, logically-developed analytic foundation, highlighting and respecting local issues and perspectives, but incorporating them systematically into a broader methodological context. Mitretek believes that the results documented in this Appendix demonstrate that significant progress has been achieved in developing this analytic foundation through this Study methodology. The Market assessments adopt a unique perspective—that of a "Combined Beneficiary." A Combined Beneficiary is a current DoD, VA or dually eligible beneficiary, for whom health care access, cost and quality would be improved if sharing and collaboration between DoD and VA were increased. Adopting this perspective frames the Market assessments to address the common and best interests of the Combined Beneficiaries in the Market as a whole, rather than the potentially conflicting interests of the two delivery systems taken separately.

1.1 Defining Markets and Submarkets

In the DoD/VA Joint Assessment Study, each Market area is defined geographically, at both a county and ZIP code level. To the extent feasible, Mitretek used existing DoD and VA Market definitions[1], i.e., a Market area in the study was the smallest geographically delimited area that encompassed both the VA VISN-based and DoD MTF catchment-based Market area definitions.

Additionally, Mitretek subdivided the Market area into smaller geographic units—Submarkets—for meaningful analysis. Submarkets were defined based on existing geo-political boundaries (i.e., ZIP codes, counties), taking into account topographical features that may practically distinguish one Submarket from another (e.g., rivers, mountains, highway patterns, etc.).

It is important to remember that the designation of Market and Submarket areas are ultimately arbitrary; they are necessary to bound and limit the scope of the joint planning issues that the Study is trying to frame and address. The Market and Submarket area definitions can be expanded or contracted to accommodate changes in these issues.

In Puget Sound, the study Market area comprises 16 counties in the state of Washington, consistent with the VA CARES "Western Washington" Market. This Market includes a total of 13 DoD and VA health care facilities (including Troop Medical Clinics in Ft. Lewis). In the Joint Assessment study, the Puget Sound Market was divided along county lines into four Submarkets: North Sound, Seattle, South, and West Sound. Two of these regions contain both DoD and VA facilities; the other two contain only VA (Seattle) or DoD facilities (North Sound).

The Gulf Coast Market is comprised of eighteen (18) coastal counties, stretching approximately 240 miles from Panama City, FL to Biloxi, MS. This Market slices through VA's VISN 16 ("South Central") and DoD's Region 4 ("Gulfsouth"). This Market includes 15 DoD and VA health care facilities. The Market was divided into five geographically based Submarkets: Biloxi/Gulfport, Eglin, Mobile, Panama City, and Pensacola. One of these markets contains only DoD facilities (Eglin) and one of these markets contains only VA facilities (Mobile).

In Hawaii, the Study Market area comprises four counties and four Submarkets. The Submarkets are the various islands: Kauai, Maui, Oahu, and The Big Island. This represents the DoD Hawaii TRICARE Region and the VA Pacific Basin Submarket (excluding Guam) of VISN 21.

1.1.1 Data Collection and Integration

The initial focus was to obtain from each agency data that are centrally stored and routinely maintained[2]. Data that were not centrally available were obtained from the local facilities via pre-site visit surveys and during the site visit process. The Study approach necessitated developing methods and techniques to insure that demand and supply data from DoD and VA could be aggregated to permit meaningful comparisons.

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1 VA and DoD define their "Market areas" differently. VA specifies geographically delimited, non-overlapping areas—typically encompassing existing political subdivisions such as counties—within a larger Veterans Integrated Service Network (VISN). Also typically, these Markets are "anchored" by one or more VA Medical Centers (VAMC). DoD uses a "catchment area" concept. The outer boundaries of a catchment area are defined by a set distance from a Military Treatment Facility, typically 40 miles for a hospital, and typically 20 miles for an outpatient center.

2 Details about data collection is found in Appendix B.

A major contribution of this study is the ability to analyze a common DoD and VA marketplace made up of Combined Beneficiaries. This is made possible partially through the development of a Product Line and Clinical Service Line Crosswalk[3]. In this crosswalk, the clinic stops[4], bed sections, work units, and MEPRS codes[5] of the DoD and VA were mapped to consistently defined Product Lines and Clinical Service Lines—thus allowing for cross-Departmental analysis. For example, "Cardiology" is a Clinical Service Line (within a Product Line called Medicine/Medical Specialty) that contains the clinics, diagnostic ancillaries, and inpatient units associated with cardiology—regardless of the individual work units and MEPRS codes of the different Departments.

1.1.2 Demand and Workload

Mitretek estimates the demand for health care services by counting the units of service used by the population of DoD and VA beneficiaries residing in each Submarket and Market[6]. This demand, for both inpatient and outpatient services, may be accommodated at facilities within the Market area (in-market); alternatively, beneficiaries may travel outside the Market to receive care (out-migration). Similarly, beneficiaries residing outside the Market may receive care from facilities within the Market (in-migration). The total health care workload at any facility is the combination of in-market and in-migration service volumes. Thus, the Joint Assessment Study methodology identifies two types of users:

- *Market users*, unique persons living in the Market area who receive health care services from the VA and/or DoD, regardless of whether the services were provided in or outside of the Market area. The count is unduplicated, i.e., each person is counted only once, at the Market area level

- *Facility users,* unique persons receiving care at a particular facility. This count is also unduplicated, but at the facility level. Because individuals can receive services at more than one facility in a particular year, the sum of facility users across all facilities in a Market is typically greater than the number of Market users, after accounting for the effects of in- and out-migration.

Mitretek uses discharges as the basic unit of service for inpatient care, and visits as the basic unit of service for outpatient care.

1.1.3 Supply and Capacity

Mitretek distinguishes between the supply of a resource at a facility, and the capacity of that facility to provide or deliver services. "Supply" is typically a count of a particular resource, such as beds or the number of staff. "Capacity" is an estimate of the volume of services that can be

[3] The Product and Service Line Crosswalk can be found as an Attachment to Appendix B

[4] Called "clinic stops" in the VA and "clinic visits" in the DoD. A visit is defined as one appearance by a unique person at an outpatient care clinic. During the course of one trip to a health care facility, a person may generate multiple visits by going to different clinics (e.g., primary care, radiology, pharmacy, etc.)

[5] The Medical Expense and Performance Reporting System (MEPRS) code is a three digit code which defines the summary account and the subaccount within a functional category in the DoD medical system.

[6] Details about demand and workload measures is found in Appendix B.

provided at a facility, to meet the demand. When considering a sharing opportunity, it is important to determine the practical capacity of the key productive spaces and staff. For example, an exam room that is open 10 hours per day has more capacity than an exam room that is open 4 hours per day. A physician that has two exam rooms might have more productivity/capacity than a physician with only one exam room might. An inpatient bed that is not staffed with nurses has no capacity until it is staffed.

The development of consistent standards across the DoD and VA will help facilitate the exploration of sharing opportunities in the circumstances where there might be a capacity and demand imbalance. An important component of decision support provided during this Study was the development of Capacity Conversion Factors[7]. These are factors—based on DoD, VA, and/or Commercial standards—used to convert supply into capacity. Although only a few factors were used for this Report, one deliverable with this project is an initial set of common standards that can be used by both Departments with the purposes of capacity planning. The Departments might not agree with the factors used in this study, and coming to agreement between the Departments on a common set of factors will be an extensive and complicated task. The Capacity Conversion Factors in this study are a head start on what will be a necessary tool for future sharing studies. An example of Capacity Conversion Factors that can be used in this setting is the conversion of inpatient beds to patient days capacity with an occupancy rate standard. An application of this factor is shown later in this report. Another example, converting primary care providers into capacity to provide visits, is described in the primary care rationalization example later in this report.

Researching, developing, and agreeing upon conversion factors is a substantial task—and the initial set of standards in this report should not be considered a completed effort. Rather, it can be considered a catalyst for further development by the two Systems.

It is important to acknowledge that some of the national data are viewed by the sites in the markets to be unreliable, due to the inconsistency of reporting by the individual facilities. For example, the sites feel that the MEPRS Full Time Equivalent (FTE) data do not reflect accurately the true allocation of time of the providers. However, the data contained in the datasets used are presumably the best data available for these kinds of analyses—especially since the purpose of this study is for *planning* and not detailed operations analysis.

1.2 Identifying and Analyzing Options

As part of the Joint Assessment study, Mitretek developed a standard approach for developing specific health care delivery system options to highlight opportunities for greater sharing and collaboration between DoD and VA. Incorporated into the replicable methodology developed as part of the study, the approach is intended to be applicable to any market area (i.e., not limited to the three Market areas in the present study), and any broad grouping of clinical services (e.g., primary care, medical/surgical/behavioral outpatient specialty care, routine and tertiary inpatient care, etc.).

Comparing demand and supply identifies options for achieving balance within a Market or Submarket. The Mitretek approach focused initially on the *desirability* of a *particular option*, specifically on the potential for a rearrangement of health care delivery volumes, capacity, and resources to improve access to care and/or to reduce the costs of delivering this care. Mitretek

[7] Details about the development of Capacity Conversion Factors can be found in Appendix B.

recognizes that this approach temporarily suspends consideration of the practical constraints on and real-world barriers to implementing the options that are identified as a result of this evolutionary process—their feasibility. Based on the site visits to the Market areas, Mitretek is very aware of the specific challenges that influence opportunities for greater sharing and collaboration between DoD and VA. However, Mitretek believes that focusing on desirability first allows identification and calculation of the "benefits"—in improved access and reduced costs—of each option, and then to identify and estimate the "costs" involved, i.e., the investments needed to ameliorate or eliminate the specific barriers or impediments to implementation

To identify options, Mitretek developed a 3-step evolutionary rationalization process:

1. *Rationalize access* by opening the existing facilities of each system (DoD and VA) to provide health care services to the beneficiaries of the other system;
2. *Rationalize resources* by redistributing volumes and delivery capacity—within geographic access standards—to balance demand and supply at individual facilities, within specific Submarkets, and across the Market as a whole; and
3. *Rationalize access points*, by opening new and/or closing unneeded locations of service, to further improve access and reduce costs.

1.2.1 Collaboration Framework

Mitretek developed a Collaboration Framework to explore and systematically describe the domains in which sharing activities take place, and to identify the relative readiness and maturity of the local organizations to address and reduce the barriers to collaboration[8]. The Collaboration Framework assesses the current DoD and VA organizational relationships along a variety of Domains of Collaboration, such as Clinical Workload, Facilities, IM/IT, Staffing, Logistics, Business Processes, and Management/Governance. This evaluation provides a framework for the practicality of the opportunities for sharing and the organizational effort required for implementation. The elements of this framework can be used as a planning tool and to aid work needed to carry out initiatives. In this regard, each of the domains or categories can be treated as *critical success factors* and further analyzed in ways that probe the question, "How can DoD and VA health care organizations address these collaboration categories so as to improve access, cost, and quality?"

1.2.2 Cost

The total annual cost of providing health care to the DoD and VA beneficiaries is an important study criterion for assessing the current combined DoD/VA delivery system's performance. In fact, the total cost to these two federal agencies to provide health care to their beneficiaries in this market, now and in the future, is probably the single most relevant baseline metric for assessing the combined DoD and VA system's current performance from the taxpayer's perspective.

The total annual cost of care for the Study Markets was quantified for the analysis year (FY02 for this Study) utilizing the annual operating cost data elements that are available as part of this Study methodology database[9]. The costs that were incurred by DoD and VA in FY02 to fund the

[8] Details about the Collaboration Framework can be found in Appendix B.
[9] Details about how cost analyses were completed is found in Appendix B.

care required by the Study Market beneficiaries represent the current baseline total annual system costs for the Market. This current baseline system cost is an important benchmark to establish in order to facilitate analyses of sharing opportunities that are identified for DoD and VA. The total baseline system-wide costs required to fund the care provided to the beneficiary population in the Study Market includes the annual costs associated with the following:

- Direct care services provided by the DoD and VA facilities located *within* the Study Market to DoD and VA beneficiaries who reside within the study market area, i.e., in-market direct care;
- Direct care services utilized at other DoD and VA facilities *outside* the Market by beneficiaries who reside within the Market area – i.e., out-migration; and
- Indirect[10] care services that are purchased from other providers by DoD and VA for their beneficiaries who reside within the Market.

Including the FY02 cost data for each of these components of care delivery, i.e., all services provided directly by DoD and VA facilities either within or outside the market and those services purchased by DoD and VA for their beneficiaries who reside within the market area, provides a complete picture of the total annual costs funded by DoD and VA to care for the Market beneficiary population. In conducting a business case analysis for any specific sharing opportunity for a Study market, the expected annual incremental impact on these baseline system-wide costs need to be projected in order to provide an appropriate measure of the relative cost impact of the initiative on the total system, as opposed to the measuring the expected impact on just one of the two federal agencies.

The baseline annual costs for each Study Market summarized in the Report provide a high-level perspective of major categories of services, such as inpatient care and outpatient care, in the aggregate for the entire Study Market. It should be noted that in addition to this ability to calculate the current baseline cost performance for major categories of services such as these in the aggregate and at the total market level, the data available with this Study methodology will enable the analyst to calculate the current baseline cost performance for specific sub-segments of each Study Market, such as select geographic submarkets (e.g., a county within the market), for select beneficiary populations (e.g., active duty versus other beneficiaries in the DoD or by priority level within the VA), and for select Product or Clinical Service Lines (e.g., primary care only). This provides the ability to document a baseline or "status quo" cost performance at either a submarket, beneficiary group, and/or at a Clinical Service Line level for comparison purposes that will be most appropriate to the particular sharing opportunity being assessed. Such Product and Clinical Service Line level incremental cost impact analyses will be illustrated in the individual Study market assessments that follow.

1.2.3 Access

Access performance is measured by the proportion of enrollees and/or patient care workloads, typically expressed as a percent, that are currently within the DoD/VA drive-time standards for geographic access to services[11]. The current access baseline for enrollees and for primary care

[10] Indirect care is defined as purchased care by the DoD and fee-basis care by the VA

[11] Detail about how access performance measurements were completed is found in Appendix B.

workloads are measured based on the drive time to *any* facility within the beneficiary's respective system. Access for inpatient care is measured based on drive time to *any* inpatient facility within the beneficiary's respective system. Sharing opportunities that improve access result in increasing this percentage over the current access baseline. The drive-time standards utilized for this study for DoD and VA are as follows:

Table 1: Drive Time Standards

Type of Service	DoD Standard	VA Standard	VA Rural Standard
Primary Care	30 minutes	30 minutes	30 minutes
Specialty Care	60 minutes	60 minutes	90 minutes
Inpatient Routine Care		60 minutes	90 minutes
Inpatient Tertiary Care		240 minutes	Within VISN

1.2.4 Facility Condition

Architects and engineers in the project team completed cursory reviews of many of the clinical buildings in the Markets[12]. They reviewed the spaces for functionality and the buildings for condition. These brief assessments are not meant to replace a comprehensive Facilities Master Plan or a Facility Condition Assessment. Rather, they are high-level assessments to assist in planning decisions. The departments were subjectively scored on a Red/Amber/Green scale ((on a Red/Amber/Green scale—with Green being the best) and the buildings were scored on a Poor/Fair/Good/Very Good/Excellent scale. An explanation of the scoring and detailed scores of the many of the departments and buildings are available as an Attachment to the Market Assessment Appendix.

1.2.5 Time

The Market assessments are based on a "snapshot in time"—FY02—and do not take into account the very dynamic nature of health care delivery in general and the policy changes affecting the DoD and VA in particular.

[12] Detail about facility condition assessments is found in Appendix B.

Structure

The structure of this Appendix is as follows:

- Introduction & Overall Market Findings
- Market Assessments: Puget Sound, Gulf Coast, Hawaii
  - Description of the Market
    - Overview
    - Population
    - Service, Demand, and Workloads
    - Current Market Performance
  - Findings from the Application of the Quantitative Study Methodology
  - Findings from the Assessment Applying the Collaboration Framework
  - Recommendations
  - Market Assessment Attachments:
    - Options for Sharing/Collaboration Identified
    - Functional Assessment Definitions
    - Functional Assessment Grid
    - Facility Condition Grid
    - Supply Counts

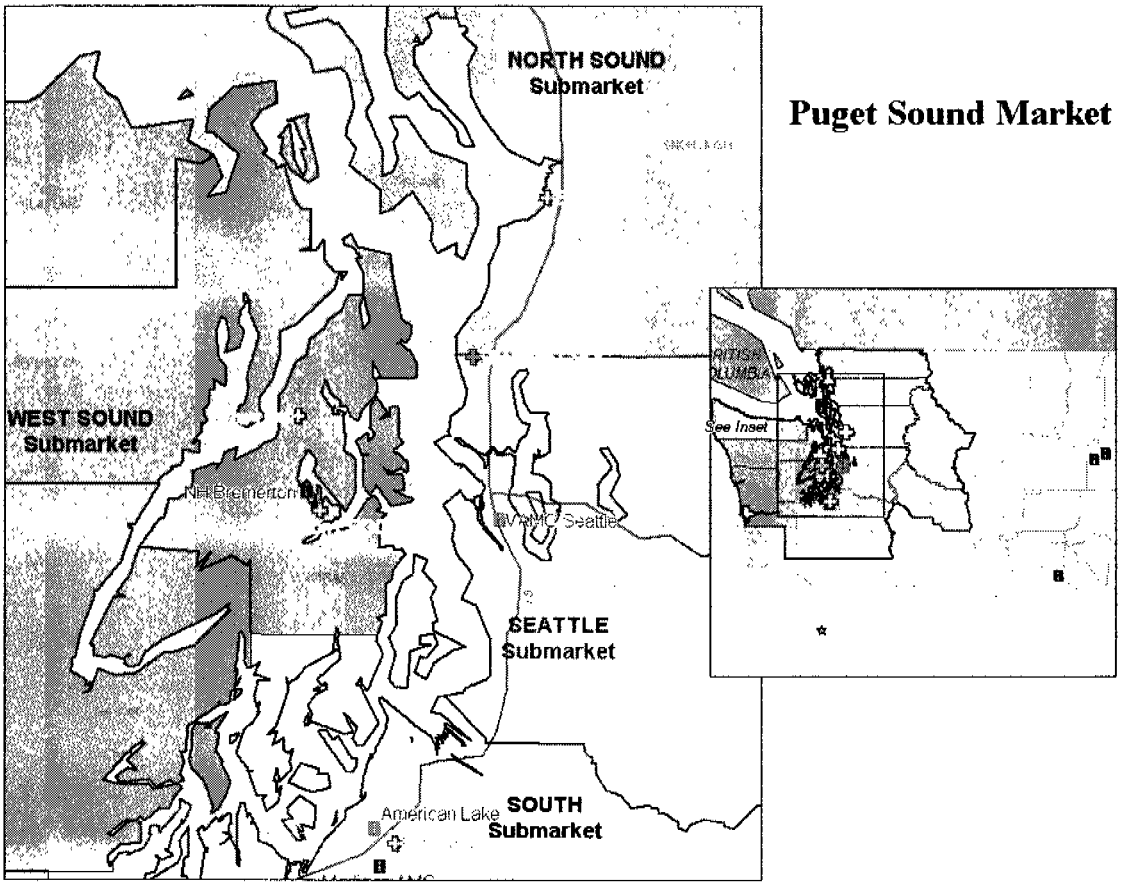
In addition to the findings here, a section of the main Report outlines Findings and Recommendations specific to the Methodology and Process.

The Study Data Repository and the Assessments to follow provide a unique and valuable snapshot of the marketplaces from the perspective of the Combined Beneficiary. As with any analysis, many assumptions must be made in order to gain useful decision support from the data. The report should be considering an excellent high-level planning tool and as a starting point requiring field-testing before undertaking any actions based on the analysis.

PUGET SOUND MARKET ASSESSMENT

2 MARKET ASSESSMENT- PUGET SOUND MARKET

A goal of this study is to view the market area from the perspective of the Combined Beneficiary[13], rather than from the perspective of the System delivering the care. Thus, this Market has been divided into four Submarkets—based on geography rather than existing care delivery models. The Submarkets, as shown in the map below, are North Sound, Seattle, South, and West Sound. The North Sound Submarket is comprised of Chelan, Island, San Juan, Skagit, Snohomish, and Whatcom counties. The Seattle Submarket is comprised of King County and Kittitas County. The South Submarket includes Lewis, Pierce, and Thurston Counties, and the West Sound Submarket includes Clallam, Gray's Harbor, Jefferson, Kitsap, and Mason Counties.



The Puget Sound Market Area for this Study consists of:

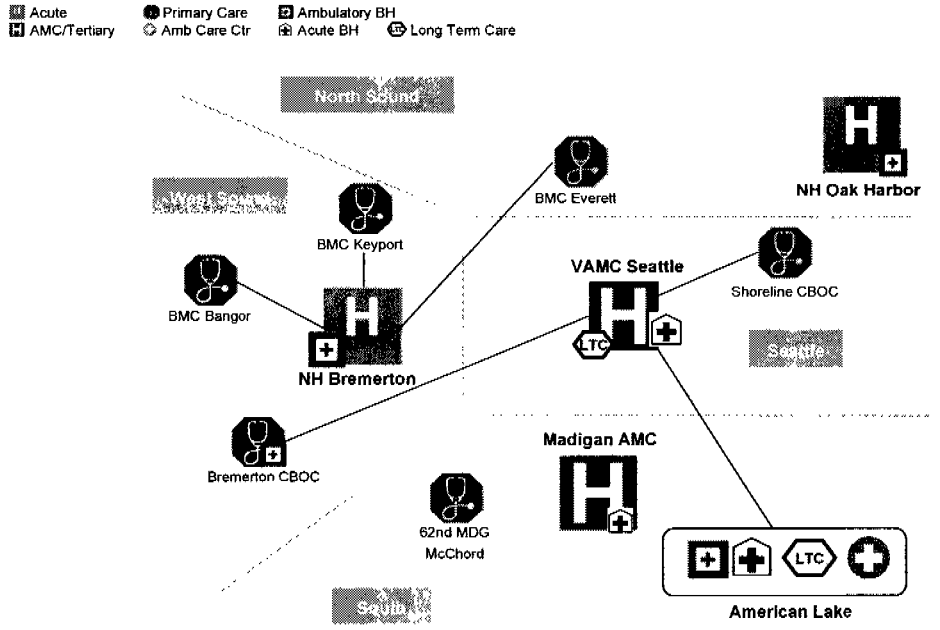
[13] See the Introduction of this Appendix for a definition of Combined Beneficiary.

Table 2: Study Market Area Definition for Puget Sound

Submarket	County	DoD Facilities	VA Facilities
North Sound	Chelan Island San Juan Skagit Snohomish Whatcom	– NH Oak Harbor – Branch Medical Clinic Everett (BMC Everett)	–
Seattle	King Kittitas	–	– VA Medical Center Seattle (VAMC Seattle) – Seattle Shoreline Clinic (Contract)
South	Lewis Pierce Thurston	– Madigan Army Medical Center (Ft. Lewis) – 62nd Medical Group - McChord AFB – Okubo Family Practice Clinic - Fort Lewis – Troop Medical Clinic #1 - Ft Lewis	– American Lake VA Medical Center
West Sound	Clallam Grays Harbor Jefferson Kitsap Mason	– NH Bremerton – BMC Subase Bangor – BMC Keyport – BMC Puget Sound	– Bremerton CBOC

The basic relationships between the Submarkets and their facilities are illustrated below.

Figure 1: Facilities in the Puget Sound Market Area



2.1 Populations

The Puget Sound Market area is unique in that is has two tertiary facilities (VAMC Seattle and Madigan), and that access to facilities is complicated by the many waterways in the area. Further, the area is a popular location for DoD retirees—thus there are a high number of dually eligible residents. This presents both challenges and opportunities. Although the combination of the using populations in the Systems is large, it might not be large enough to support two tertiary programs in some Clinical Service Lines. For example, offering open heart surgery at both VAMC Seattle and Madigan.

The topography of the Market makes meeting primary care access drive-time standards difficult—since towns that appear near to each other on the map are sometimes distant in terms of drive time (e.g., the need to take a ferry increases drive time). Since both Systems have 30-minute drive time standards for access to primary care, and there are some Submarkets in which facilities for only one of the System's exists, access to each other's facilities has the potential to improve access in these Submarkets. An example analysis of the opportunity and impact of rationalizing access to primary care follows later in this Appendix.

2.1.1 Eligible Population

The Puget Sound Market Area has approximately 740,000 eligible Combined Beneficiaries; of this number, approximately 55,000 beneficiaries are "dual-eligible," i.e., they are eligible to receive health care services from both DoD and VA. This population represents 16 counties in the Puget Sound area. Sixty-four percent (about 472,000 people) of the eligible population are VA eligible (including dual eligibles). The North Submarket and the Seattle Submarket each make up +/- 25% of the eligible population, the South Submarket represents 34% of the eligibles, and the West Submarket represents about 13% of the eligible population.

Specifically, about 25% of the eligible population (85% of which are Veterans) lives in King County in the Seattle Submarket, and another 25% (equally DoD and Veterans) lives in Pierce County in the South Submarket. Another 12% each lives in Snohomish County (75% Veterans) in the North Submarket and Kitsap County (57% DoD) in the West Submarket

In the Puget Sound Market overall, 19% of the 268,000 DoD eligible population are Active Duty, 29% are Active Duty Family Members, 20% are Retiree, 31% are Retiree Family Members (and 1% "Other"). Of the 472,000 eligible Veterans, 56% are Priority Group 8 and 20% are Priority Group 5. The rest are spread with about 3-6% each in the other Priority Groups.

2.1.2 Enrolled Population

The number of Combined Beneficiaries who were enrolled in 2002 (399,000) was equal to 54% of the number of eligible. Specifically, the enrolled Veterans (87,000) equaled only 18.5% of eligible Veterans, while the number of enrolled DoD exceeds the number of eligible DoD. (Note that for DoD there are actually more enrolled than eligible—because DoD beneficiaries can be enrolled in a facility outside the Market area and because the analysis includes beneficiaries from the enrollment data who are not enrolled to a specific DoD facility). The number of enrolled Veterans was less than 25% of the number of eligible Veterans in all counties except for Pierce County (26.5% enrolled) in the South Submarket. In the North Sound Submarket—the one with no VA facilities—only 13% of eligible Veterans are enrolled. (This compares to a high of more

than 30% VA enrollment as a percent of eligible in the Biloxi/Gulfport Submarket of the Gulf Coast Market).

Below are tables that display the enrolled population broken down by Priority Group[14] and Beneficiary Category (Active Duty, Active Duty Family Members, Retiree, Retiree Family Members).

Table 3: VA Enrolled Population by Priority Group

PG 1	PG 2	PG 3	PG 4	PG 5	PG 6	PG 7	PG 8
18%	12.5%	22.3%	3.4%	23.7%	2.3%	1.2%	16.6%

Table 4: DoD Enrolled Population by Beneficiary Category

Active Duty	Active Duty Family Members	Retiree	Retiree Family Members
15.3%	46.4%	13.9%	24.5%

2.1.3 Users

The number of unique Combined DoD/VA users equaled 81% of the combined enrolled population. This figure is for users of the direct or indirect care system (net of dual users). The number of unique DoD users (of the combined direct and indirect care systems) was equal to 91% of the DoD enrolled population. And the number of unique VA users (87,000) equaled 69% of the VA enrolled. Indirect care is Purchased Care for the DoD and Fee Basis Care for the VA.

In the DoD, 36% of the total users accessed indirect care. In the VA only 8% used indirect care. For *direct* care, 9% of users were dual users (used both systems). In the South Submarket, 12% of users were dual users, in the West it was 7%, in the North 4%, and in Seattle 3%.

2.2 Workload

2.2.1 Inpatient: Direct Care

Residents of the Puget Sound Market area consumed approximately 23,750 discharges and roughly 117,000 inpatient days of direct care in Medicine (including Rehab), Surgery, Behavioral Health (including Substance Abuse), and Ob/Newborn (Post Partum and Nursery days both counted). These volumes include out-migration to direct care providers outside the Market, but exclude purchased care and extended care.

Direct care discharges for this type of care varied by Beneficiary Group: for the VA, 32% of discharges were for Priority Group 1, and 23% were for each Priority Group 4 and 5. Priority Group 3 made up only 10% of the discharges. For the DoD, 47% of discharges were consumed

14 VA priority groups are based on combinations of the extent of service-connected disabilities and income/net worth. They priority groups currently range from 1-8 with 1 being the highest priority for enrollment.

by Active Duty Family Members, 18% by Retirees, and 19% for Retiree Family Members. Only 15% of discharges were generated by Active Duty.

Sixty-eight percent of the discharges and 45% of the days were DoD. Thirty-two percent of the discharges and 55% of the days were VA. Seventy-three percent of the Surgery discharges and 62% of the direct care inpatient days were generated by the DoD. Fifty-eight percent of the Medicine discharges and 41% of the days were for the DoD, whereas 79% of the Behavioral Health discharges and 95% of the direct care days were for the VA. Note that more than 8,500 of the Medicine days for the VA are Rehab Medicine and 2,700 of the Medicine Days for the DoD are Pediatrics. The difference in proportion of discharges and days is due to length of stay—as seen in the table below.

Table 5: Average Length of Stay by Product Line- Market Users

Product Line	DoD	VA	Combined
Behavioral Health	2.85	13.14	10.98
Medicine (incl. rehab)	3.48	6.94	4.93
Surgery	3.58	5.81	4.19
Ob/Newborn	2.88	N/A	2.88

Table 6: Inpatient Days by Product Line

Product Line	DoD	VA	Total	% DoD	%VA
Behavioral Health	1,599	27,824	29,423	5%	95%
Medicine	20,138	28,951	49,089	41%	59%
Surgery	13,480	8,209	21,689	62%	38%
Ob/Newborn	17,090		17,090	100%	0%
Total	52,307	64,984	117,291	45%	55%

As seen in the patient days case mix table below, of direct care inpatient days generated by Combined Beneficiaries from this market, 42% were for Medicine, 25% for Behavioral Health, 18% for Surgery and 15% for Ob/Newborn. Note that the case mix for DoD and VA are quite different. Of the VA patient days, were for Behavioral Health and 45% for Medicine. This compares to 3% and 38% respectively for the DoD. Of DoD's direct care patient days, 26% were Surgery—compared to 13% for VA.

Table 7: Percent of Total Inpatient Days by Product Line and Service (Case Mix)

Product Line	DoD	VA	Combined
Behavioral Health	3%	43%	25%
Medicine	38%	45%	42%
Surgery	26%	13%	18%
Ob/Newborn	33%	0%	15%
	100%	101%	100%

(Totals exceed 100% due to rounding)

Based on the enrolled populations of the two systems, there are the following *direct care* use-rates per 1,000 enrolled. This means these use rates exclude the purchased care/fee basis care—so it reflects only the use of the MTFs and VA facilities. In the DoD, 36% of the total number of

users in this market used the purchased care system—and those users' activity is not reflected in these use rates. (In the VA, 8% of total users accessed fee-basis care). Nonetheless, the table below shows clearly the difference in patient profile between the DoD and VA.

Table 8: Direct Use Rates per 1,000 Enrolled Population (In Bed Days)

Product Line	DoD	VA	Total DoD/VA
Behavioral Health	5.12	319.55	73.69
Medicine	64.50	332.49	122.94
Surgery	43.18	94.28	54.32
Ob/Newborn	54.74	-	42.80
Total	167.54	746.32	293.76

In addition to the workload described above, users in the Puget Sound Market generated 635 direct care Extended Care discharges and approximately 72,000 Extended Care days.

When viewed from the perspective of the *facility* (rather than the market), there were more than 25,000 discharges (including in-migration) and nearly 130,000 days. We see the following breakdown of 2002 inpatient days volume (including in-migration, and post partum and nursery days both counted) and discharges volume. Note that VAMC Seattle manages 47% of the total patient days and Madigan manages 34%. More than 2,400 of Madigan's days and more than 18,000 of the Seattle VA's days came from outside the Puget Sound Market (7,700 of Seattle VA's in-migration were Rehab, 3,500 were Internal Medicine, and 2,300 were Mental Health). Based on recent sharing agreements, future VA American Lake Medicine and Surgery days will be at Madigan.

Table 9: Total Volume by Facility (Regardless of Patient Origin)

Name	Product Line	Inpatient Days	Discharges	Average Length of Stay (ALOS)
VA American Lake				14.62
	Behavioral Health	7,151	489	
	Medicine (incl. rehab)	7,091	828	8.56*
	Surgery	35	2	17.50
	Subtotal	14,277	1,319	10.82
Madigan AMC	Behavioral Health	1,687	647	2.61
	Medicine (incl. rehab)	16,751	4,392	3.81
	Surgery	12,087	3,159	3.83
	Ob/Newborn	13,032	3,697	3.53
	Subtotal	43,557	11,895	3.66
NH Bremerton	Medicine (incl. rehab)	2,826	1,035	2.73
	Surgery	1,713	569	3.01
	Ob/Newborn	2,838	1,407	2.02
	Subtotal	7,377	3,011	2.45
NH Oak Harbor	Medicine (incl. rehab)	731	387	1.89
	Surgery	426	222	1.92
	Ob/Newborn	1,586	852	1.86

	Subtotal	2,743	1,461	1.88
VAMC Seattle	Behavioral Health	13,680	1,462	9.36
	Medicine (incl. rehab)	35,358	4,275	8.27*
	Surgery	12,107	1,930	6.27
	Subtotal	61,145	7,667	7.98
Puget Sound Total		129,101	25,355	5.09

*When rehab is removed from medicine, American Lake has 738 discharges, 3644 patient days, and a Medicine ALOS of 4.93. VAMC Seattle has 4,069 Medicine discharges, 20,638 patient days, and a Medicine ALOS of 5.07.

2.2.2 Inpatient: Indirect Care

Inpatient indirect care (purchased care/fee-basis care) is measured by Diagnostic Related Group (DRG) for both the DoD and VA. There was a substantial amount of workload coded "000"—which was represented in "Other."

The DoD is the primary purchaser of indirect care in all Markets. Excluding "Other," the largest volume of indirect inpatient care is in Medicine and Surgery. When looking at the claims data for DoD, it appears that in the "Other" category, at least an additional 403 discharges were Medicine, 313 were Newborn, 177 were Behavioral Health, and 96 were Surgery (the remaining 4,200 discharges in "Other" could not be further classified). The average length of stay for all indirect care in this Market was 7 days. The indirect inpatient admission use rate per 1,000 enrolled beneficiaries was 27 for DoD and 3 for VA.

The majority of the VA activity was for Priority Group 1, and the majority of inpatient activity for the DoD was Retiree and Retiree Family Members. When the DoD activity is broken down by age, it is revealed that 57% of the discharges were for people over the age of 65—most likely TRICARE for Life enrollees[15].

Table 10: Indirect Care Discharges

Product Line	DoD	VA	Total
Behavioral	109	7	116
Medicine	1,581	118	1,699
Newborn	201	0	201
Ob/Gyn	368	11	379
Surgery	1,111	49	1,160
Other	5,189	77	5,266
Total	8,559	262	8,821

Table 11: Indirect Care Patient Days

Product Line	DoD	VA	Total
Behavioral	995	21	1,016
Medicine	6,068	363	6,431
Newborn	328	0	328

[15] TRICARE For Life: New benefits (effective October 1, 2001) for Medicare-eligible uniformed service retirees (and Medicare-eligible family members). TRICARE is a secondary payor to Medicare.

Ob/Gyn	894	24	918
Surgery	5,449	307	5,756
Other	46,317	706	47,023
Total	60,051	1,421	61,472

Table 12: Indirect Care Discharges by Beneficiary Group

Beneficiary Group	Discharges	% of Respective System
PG 1	189	72%
PG 2	18	7%
PG 3	7	3%
PG 4	11	4%
PG 5	29	11%
PG 6	0	0%
PG 7	2	1%
PG 8	5	2%
Subtotal	261	100%
Active Duty	251	3%
Active Duty Family	1,883	22%
Retiree	3,106	36%
Retiree Family Member	3,319	39%
none provided	1	0%
Subtotal	8,560	100%
Total	8,821	

Table 13: DoD Indirect Discharges by Age

Product Line	0-17	18-44	45-64	65+	Total
Behavioral	24	60	15	10	109
Medicine	197	128	279	977	1,581
Newborn	201				201
Ob/Gyn	3	320	15	30	368
Surgery	58	126	253	674	1,111
Other	661	731	645	3,152	5,189
Total	1,144	1,365	1,207	4,843	8,559
	13%	16%	14%	57%	100%

2.2.3 Outpatient: Direct Care

Residents of the Puget Sound Market area generated more than 1.7 million direct care visits. This activity includes visits to providers, diagnostic departments (such as lab and x-ray), therapeutic departments (such as radiation therapy, physical therapy), and emergency departments, and includes out-migration. When some specialties such as optometry, dental, audiology, ED, diagnostics and therapeutics are excluded (in order to focus mostly on medical/surgical ambulatory provider activity), there were more than 1.25 million direct care ambulatory visits to providers in Behavioral Health (including substance abuse), Distinctive Programs (such as Underseas Medicine & Flight Medicine), Medical Specialties (including rehab), Ob/Gyn, Surgical Specialties, and Primary Care.

The assessment to follow focuses on the 1.25 million non-diagnostic and non-therapeutic direct visits generated by the users in this Market. Of this subset, 66% (or about 830,000 visits) were DoD and 34% were VA. Sixty-eight percent of Behavioral Health visits were generated by the VA users, while 72% of Primary Care visits were generated by the DoD users.

Table 14: Workload by Product Line

Product Line	DoD	VA	Total	% DoD	% VA
Behavioral Health	63,524	137,519	201,043	32%	68%
Distinctive Programs	20,169	0	20,169	100%	0%
Medical Specialty	78,809	47,270	126,079	63%	37%
Ob/Gyn	80,313	0	80,313	100%	0%
Primary Care	474,090	181,257	655,347	72%	28%
Surgical Specialty	114,464	56,258	170,722	67%	33%
Total	831,369	422,304	1,253,673	66%	34%

As seen in the table below, of the subset of direct care outpatient visits described above generated by Combined Beneficiaries from this market, 52% were for Primary Care (which includes Internal Medicine, Pediatrics, Family Practice, and VA Women's Health), 16% for Behavioral Health, 14% for Surgery/Surgical Specialties, 10% for Medical Specialties, and 6% for Ob/Newborn. Note that the case mix for DoD and VA are somewhat different: 33% of the VA's visits were for Behavioral Health compared to 8% for the DoD.

Table 15: Percent of Total Ambulatory Visits by Product Line and Service (Case Mix)

Product Line	DoD	VA	Combined
Behavioral Health	8%	33%	16%
Distinctive Programs	2%	0%	2%
Medical Specialty	9%	11%	10%
Ob/Gyn	10%	0%	6%
Primary Care	57%	43%	52%
Surgical Specialty	14%	13%	14%
	100%	100%	100%

Direct care use rates per 1,000 enrolled population also show that the VA enrolled population uses the system more than the DoD population does.

Table 16: Direct Care Outpatient Visit Use Rates per 1,000 Enrolled Population

Product Line	DoD	VA	Total DoD/VA
Behavioral Health	203	1,579	504
Distinctive Programs	65	0	51
Medical Specialty	252	543	316
Ob/Gyn	257	0	201
Primary Care	1,519	2,082	1,641
Surgical Specialty	367	646	428

Total	2,663	4,850	3,140

The overall VA direct care use rate and overall direct care DoD use rate are very similar for the Gulf Coast and Puget Sound Markets—but the Hawaii Market is different. In the Hawaii Market, the DoD has a higher rate and the VA has a lower rate than in the other Markets—such that the total outpatient direct care use rates are almost the same for the DoD and VA in the Hawaii Market (about 3,600 per 1,000).

When viewed from the perspective of the *facility* (rather than the market), the facilities in the Puget Sound Market saw more than 1.76 million direct care visits to providers, diagnostics, therapeutics, and emergency departments—including in-migration from other markets. Sixty-five percent of this total activity was provided by DoD facilities and 35% by VA facilities. Thirty-seven of the total outpatient activity supported by the facilities in the market was Primary Care, 17% was Medical Specialty (including Rehab), 15% was Behavioral Health, 13% was "Outpatient Specialty" (a combination of dental, optometry, audiology, geriatrics, emergency department, home care and nutrition). Note this data includes the Troop Medical Clinics and excludes activity at the Shoreline CBOC, since that volume does not appear in the direct care data sets.

The greatest amount of activity was in the Clinical Service Lines of Internal Medicine (360,000 provider, diagnostic, and therapeutic visits), Family Practice (202,500 provider, diagnostic, and therapeutic visits), Mental Health (172,000 provider, diagnostic, and therapeutic visits), and Rehab (152,600 provider, diagnostic, and therapeutic visits). These four Clinical Service Lines represent 50% of the total activity provided by the facilities.

The combined workload of all the facilities in this market is distributed as follows:

Table 17: Activity by Facility

Facility Name	% of workload
Madigan	40%
VAMC Seattle	22%
VA American Lake	13%
NH Bremerton	11%
NH Oak Harbor	8%
McChord	3%
Sub Base Bangor	1%
BMC Everett	1%
Bremerton CBOC	0%

2.2.4 Outpatient: Indirect Care

As an attempt to gauge the amount of care that is provided by non-federal providers, Mitretek Systems analyzed the outpatient indirect care (purchased care/fee-basis care) for the DoD and VA. The DoD activity is mapped to Clinical Service Lines using provider specialty. Thus for the DoD, activity for Internal Medicine can be mapped to Internal Medicine if that was the

provider specialty. The VA data are based on ICD-9 codes[16], so all activity is mapped to a specialty (e.g. someone seeing a doctor for back pain would be mapped to orthopedics—even if the person saw an internal medicine doctor.) Therefore, the level of detail in available in this report *highlights* the levels of activity—but more analysis would be required in order to isolate volume for the purposes of physician planning. The figures below exclude most of the ancillary and non-Physician/Physician Assistant/Nurse Practitioner activity. Note the DoD activity includes managed care support contracts[17] volume.

Table 18: Outpatient Indirect (Purchased Care) Volume by Product Line

Product Line	DoD	VA	Total
Behavioral Health	29,431	10,301	39,732
Medical Specialty	60,192	27,031	87,223
Ob/Gyn	3,748	444	4,192
Outpatient Specialty	46,154	5	46,159
Primary Care	128,001	597	128,598
Surgical Specialty	28,705	11,698	40,403
Total	296,231	50,076	346,307

Some of the highest volume specialties are listed below.

[16] International Classification of Diseases, Ninth Revision

[17] Managed Care Support Contracts (MCSC): risk contracts with civilian provider networks to compliment the healthcare services provided in the Military Treatment Facilities.

Table 19: Outpatient Indirect Care Volume by Select Clinical Service Lines

Clinical Service Line	DoD	VA	Total	DoD % of Total	VA % of Total
Gastroenterology	1,963	12,907	14,870	13%	87%
Orthopedics	9,747	3,200	12,947	75%	25%
Audiology/Speech/Hearing	12,530	0	12,530	100%	0%
Cardiology	6,062	2,320	8,382	72%	28%
Oral Surgery	0	5,591	5,591	0%	100%
General Surgery	3,050	1,324	4,374	70%	30%
Neurology	2,556	1,663	4,219	61%	39%
Pulmonary/Respiratory Disease	2,094	1,921	4,015	52%	48%
Dermatology	3,225	627	3,852	84%	16%

Table 20: Outpatient Indirect Care Volume by Beneficiary Group

Benefit Group	Volume	% of respective system
None Noted	17	0%
PG 1	30,623	64%
PG 2	2,644	6%
PG 3	2,559	5%
PG 4	7,314	15%
PG 5	3,151	7%
PG 6	215	0%
PG 7	130	0%
PG 8	1,133	2%
Subtotal	47,786	100%
Active Duty	5,836	2%
Active Duty Family Members	132,274	44%
Retiree	55,459	19%
Retiree Family Members	102,662	34%
None Noted	2,290	1%
Subtotal	298,521	100%
Total	346,307	

Table 21: Outpatient Indirect Care Volumes by Submarket of Users

Submarket	DoD	VA	Total
North Sound	71,479	18,062	89,541
Seattle	34,670	9,786	44,456
South	127,047	13,255	140,302
West Sound	63,035	8,973	72,008
Total	296,231	50,076	346,307

The outpatient indirect care visits use rate per 1,000 enrollees is 948 for DoD and 575 for the VA.

2.3 Supply

2.3.1 Key Productive Spaces

Within a complex hospital, there are only a few areas that generally are considered the key productive spaces. Although the hospital provides a wide range of services, the major drivers of space and capacity tend to be inpatient beds, outpatient exam rooms, operating rooms, and diagnostic imaging equipment. As stated previously, in order to facilitate investigation of sharing opportunities, the two Departments should work diligently to develop standards and definitions for measuring the supply of these spaces and converting them into capacity

Since both the DoD and VA use 85% inpatient bed occupancy as a planning standard for Medical/Surgical beds, and 65% occupancy is a commonly accepted high level critical care standard, this Study did an initial assessment of Medical/Surgical, Psychiatry, and Critical Care bed capacity versus demand using these standards. The market has 398 staffed beds and 415 available beds in these categories. In 2002, the Puget Sound Market had a weighted average staffed-bed occupancy of 64%. This figure is driven downward by very low occupancies at the Naval Hospital Oak Harbor, the Naval Hospital Bremerton, and the Medical/Surgical unit at American Lake VA.

Table 22: Key Productive Spaces

Market	Facility Name	Unit Type	2002 Acute Care Patient Days (Non-OB) Workload	(1)Patient Days Capacity (Staffed Beds) 85%/65%	(1) Patient Days Capacity (Available Beds) 85%/65%	Weighted Occupancy Target	(2)Actual Occupancy (Staffed Beds)	(2) Actual Occupancy (Available Beds)
Puget Sound	American Lake VA	Med/Surg	3,679	7,136	7,136	0.85	44%	44%
	American Lake VA	IP Psychiatry	7,151	8,377	8,377	0.85	73%	73%
	Madigan AMC	Med/Surg	28,867	30,186	33,799	0.81	78%	68%
	Madigan AMC	Inpatient Psychiatry	1,687	1,898	1,898	0.85	58%	58%
	NH Bremerton	Med/Surg	4,545	11,260	11,972	0.83	34%	31%
	NH Oak Harbor	Med/Surg	1,163	7,756	7,756	0.85	13%	13%
	Seattle VA	Med/Surg	32,778	37,668	37,668	0.81	70%	70%
	Seattle VA	Inpatient Psychiatry	13,718	14,892	14,892	0.85	78%	78%
	Puget Sound Total		93,588	119,173	123.498		64%	62%

Notes:
(1) Capacity based on bed counts provided from surveys and site visits. Capacity is bed count x 365 x 85% for Medical/Surgical regular, telemetry, and psych or 65% for Critical Care
(2) Actual occupancy is calculated as 2002 workload/(365*beds). (It does not first reduce capacity by 85% or 65% as in the capacity calculations). Current beds counts (used for "capacity") might be slightly different than bed counts in 2002 (data used for workload). Weighted occupancy target based on % of staffed beds that are regular/telemetry versus critical care. Patient Days exclude OB, Nursery, Rehab, Extended Care, Rehab, SCI. Patient days include in-migration. Patient Days exclude observation care. Med/Surg is combination regular, telemetry, and critical care.

Tripler staffed ICU beds (5) seemed to be an error, so weighted occupancy target is based on available beds rather than staffed
(3) Tripler VA Psych days are a sum of the days that show up in VA and as Vets (K-61) in the DoD data

Facility Condition

Most of the major hospital buildings were built more than 20 years ago—and many were built more than 50 years ago. At the same time, some of the DoD clinics are very new. Architects and engineers in the study team completed cursory evaluations of the major clinical buildings on most of the sites. Architects scored the inpatient units and ambulatory clinics as either Green or Amber for size and configuration (on a Red/Amber/Green scale—with Green being the best). However, the team observed that most spaces are not ADA compliant. Definitions and data output from these studies are located in the Attachment to this Appendix.

Access

Nearly 90% of DoD enrolled and 70% of the VA enrolled beneficiaries are within 30 minute drives of any facility within their respective system. More than 97% of DoD and more than 83% of VA are within 60 minutes. In all Submarkets except Seattle, 88% or more of the DoD enrollees are within 30 minutes to any DoD facility. In the Seattle Submarket, only 62% of DoD enrollees are within 30 minutes, but 96% are within 60 minutes. The VA has the opposite profile: only in the Seattle Submarket are 90% of the VA enrollees within 30 minutes of any VA facility. The percent drops to 75% in the South, 57% in the West Sound, and only 38% in the North Sound. In the North Sound, only 55% of VA enrollees are within 60 minutes of any VA facility. Not surprisingly, only 63% of VA primary care visits in the overall Market, and only 28% of in the North Sound Submarket and 15% in the West Sound Submarket met the 30 minute standard. Note that the volume in these two markets represents about 22% of all the VA primary care visits in the market. For the DoD, 88% or more of the primary care visits were within 30 minutes of any DoD facility, except for Seattle, where only 51% of visits were within standard.

Given that there are DoD facilities in the North Sound and West Sound Submarkets (Oak Harbor, Everett, Bremerton) and there are VA facilities in the Seattle Submarket, opening access to each other's beneficiaries will improve the access for residents of these Submarkets.

Costs

The total costs that were incurred by DoD and VA in FY02 to fund the care required by the Puget Sound study market beneficiaries represent the current baseline total annual system costs for the Puget Sound market. This is the annual cost required to fund the care provided to the Combined Beneficiary population in the Puget Sound study market and includes all direct care provided directly by DoD and VA facilities as well as indirect care purchased by DoD and VA for these beneficiaries. The baseline cost performance for the Puget Sound study market is illustrated in the table below.

Table 23: Costs in the Puget Sound Market Area

Baseline Total Annual Cost to Deliver Care to DoD and VA Beneficiaries in Reside in the Puget Sound Market (FY2002)			
	PUGET SOUND COSTS BY AGENCY		
Cost Figures in Thousands ('000s)	DoD	VA	Total
In-Market Direct Care Provided			
Inpatient Care	100,393	106,149	206,542
Outpatient Care	212,183	188,651	400,834
Total In-Market	312,576	294,801	$ 607,377
Out-Migration (Direct Care Provided Outside Market)			
Inpatient Care	2,000	6,075	8,075
Outpatient Care	5,798	2,620	8,418
Total Out-Migratio	7,798	8,694	$ 16,492
Non-Direct Care (Purchased/Fee Basis Care)			
Inpatient Care	18,958	679	19,637
Outpatient Care	111,120	2,022	113,142
Total Non-Direct	130,078	2,701	$ 132,779
Total Delivery Costs			
Inpatient Care	121,351	112,903	234,254
Outpatient Care	329,101	193,293	522,394
TOTAL	**450,452**	**306,196**	**$ 756,648**
Total Costs per Enrollee and per User *(Population and Per Capita Cost Figures are NOT in Thousands)*			
Total Enrollees (1)	312,206	87,073	399,279
Total Cost per Enrollee	*$ 1,443*	*$ 3,517*	*$ 1,895*
Total Market Users (1)	290,283	69,858	360,141
Total Cost per User	*$ 1,552*	*$ 4,383*	*$ 2,101*

(1) Market enrollees and market users for FY2002 extracted from the Joint Assessment Study Series 4 Database

The Puget Sound study market current baseline annual costs summarized above provides a high level perspective of the total costs for delivering inpatient care and outpatient care, in the aggregate for the entire study market. These inpatient and outpatient costs can also be broken down by Product Line as illustrated in the table below.

Table 24: Costs - Inpatient and Outpatient

Baseline Total Annual Cost to Deliver Inpatient Care to DoD and VA Beneficiaries in Reside in the Puget Sound Market (FY2002)

Figures in Thousands ('000s)	Direct Care In-Market			Direct Care Out-Migration			Non-Direct (Purchased) Care			FY 2002 Total		
	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total
Puget Sound Inpatient												
Medicine (1)	38,106	58,176	96,282	1,022	1,976	2,998	322	20	342	39,450	60,171	99,621
Surgery	34,662	32,522	67,184	611	706	1,317	3,384	627	4,011	38,657	33,855	72,512
Ob/Newborn	26,388	-	26,388	135	-	135	81	-	81	26,604	-	26,604
Behavioral Health	1,237	15,452	16,689	232	3,393	3,625	611	32	643	2,080	18,877	20,957
Unknown/Other	-	-	-	-	-	-	14,560	-	14,560	14,560	-	14,560
Total	**$100,393**	**$106,149**	**$206,542**	**$2,000**	**$6,075**	**$8,075**	**$18,958**	**$679**	**$19,637**	**$121,351**	**$112,903**	**$234,254**

(1) Includes Extended Care for VA Direct Care In-Market

Baseline Total Annual Cost to Deliver Outpatient Care to DoD and VA Beneficiaries in Reside in the Puget Sound Market (FY2002)

Figures in Thousands ('000s)	Direct Care In-Market			Direct Care Out-Migration			Non-Direct (Purchased) Care			FY 2002 Total		
	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total
Puget Sound Outpatient												
Primary Care	79,932	27,297	107,229	2,416	570	2,986	3,037	14	3,051	85,385	27,881	113,266
Ob/Gyn	14,824	-	14,824	189	-	189	274	15	289	15,287	15	15,302
Medical Specialty	34,619	30,427	65,046	639	560	1,199	2,375	729	3,104	37,633	31,716	69,349
Surgical Specialty	34,568	14,929	49,497	692	244	936	11,041	1,068	12,109	46,301	16,241	62,542
Behavioral Health	13,498	29,913	43,411	526	152	678	343	119	462	14,367	30,184	44,551
Other Outpatient	34,742	86,085	120,827	1,336	1,094	2,430	3,845	77	3,922	39,923	87,256	127,179
Extended Care	-	-	-	-	-	-	90,205	-	90,205	90,205	-	90,205
Total	**212,183**	**188,651**	**400,834**	**5,798**	**2,620**	**8,418**	**111,120**	**2,022**	**113,142**	**329,101**	**193,293**	**522,394**

The cost data available for the Puget Sound market can be used to calculate the current baseline cost performance for specific sub-segments of each study market, such as select geographic submarkets, for select beneficiary populations, and for select Product or Clinical Service Lines. A Product Line level incremental cost impact analyses will be illustrated in the analysis of the opportunity to rationalize primary care in Puget Sound that follows.

2.4 Findings from the Application of the Study Methodology to the Opportunity to Rationalize Primary Care

Approach to Developing Options

As stated in the introduction, the Mitretek approach focuses initially on the *desirability* of a particular option, specifically on the potential for a rearrangement of health care delivery volumes, capacity and resources to improve access to care and/or to reduce the costs of delivering this care. To identify options, Mitretek developed a 3-step evolutionary rationalization process: rationalize access, rationalize resources, and rationalize access points.

Mitretek recognizes that this approach temporarily suspends consideration of the practical constraints on and real-world barriers to implementing the options that are identified as a result of this evolutionary process—their *feasibility*.

This section of the report provides a detailed example of a specific application of Mitretek's options development approach and analytical logic to one type of care in one of the three study market areas—rationalizing primary care in Puget Sound. The remainder of this section describes:

- Establishing the Puget Sound primary care baseline
- Estimating the available capacity to provide primary care services
- Identifying and analyzing the options, using the 3-step rationalization process, and
- A summary of Mitretek's findings and recommendations

Establishing the Puget Sound Primary Care Baseline

A description of the current[18] delivery of primary care services in Puget Sound provides a baseline for the rationalization process described above. The baseline is the result of Mitretek's efforts during the course of the study to identify, collect, analyze and organize disparate data from a variety of DoD and VA sources, and is comprised of data in five areas: current users and their origin; current primary care workload at each facility in the Puget Sound market area; current primary care staff at each facility; a measurement of the current performance of the delivery system for providing reasonable access to these facilities; and a description of the costs of delivering primary care services. These areas are discussed in more detail in the sections that follow.

Users

For the purpose of rationalizing primary care in Puget Sound, facility users are the appropriate baseline for the analysis, as shown in the table below. There are a total of 295,116 facility users, of which 268.879 (91.1%) reside in the Puget Sound market area, with the remainder migrating into the market area to use either DoD or VA health care facilities. The table below shows users who receive *any* health care service from a facility; the methodology does not specifically count the number of users who *only* use primary care services.

Table 25: Current Facility Users, by Submarket and Facility

Submarket	Facility	From Puget Sound Market		In-Migration from Other Markets		Facility Totals
		DoD	VA	DoD	VA	
North Sound	NH Oak Harbor	25,008	0	1,179	0	26,187
	BMC Everett	6,259	0	1,203	0	7,462
Seattle	VAMC Seattle	0	45,361	0	5,473	50,834
	Seattle OC (UW)	0	7	0	5	12
South	McChord	12,739	0	731	0	13,470
	American Lake	0	25,898	0	1,091	26,989
	Madigan AMC	102,328	0	11,268	0	113,596
	Okubo Clinic	4,856	0	1,416	0	6,272
	TMC-1-Ft. Lewis	1,654	0	253	0	1,907
West Sound	Bremerton CBOC	0	1,237	0	6	1,243
	BRMCL Subase Bangor	8,395	0	1,180	0	9,575
	NH Bremerton	35,137	0	2,432	0	37,569
Total		196,376	72,503	19,662	6,575	295,116

[18] All data and results in this document are for FY02.

Primary Care Workload

The Joint Assessment study methodology uses *visits* as the basic unit of outpatient care services. A visit[19] is defined as one appearance by a unique person at an outpatient care clinic. During the course of one trip to a health care facility, a person may generate multiple visits by going to different clinics (e.g., primary care, radiology, pharmacy, etc.).

Mitretek obtained data on primary care visits to the facilities in Puget Sound from the outpatient direct care standard data files maintained by VA[20] and DoD[21]. DoD and VA use different classification schemes in their respective data systems to identify visits of a given type (e.g., primary care, surgical specialty, etc.). To insure that visits of the same type were being counted in the same way, Mitretek developed a "grouper" that organized the data from DoD and VA into a single coherent perspective.[22] This approach permitted summarizing visits into broad Product Lines, and more detailed Clinical Service Lines. For rationalizing primary care in Puget Sound, Mitretek summarized the detailed visit data into an overall estimate of total workload, using one Product Line (PL)—Primary Care—and including four Clinical Service Lines (CSL)—Family Practice, Internal Medicine, Pediatrics, and Women's Health. The first of the two tables below summarizes total primary care workload for both in-market and in-migration; the next table categorizes this total workload by each of the four CSLs.

Table 26: Current Primary Care Workload (Visits), by Submarket and Facility

Submarket	Facility	From Puget Sound Market		In-Migration from Other Markets		Facility Totals
		DoD	VA	DoD	VA	
North Sound	NH Oak Harbor	50,299	0	475	0	50,774
	BMC Everett	15,832	0	1,468	0	17,300
Seattle	Seattle	0	93,956	0	4,374	98,330
	Seattle OC (UW)	0	1	0	3	4
South	McChord	32,392	0	608	0	33,000
	American Lake	0	79,401	0	1,593	80,994
	Madigan AMC	244,896	0	6,469	0	251,365
	Okubo Clinic	14,890	0	2,465	0	17,355
	TMC-1-Ft. Lewis	4,260	0	58	0	4,318
West Sound	Bremerton CBOC	0	4,183	0	7	4,190
	BRMCL Subase Bangor	19,286	0	1,066	0	20,352
	NH Bremerton	76,554	0	428	0	76,982
Total		458,409	177,541	13,037	5,977	654,964

[19] Called "clinic stops" in the VA and "clinic visits" in the DoD.
[20] Outpatient Care file (OPC);
[21] Standard Ambulatory Data Record (SADR)
[22] The Product/Clinical Service Line grouper uses as input the clinic number or code associated with a particular visit; this is a one-to-one relationship. The grouper is contained in its entirety in an Attachment to Appendix B.

Table 27: Current Primary Care Workload (Visits), by Submarket, Facility, and Clinical Service Line

Submarket	Facility	Clinical Service Line				Total
		Family Practice	Internal Medicine	Pediatrics	Women's Health	
North Sound	NH Oak Harbor	0	42,795	7,979	0	**50,774**
	BMC Everett	16,208	1,092	0	0	**17,300**
Seattle	VAMC Seattle	0	96,197	0	2,133	**98,330**
	Seattle OC (UW)	0	4	0	0	**4**
South	McChord	27,184	1,320	4,496	0	**33,000**
	American Lake	0	78,702	0	2,292	**80,994**
	Madigan AMC	84,624	107,227	59,398	116	**251,365**
	Okubo Clinic	10,089	7,263	3	0	**17,355**
	TMC-1-Ft. Lewis	0	4,318	0	0	**4,318**
West Sound	Bremerton OC	0	4,190	0	0	**4,190**
	BRMCL Subase Bangor	12,637	7,715	0	0	**20,352**
	NH Bremerton	51,809	10,146	15,027	0	**76,982**
Total		**202,551**	**360,969**	**86,903**	**4,541**	**654,964**

Staff

To estimate the current capacity of each facility to provide primary care services, Mitretek's analytical approach[23] used the number of Full-Time Equivalent (FTE)[24] primary care staff at each facility as a critical input variable. Mitretek obtained FTE staffing data for each facility from the relevant DoD and VA[25] sources, for each of the four primary care CSLs (i.e., family practice, internal medicine, pediatrics and women's health). Mitretek obtained data for two types of staff—physicians, and non-physician clinicians. These are shown in the table below.

[23] Described briefly elsewhere in this document, and in more detail in the description of the study methodology.
[24] An FTE is defined as a work force equivalent of one individual working full-time for a specific period, which may be made up of several part-time individuals or one full-time individual. *Glossary of Health care Terminology (DoD 6015.1-M, January, 1999).*
[25] Account Level Budget Cost Center (ALBCC) data sets for each VA facility, from the VA's Decision Support System (DSS) National Data Extracts.

Table 28: Current FTE Primary Care Staff, by Facility, Provider Type, and Clinical Service Line[26]

Sub market	Facility	Physicians				
		Family Practice	Internal Medicine	Pediatrics	Women's Health	Total
North Sound	NH Oak Harbor	8.3	0.9	1.7		10.8
	BMC Everett	3.2				3.2
Seattle	VAMC Seattle		23.4		1.0	24.4
	Seattle OC (UW)					
South	McChord	3.4	0.9	0.7		5.0
	American Lake		13.0		0.5	13.5
	Madigan AMC	23.4	17.2	24.6		65.2
	Okubo Clinic					0.0
	TMC-1-Ft. Lewis					0.0
West Sound	Bremerton OC		1.2			1.2
	BRMCL Subase Bangor	2.7				2.7
	NH Bremerton	12.9	3.4	2.9		19.2
Total		53.9	59.9	29.8	1.6	145.2
		Non-Physician Clinicians				
Sub market	Facility	Family Practice	Internal Medicine	Pediatrics	Women's Health	Total
	NH Oak Harbor	4.7				4.7
	BMC Everett	1.7				1.7
Seattle	VAMC Seattle		25.9		2.6	28.4
	Seattle OC (UW)					0.0
South	McChord	3.6		0.8		4.4
	American Lake		12.2		0.8	13.0
	Madigan AMC	24.9	7.1	5.7		37.7
	Okubo Clinic					0.0
	TMC-1-Ft. Lewis					0.0
West Sound	Bremerton OC		2.3			2.3
	BRMCL Subase Bangor	2.1				2.1
	NH Bremerton	8.5	2.0	1.7		12.2
Total		45.4	49.4	8.2	3.4	106.4

Access

[26] FTEs for the Okubo Family Practice Clinic and Troop Medical Clinic #1 – Ft. Lewis are reported as part of Madigan AMC. Therefore the workload volumes for these two facilities will be added to the Madigan AMC totals, and these facilities will not be identified separately in the subsequent tables and analysis. Similarly, VA's Seattle CBOC is a contracted facility, staffed by the University of Washington Provider Network (UWPN). Because of the relatively low volume, and the lack of workload and FTE data as detailed as other VA facilities, this facility has also been excluded as having relatively little influence or effect on overall primary care rationalization.

Both DoD and VA use the same performance standard for geographic access to primary care services. Access is considered acceptable if primary care services are located within a30 minute drive-time distance from a beneficiary's residence. Because specific address information was not available in the data, Mitretek used ZIP code centroids[27] as a proxy for location of residence, and conducted drive-time analyses using GIS software. The drive-time analyses identified that proportion of the current in-market primary care visit workload (from Table 3) that met the 30-minute standard; these proportions, expressed as a percent, establish the access performance baseline for each submarket and the Puget Sound market as a whole. The access performance baseline is shown in the table below.[28]

Table 29: Current Access Performance

Submarket	In-Market PC Volume		Volume Meeting Access Standard		% Volume Meeting Access Standard		
	DoD	VA	DoD	VA	DoD	VA	Combined
North Sound	66,010	19,808	58,177	5,492	88.1%	27.7%	74.2%
Seattle	8,324	56,800	4,263	50,805	51.2%	89.4%	84.6%
South	286,218	80287	257,444	52,190	89.9%	65.0%	84.5%
West Sound	97,857	20,646	89,357	3,080	91.3%	14.9%	78.0%
Total Market	458,409	177,541	409,241	111,567	89.3%	62.8%	81.9%

Costs

The total costs to provide primary care to the in-market beneficiaries incurred by both DoD and VA in FY02 represents the baseline cost performance for this analysis. This cost analysis identified those costs associated with the current in-Market primary care visit workload reflected in the access performance table above. The cost performance baseline is shown in the table below.

Table 30: Baseline Cost Performance

Submarket	In-Market PC Volume		In-Market PC Costs *($ in thousands)*		Average Total Cost Per Visit		
	DoD	VA	DoD	VA	DoD	VA (1)	Combined
North Sound	66,010	19,808	9,998	3,045	$ 151	$ 154	$ 152
Seattle	8,324	56,800	1,448	8,733	$ 174	$ 154	$ 156
South	286,218	80287	46,940	12,344	$ 164	$ 154	$ 162
West Sound	97,857	20,646	21,546	3,174	$ 220	$ 154	$ 209
Total Market	**458,409**	**177,541**	**79,932**	**27,297**	**$ 174**	**$ 154**	**$ 169**

Sources: SADR data by visit for FY2002 for DoD volumes; VA DSS Data Extracts for FY2002 for VA
(1) Total Puget Sound system average costs used for VA by submarket in this analysis

[27] A ZIP code's centroid is a point that represents the center of a ZIP code area on a map. The centroid is calculated as the internal balance point, based on the coordinate extremes of the polygon. In cases where the polygon is irregular, the centroid may be adjusted so that ZIP Code labels never fall outside of the polygon.

[28] The visit volumes shown in Table 26, while correct for the market as a whole, differ from the submarket totals in Tables 23 and 24. This is because Table 26 reflects patient origin as the basis for the submarket designation, rather than facility location.

Estimating Capacity

To estimate the available capacity to provide primary care services at each facility, Mitretek developed an analytic approach incorporating Capacity Conversion factors[29] to the supply of primary care FTE providers. This approach can be summarized by the following equation:

Annual Capacity (visits) = FTE Supply x Capacity Conversion Factor x Annual Hours

where

- **FTE Supply** = the number of FTEs in a particular Clinical Service Line;
- **Capacity Conversion Factor** = an estimate of the average capacity of one FTE provider in that Clinical Service Line, as the number of visits that can be preformed in one hour; and
- **Annual Hours** is the number of annual hours that one FTE provider is assumed to be available to provide services; this is also the basis for what is considered to be the equivalent of full-time.

To apply this approach, Mitretek adjusted the FTE Supply data shown in Table 5 for each facility. Mitretek also developed estimates of the Capacity Conversion factors for each Clinical Service Line, and a value for Annual Hours for each FTE position.

FTE Supply

The number of FTE physicians and non-clinician providers is contained in the table below. Mitretek adjusted the number of non-clinician providers to account for their lower productivity when compared to physicians; non-clinician providers such as nurse-practitioners and physicians assistants tend to spend more time with a patient during the course of a single visit than do physicians. Based on prior planning experience, Mitretek assumed that non-physician clinicians would be 75% as productive as physicians, and applied this value to the non-physician clinician data. This permitted combining the data for both types of providers into a single primary care "physician-equivalent" FTE estimate for each specialty at each facility, as shown in the table below.

Table 31: Primary Care FTE Physician-Equivalents, by Facility and Clinical Service Line

Sub market	Facility	FTE Physician-Equivalents				
		Family Practice	Internal Medicine	Pediatrics	Women's Health	Total
North Sound	NH Oak Harbor	11.8	0.9	1.6	0	14.3
	BMC Everett	4.4	0	0	0	4.4
Seattle	VAMC Seattle	0	42.8	0	3.0	45.7
South	McChord	6.1	0.9	1.3	0	8.3
	American Lake	0	22.1	0	1.2	23.2
	Madigan AMC	42.1	22.5	28.9	0	93.5
West Sound	Bremerton OC	0	2.9	0	0	2.9
	BRMCL Subase Bangor	4.3	0	0	0	4.3
	NH Bremerton	19.4	4.9	4.1	0	28.4
Total		88.1	97	35.9	4.2	225

[29] Details about Capacity Conversion factors can be found in Appendix B.

Capacity Conversion Factors

In developing their overall requirements for clinical staff, DoD and VA—and other health systems—use a variety of methods, separately or in combination, to estimate the productivity of their providers[30]. For this analysis, Mitretek used one of these methods, which relies on the use of targets for the Capacity Conversion Factor, expressed in average visits per average provider per hour.[31]

Mitretek used data from the Medical Group Management Association (MGMA)[32] to develop visit per hour factors for providing primary care services in both academic[33] and non-academic settings. These benchmarks were developed for three medical specialties: Family Practice (without obstetrics (OB)[34]); Internal Medicine (general) and Pediatrics (general). These align with three of the four Clinical Service Lines; for Women's Health, for which there is no available MGMA data, Mitretek used the benchmark values for Internal Medicine.

Mitretek then developed three additional estimates for the visits per hour Capacity Conversion Factor:

- Federal Composite: Because both the actual workload and staffing data were available, Mitretek developed an estimate of the actual visit per hour performance achieved by both the DoD and VA in each specialty in each market area.[35] These estimates were then weighted by the number of visits summarized into a single Federal Composite estimate, reflecting both DoD and VA experience.
- Study Benchmark 1: Mitretek considered that a reasonable target might be somewhat greater than current practice, even if the non-Federal benchmark data from MGMA were considered too high to use as targets. Mitretek defined Study Benchmark 1 as the median between the Federal Composite and the MGMA non-Academic visits per hour values.
- Study Benchmark 2: Similarly, Study Benchmark 2 is defined as the median between the Federal Composite and the MGMA Academic values.

The table below summarizes the five alternative sets of Capacity Conversion Factors, for each specialty, that were developed.

[30] More detail about capacity conversion factors can be found in Appendix B.
[31] A different approach, using the work Relative Value Units (RVUs) recorded for each visit, was partially developed during the study but not applied.
[32] MGMA Physician Compensation and Production Survey, 2002.
[33] An academic setting is one associated with a graduate medical education program in one of the primary care Clinical Service Lines/medical specialties. Because of the additional time needed to achieve instructional objectives while engaged in delivering patient care, productivity in terms of visits per hour is typically lower in these settings, compared to non-academic settings.
[34] Obstetrics is a separate Product Line in the Joint Assessment study.
[35] VA Hawaii data was not incorporated into the development of the Federal Composite, because of its size and relatively anomalous characteristics, when compared to other, larger VA markets.

Table 32: Alternative Capacity Conversion Factors (Visits per Hour), by Specialty

Capacity Conversion Factor Alternatives	Specialty		
	Family Practice (w/o OB)	Internal Medicine	Pediatrics
MGMA Academic	1.29	1.55	1.67
MGMA Non-Academic	2.61	2.04	2.89
Federal Composite	2.64	1.50	1.85
DoD	2.64	1.61	1.85
VA	N/A	1.43	N/A
Study Benchmark 1	2.47	1.77	2.37
Study Benchmark 2	1.81	1.52	1.76

Annual Hours

The definition of full-time equivalency differs between DoD and VA. DoD's MEPRS system calculates and reports FTE by dividing the monthly hours recorded by 168 available hours per month, or an annual FTE basis of 2,016 hours. VA uses a standard federal work year of 2,080 hours, or 40 hours per week for 52 weeks. When an allowance for holidays is taken into account, DoD and VA are using an FTE basis of approximately 2000-2016 hours. In its analysis, Mitretek used the DoD FTE basis of 2,016 hours as a reasonable estimate of full-time equivalency.[36]

However, Mitretek recognized that not all of these hours could, in reality, be expected to be completely productive with respect to providing primary care services; DoD military providers in particular are expected, as part of their daily routine, to attend to their military-unique duties, which may not be accounted for elsewhere in the MEPRS system. Therefore, Mitretek assumed that 1 hour per day, or 12.5% of a typical 8-hour day, would be non-productive with respect to providing patient care. Applying this 12.5% reduction to the FTE basis of 2,016 hours yields an adjusted value of 1,764 Annual Hours per FTE position.

Mitretek incorporated the FTE Supply data (from Table 25), the alternative Capacity Conversion Factors (from Table 28) and an Annual Hours value of 1764[37] into the equation above to produce alternative estimates of the annual primary care capacity at each facility. The results are shown in the table below.

[36] It is important to distinguish between the productive capacity of an FTE position, which may by definition be filled by more than one individual, and what a single individual's annual productive work hours might total. This analysis deals with the former, including and summarizing but not explicitly addressing the latter.

[37] Detail of annual hours computation can be found in Appendix B.

Table 33: Estimated Annual Primary Care Capacity (Visits), by Facility

Submarket	Facility	Capacity Conversion Factor Alternatives				
		MGMA Academic	MGMA Non-Academic	Federal Composite	Study BM1	Study BM2
North Sound	NH Oak Harbor	31,565	62,484	60,174	58,103	42,643
	BMC Everett	10,012	20,258	20,491	19,171	14,048
Seattle	VAMC Seattle	125,042	164,571	120,642	142,580	122,465
South	McChord	20,171	37,951	35,031	34,823	25,926
	American Lake	63,543	83,631	61,351	72,480	62,252
	Madigan AMC-FT. LEWIS	242,457	422,129	349,905	374,506	284,471
West Sound	Bremerton OC	8,039	10,580	7,779	9,180	7,883
	BMC Bangor	9,785	19,797	20,025	18,735	13,729
	NH Bremerton	69,622	127,853	116,690	116,967	87,808
Totals		**580,235**	**949,253**	**792,088**	**846,546**	**661,226**

Based on feedback received on the preliminary results of the primary care rationalization from staff in Puget Sound and other markets, Mitretek determined that the most appropriate capacity estimates to use in the analysis would be a composite of Study Benchmarks 1 & 2—Study Benchmark 3. Study Benchmark 3 was defined as using Study Benchmark 2 for the two primary academic medical centers in Puget Sound—VAMC Seattle, and Madigan Army Medical Center—and using Study Benchmark 1 for all other, non-academic facilities. This determination produces a final baseline estimate of primary care capacity in the market, as shown in the table below.

Table 34: Final Estimated Annual Primary Care Capacity (Visits), by Facility

Submarket	Facility	Study BM3
North Sound	NH Oak Harbor	58,103
	BMC Everett	19,171
Seattle	VAMC Seattle	122,465
South	McChord	34,823
	American Lake	72,480
	Madigan AMC	284,471
West Sound	Bremerton OC	9,180
	BMC Bangor	18,735
	NH Bremerton	116,967
Totals		**736,936**

Analyzing Options

The table below reflects the initial comparison of the baseline values for both primary care visit workload (Table 23) and primary care capacity (Table 30).

Table 35: Initial Comparison

Submarket	Facility	Baseline PC Workload (Visits)	Net Capacity Available/ (Needed)	Current PC Capacity (Visits)
North Sound	NH Oak Harbor	50,774	7,329	58,103
	BMC Everett	17,300	1,871	19,171
Seattle	VAMC Seattle	98,330	24,135	122,465
South	McChord	33,000	1,823	34,823
	American Lake	80,994	(8,514)	72,480
	Madigan AMC (Adjusted)	264,046	20,425	284,471
West Sound	Bremerton OC	4,190	4,990	9,180
	BMC Bangor	20,352	(1,617)	18,735
	NH Bremerton	76,982	39,985	116,967
Total		**645,968**	**90,428**	**736,396**

This comparison provides the basis for the other steps in the analysis of options, as described previously:

1. *Rationalize access* by opening the existing facilities of each system (DoD and VA) to provide health care services to the beneficiaries of the other system;
2. *Rationalize resources* by redistributing volumes and delivery capacity—within geographic access standards—to balance demand and supply at individual facilities, within specific submarkets, and across the market as a whole; and
3. *Rationalize access points*, by opening new and/or closing unneeded locations of service, to further improve access and reduce costs.

Step 1 – Rationalize Access

Rationalizing access is accomplished by opening the facilities of each system to the beneficiaries of the other. The primary care visit workload that is affected by this change is generated from counties that are closer to the newly-opened facility than the facility where this workload was previously accommodated. During the site visits to each market, staff at both DoD and VA facilities reported that the beneficiaries of the "other" system were driving past their facility to receive services from more distant locations.

This step moves these primary care volumes to the nearest facility *with available capacity*, either DoD or VA, in three Clinical Service Lines: Family Practice, Internal Medicine, and Women's Health. The VA has no capability to provide Pediatric services, so these workload volumes remain at DoD facilities. Additionally, no workload is shifted from VA to DoD TMC[38] facilities (e.g. TMC #1 – Ft. Lewis). These actions result in some workload moving from DoD facilities to VA facilities; from VA facilities to DoD facilities, and within DoD or VA, if a different facility is closer than the one currently providing primary care services. Step 1 is implemented by making the following changes, the effect of which are summarized in the table below.

38 A Troop Medical Clinic (TMC) services Active Duty military only. It is a walk-in clinic that performs sick call, provides limited treatment, and refers patients to a health clinic, hospital, or dental clinic, when needed.

- Opening VA facilities to DoD beneficiaries:
  - Moves 4,827 visits generated by DoD beneficiaries residing in the Seattle submarket from Madigan AMC to VAMC Seattle.
  - Moves 821 visits generated in the Seattle submarket from 62nd Medical Group, McChord to VAMC Seattle.
- Opening DoD facilities to VA beneficiaries:
  - Moves 7,603 visits generated by veterans residing in the North Sound submarket (excluding Snohomish county, the most southern) from VAMC Seattle to Naval Hospital Oak Harbor.
  - Moves 153 visits generated by veterans residing in the North Sound submarket (excluding Snohomish county, the most southern) from VAMC American Lake to Naval Hospital Oak Harbor.
  - Moves 5,749 visits generated by veterans residing in the West Sound submarket (excluding Mason county, the most southern) from VAMC American Lake to Naval Hospital Bremerton.
- Realigning within DoD:
  - Moves 124 visits generated by DoD beneficiaries residing in the North Sound submarket (excluding Snohomish county, the most southern) from Madigan AMC to Naval Hospital Oak Harbor.
  - Moves 1,706 visits generated by DoD beneficiaries residing in the West Sound submarket (excluding Mason county, the most southern) from Madigan AMC to Naval Hospital Bremerton.

Table 36: Summary of Step 1 Results – Rationalizing Access

Submarket	Facility	Baseline PC Visits Required	Step 1 Change	Step 1 PC Visits Required	Net Capacity Available/ (Needed)	PC Visit Capacity
North Sound	NH Oak Harbor	50,774	7,880	58,654	(551)	58,103
	BMC Everett	17,300	0	17,300	**1,871**	19,171
Seattle	VAMC Seattle	98,330	(1,955)	96,375	**26,090**	122,465
South	McChord	33,000	(821)	32,179	**2,644**	34,823
	American Lake	80,994	(5,902)	75,092	(2,612)	72,480
	Madigan AMC	264,046	(6,657)	257,389	**27,082**	284,471
West Sound	Bremerton OC	4,190	0	4,190	**4,990**	9,180
	BMC Bangor	20,352	0	20,352	(1,617)	18,735
	NH Bremerton	76,982	7,455	84,437	**32,530**	116,967
Total Market		**645,968**	**0**	**645,968**	**90,428**	**736,396**

Opening three new VA CBOCs in Bellingham, Centralia, and Olympia improves *VA-only* Market performance from a baseline of 62.8% to 70.7%. Opening new VA primary care access points, and changing policy to permit access to the closest facility regardless of System, increases overall Market-wide access performance to 97.2%, a significant improvement over 62.8% baseline.

Step 2 – Rationalize Resources

The objective of Step 2 is to shift or reallocate volumes and resources among facilities—maintaining the performance against the 30-minute access standard achieved above—to achieve better operating efficiencies at these facilities, and reduce or eliminate completely the extent to which any facility is over capacity. Step 2 is implemented by making two changes, the effect of which is summarized in the table below.

- Moving the small volume of primary care services provided to veteran beneficiaries at the Bremerton Outpatient Clinic to nearby Naval Hospital Bremerton.
- Closing the Bremerton Outpatient Clinic, and redistributing its provider capacity to VAMC American Lake.[39]

Table 37: Step 2 Results – Rationalizing Resources

Submarket	Facility	Baseline PC Visits Required	Step 1 Change	Step 1 PC Visits Required	Net Capacity Available/ (Needed)	PC Visit Capacity	Step 2 Capacity Changes
North Sound	NH Oak Harbor	58,654		58,654	(551)	**58,103**	
	BMC Everett	17,300		17,300	1,871	**19,171**	
Seattle	VAMC Seattle	96,375		96,375	26,090	**122,465**	
South	McChord	32,179		32,179	2,644	**34,823**	
	American Lake	75,092		75,092	6,568	**81,660**	9,180
	Madigan AMC	257,389		257,389	27,082	**284,471**	
West Sound	Bremerton OC	4,190	(4,190)	0	(0)	**(0)**	(9,180)
	BMC Bangor	20,352		20,352	(1,617)	**18,735**	
	NH Bremerton	84,437	4,190	88,627	28,340	**116,967**	
Total Market		**645,968**	**0**	**645,968**	**90,428**	**736,396**	0

No improvement to market-wide access performance results from Step 2, which was intended to rationalize resources within the access performance achieved by Step 1.

Step 3 – Rationalize Access Points

The objective of Step 3 is to continue to improve the overall performance of the delivery system in the Puget Sound market compared to the access standard, by opening new primary care access points. During its site visit, Mitretek staff learned that the VA was assessing the potential of opening several Community-Based Outpatient Clinics (CBOCs) in the market, in areas that had relatively significant numbers of veteran users residing outside the access standard. In this illustrative example, Step 3 assumes that two of these options will be implemented by making the following changes.

[39] The mechanics of redistributing provider capacity from one facility to another may be practically accomplished in a number of ways: simple reassignment of individuals, resignation of providers choosing not to make the move from Bremerton, creating the opportunity for new hiring at American Lake, etc.

- Opening a new CBOC in the North Sound submarket in Bellingham, Washington (Whatcom county). The initial volume for this facility is estimated to be 2,505 visits, all of which are within the 30-minute drive time access standard. This volume is returned from Naval Hospital Bremerton, where it was moved in Step 1.
- Opening a new CBOC in the South submarket, in either Olympia (Thurston county) or Centralia (Lewis county), Washington. The initial volume of the Olympia CBOC is estimated to be 6,433 visits, currently provided by VAMC American Lake, but which are outside the 30-minute drive time access standard. Similarly, the initial volume of the Centralia CBOC is estimated to be 14,559 visits, also currently provided by VAMC American Lake. Workload volumes at VAMC American Lake would be reduced accordingly.
- Provider capacity at the newly-opened CBOCs is achieved by redistributing capacity from VAMC Seattle to the Bellingham CBOC, and from VAMC American Lake to the Olympia and Centralia CBOCs.

However, the initial visit values for the new Olympia and Centralia CBOCs overlap to some degree, i.e., 4,799 of the initial visits in each facility could also go to the other facility and still improve access. Thus, the net number of visits to be accommodated if new access points are opened in both Olympia and Centralia is 16,193 (6,433+14,559-4,799). Initially, it appears that only a portion of this volume could be resourced by redistributing the excess capacity at VAMC American Lake, estimated to be 6,568 visits after completion of Step 2. But, as volumes are moved to the newly-opened CBOCs from VAMC American Lake, additional capacity becomes available on a "pay-as-you-go" basis for potential redistribution and both proposed CBOCs could be opened, with a significant effect on access performance, market-wide. The results of the Step 3 analysis are shown in the table below.

Table 38: Step 3 Results – Rationalizing Access Points

Submarket	Facility	Baseline PC Visits Required	Step 3 Change	Step 3 PC Visits Required	Net Capacity Available/ (Needed)	PC Visit Capacity	Step 3 Capacity Changes
North Sound	NH Oak Harbor	58,654	(2,505)	56,149	1,954	58,103	
	BMC Everett	17,300		17,300	1,871	19,171	
	Bellingham CBOC		2,505	2,505	0	2,505	2,505
Seattle	VAMC Seattle	96,375		96,375	23,585	119,960	(2,505)
South	McChord	32,179		32,179	2,644	34,823	
	American Lake	75,092	(16,193)	58,899	6,568	65,467	(16,193)
	Centralia CBOC		6,433	6,433	0	6,433	6,433
	Olympia CBOC		9,760	9,760	0	9,760	9,760
	Madigan AMC	257,389		257,389	27,082	284,471	
West Sound	~~Bremerton OC~~	0		0	(0)	(0)	
	BMC Bangor	20,352		20,352	(1,617)	18,735	
	NH Bremerton	88,627		88,627	28,340	116,967	
Total Market		645,968	0	645,968	90,428	736,396	0

Opening three new VA CBOCs in Bellingham, Centralia, and Olympia improves *VA-only* Market performance from a baseline of 62.8% to 70.7%. Opening new VA primary care access

points, and changing policy to permit access to the closest facility regardless of System, increases overall Market-wide access performance to 97.2%, a significant improvement over 62.8% baseline.

For this analysis of the opportunity to rationalize primary care in the Puget Sound Market, the baseline cost to provide primary care to the in-market beneficiaries incurred by both DoD and VA in FY02 was established as the baseline cost performance for the system under status quo operations. Assuming the implementation of these three sequential steps to rationalize to primary care in the market, the expected incremental operating cost impact on each facility associated with this redistribution of primary care visit volumes that results in a measurable improvement in access described above is projected.

With the data that are available in the study database, the FY02 facility-specific operating costs associated with primary care services at each of the Puget Sound facilities, both the average total cost per visit and the variable cost per visit can be calculated and identified with the specific patient volumes being redistributed. In the cost analysis of this opportunity to rationalize primary care, no assumptions were made as to the ability of the two systems to take advantage of any of the excess provider capacity that might exist and could in fact be leveraged to achieve greater productivity in any of the current service locations. The cost impact illustrated in the table below assumes that the full average variable cost associated with the current visits by location will be redistributed with the visit volumes.

The results of applying this variable cost impact analysis to the three-step approach to redistributing primary care visit workloads to improve access are shown in the table below.

Table 39: Puget Sound Primary Care – Cost Impact of Rationalization

		Net Volume Changes by Facility			Incremental Cost Impact of Redistribution of Volumes			
Submarket	Facility	Baseline PC Visits	Net PC Visit Change After Step 3	Total PC Visits After Step 3	Baseline PC Costs ($ in thousands)	Baseline Average Variable Cost/Visit (1)	Cost After Step 3 Changes ($ in thousands)	Step 3 Cost Changes
North Sound	NH OAK HARBOR	50,774	5,375	56,149	$ 7,690,246	$ 123	$ 8,278,250	$ 588,004
	NMCL EVERETT	17,300	0	17,300	$ 3,338,666	$ 155	$ 3,338,666	$ -
	Bellingham CBOC (2)	0	2,505	2,505	$ -	$ -	286,045.12	$ 286,045
Seattle	Seattle	98,330	-1,955	96,375	$ 15,147,833	$ 116	$ 14,921,956	$ (225,877)
South	62nd MED GRP-MCCHORD	33,000	-821	32,179	$ 6,754,010	$ 168	$ 6,616,033	$ (137,977)
	American Lake	80,994	-22,095	58,899	$ 11,813,907	$ 109	$ 9,396,799	$ (2,417,108)
	Centralia CBOC (2)	0	6,433	6,433	$ -	$ -	$ 863,889	$ 863,889
	Olympia CBOC (2)	0	9,760	9,760	$ -	$ -	$ 1,088,558	$ 1,088,558
	MADIGAN AMC (Adjusted)	264,046	-6,657	257,389	$ 42,242,079	$ 129	$ 41,380,996	$ (861,083)
West Sound	Bremerton OC (3)	4,190	-4,190	0	$ 1,247,845	$ 223	$ 311,961	$ (935,884)
	BRMCL SUBASE BANGOR	20,352	0	20,352	$ 3,872,945	$ 153	$ 3,872,945	$ -
	NH BREMERTON	76,982	11,645	88,627	$ 16,949,750	$ 178	$ 18,701,182	$ 1,751,432
Total Market		**645,968**	**0**	**645,968**	**$ 109,057,282**	**$ 134**	**$ 109,057,282**	**$ (0)**

(1) Variable costs per visit from DoD from SADR patient record level cost data; VA average variable cost estimated at 75% of total for this analysis. In this analysis, the full variable cost of the visit at the originating facility is assumed to move with the patient to the new facility. No potential efficiencies from increased utilization of any excess capacity in the system are assumed in this analysis.

(2) Transition costs to develop these new access points are not included in this illustration of operational cost impact of the redistribution of care

(3) Reduction in fixed expenses achieveable with the redistribution of Bremerton volumes are not included in this illustration of operational cost impact

Summary of Findings

The analysis of the options reflected in this paper is not intended to be definitive, because the steps involved are very dependent upon changes to current policy—opening access to DoD and VA facilities to the beneficiaries of both delivery systems—that may not occur. Moreover, although the steps are presented in a particular sequence, as a practical matter they are independent, and may be accomplished in any order (e.g., new access points may be opened at any time, with or without rationalizing access via policy changes, or redistributing workload or capacity). Finally, the analysis presented in this paper is based on 2002 data. Given the fluid nature of health care, performing the analysis in a different sequence, under different conditions, would undoubtedly suggest different specific actions than those presented here.

Nevertheless, these illustrative examples provide a basis for some relatively stable findings and conclusions that can be used as a basis for future planning in the Puget Sound market.

Access performance can be improved significantly by opening new access points and redistributing capacity from facilities with surplus capacity. This is true even intra-VA or intra-DoD, if rationalizing access through policy action cannot be accomplished. Opening three new VA CBOCs in Bellingham, Centralia, and Olympia improves VA-only market performance from a baseline of 62.8% to 70.7%. Therefore, Mitretek recommends that the DoD and VA continue to move forward with their planning efforts to open these and other new primary care access points in currently underserved areas.

The analysis in this paper, based on the quantitative workload and capacity information available from both systems, provides a useful "scorecard" and a relatively comprehensive approach for identifying and analyzing care delivery issues in the market, especially but not limited to those involving sharing and collaboration between DoD and VA. In its site visits to Puget Sound and other markets, Mitretek observed that while there were many sharing and collaboration issues and initiatives being considered by both systems, these discussions often occurred without an understanding of the overall range and depth of care delivery in the market. That is, there was often a lack of context for framing the potential improvement represented by a particular initiative, no method to evaluate it, and a lack of methods for comparing it to other, equally intriguing ideas. Mitretek believes that the comprehensive, data-driven, market-wide perspective used in the methods and analysis described in this paper represents a potentially significant contribution to DoD and VA joint planning efforts, for primary care and other categories of health care services.

2.5 Findings from the Assessment Applying the Collaboration Framework

According to the 2002 DoD/VA Sharing Database, there were six master sharing agreements between the VA Puget Sound Health Care System and the military facilities in the region, covering a wide range of clinical and administrative activities. The primary focus of VA and DoD planning during the past year has been devoted to the impending initiative to move the inpatient Medical/Surgical patients from VAMC American Lake to Madigan. Local officials have regarded this as a significant accomplishment of the two departments.

During the second site visit, both the quantitative methods used rationalization of primary care example and the Collaboration Framework were reviewed. In addition, Mitretek presented and

facilitated discussion about more than 50 opportunities for increased DoD/VA collaboration in the Market. These opportunities included ideas that were applicable to all markets (grouped into the Collaboration Framework) as well as ideas specific to the Puget Sound Market and/or specific to certain facilities in the Market.

One of the tools in the Collaboration Framework is a Relationship Grid. Along a continuum of Separate, Coordinated, Connected, Integrated, and Consolidated most of the relationships among the major hospitals in the Market are either Separate or Coordinated. In terms of Clinical Workload, VA and Madigan would be considered Coordinated since there is regular communication between the two hospitals. However, in the same category, Mitretek found the relationships between the VA and the two Naval Hospitals (Bremerton and Oak Harbor) to be less well-developed (these would be rated as Separate) due to the low volume referrals between them. In terms of Staffing, VA and Madigan are also considered Coordinated since there is some sharing where duplication exists and some cross staffing support to balance peak workloads. In terms of Facilities, all of the hospitals are currently rated as Separate since they are distant from each other and cannot share physical space; this reinforces the idea of moving primary care volumes among the facilities of each system. VA and Madigan are also more well-developed than VA-Bremerton/Oak Harbor in other domains, rating as Coordinated in Information Management/Information Technology, Governance and Logistics.

The feedback sessions during the second site visit affirmed the use of the collaboration framework as a useful way to look at the relationship between VA and DoD within the market. The framework highlights the many dimensions of collaboration and can be used as a frame of reference in future planning.

Table 40: VAMC & MAMC Relationship Grid

Domain	Separate	Coordinated	Connected	Integrated	Consolidated
Clinical Workload	Insignificant referrals	Regular communication Seattle VAMC	High numbers of referrals	Significant number of referrals American Lake	Need driven placement of all patients
Facilities	Distant	Some sharing where duplica-tion exists	Projects & facilities come from master planning	Many departments share space	Facility or set of facilities
Staffing	Distinct	Support in peaks and valleys	Joint staff planning	Multiple examples of single/joint staffing	Single staffing plan
Business Processes	Different	Reduce barriers	Work flows understood & acted on	Transparent	Process driven
Management/ Governance	No Relation	Joint planning sessions	Overlap of key functions	Overlap of key functions	One governance/ management structure
IM/IT	Separate systems	Evidence of "E" exchange of info	Moving toward systems interface	Complete interoperability	Single system
Logistics	Little if any exchange	Borrowing, bartering and contractual exchange	Mutual examination of best pricing and service	Selective joint contracting of major areas of procurement	One supply chain
Education & Training	Distinct	Selective exchange of methods	Frequent use of joint programs and curriculum	Most programs and curriculum are same/similar	Unified programs
Research	Distinct	Selective exchange of protocols	Joint planning and review of many studies	Significant overlap of protocols and review	Unified boards

Table 41: VAMC & NH Bremerton Relationship Grid

Domain	Separate	Coordinated	Connected	Integrated	Consolidated
Clinical Workload	Insignificant referrals	Regular communications	High numbers of referrals	Significant number of referrals as one	Protocol-driven placement of all patients
Facilities	Distant	Some sharing where duplica-tion exists	Projects & facilities come from master planning	Many departments share space	One facility or set of facilities
Staffing	Distinct	Support in peaks and valleys	Joint staff planning	Multiple examples of single/joint staffing	Single staffing
Business Processes	Different	Reduce barriers	Work flows understood & acted on	Transparent	Single system
Management/ Governance	No Relation	Joint planning sessions	Overlap of key functions	Overlap of key functions	One governance & management structure
IM/IT	Separate systems	Evidence of "E" exchange of info	Moving toward systems interface	Complete interoperability	One system
Logistics	Little if any exchange	Borrowing, bartering and contractual exchange	Mutual examination of best pricing and service	Selective joint contracting of major areas of procurement	One supply chain
Education & Training	Distinct	Selective exchange of methods	Frequent use of joint programs and curriculum	Most programs and curriculum are same/similar	Unified program
Research	Distinct	Selective exchange of protocols	Joint planning and review of many studies	Significant overlap of protocols and review	Unified program

Table 42: VAMC & Oak Harbor Relationship Grid

Domain	Separate	Coordinated	Connected	Integrated	Consolidated
Clinical Workload	Insignificant referrals	Regular communications	High numbers of referrals	Significant number of referrals as one	Protocol-driven placement of all patients
Facilities	Distant	Some sharing where duplica-tion exists	Projects & facilities come from master planning	Many departments share space	One facility or set of facilities
Staffing	Distinct	Support in peaks and valleys	Joint staff planning	Multiple examples of single/joint staffing	Single staffing
Business Processes	Different	Reduce barriers	Work flows understood & acted on	Transparent	Single system
Management/ Governance	No Relation	Joint planning sessions	Overlap of key functions	Overlap of key functions	One governance & management structure
IM/IT	Separate systems	Evidence of "E" exchange of info	Moving toward systems interface	Complete interoperability	One system
Logistics	Little if any exchange	Borrowing, bartering and contractual exchange	Mutual examination of best pricing and service	Selective joint contracting of major areas of procurement	One supply chain
Education & Training	Distinct	Selective exchange of methods	Frequent use of joint programs and curriculum	Most programs and curriculum are same/similar	Unified program
Research	Distinct	Selective exchange of protocols	Joint planning and review of many studies	Significant overlap of protocols and review	Unified program

2.6 Recommendations for the Puget Sound Market

The opportunity to rationalize primary care analyzed in the application of this Study Methodology provides a basis for some relatively stable recommendations that can be used as a basis for future planning in the Puget Sound Market (and potentially elsewhere).

Mitretek recommends that the VA and DoD continue to move forward with their planning efforts to open new primary care access points in geographic areas that are in currently underserved.

The analysis in this Report, based on the quantitative workload and capacity information available from both systems, provides a useful "scorecard" and a relatively comprehensive approach for identifying and analyzing care delivery issues in the Market, especially but not limited to those involving sharing and collaboration between VA and DoD. In its site visits to Puget Sound and other Markets, Mitretek observed that while there were many sharing and collaboration issues and initiatives being considered by both systems, these discussions often occurred without an understanding of the overall range and depth of care delivery in the Market. That is, there was often a lack of context for framing the potential improvement represented by a particular initiative, no method to evaluate it, and a lack of methods for comparing it to other, equally intriguing ideas. Mitretek believes that the comprehensive, data-driven, Market-wide perspective used in the methods and analysis described in this paper represents a potentially significant contribution to DoD and VA joint planning efforts, for primary care and other categories of health care services.

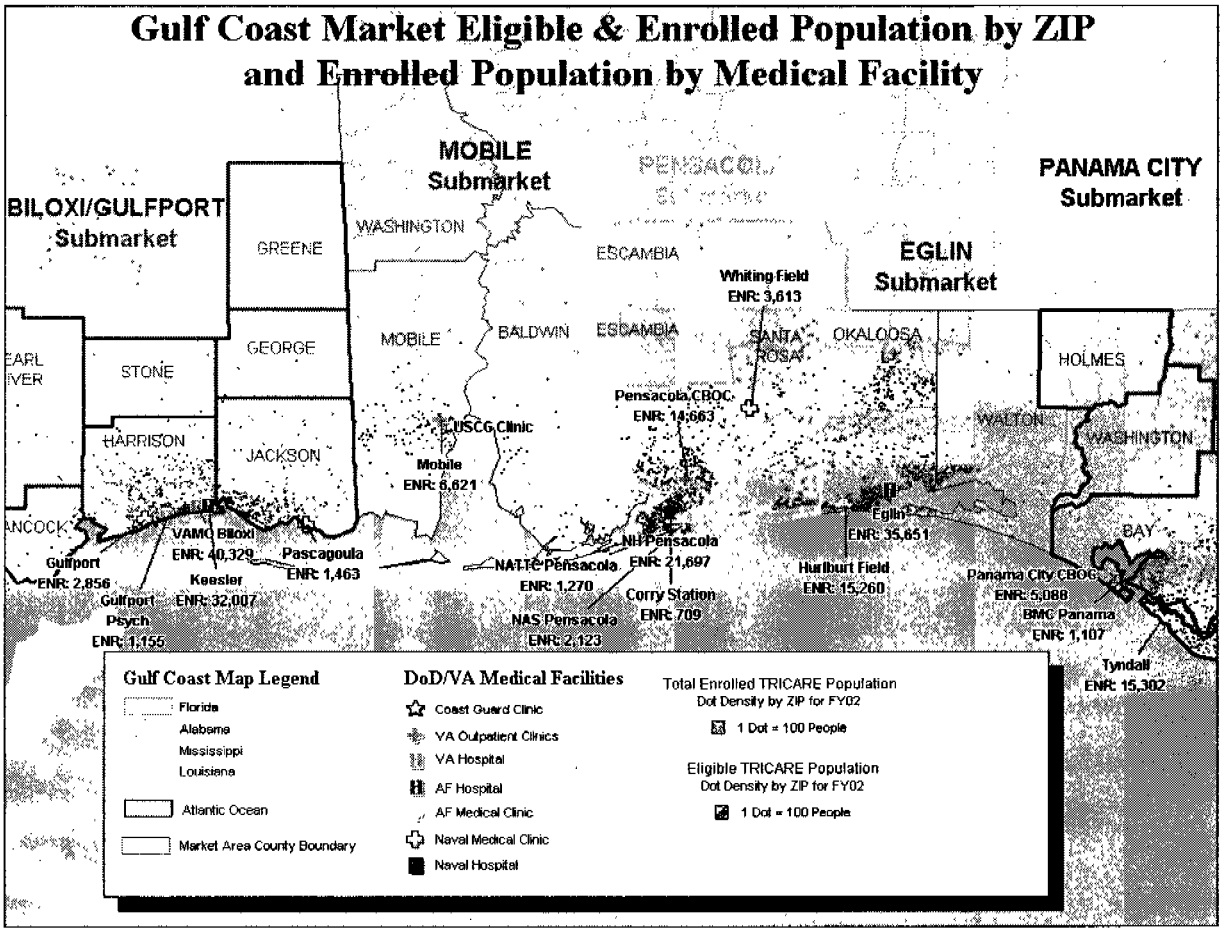
Mitretek recommends use of the Collaboration Framework to assist the organizations as they consider, plan for, and act on most of the identified opportunities

These opportunities identify the present avenues for improving care delivery to military and veteran beneficiaries residing in the Market. All such actions should proceed from a deliberate joint planning process.

GULF COAST MARKET ASSESSMENT

3 MARKET ASSESSMENT- GULF COAST MARKET

A goal of this study is to view the market area from the perspective of the Combined Beneficiary[40], rather than from the perspective of the System delivering the care. Thus, this market has been divided into five Submarkets—based on geography rather than existing care delivery models. The Submarkets are Biloxi/Gulfport, Eglin, Mobile, Panama City and Pensacola. The Biloxi/Gulfport Submarket is comprised of George, Greene, Hancock, Harrison, Jackson, Pearl River, and Stone counties. The Eglin Submarket is comprised of Okaloosa and Walton Counties. The Mobile Submarket contains Baldwin, Mobile, and Washington, AL counties. Panama City Submarket is made up on Bay, Holmes, and Washington, FL counties. As shown in the map below, the Pensacola Submarket contains Escambia, AL, Escambia, FL and Santa Rosa counties.



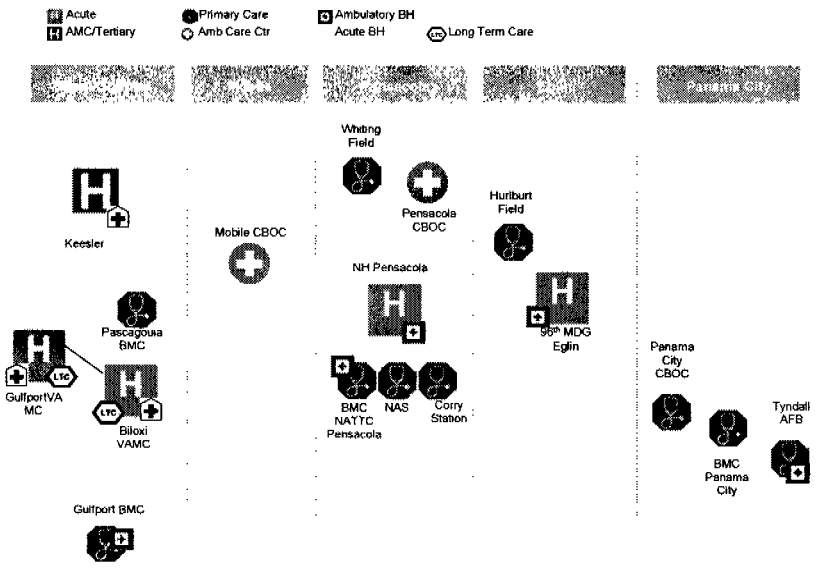
The Gulf Coast Market area contains 18 DoD and VA medical treatment facilities—of which 5 are hospitals and 13 are outpatient centers (including one active-duty-only TMC at Eglin). The facilities are distributed into the following counties and Submarkets:

[40] See the Introduction of this Appendix for a definition of Combined Beneficiary.

Table 43: Study Market Area Definition for Gulf Coast

Submarket	County	DoD Facilities	VA Facilities
Biloxi/Gulfport	George Greene Hancock Harrison Jackson Pearl River Stone	– Keesler Medical Center (Keesler) – Naval Branch Medical Clinic Pascagoula (BMC Pascagoula) – Branch Medical Clinic Gulfport (BMC Gulfport)	– VA Gulf Coast Veterans Health Care System - Biloxi Division (VAMC Biloxi) – VA Gulf Coast Veterans Health Care System - Gulfport Division (VA Gulfport)
Mobile	Baldwin Mobile Washington, AL		– Mobile CBOC
Eglin	Okaloosa Walton	– 96th Medical Group, Eglin AFB (Eglin) – 16th MG, Hurlburt Field – TMC Eglin AFB	
Panama City	Bay Holmes Washington, FL	– BMC Panama City – 325th Medical Group, Tyndall AFB (Tyndall)	– Panama City CBOC
Pensacola	Escambia, AL Escambia, FL Santa Rosa	– NH Pensacola – NAS Pensacola – NATTC Pensacola – Naval Tech Training Center Corry Station (Corry Station) – Whiting Field	– Pensacola CBOC

Another way to view the Submarkets and their facilities is illustrated below.



The Gulf Coast Market area is unique in that is encompasses a very large geographic area, some parts of which are sparsely populated. The Gulf of Mexico dominates the geography—resulting in a 240-mile linear distance between the two ends of the Market. Further, the area is a popular

location for DoD retirees (particularly the Florida panhandle)—thus there are a high number of "dual eligible" of the DoD and VA.

The topography and geography of the Market makes providing adequate access to care difficult. Since the Market area is so large and long, determining whether to provide services (particularly inpatient services) in a specific location is a challenge. In many individual locations (especially east of Biloxi/Gulfport) each System has a population that is important to serve—but there might not be enough population to warrant an individual hospital for each System. At the same time, in the Biloxi/Gulfport Submarket, there are two major hospital facilities adjacent to each other in Biloxi—with a third nearby in Gulfport. In the Eastern Submarkets, where there are only DoD inpatient facilities, and in the Mobile Submarket where there is only a VA outpatient center, access to each other's facilities has the potential to improve access for beneficiaries. In the Biloxi/Gulfport Submarket, where there are three inpatient hospitals—all with significant capital requirements-- there is an opportunity to simultaneously reduce long-term capital costs and to provide an enriched GME experience through opening access and combining some of the services of these facilities.

3.1 Populations

3.1.1 Eligible Population

The Gulf Coast Market Area has approximately 509,000 eligible Combined Beneficiaries—approximately 55,000 of which are "dual eligible" for both DoD and VA benefits. This population represents three states and 18 counties in the Gulf Coast area, and the eligible population is about evenly split between DoD and VA The Biloxi/Gulfport Submarket and the Eglin Submarket each make up about 22% of the eligible population. The Pensacola Submarket represents 30% of the eligibles, the Mobile Submarket represents about 15% and the Panama City Submarket represents 11% of the eligible population.

Specifically, about 20% of the eligible population (68% of which are DoD) live in Okaloosa County in the Eglin Submarket, and another 20% (55% DoD) live in Escambia County, FL, in the Pensacola Submarket. Another 12% lives in Harrison County (58% DoD) in the Biloxi/Gulfport Submarket and 10% lives in Mobile (76% VA).

In the Gulf Coast Market overall, 21% of the DoD 258,000 eligible population are Active Duty, 26% are Active Duty Family Members, 21% are Retiree, 31% are Retiree Family Members. Of the 251,000 eligible Veterans, 53% are Priority Group 8 and 25% are Priority Group 5. The rest are spread with about 3-6% each in the other Priority Groups.

3.1.2 Enrolled Population

The 358,000 combined DoD/VA enrollees equaled 70% of the eligible population. Specifically, enrolled Veterans (62,000) equaled about 25% (62,000) of eligible Veterans. The number of enrolled DoD exceeded the number of the eligible DoD. (Note that for DoD there are actually more enrolled than eligible—because DoD beneficiaries can be enrolled in a facility outside the Market area). VA enrollment as a percent of eligible ranges from a low of 18% in Baldwin County (Mobile Submarket) to a high of 39% in Harrison County (Biloxi/Gulfport Submarket).

Below are tables that display the enrolled population broken down by Priority Group and Beneficiary Category.

Table 44: VA Enrolled Population by Priority Group

1	2	3	4	5	6	7	8
9,259	6,094	11,039	1,779	20,562	1,069	709	11,294
15.0%	9.9%	17.9%	2.9%	33.3%	1.7%	1.1%	18.3%

Table 45: DoD Enrolled Population Beneficiary Category

Active Duty	Active Duty Family Members	Retiree	Retiree Family Members
74,134	128,523	34,179	59,396
25.0%	43.4%	11.5%	20.1%

3.1.3 Users

The Combined DoD/VA users of either the direct or indirect care system equaled 92% of the combined enrolled population, net of dual users. The number of unique DoD users of either the direct or indirect system (358,000 unique users) exceeded the number of DoD enrolled, while the 48,000 unique VA users equaled 77% of the VA enrolled. Indirect care is Purchased Care for the DoD and Fee Basis Care for the VA.

In the DoD, 48% of the total users accessed indirect care. In the VA only 13% used indirect care. For *direct* care, 7% of users were dual users (used both systems). 7% of users were dual users in the Biloxi/Gulfport Submarket, the Eglin Submarket, and the Panama City Submarket, in Pensacola it was 7%, and in Mobile 4%.

3.2 Workload

3.2.1 Inpatient: Direct Care

Residents of the Gulf Coast Market area generated about 17,850 discharges and 93,200 inpatient days of direct care in Medicine (including Rehab), Surgery, Behavioral Health (including Substance Abuse), and Ob/Newborn (Post Partum and Nursery days both counted). These volumes include out-migration, but exclude indirect care and extended care.

Direct care discharges for this type of care varied by Beneficiary Group: for the VA, 26% of discharges were for Priority Group 1, and 38% were for Priority Group 5. Priority Group 4 generated 17% of the discharges, while Priority Groups 2 and 3 generated 5% and 9% respectively. For the DoD, 44% of discharges were consumed by Active Duty Family Members, 19% by Retirees, and 21% for Retiree Family Members. As in Puget Sound, only 15% of discharges were generated by Active Duty.

Seventy-nine percent of the discharges and 43% of the days were DoD. Twenty-one percent of the discharges and 57% of the days were VA. Eighty-two percent of the Surgery discharges and 69% of the direct care inpatient days were generated by the DoD. Seventy-three percent of the Medicine discharges and 37% of the days were for the DoD, whereas 72% of the Behavioral Health discharges and 96% of the direct care days were for the VA. Note that more than 11,000

of the Medicine days (nearly 50%) for the VA are Rehab Medicine, and 1,600 of the Medicine Days (about 12%) for the DoD are Pediatrics. The difference in proportion of discharges and days is due to length of stay—as seen in the table below.

Table 46: Average Length of Stay by Product Line

Product Line	DoD	VA	Combined
Behavioral Health	2.6	23.9	18.0
Medicine (incl. rehab)	2.7	12.4	5.3
Surgery	3.4	6.9	4.1
Ob/Newborn	2.6		2.6

(Note: VA Medicine includes Rehab—which increases the average length of stay (ALOS) dramatically. There were 263 VA Rehab discharges with an ALOS of 44 days. Without rehab, the VA Medicine ALOS is 7 days.)

Table 47: Inpatient Days by Product Line

Product Line	DoD	VA	Total	% DoD	% VA
Behavioral Health	1,036	24,796	25,832	4%	96%
Medicine	13,644	23,126	36,770	37%	63%
Surgery	12,044	5,334	17,378	69%	31%
Ob/Newborn	13,216		13,216	100%	0%
Total	39,940	53,256	93,196	43%	57%

As seen in the table below, of the direct care inpatient days generated by Combined Beneficiaries from this market, 39% were for Medicine (including rehab), 28% for Behavioral Health, 19% for Surgery and 14% for Ob/Newborn (including both Post-Partum and Nursery). Note that the case mix for DoD and VA are quite different—especially for Behavioral Health and Surgery: 47% of the VA's patient days were for Behavioral Health and only 10% were for Surgery. This compares to only 3% and 30% respectively for the DoD.

Table 48: Percent of Total Inpatient Days by Product Line and Service (Case Mix)

Product Line	DoD	VA	Combined
Behavioral Health	3%	47%	28%
Medicine	34%	43%	39%
Surgery	30%	10%	19%
Ob/Newborn	33%	0%	14%
Total	100%	100%	100%

Based on the enrolled populations of the two systems, there are the following *direct care* use-rates per 1,000 enrolled. This means these use rates exclude the purchased care/fee basis care—so it reflects only the use of the MTFs and VA facilities. In the DoD, 48% of the total number of users in this market accessed the purchased care system—and those users' activity is not reflected in these use rates. (In the VA, 13% of total users accessed fee-basis care). Nonetheless, the table below shows clearly the difference in patient profile between the DoD and VA. Note that the inpatient days for the VA are skewed due to the high number of behavioral health days and the fact that Rehab is included in Medicine.

Table 49: Direct Use Rates per 1,000 Enrolled Population (in Bed Days)

Product Line	DoD	VA	Combined
Behavioral Health	3.50	401.20	72.15
Medicine	46.06	374.18	102.70
Surgery	40.66	86.30	48.54
Ob/Newborn	44.61	-	36.91
Total	134.83	861.68	260.30

In addition to the workload noted above, the users in the Gulf Coast Market generated approximately 540 direct care Extended Care discharges and approximately 76,000 Extended Care days.

When viewed from the perspective of the *facility* (rather than the market), there were nearly 18,000 discharges (including in-migration) and roughly 89,500 patient days (double-counting mothers and babies). Note that in 2002, Biloxi VAMC had an inpatient substance abuse program, which has since been closed. Also, in 2002, Keesler still had its inpatient psychiatry program.

Biloxi VAMC manages 30% of the total patient days (although only 22% if Rehab is excluded) and Keesler and Gulfport each manage about 22% of the days. Eglin manages 11% of the days. More than 2,200 of Keesler's days and about 2,000 of the Biloxi VAMC's days came from outside the Gulf Coast Market. Based on recent sharing agreements, future Keesler Psychiatry days will be at Gulfport.

Table 50: Total Volume by Facility (Regardless of Patient Origin)

Facility Name	Product Line	Inpatient Days	Discharges	Average Length of Stay
Keesler	Behavioral Health	1,277	550	2.32
	Medicine (incl. rehab)	6,549	1,950	3.36
	Surgery	7,808	1,767	4.42
	Ob/Newborn	6,183	1,800	3.44
	Subtotal	21,817	6,067	3.60
Eglin	Medicine (incl. rehab)	3,530	1,827	1.93
	Surgery	2,416	1,031	2.34
	Ob/Newborn	4,214	2,214	1.90
	Subtotal	10,160	5,072	2.00
Biloxi VAMC	Behavioral Health	4,334	223	19.43
	Medicine (incl. rehab)	20,571	1,604	12.82*
	Surgery	2,916	498	5.86
	Subtotal	27,821	2,325	11.97
Gulfport	Behavioral Health	20,381	810	25.16
	Medicine	165	8	20.63
	Surgery	11	1	11.00
	Subtotal	20,557	819	25.10
NH Pensacola	Medicine (incl. rehab)	3,789	1,482	2.56
	Surgery	2,261	772	2.93
	Ob/Newborn	3,143	1,350	2.33

	Subtotal	9,193	3,604	2.55
Gulf Coast Total		89,548	17,887	5.01

*Medicine ALOS reduces to 7.5 days when rehab is excluded from Medicine

3.2.2 Inpatient: Indirect Care

Inpatient indirect care (purchased care/fee-basis care) is measured by DRG for both the DoD and VA. There was a substantial amount of workload coded "000," which was expressed in "Other."

The DoD is the primary purchaser of indirect care in all Markets. Excluding "Other," the largest volume of indirect inpatient care is in Medicine and Surgery. When looking at the claims data for DoD it appears that in the "Other" category, at least an additional 691 discharges were Medicine, 422 were Newborn, 300 were Behavioral Health, and 221 were Surgery (the remaining 7,700 discharges in "Other" could not be further classified). The average length of stay for all indirect care in this Market was 6.4 days. The indirect inpatient admission use rate per 1,000 enrolled beneficiaries was 52 for DoD and 3.6 for VA. This is the highest indirect DoD use rate of the three Markets.

The majority of the VA activity was for Priority Groups 1 and 5, and the majority of inpatient activity for the DoD was Retirees and Retiree Family Members. When the DoD activity is broken down by age, it is revealed that 51% of the discharges were for people over the age of 65—most likely TRICARE for Life enrollees.

A more detailed description of inpatient indirect care in this Market is included in a later section entitled "Findings from the Application of the Study Methodology to Examine the Opportunity to Consolidate Inpatient Care in Biloxi/Gulfport"

Table 51: Indirect Care Discharges

Product Line	DoD	VA	Total
Behavioral	72	6	78
Medicine	3,633	83	3,716
Newborn	44		44
Ob/Gyn	245	3	248
Surgery	2,084	18	2,102
Other	9,353	101	9,454
Total	**15,431**	**211**	**15,642**

Table 52: Indirect Care Patient Days

Product Line	DoD	VA	Total
Behavioral	474	20	494
Medicine	15,879	297	16,176
Newborn	88	0	88
Ob/Gyn	642	8	650
Surgery	12,514	117	12,631
Other	69,346	388	69,734
Total	**98,943**	**830**	**99,773**

Table 53: Indirect Care Discharges by Beneficiary Category and Priority Group

Beneficiary Group	Discharges	% of respective system
PG 1	88	42%
PG 2	9	4%
PG 3	11	5%
PG 4	14	7%
PG 5	76	36%
PG 6	2	1%
PG 7	0	0
PG 8	9	4%
Subtotal	*209*	*100%*
Active Duty	612	4%
Active Duty Family Members	2,319	15%
Retiree	5,833	38%
Retiree Family Members	6,667	43%
None Provided	2	0%
Subtotal	*15,433*	*100%*
Total	**15,642**	

Table 54: DoD Indirect Discharges by Age

Product Line	0-17	18-44	45-64	65+	Total
Behavioral	1	33	16	22	72
Medicine	194	231	770	2,438	3,633
Newborn	44	0	0	0	44
Ob/Gyn	1	111	32	101	245
Surgery	49	122	423	1,490	2,084
Other	1,175	1,807	2,509	3,862	9,353
Total	1,464	2,304	3,750	7,913	15,431
	9%	15%	24%	51%	100%

3.2.3 Outpatient: Direct Care

Residents of the Gulf Coast Market area generated more than 1.4 million direct care visits. This activity includes visits to providers, diagnostic departments (such as lab and x-ray), therapeutic departments (such as radiation therapy, physical therapy), and emergency departments, and includes out-migration. When some specialties such as optometry, dental, audiology, ED, diagnostics and therapeutics were excluded (in order to focus mostly on medical/surgical ambulatory provider activity), there were more than 1 million direct care ambulatory visits to providers in Behavioral Health (including substance abuse), "Distinctive Programs" (such as Undersea Medicine & Flight Medicine), Medical Specialties (including rehab), OB/Gyn, Surgical Specialties, and Primary Care.

The following observations focus on the 1 million non-diagnostic and non-therapeutic visits. Of this, 73% (or about 774,000 visits) were DoD and 27% were VA. 63% of Behavioral Health visits were generated by the VA users, while 77% of Primary Care and 68% of the Surgery visits were generated by the DoD users.

Table 55: Outpatient Direct Care Workload by Product Line

Product Line	DoD	VA	Combined	% DoD	% VA
Behavioral Health	35,442	61,245	96,687	37%	63%
Distinctive Programs	58,625	0	58,625	100%	0%
Medical Specialty	57,067	39,236	96,303	59%	41%
Ob/Gyn	60,163	0	60,163	100%	0%
Primary Care	474,846	141,190	616,036	77%	23%
Surgical Specialty	87,715	40,701	128,416	68%	32%
Total	773,858	282,372	1,056,230	73%	27%

As seen in the table below, of the subset of direct care outpatient visits described above generated by Combined Beneficiaries from this market, 58% were for Primary Care (which includes Internal Medicine, Pediatrics, Family Practice, and VA Women's Health), 9% for Behavioral Health, 12% for Surgery/Surgical Specialties, 9% for Medical Specialties, and 6% for Ob/Newborn. Note that the case mix DoD and VA are somewhat different: 22% of the VA's visits were for Behavioral Health compared to 5% for the DoD. Also, the VA had a higher percentage of its direct care visits from this market for Medical and Surgical Specialties and lower percentage for Primary Care than the DoD.

Table 56: Direct Care Outpatient Service Mix

Product Line	DoD	VA	Combined
Behavioral Health	5%	22%	9%
Distinctive Programs	8%	0%	6%
Medical Specialty	7%	14%	9%
Ob/Gyn	8%	0%	6%
Primary Care	61%	50%	58%
Surgical Specialty	11%	14%	12%
Total	100%	100%	100%

Direct care use rates per 1,000 enrolled population also show that the VA enrolled population uses the system more than does the DoD. These use rates exclude purchased care/fee basis care.

Table 57: Direct Care Outpatient Use Rates per 1,000 Enrollees

Product Line	DoD	VA	Total DoD/VA
Behavioral Health	120	991	270
Distinctive Programs	198		164
Medical Specialty	193	635	269
Ob/Gyn	203	-	168
Primary Care	1,603	2,284	1,721
Surgical Specialty	296	659	359
Total	**2,612**	**4,569**	**2,950**

The overall VA direct care use rate and overall direct care DoD use rate are very similar for the Gulf Coast and Puget Sound Markets—but the Hawaii Market is different. In the Hawaii Market, the DoD has a higher rate and the VA has a lower rate than in the other Markets—such that the total outpatient direct care use rates are almost the same for the DoD and VA in the Hawaii Market (about 3,600 per 1,000). This is most likely related to the use of indirect care: the percent of DoD users who accessed indirect care was lower in the Hawaii Market than the

other two Markets. Likewise, the percent of VA users who accessed fee basis care was higher in Hawaii.

When viewed from the perspective of the *facility* (rather than the market), the facilities in the Gulf Coast Market saw more than 1.4 million direct care visits to providers, diagnostics, therapeutics, and emergency departments—including in-migration from other markets. 71% of this total activity was provided by DoD facilities and 29% by VA facilities. 44% of the total outpatient activity supported by the facilities in the market was Primary Care, 17% was Medical Specialty (including Rehab), 9% was Behavioral Health, 9% was Surgical Specialty, and 12% was "Outpatient Specialty" (a combination of dental, optometry, audiology, geriatrics, emergency department, home care, and nutrition).

The greatest amount of activity was found in the Clinical Service Lines of Internal Medicine (444,000 provider, diagnostic, and therapeutic visits), Family Practice (111,000 provider, diagnostic, and therapeutic visits), Mental Health (110,000 provider, diagnostic, and therapeutic visits), and Rehab (139,000 provider, diagnostic, and therapeutic visits). These four Clinical Service Lines represent more than 57% of the total activity provided by the facilities.

The combined workload of all the facilities in this Market is distributed as follows:

Table 58: Activity by Facility

Facility Name	% of Total
Keesler	19%
Eglin	17%
NH Pensacola	14%
Biloxi VAMC	13%
Tyndall	6%
Pensacola CBOC	6%
VA Gulfport	5%
Hurlburt	4%
Corry Station	3%
Mobile	3%
NAS-Pensacola	3%
BMC Gulfport	2%
Panama City CBOC	2%
NATTC Pensacola	1%
BMC Pascagoula	1%
Whiting Field	1%
BMC Panama City	0%

3.2.4 Outpatient: Indirect Care

As an attempt to gauge the amount of care that is provided by non-federal providers, Mitretek Systems analyzed the outpatient indirect care (purchased care/fee-basis care) for the DoD and VA. The DoD activity is mapped to Clinical Service Lines using "provider specialty." Thus for the DoD, activity for Internal Medicine can be mapped to Internal Medicine if that was the provider specialty. The VA data are based on ICD-9, so all activity is mapped to a specialty

(e.g., someone seeing a doctor for back pain would be mapped to orthopedics—even if the person saw an internal medicine doctor.) Therefore, the level of detail in available in this report *highlights* the levels of activity—but more analysis would be required in order to isolate volume for the purposes of physician planning. The figures below exclude most of the ancillary and non-MD/PA/NP activity. Note that the DoD activity includes managed care support contracts and TRICARE for Life volume.

Table 59: Outpatient Purchased Care Volume by Product Line

Product Line	DoD	VA	Total
Behavioral Health	69,174	1,373	70,547
Medical Specialty	167,302	18,348	185,650
Ob/Gyn	13,959	45	14,004
Outpatient Specialty	38,261	18	38,279
Primary Care	284,785	284	285,069
Surgical Specialty	109,908	12,525	122,433
Total	683,389	32,593	715,982

When broken down by Clinical Service Line, some of the highest volume services include:

Table 60: Outpatient Purchased Care Volume By Select Clinical Service Lines

Product Line	DoD	VA	Total	DoD % of Total	VA % of Total
Cardiology	35,250	2,066	37,316	94%	6%
Orthopedics	25,568	2,782	28,350	90%	10%
Urology	24,517	3,372	27,889	88%	12%
Neurology	21,487	2,748	24,235	89%	11%
Immunology	18,424	0	18,424	100%	0%
Gynecology	13,946	0	13,946	100%	0%
Gastroenterology	11,407	293	11,700	97%	3%

Table 61: Outpatient Purchased Care by Beneficiary Group

Beneficiary Group	Volume	% of respective volume
None noted	658	2%
PG 1	16,102	52%
PG 2	2,283	7%
PG 3	2,511	8%
PG 4	3,582	11%
PG 5	4,989	16%
PG 6	54	0%
PG 7	55	0%
PG 8	990	3%
VA TOTAL		**100%**
Active Duty	21,031	3%
Active Duty Family Member	137,124	20%
Retiree	205,595	30%
Retiree Family Member	319,639	47%
None noted	1,369	0%
DoD TOTAL		**100%**

Total	**715,982**	

Table 62: Outpatient Indirect Care by Submarket of the Users

Submarket	DoD	VA	Total
Biloxi/Gulfport	94,416	8,180	102,596
Eglin	198,185	5,114	203,299
Mobile	64,398	6,331	70,729
Panama City	108,037	5,627	113,664
Pensacola	218,353	7,341	225,694
Total	**683,389**	**32,593**	**715,982**

The outpatient indirect care visits use rate per 1,000 enrollees is 2,306 for DoD and 527 for the VA. The DoD use rate is more than twice as high as in the other two Markets.

3.3 Supply

3.3.1 Key Productive Spaces

Within a complex hospital, there are only a few areas that generally are considered key productive spaces. Although the hospital provides a wide range of services, the major drivers of space and capacity tend to be inpatient beds, outpatient exam rooms, operating rooms, and diagnostic imaging equipment. As stated previously, in order to facilitate investigation of sharing opportunities, the two Departments should work diligently to develop standards and definitions for measuring the supply of these spaces and converting them into capacity

Since both the DoD and VA use 85% inpatient bed occupancy as a planning standard for Medical/Surgical beds, and 65% occupancy is a commonly accepted high level critical care standard, this Study did an initial assessment of Medical/Surgical, Psychiatry, and Critical Care bed capacity versus demand. The market has 281 staffed beds and 344 available beds in these categories. In 2002 the Gulf Coast Market had a weighted average staffed-bed occupancy of 59%.

This Study also completed a detailed analysis of the impact of re-allocating Medical/Surgical care in this Market. That example is described in a later section of this appendix.

Table 63: Key Productive Spaces

Market	Facility Name	Unit Type	2002 Acute Care Patient Days (Non-OB) Workload	(1)Patient Days Capacity (Staffed Beds) 85%/65%	(1) Patient Days Capacity (Available Beds) 85%/65%	Weighted Occupancy Target	(2)Actual Occupancy (Staffed Beds)	(2) Actual Occupancy (Available Beds)
Gulf Coast	Keesler Med Ctr	Med/Surg	14,357	22,630	24,765	0.82	52%	46%
	Eglin AFB	Med/Surg	5,946	7,464	13,231	0.82	65%	36%
	Biloxi VA	Med/Surg	13,607	14,545	14,545	0.81	76%	76%
	Gulfport VA	Inpatient Psychiatry	20,381	27,612	38,161	0.85	63%	45%
	NH Pensacola	Med/Surg	6,050	12,447	12,447	0.81	39%	39%
	Gulf Coast Total		60,341	84,698	103,149		59%	48%

Notes:
(1) Capacity based on bed counts provided from surveys and site visits. Capacity is bed count x 365 x 85% for Medical/Surgical regular, telemetry, and psych or 65% for Critical Care
(2) Actual occupancy is calculated as 2002 workload/(365*beds). (It does not first reduce capacity by 85% or 65% as in the capacity calculations). Current beds counts (used for "capacity") might be slightly different than bed counts in 2002 (data used for workload). Weighted occupancy target based on % of staffed beds that are regular/telemetry versus critical care. Patient Days exclude OB, Nursery, Rehab, Extended Care, Rehab, SCI. Patient days include in-migration. Patient Days exclude observation care. Med/Surg is combination regular, telemetry, and critical care. Tripler staffed ICU beds (5) seemed to be an error, so weighted occupancy target is based on available beds rather than staffed
(3) Tripler VA Psych days are a sum of the days that show up in VA and as Vets (K-61) in the DoD data

Facility Condition

Most of the major hospital buildings were built more than 20 years ago—and some were built more than 50 years ago. Architects and engineers on the project team completed cursory evaluations of the major clinical buildings on most of the sites. The architects' scores of the inpatient units and ambulatory clinics show a mix of functionality. Many of the inpatient units scored as either Green or Amber for size and configuration, (on a Red/Amber/Green scale—with Green being the best). However, quite a few spaces have Red scores, including size and configuration of the critical care units at Biloxi VAMC, size and configuration of the Medical/Surgical inpatient units at Eglin, NH Pensacola, and VA Gulfport, and configuration of several clinics at Keesler. The team also observed that most spaces are not ADA compliant.

In addition, the Engineers rated the major buildings at Tyndall, Biloxi VAMC, and Whiting Field as "Fair." The BMC Panama City building was observed to be in "Poor" condition. Definitions and more detailed output from these reviews are located in the Attachment to this Appendix.

Access

Nearly 95% of DoD enrolled and 71% of the VA enrolled beneficiaries are within 30 minute drives of any facility within their respective system. More than 99% of DoD and more than 93% of VA are within 60 minutes. In all Submarkets except Mobile, 90% or more of the DoD enrollees are within 30 minutes to any DoD facility. In the Mobile Submarket, only 50% of DoD enrollees are within 30 minutes, but 97% are within 60 minutes. The VA has a different profile: only in the Pensacola Submarket are 85% of the VA enrollees within 30 minutes of any VA facility. The percent drops to 78% in the Panama City Submarket, 75% in the Biloxi/Gulfport Submarket, and only .2% in the Eglin Submarket. (12% of VA enrollees live in the Eglin Submarket.). With the exception of the Eglin Submarket, at least 85% of enrolled Veterans are within 60 minutes drive of any VA facility.

Opening access so that DoD and VA beneficiaries can obtain primary care services at any VA or DoD facility dramatically improves the percent of visits that would meet the 30 minute drive time standard—especially for the VA. With *current* practices, only 67% of VA primary care visits were within 30 minutes of any VA facility. None of the 10,500 primary care visits of VA beneficiaries living in the Eglin Submarket were within 30 minutes of any VA facility, 65% of the visits from Biloxi/Gulfport, 74% from Panama City Submarket, and 83% from the Pensacola Submarket met the 30 minute standard. For DoD, 93% of primary care visits in the entire Market were within a 30 minute drive of any DoD facility. The percent within standard is 90% or greater in all Submarkets except Mobile, where only 46% of DoD primary care visits originated from ZIP codes where the beneficiaries were within 30 minutes drive of any DoD facility. By allowing DoD and VA beneficiaries to go to any VA or DoD facility for primary care, the percent of VA visits within 30 minutes of any facility increases to 95% or better in all Submarkets. For the DoD, opening access to Mobile would increase the number of visits within 30 minutes form 46% of total to 79% for the beneficiaries living in the Mobile Submarket.

None of the roughly 900 VA inpatient discharges that originated from VA beneficiaries outside of the Biloxi/Gulfport Submarket were within a 60 minute drive to any VA inpatient facility. For DoD, more than 90% of discharges were within 60 minutes of any DoD inpatient facility in all

submarkets except for Mobile (80% within 60 minutes) and Panama City (8% within 60 minutes). Further opening of access to the DoD facilities by the Veterans in the eastern Submarkets will improve these overall statistics.

Table 64: Baseline Combined Intra-System Inpatient Access

	Discharges Within 60 Minutes	Discharges Outside 60 Minutes	Total In-Market	% Within Standard	Total Outmigration	Total Discharges
Biloxi/Gulfport	6,241	204	6,445	96.8%	775	7,220
Eglin	4,395	495	4,890	89.9%	213	5,103
Mobile	358	386	744	48.1%	297	1,041
Panama City	4	126	130	3.1%	158	288
Pensacola	3,692	653	4,345	83.6%	398	4,743
Total Gulf Coast	14,690	1,864	16,554	88.7%	1,841	18,395

Costs

The total costs that were incurred by DoD and VA in FY02 to fund the care required by the Gulf Coast study market beneficiaries represent the current baseline total annual system costs for the Gulf Coast market. This is the annual cost required to fund the care provided to the Combined Beneficiary population in the Gulf Coast study market and includes all direct care provided directly by DoD and VA facilities as well as indirect care purchased by DoD and VA for these beneficiaries. The baseline cost performance for the Gulf Coast study market is illustrated in the table below.

Table 65: Costs in the Gulf Coast

Baseline Total Annual Cost to Deliver Care to DoD and VA Beneficiaries in Reside in the Gulf Coast Market (FY2002)			
	GULF COAST COSTS BY AGENCY		
Cost Figures in Thousands ('000s)	DoD	VA	Total
In-Market Direct Care Provided			
Inpatient Care	72,792	50,031	122,823
Outpatient Care	205,912	104,729	310,641
Total In-Market	278,704	154,761	$ 433,465
Out-Migration (Direct Care Provided Outside Market)			
Inpatient Care	3,071	14,832	17,903
Outpatient Care	8,824	6,063	14,887
Total Out-Migratio	11,895	20,896	$ 32,791
Non-Direct Care (Purchased/Fee Basis Care)			
Inpatient Care	36,534	968	37,502
Outpatient Care	141,064	1,550	142,614
Total Non-Direct	177,598	2,518	$ 180,116
Total Delivery Costs			
Inpatient Care	112,397	65,832	178,229
Outpatient Care	355,800	112,343	468,143
TOTAL	**468,197**	**178,175**	**$ 646,372**
Total Delivery Costs per Enrollee and per User *(Per Capita Cost Figures are NOT in Thousands)*			
Total Enrollees (1)	296,230	61,805	358,035
Total Cost per Enrollee	*$ 1,581*	*$ 2,883*	*$ 1,805*
Total Market Users (1)	368,157	61,545	429,702
Total Cost per User	*$ 1,272*	*$ 2,895*	*$ 1,504*

(1) Market enrollees and market users for FY2002 extracted from the Joint Assessment Study Series 4 Database

The Gulf Coast study market current baseline annual cost summarized above provides a high level perspective of the total costs for delivering inpatient care and outpatient care, in the aggregate for the entire study market. These inpatient and outpatient costs can also be broken down by Product Line as illustrated in the tables that follow

Table 66: Costs by Product Line

Baseline Total Annual Cost to Deliver Inpatient Care to DoD and VA Beneficiaries in Reside in the Gulf Coast Market (FY2002)

Figures in Thousands ('000s)	Direct Care In-Market			Direct Care Out-Migration			Non-Direct (Purchased) Care			FY 2002 Total		
	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total
Gulf Coast Inpatient												
Medicine (1)	26,117	23,982	50,099	1,260	6,206	7,466	6,706	382	7,088	34,083	30,570	64,653
Surgery	27,395	6,641	34,036	1432	4,427	5,859	901	-	901	29,728	11,069	40,797
Ob/Newborn	18,684	-	18,684	379	-	379	6,550	241	6,791	25,613	241	25,854
Behavioral Health	596	19,359	19,955	0	4,199	4,199	936	16	952	1,532	23,574	25,106
Unknown/Other	-	49	49	-	-	-	21,441	329	21,770	21,441	378	21,819
Total	**$72,792**	**$50,031**	**$122,823**	**$3,071**	**$14,832**	**$17,903**	**$36,534**	**$968**	**$37,502**	**$112,397**	**$65,832**	**$178,229**

(1) Includes Extended Care for VA Direct Care In-Market

Baseline Total Annual Cost to Deliver Outpatient Care to DoD and VA Beneficiaries in Reside in the Gulf Coast Market (FY2002)

Figures in Thousands ('000s)	Direct Care In-Market			Direct Care Out-Migration			Non-Direct (Purchased) Care			FY 2002 Total		
	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total
Gulf Coast Outpatient												
Primary Care	90,724	18,205	108,929	3,224	926	4,150	6,163	22	6,185	100,111	19,154	119,265
Ob/Gyn	15,594	-	15,594	376	-	376	1,814	2	1,816	17,784	2	17,786
Medical Specialty	26,335	16,990	43,325	1,110	937	2,047	4,806	759	5,565	32,251	18,686	50,937
Surgical Specialty	29,041	8,638	37,679	1,127	1,076	2,203	24,334	585	24,919	54,502	10,299	64,801
Behavioral Health	8,729	8,997	17,726	1,122	494	1,616	2,156	25	2,181	12,007	9,516	21,523
Other Outpatient	35,489	51,900	87,389	1,865	2,630	4,495	11,586	157	11,743	48,940	54,687	103,627
Extended Care	-	-	-	-	-	-	90,205	-	90,205	90,205	-	90,205
Total	**205,912**	**104,729**	**310,641**	**8,824**	**6,063**	**14,887**	**141,064**	**1,550**	**142,614**	**355,800**	**112,343**	**468,143**

The cost data available for the Gulf Coast market can be used to calculate the current baseline cost performance for specific sub-segments of each study market, such as select geographic submarkets, for select beneficiary populations, and for select Product or Clinical Service Lines. A clinical service line level incremental cost impact analyses at the submarket level will be illustrated in the analysis of the opportunity to rationalize inpatient care in Gulf Coast that follows.

3.4 Findings from the Application of the Study Methodology to Examine the Opportunity to Consolidate Inpatient Care in Biloxi/Gulfport

This subsection provides the results of an analysis that examines the opportunity to consolidate inpatient care in Biloxi/Gulfport Submarket (Medical/Surgical care, including Critical Care). Two scenarios are provided to demonstrate the capacity impact and economic implications of centralizing the care at Keesler Medical Center (Scenario A) and VAMC Biloxi (Scenario B). There are also assumptions imbedded in this analysis that open/expand VA access to Eglin and NH Pensacola in the eastern Submarkets.

Of the combined 49 health care facilities included in this Study (across the three Market Areas), Keesler and VAMC Biloxi are by far the closest in proximity to each other (separated by a few hundred yards) with respect to health care facilities that offer a similar mix of inpatient services. In an era when DoD/VA sharing has grown to become a key initiative for the Federal government, Mitretek is certainly not the first to inquire about the possibility of consolidation given the close proximity of these two hospitals. In July, for example, members of the VA CARES Commission paid a visit to the VA Biloxi and Gulfport Divisions as well as Keesler Medical Center and met with VA and DoD leadership, including the commanding Brigadier General. The site visit notes raise several points associated with the opportunity for increased collaboration between VAMC Biloxi and Keesler, with one option being a future delivery model whereby Keesler would "take care of inpatient services while VA would take care of outpatient

services."[41] One month later, in a CARES Commission Post Hearing Summary for VISN 16, the Commissioners recommended that an "additional study needs to be undertaken to assess the cost/benefit of the options available at VA Biloxi including partnership with Keesler."[42] The application of this Study's methodology takes the next step in exploring this opportunity based on the current performance of these two Federal assets.

Baseline Situation

Demand for Inpatient Services

Demand for this analysis focuses on the Medical/Surgical and Critical Care inpatient utilization by beneficiaries who reside in the Gulf Coast Market Area. The table below shows the total discharges and average lengths of stay for in-market consumption, out-migration (other Federal providers) and indirect care (private network providers). The FY02 volume in this exhibit excludes Mental Health, Rehabilitation, Extended Care, and Obstetrics/Newborns. A full profile of inpatient and outpatient care demand in the Gulf Coast can be found in the Market Assessment Appendix.

Table 67: Total Utilization of Inpatient Medical/Surgical Care by Gulf Coast Beneficiaries

Total Utilization of Medical/Surgical Inpatient Care by Gulf Coast Beneficiaries

Submarket	In-Market (a)			Out-Migration (b)			Non-Direct Care (c)			Total
	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total	
Biloxi/Gulfport	2,869	1,289	4,158	72	261	333	2,209	18	2,227	6,718
Eglin	2,722	65	2,787	97	59	156	3,642	14	3,656	6,599
Mobile	249	245	494	23	105	128	1,816	55	1,871	2,493
Panama City	42	41	83	22	66	88	2,784	34	2,818	2,989
Pensacola	2,379	138	2,517	122	108	230	3,886	81	3,967	6,714
Total Discharges	8,261	1,778	10,039	336	599	935	14,337	202	14,539	25,513
ALOS	*4.53*	*7.12*	*4.99*	*4.15*	*7.12*	*6.05*	*6.82*	*4.11*	*6.78*	*6.05*

(a) Utilization by resides of each submarket at federal facilities in the Gulf Coast.
(b) Beneficiaries living in the Gulf Coast receiving care by a federal provider outside the Market.
(c) Services provided by non-federal providers through fee-basis care (VA) and purchased care (DoD).

The in-market volume above reflects care provided by the four facilities offering Medical/Surgical care in the Gulf Coast (excludes Gulfport) to beneficiaries who reside in this Market. Of the 14,337 indirect care discharges (DoD Indirect), over half represent patients 65 years of age or older (mostly TRICARE For Life enrollees). If patients over 65 are excluded from DoD indirect care, (including direct care), 57% of the remaining inpatient demand is accommodated by DoD and VA hospitals in the Gulf Coast.

With respect to the Biloxi/Gulfport Submarket, roughly 71% (or 2,048) of the 2,869 DoD in-market discharges were generated by retirees and their family members. Not surprisingly, nearly all of this care was provided at Keesler (11 total discharges at Eglin and Naval Hospital Pensacola combined). Similarly, nearly all of the 1,289 VA in-market direct discharges took place at VAMC Biloxi. In terms of VA out-migration, 185 of the 261 discharges occurred at the

[41] CARES Commission Site Visit Report, page 2; Visit: July 2, 2003; Prepared by K. Collier, July 14, 2003
[42] CARES Commission Post Hearing Summary, Section V., page 4; August 26, 2003

VA Medical Center in New Orleans, which is the VA's tertiary care hospital serving the Gulf Coast Market and Southeast Louisiana.

Supply

Inpatient facilities in the Gulf Coast Market include two in the eastern end of the Market and three hospitals in the Biloxi/Gulfport Submarket in the west. These facilities are:

- Eglin
- NH Pensacola
- VAMC Biloxi
- VA Gulfport
- Keesler

Eglin and NHP are located approximately 50 miles apart in the eastern Submarkets of Eglin and Pensacola. Each facility primarily caters to the needs of the active duty and their family members in their separate and distinct services areas, centered by Eglin Air Force Base and Naval Air Base Pensacola respectively. The facilities are similar in terms of their size, service mix, and volume. Eglin is a 65-bed hospital (available beds) which had an average daily census of 28 in FY02. Roughly 44% of its total workload (5,000 discharges) was Obstetrics/Newborn. In terms of Medical/Surgical care, Eglin has available capacity for 20 additional patients (7,285 bed days), with an occupancy target of 85% for Medical/Surgical and 65% for Critical Care.

Naval Hospital Pensacola, located west of Eglin, is a 60-bed facility with an average daily census of 25 with 37% of its total discharges (3,600) attributed to Obstetrics/Newborn. The hospital currently has a sharing agreement with the VA for inpatient care, and with demand by the veterans/retirees on a steady increase, there are plans to reevaluate the agreement to allow for more VA access. In FY02, VA enrollees accounted for 87 discharges (according to a patient classification field in DoD data). Its current workload levels suggest that NHP has available capacity for 28 additional patients (10,193 bed days) for Medical/Surgical care (with a 85/65 occupancy target).

The Gulf Coast Veterans Health Care System is a five-division health care system with hospitals in Gulfport and Biloxi, Mississippi (the system also operates three outpatient clinics). The Gulfport Division provides inpatient and outpatient Mental Health services and houses an Alzheimer's dementia unit. Through a collaborative agreement with Keesler AFB, BMC Gulfport also accommodates the needs of military personnel with acute mental health care needs. This facility was excluded from the Medical/Surgical Scenarios later in this section (it currently has one Medical/Surgical bed), but it plays a vital role in providing behavioral health services to the entire Gulf Coast Market. Its future delivery model and location (currently under review by the VA) will have a direct impact on the other two facilities in Biloxi/Gulfport.

The facilities included in this analysis, VAMC Biloxi and Keesler Medical Center, are located in Biloxi, 8 miles north of the BMC Gulfport facility. The VA Biloxi campus has 37 buildings on approximately 125 acres of land. It is surrounded on the east and west by Keesler AFB housing. VAMC Biloxi serves as the only VA general medical facility for the Gulf Coast Market, with 40 Medical/Surgical beds and 9 Intensive Care beds. Neighboring Keesler (81st Medical Group) is a 90-bed tertiary care center, originally constructed as a 300-bed facility, which currently has a reported 63 Medical/Surgical beds and 22 Intensive Care Units (available beds). The unused

suites (around 200 beds) are currently being used for outpatient services and administrative functions. The workload, capacity and operating costs for these two facilities are provided in the balance of this section.

Capacity

For purposes of the analysis provided in this section, Medical/Surgical and Critical Care capacity was only measured for VAMC Biloxi and Keesler. An 85% occupancy for Medical/Surgical care and 65% occupancy for Critical Care was used to measure the Net Maximum Capacity based on available beds. Capacity is measured in a status quo environment with the analytical assumption that each facility is operating with adequate resources to meet the Medical/Surgical care needs of their respective populations. The table below represents the baseline workload and estimated available capacity for Medical/Surgical and Critical Care inpatient services at Keesler and VAMC Biloxi.

Table 68: Estimated Medical/Surgical Capacity at Keesler and VAMC Biloxi

	Keesler Medical Center			Biloxi VAMC		
	Med/Surg	Critical Care	Total	Med/Surg	Critical Care	Total
Baseline Capacity						
Available Beds Reported	63	22	**85**	40	9	**49**
Max Net Capacity (85/65) (a)	19,546	5,220	**24,765**	12,410	2,135	**14,545**
Baseline Bed Days (FY02)	10,596	3,761	**14,357**	12,695	912	**13,607**
Max Net Occupancy (%)	54%	72%	**58%**	102%	43%	**85%**
Avg Daily Census	29	10	**39**	35	2	**37**
Baseline Discharges	3,021	696	**3,717**	1,757	161	**1,918**
Avg Length of Stay	3.5	5.4	**3.9**	7.2	5.7	**7.1**
Net Capacity Available (b)						
Estimated Bed Days	8,950	1,459	**10,408**	(285)	1,223	**938**
Estimated Discharges	2,552	270	**2,822**	(39)	216	**177**
Equivalent Beds	25	4	**29**	(1)	3	**2**

(a) Estimated capacity of the available beds (in days) based on 85% target occupancy for med/surg and 65% for critical care.
(b) Discharges and equivalent beds based on current ALOS.

Based on the number of available beds (85) at Keesler, this would suggest there are 25 Medical/Surgical beds and 4 Critical Care beds available for incremental volume. To the contrary, VAMC Biloxi baseline Medical/Surgical days and available beds suggest the facility has essentially no available capacity with an estimated 3 critical care beds available (based on the 85% Medical/Surgical and 65% Critical Care occupancy targets). The capacity estimates clarify the simple point that if there was a significant influx of Medical/Surgical volume in Biloxi/Gulfport (or neighboring Submarkets), Keesler would be in a better position to handle the incremental volume in a status quo mode. This reinforces conclusions drawn during the VA CARES process.

As illustrated in the table below, the vast majority of the capacity (shown in bed days) is utilized by patients originating from within the Gulf Coast Market with a moderate amount of in-migration from outside the five Submarkets.

Table 69: Patient Origin at Keesler & VAMC Biloxi

Patient Origin	Keesler	Biloxi
Biloxi/Gulfport	10,618	8,957
Mobile	438	1,968
Pensacola	716	948
Eglin	1,063	445
Panama City	212	216
In-Migration	1,310	1,073
Total M/S & ICU Days	**14,357**	**13,607**

The total number of bed days from the eastern Submarkets to VAMC Biloxi is 1,609 – or 12% of its total. Despite the 3½ to 4½ hours of drive time from these three points, this figure still appears to be relatively low considering the fact that VAMC Biloxi is the only acute care facility in the Market. From a VA planning standpoint, the true demand from the nearly 135,000 eligible veterans residing in the Florida Panhandle is suppressed to some extent because all the veterans who seek inpatient services are not necessarily emerging in the VA data. At least one-third of this eligible population is over 65 years of age, which means one can assume that a sizeable portion of these veterans are relying on Medicare, although some most likely supplement this with benefits through the DoD TRICARE program (many through the TRICARE for Life plan). An additional 24,000 are retirees (dual eligible) under 65 who may also enroll with TRICARE. According to TRICARE claims data (FY02), private hospitals located in the Pensacola area received over 2,000 Medical/Surgical discharges of Combined Beneficiaries 65 years and older who reside in this three-county Submarket. An additional 1,500 discharges came from patients originating from the Eglin Submarket. In general, there exists a growing demand in the Florida Panhandle from a growing group of aging veterans who choose not to or cannot travel to Biloxi for care, but would utilize VA inpatient services if a hospital were located in one of the eastern Submarkets. For planning purposes, this makes it difficult to estimate the true level of VA inpatient demand in this Market.

Cost

FY02 operating costs were compiled from several sources for Keesler and VAMC Biloxi to gauge the estimated delivery costs associated with inpatient services, particularly Medical/Surgical care. The purpose of introducing operating costs into this analysis is not to compare operating cost efficiency between the two facilities and/or delivery systems, but to appreciate in an aggregate sense the different resources required by the two systems to offer similar inpatient services to their respective patient populations.

The total combined operating cost of Keesler and VAMC Biloxi is $300.8M (DoD, $167.8M; VA $133M). This includes all health care services provided at the facility as well as other system-specific missions (e.g., Readiness Programs at Keesler). With a focus on inpatient services, the exhibit below provides FY02 operating costs for Keesler and VAMC Biloxi for Medical/Surgical and Critical Care.

Table 70: Total Operating Costs for Inpatient Medical/Surgical Care in Biloxi

FY 2002	Keesler Medical Center (a)			Biloxi VAMC (b)		
	Med/Surg	Critical Care	Total	Med/Surg	Critical Care	Total
Operating Costs (in '000s)						
Variable Cost	17,389	8,382	**25,771**	15,139	1,343	**16,482**
Fixed Cost	4,977	2,144	**7,121**	4,333	344	**4,676**
Total Cost	$22,366	$10,526	**$32,891**	$19,471	$1,687	**$21,158**
Average Cost per (actual $)						
Discharge	$7,403	$15,123	**$8,849**	$11,082	$10,477	**$11,031**
Bed Day	$2,111	$2,799	**$2,291**	$1,534	$1,850	**$1,555**

(a) Costs were captured from MEPRS and SADR data. Fixed and variable were estimated at a SEEC code level.
(b) Cost data was obtained from DSS National Data Extracts. Variable costs were drawn from Account Level Budget Cost Center Detailed Reports.

The amounts shown above are a "preview" of the operating costs associated with this select inpatient volume for each facility. On a per discharge basis, it is not surprising that VA is $1,000 higher than DoD given the difference in case mix. To that end, the average cost per day is less for VAMC Biloxi due to the average length of stay, which is double that of Keesler's. With the average operating cost per bed day of $1,900 (of the two facilities), future operating cost savings realized through increased collaboration or consolidation can be seen as an investment toward the future health care needs of the Combined Beneficiaries.

Impact of Realigning Inpatient Services

Analytical Approach

Mitretek assessed the opportunity to consolidate Medical/Surgical care in Biloxi/Gulfport by showing the impact of centralizing this care at Keesler (Scenario A) and VAMC Biloxi (Scenario B). These scenarios were built on the baseline performance of each facility, their current capacity, and the following key assumptions:

1. *Eastern Submarket Facilities Recapture Medical/Surgical Care.* This assumes DoD and VA beneficiaries currently residing in the two eastern Submarkets of Eglin and Pensacola would have access (eligibility) to receive care at the nearest Federal hospital with available capacity, namely Naval Hospital Pensacola or Eglin (and on the private network if necessary). In the two scenarios, the bed days of care for these beneficiaries were identified and deducted from the baseline for the measurement of capacity at VAMC Biloxi and Keesler. Additionally, bed days of beneficiaries of the Mobile submarket who have nearly equal access (drive time), to the Biloxi hospitals and Naval Hospital Pensacola were deducted from the baseline at 50% of the total to adjust for the likelihood of utilizing Biloxi hospitals.

2. *Practice Patterns Held Constant.* In the scenarios, the Medical/Surgical volume is transferred between these facilities without adjustments made to account for the different ways in which DoD and VA may deliver clinical services. This is accomplished by simply transferring all the bed days from one facility to the other without altering the average length of stay (ALOS).

3. *Operating Cost Savings of 10%.* An in-depth cost accounting analysis would be required to measure the potential operating cost savings to be realized by consolidating Medical/Surgical services between the two facilities. This analysis assumes that operating costs less 10% are transferred with the volume. This is a conservative placeholder given that fixed indirect costs can be as high as 20% on an average per discharge/bed day basis.

4. *Capital Requirements Excluded.* It is unrealistic to develop a complete estimation of capital costs and incremental recurring expenditures associated with the consolidation options presented because of the many uncertainties that are linked to each end of the transfer. Renovation and new construction costs on a per bed basis are offered as a reference point. While capital costs play a pivotal role in any decision-making process relating to the integration of clinical services, this assessment instead focuses its attention on gauging the *feasibility* of consolidation with consideration given access, capacity levels, and service mix.

As reflected in the Study's methodology, we approached this opportunity from the perspective of the Combined Beneficiaries who currently rely on these systems, as well as the U.S. taxpayers who financially support the Departments. As exercised in the Puget Sound example, this approach focuses initially on the desirability of a particular option, specifically on the potential for the realignment of health care delivery to improve patient access to care and/or to reduce the costs of delivering the care. The VAMC Biloxi-Keesler example places less emphasis on access in this portion of the Market, given the location and capabilities of these two facilities, and allocates more attention to the possible economic benefits which could result from a future delivery model where the resources could be leveraged to offer the same (if not higher) level of quality care at a reduced cost. From a Federal dollar perspective, the logic would suggest that any cost savings in operations or capital expenditures would be shifted elsewhere in the systems to enhance the delivery of health care services to the benefit of the patients.

Scenario A (Keesler as receiving facility) and Scenario B (VAMC Biloxi receiving) are summarized in two tables below. The below estimate the incremental capacity needed in order to absorb the transfer of Medical/Surgical volume (in each direction) is based on a status quo environment (with the exception of the specific eastern Submarket patient migration assumptions noted earlier).

Table 71: Scenario A - Consolidating Inpatient Care in Biloxi/Gulfport Submarket

SCENARIO A.	Biloxi VAMC - Status Quo			Keesler - Status Quo			Post-Transfer at Keesler		
	M/S	ICU	Total	M/S	ICU	Total	M/S	ICU	Total
Capacity (Bed Days)									
Baseline Demand (a)	12,695	912	13,607	10,596	3,761	14,357	23,291	4,673	27,964
Less: Pt. Migration from East (b)	(2,434)	(159)	(2,593)	(1,555)	(655)	(2,210)	(3,989)	(814)	(4,803)
Status Quo Demand	10,261	753	11,014	9,041	3,106	12,147	**19,302**	**3,859**	**23,161**
Maximum Net Capacity (c)	12,410	2,135	14,545	19,546	5,220	24,765	19,546	5,220	24,765
Capacity Surplus/Deficit	**2,149**	**1,382**	**3,531**	**10,505**	**2,114**	**12,618**	**244**	**1,361**	**1,604**
Equivalent Additional Beds Required							-	-	-
Status Quo Operating Costs									
Operating Cost per Day	$1,534	$1,850	$1,555	$2,111	$2,799	$2,291	$1,723	$2,577	**$1,865**
Baseline Operating Cost ($million)	$19.4M	$1.7M	**$21.1M**	$22.4M	$10.5M	**$32.9M**	$33.2M	$9.9M	**$43.1M**
Operating Cost less Migration	$15.7M	$1.4M	**$17.1M**	$19.0M	$8.7M	**$27.7M**			

(a) FY 2002 total medical/surgical and critical care bed days of care.
(b) Bed days of patients who reside in Eglin, Pensacola and Panama City and 50% of total bed days from Mobile Submarket patients.
(c) Total capacity calculated based on available beds at 85% medical/surgical occupancy and 65% critical care occupancy.

The results shown in Scenario A indicate that Keesler, from a capacity standpoint, could assume the Medical/Surgical volume currently provided at VAMC Biloxi without the need for renovation or new construction based on these static figures. Clearly, this does not suggest that other operational and facility-related requirements would not surface if such a transfer occurred. If additional beds were required (now or in the future), a total upgrade of existing space per bed would be roughly $121,000 (assuming 600 BGSF/bed and including project costs) in the Biloxi area.[43] New construction per bed (at 700 BGSF/bed) would be an estimated $189,000.[44]

A transfer could result in recurring cost savings on several fronts. The figures above show $1.7M of annual savings in operations. As noted earlier, this uses a conservative discount of 10% from the total operating costs per unit – in this case, VA Biloxi's total delivery costs. Other recurring costs, such as facility maintenance and repair (M&R), are difficult to estimate but it currently costs an estimated $2.6 million per year to maintain the VAMC Biloxi inpatient facility.[45] The use of the freed space at VAMC Biloxi post-transfer would determine the actual portion of the amount of savings or cost avoidance. For example, the M&R costs would go unchanged if VA Biloxi backfilled the space with extended care services, but it would be considered a "savings" in terms of annual M&R attributed to the future delivery of Medical/Surgical inpatient care. This example would also apply to the $1.3 million in deferred maintenance currently estimated for VAMC Biloxi.[46]

Scenario B centralizes all Medical/Surgical care at VAMC Biloxi with the need for at least 24 additional beds to accommodate the incremental volume from Keesler. As noted in Scenario A, the capital requirements would start at $4.5 million for new construction of 24 beds.[47] More importantly, this Scenario illustrates that regardless of the number of beds needed, new construction would be required at VAMC Biloxi. This presents a host of additional challenges in terms of facility planning and mix between the need for renovation and expansion.

[43] Marshall & Swift Level III renovation estimate (complete restructuring/total upgrade) adjusted for Biloxi area of $144.48/BGSF and assuming 600 BGSF/bed with 40% project costs.
[44] Marshall & Swift; $192.62/BGSF (adjusted for Biloxi area).
[45] Estimated at 3% of the $86.5 million Plant Replacement Value (PRV); VA CARES Valuation Study, 2002.
[46] VA CARES Valuation Study, 2002.
[47] Marshall & Swift new construction estimate adjusted for Biloxi area of $192.64/BGSF and assuming 700 BGSF/bed with 40% project costs.

Table 72: Scenario B - Consolidating Inpatient Care in Biloxi/Gulfport

SCENARIO B.	Biloxi VAMC - Status Quo			Keesler - Status Quo			Post-Transfer at Biloxi VAMC		
	M/S	ICU	Total	M/S	ICU	Total	M/S	ICU	Total
Capacity (Bed Days)									
Baseline Demand (a)	12,695	912	13,607	10,596	3,761	14,357	23,291	4,673	27,964
Less: Pt. Migration from East (b)	(2,434)	(159)	(2,593)	(1,555)	(655)	(2,210)	(3,989)	(814)	(4,803)
Status Quo Demand	10,261	753	11,014	9,041	3,106	12,147	**19,302**	**3,859**	**23,161**
Maximum Net Capacity (c)	12,410	2,135	14,545	19,546	5,220	24,765	12,410	2,135	14,545
Capacity Surplus/Deficit	**2,149**	**1,382**	**3,531**	**10,505**	**2,114**	**12,618**	**(6,892)**	**(1,724)**	**(8,616)**
Equivalent Additional Beds Required							19	5	24
Status Quo Operating Costs									
Operating Cost per Day	$1,534	$1,850	**$1,555**	$2,111	$2,799	**$2,291**	$1,705	$2,577	**$1,850**
Baseline Operating Cost ($million)	$19.4M	$1.7M	**$21.1M**	$22.4M	$10.5M	**$32.9M**	$32.9M	$9.9M	**$42.8M**
Operating Cost less Migration	$15.7M	$1.4M	**$17.1M**	$19.0M	$8.7M	**$27.7M**			

(a) FY 2002 total medical/surgical and critical care bed days of care.
(b) Bed days of patients who reside in Eglin, Pensacola and Panama City and 50% of total bed days from Mobile Submarket patients.
(c) Total capacity calculated based on available beds at 85% medical/surgical occupancy and 65% critical care occupancy.

For this scenario, there is also opportunity for recurring cost savings from this transfer. The figures above place the operating cost savings at $2 million. As with Scenario A, other recurring costs, such as facility maintenance and repair (M&R) could also be avoided, depending on use of freed space at Keesler after the transfer. Currently, M&R is an estimated $4.8M per year to maintain the Keesler Medical Center.[48]

3.5 Findings from the Assessment Applying the Collaboration Framework

The VA and DoD have 13 sharing agreements in effect involving the VA Gulf Coast Veterans Health Care System and six military facilities. At the time of the first site visit, the dollar value of these exchanges was approximately $2M, affecting inpatient, outpatient, and administrative services. Examples of these include agreements between VAGC, VHS, and Keesler for Behavioral Health services, and with Naval Hospital Pensacola and Eglin for medical surgical care. VA and DoD officials have devoted a great deal of attention to two significant projects: the planning of a 140,000 square foot ambulatory care center adjacent to NH Pensacola, and a CBOC adjacent to Eglin AFB Hospital.

During the second site visit, both the quantitative methods used in the rationalization of inpatient care example and the Collaboration Framework were reviewed. As well, Mitretek presented and facilitated discussion about more than 50 opportunities for increased DoD/VA collaboration in the Market. These opportunities included ideas that were applicable to all markets (grouped into the Collaboration Framework) as well as ideas specific to the Gulf Coast Market and/ or specific to certain facilities in the Market. The Attachment provides detail about these opportunities.

Along a continuum of Separate, Coordinated, Connected, Integrated, and Consolidated, most of the relationships among the hospitals in the Market are either Separate or Coordinated. In terms of clinical workload, VAMC and Keesler are classified as Connected since there are a high number of referrals between the two (e.g. DoD psych is at VA Gulfport). They are also Connected in Logistics, since there is some mutual examination of best pricing and service. The relationship in staffing is Coordinated since there is some cross support in peaks and valleys. Management and Education are also Coordinated since there is some joint planning and selective

[48] Estimated at 3% of the $160 million Plant Replacement Value (using $200/sf @ 800,000 sf). Estimate supported by VFA review.

exchange of teaching methods. However, Facilities, Business Processes, IM/IT, and Research are all scored as Separate.

VAMC and Eglin's and VAMC and NH Pensacola's relationship have the same profile to each other: Connected for Clinical Workload, Coordinated for Management and Logistics, but Separate for Facilities, Staffing, Business Processes, Education/Training, and Research.

The feedback sessions during the second site visit affirmed the use of the collaboration framework as a useful way to look at the relationship between VA and DoD within the Market. The framework highlights the many dimensions of collaboration, and can be used as a frame of reference in future planning.

Table 73: VAMC & Keesler Relationship Grid

Domain	Separate	Coordinated	Connected	Integrated	Consolidated
Clinical Workload	Insignificant referrals	Regular communications	High numbers of referrals	Significant number of referrals as one	Protocol-driven placement of all patients
Facilities	Distant	Some sharing where duplica-tion exists	Projects & facilities come from master planning	Many departments share space	One facility or set of facilities
Staffing	Distinct	Support in peaks and valleys	Joint staff planning	Multiple examples of single/joint staffing	Single joint [illegible]
Business Processes	Different	Reduce barriers	Work flows understood & acted on	Transparent	Single system
Management/ Governance	No Relation	Joint planning sessions	Overlap of key functions	Overlap of key functions	One governance & management structure
IM/IT	Separate systems	Evidence of "E" exchange of info	Moving toward systems interface	Complete interoperability	One system
Logistics	Little if any exchange	Borrowing, bartering and contractual exchange	Mutual examination of best pricing and service	Selective joint contracting of major areas of procurement	One supply chain
Education & Training	Distinct	Selective exchange of methods	Frequent use of joint programs and curriculum	Most programs and curriculum are same/similar	Unified program
Research	Distinct	Selective exchange of protocols	Joint planning and review of many studies	Significant overlap of protocols and review	Unified program

Table 74: VAMC & NH Pensacola Relationship Grid

Domain	Separate	Coordinated	Connected	Integrated	Consolidated
Clinical Workload	Insignificant referrals	Regular communications	High numbers of referrals	Significant number of referrals as one	Protocol-driven placement of all patients
Facilities	Distant	Some sharing where duplication exists	Projects & facilities come from master planning	Many departments share space	One facility or set of facilities
Staffing	Distinct	Support in peaks and valleys	Joint staff planning	Multiple examples of single/joint staffing	Single staffing
Business Processes	Different	Reduce barriers	Work flows understood & acted on	Transparent	Single system
Management/ Governance	No Relation	Joint planning sessions	Overlap of key functions	Overlap of key functions	One governance & management structure
IM/IT	Separate systems	Evidence of "E" exchange of info	Moving toward systems interface	Complete interoperability	One system
Logistics	Little if any exchange	Borrowing, bartering and contractual exchange	Mutual examination of best pricing and service	Selective joint contracting of major areas of procurement	One supply chain
Education & Training	Distinct	Selective exchange of methods	Frequent use of joint programs and curriculum	Most programs and curriculum are same/similar	Unified program
Research	Distinct	Selective exchange of protocols	Joint planning and review of many studies	Significant overlap of protocols and review	Unified program

Table 75: VAMC & Eglin Relationship Grid

Domain	Separate	Coordinated	Connected	Integrated	Consolidated
Clinical Workload	Insignificant referrals	Regular communications	High numbers of referrals	Significant number of referrals as one	Protocol-driven placement of all patients
Facilities	Distant	Some sharing where duplication exists	Projects & facilities come from master planning	Many departments share space	One facility or set of facilities
Staffing	Distinct	Support in peaks and valleys	Joint staff planning	Multiple examples of single/joint staffing	Single staffing
Business Processes	Different	Reduce barriers	Work flows understood & acted on	Transparent	Single system
Management/ Governance	No Relation	Joint planning sessions	Overlap of key functions	Overlap of key functions	One governance & management structure
IM/IT	Separate systems	Evidence of "E" exchange of info	Moving toward systems interface	Complete interoperability	One system
Logistics	Little if any exchange	Borrowing, bartering and contractual exchange	Mutual examination of best pricing and service	Selective joint contracting of major areas of procurement	One supply chain
Education & Training	Distinct	Selective exchange of methods	Frequent use of joint programs and curriculum	Most programs and curriculum are same/similar	Unified program
Research	Distinct	Selective exchange of protocols	Joint planning and review of many studies	Significant overlap of protocols and review	Unified program

3.6 Recommendations for the Gulf Coast Market

The two Scenarios presented in this analysis illustrate the opportunity for consolidation anchored by the fundamental measurement of capacity. The analysis finds that the *current* performance of Keesler and VAMC Biloxi indicates that these facilities are independently well positioned to meet the demand of their respective populations without an excessive surplus of capacity. However, if immediate consolidation was required, these two Federal providers could merge medical/surgical care in a status quo environment (i.e., current operations) without jeopardizing the existing mix of services, access to care and/or the recurring costs of delivery. This analysis justifies the need to explore a future delivery model of centralized acute care services in Biloxi, MS. The following two specific (and one general) recommendations are offered:

Mitretek recommends that DoD and VA establish a joint task force in the near term to move forward with an in-depth operational and facility assessment that includes a future consolidated model of Medical/Surgical care in Biloxi based on the present and projected demand of the beneficiaries.

This effort should set aside the uncertainty of policy-oriented issues such as BRAC and/or integration of GME programs. The detailed analysis should exhaust all avenues in terms of care delivery models with patient demand/health care needs as the central driver. Facility-specific considerations should be secondary in this planning process.

Mitretek recommends the VHA refrain from drawing any conclusions (and retract any offered) until a detailed reexamination of the Keesler alternative with DoD representatives is conducted.

VHA recently released the Realignment Study for VISN 16, which through a cost/benefit analysis of several alternatives concludes that all services currently offered at the BMC Gulfport be moved to VAMC Biloxi. This "preferred alternative" would allow for the "prediction of the outcomes for veteran patient services in a single consolidated location, to produce a single standard of care."[49] A separate alternative included a "sharing agreement for provision of clinical services with Keesler" which was "retained as local command support for sharing may change again during the CARES process."[50] The current direction of this VHA study signals a lack of collaborative planning on the part of both Departments.

Mitretek recommends the VHA refrain from drawing any conclusions (and retract any offered) until a detailed reexamination of the Keesler alternative with DoD representatives is conducted. The current preferred alternative includes renovation of 123,000 DGSF and new construction of 155,000 DGSF with total capital costs of approximately $30M.[51] In concert with the methodology presented, Mitretek feels it is premature to draw conclusions without assessing a consolidated delivery model for duplicated services between DoD and VA given the remarkable proximity of these three facilities.

Mitretek recommends that the organizations continue to consider, plan for, and act on most of the identified opportunities in the Market.

[49] Narrative component of VHA Realignment Study, VISN 16, November 21, 2003; p. 18.
[50] Realignment Study, p. 18
[51] Realignment Study, pgs. 4 and 8.

These opportunities identify the present avenues for improving care delivery to military and veteran beneficiaries residing in the Market. All such actions should proceed from a deliberate joint planning process.

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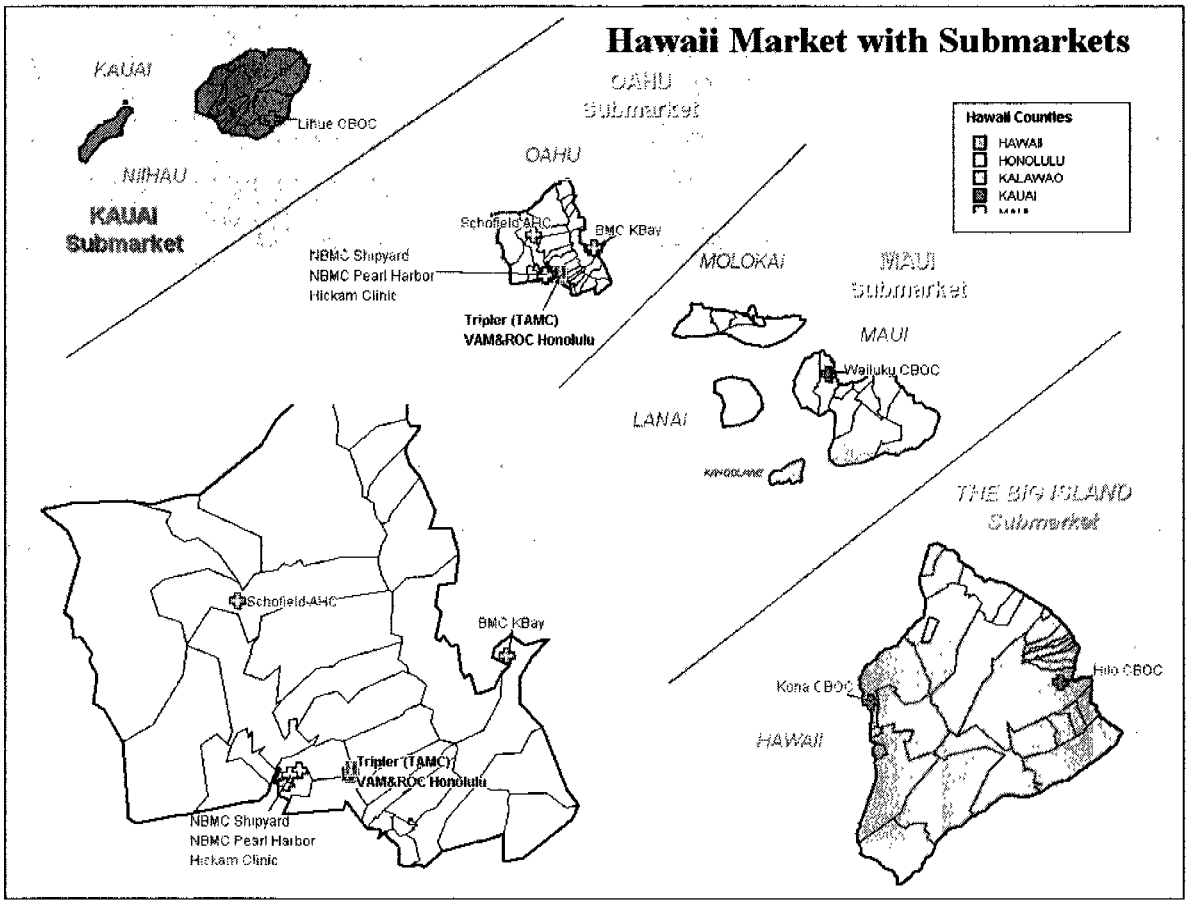
HAWAII MARKET ASSESSMENT

4 MARKET ASSESSMENT- HAWAII MARKET

A goal of this study is to view the market area from the perspective of the Combined Beneficiary[52], rather than from the perspective of the System delivering the care. Thus, the market has been divided into four submarkets—based on geography rather than existing care delivery models: Kauai, Maui, Oahu, and The Big Island. These are displayed in the map below.



The Hawaii Market area for this Study consists of 15 DoD and VA facilities—1 hospital and 10 outpatient centers (plus four active-duty-only facilities). The facilities include:

Table 76: Study Market Area Definition for Hawaii

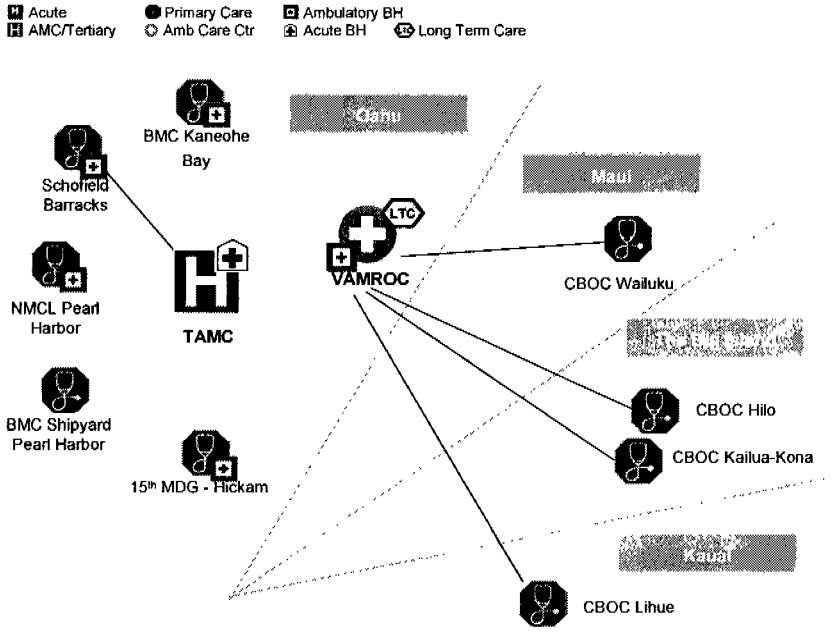
Submarket	County	DoD Facilities	VA Facilities
Oahu	Honolulu	– Tripler AMC – 15th Med Group Hickam – BMC Kaneohe Bay – BMC Makalapa – BMC Pearl Harbor Naval Shipyard – Schofield Barracks	– VA Medical & Regional Office Center – Honolulu (VAMROC)

[52] See the Introduction of this Appendix for a definition of Combined Beneficiary.

Submarket	County	DoD Facilities	VA Facilities
Maui	Maui		– Wailuku CBOC
Kauai	Kauai		– Lihue CBOC
The Big Island	Hawaii		– Hilo CBOC – Kailua-Kona CBOC

The Submarkets and their facility relationships are illustrated below.

Table 77: Hawaii Submarkets and Facilities



4.1 Populations

4.1.1 Eligible Population

The Hawaii Market Area has approximately 248,500 eligible Combined Beneficiaries—approximately 15,000 of which are "dual eligible" for both DoD and VA benefits. The eligible population is split almost evenly between DoD and VA—with 55% of the eligible population DoD. The Oahu submarket has 85% of the eligible population (as well as the majority of the treatment facilities)

In the Hawaii Market overall, 31% of the DoD 142,000 eligible population are Active Duty, 42% are Active duty family members, 10% are Retiree, 16% are Retiree Family Members. This is a different profile than the Puget Sound and Gulf Coast Markets, where 20% of the eligibles are Active Duty, 26-28% are Active Duty Family Members , about 20% of Retirees and about 30% are Retiree Family Members. Of the 116,000 eligible Veterans, 64% are Priority Group 8 and 18% are Priority Group 5. The rest are spread with about 3-5% each in the other Priority Groups.

4.1.2 Enrolled Population

The enrolled population of Veterans in the Hawaii Market (29,600) equaled 25% of the eligible population. The number of enrolled DoD exceeded the number of eligible DoD on average. However, it is mostly driven by Oahu—where the number of enrolled is 145% of the number of eligible. In the other Submarkets, the number of enrolled is equal to less than 20% of the number of eligible. (Note that for DoD there are actually more enrolled than eligible—because DoD beneficiaries can be enrolled in a facility outside the Market area).

Below are tables that display the enrolled population broken down by Priority Group and Beneficiary Category.

Table 78: VA Enrolled Population by Priority Group

1	2	3	4	5	6	7	8
3,794	2,957	5,298	337	7,890	283	617	8,448
12.8%	10.0%	17.9%	1.1%	26.6%	1.0%	2.1%	28.5%

Table 79: DoD Enrolled Population Beneficiary Category

Active Duty	Active Duty Family Members	Retiree	Retiree Family Members
62,007	117,769	8,311	15,625
30.4%	57.8%	4.1%	7.7%

4.1.3 Users

The number of Combined DoD/VA unique users of either the direct or indirect care system (net of dual users) equaled 88% of the combined enrolled population. The number of unique DoD users of either the direct or indirect care system (196,000) was equal to 96% of the DoD enrolled population, and the 16,000 unique VA users of either direct or indirect care equaled 55% of the

VA enrolled population. Indirect care is Purchased Care for the DoD and Fee Basis Care for the VA. The relationship of VA user to VA enrollees is much lower in Hawaii than in the other Markets (where it is 69-77%).
In the DoD, 31% of the total users accessed indirect care. In the VA only 18% used indirect care. For *direct* care, 4% of users were dual users (used both systems).

4.2 Workload

4.2.1 Inpatient: Direct Care

Residents of the Hawaii Market area consumed about 13,700 discharges and about 60,600 inpatient days of direct care in Medicine (including Rehab), Surgery, Behavioral Health (including Substance Abuse), and Ob/Newborn (Post Partum and Nursery days both counted). These volumes include out-migration, but exclude purchased care and extended care.

Direct care discharges for this type of care varied by Beneficiary Group. If Veterans are excluded from the DoD volume, 62% of discharges were consumed by Active Duty Family Members, 22% were generated by Active Duty, and 7% each for Retirees and Retiree Family Members. The data do not allow us to break down the Veterans admitted to Tripler by Priority Group.

Because most of the discharges and inpatient days are at Tripler, it is necessary to use the Patient Classification System to identify the Veterans (K-61) who generate workload at Tripler. These Veterans are not necessarily patients of or referred by the VA system. Using this methodology, it appears that 16% of the discharges and 34% of the direct care inpatient days generated by the residents of this market were Veterans. 84% of the discharges and 66% of patient days were DoD. 85% of direct care Behavioral Health days were generated by Veterans while 62% of total direct care Medicine days and 75% of the direct care Surgery days were generated by the DoD. Note that of the 9,500 Medicine days for DoD, 2,400 are Pediatrics.

As seen in the case mix table below, of direct care inpatient days generated by Combined Beneficiaries from this market, 25% were for Medicine (including rehab), 21% for Behavioral Health, 25% for Surgery and 28% for Ob/Newborn (post partum and nursery both counted). The case mix is different for the two Services. For the VA, 53% of its direct care days were for Behavioral Health and only 18% of its direct care days were for Surgery. This compares to 5% and 28% respectively for the DoD.

Table 80: Percent of Total Inpatient Days by Product Line and Service (Case Mix)

Product Line	DoD	VA	Total
Behavioral Health	5%	53%	21%
Medicine	24%	29%	25%
Surgery	28%	18%	25%
Ob/Newborn	43%	0%	28%
	100%	100%	99%

Totals are less than 100% due to rounding

Based on the enrolled populations of the two systems, and using the patient classification system to identify the Veterans using the DoD facilities, there are the following *direct care* use-rates per 1,000 enrolled. Based on the enrolled populations of the two systems, there are the following *direct care* use-rates per 1,000 enrolled. This means these use rates exclude the purchased care/fee basis care—so it reflects only the use of the MTFs and VA facilities. In the DoD, 31% of the total number of users in this market accessed the purchased care system—and those users' activity is not reflected in these use rates. (In the VA, 18% of total users accessed fee-basis care). Also, the inpatient days for the VA are skewed due to the high number of behavioral health days. Nonetheless, the table below shows clearly the difference in patient profile between the DoD and VA. The VA direct care use rates for patient care days are not very dissimilar from the other two markets. The Gulf Coast had higher Medicine Days use rates—but half of their days were Rehab.

Table 81: Percent of Total Inpatient Days by Product Line and Service (Case Mix)

Product Line	DoD	VA	DoD/VA Combined
Behavioral Health	9.68	364.50	54.73
Medicine	46.38	198.52	65.70
Surgery	55.90	125.37	64.72
Ob/Newborn	84.56		73.82
Total	196.52	688.39	258.97

Note that in addition to the workload described about, users from the Hawaii Market generated 138 Extended Care direct care discharges and approximately 13,800 Extended Care direct care inpatient days. It was noted during the site visits that access to long term care is a challenge for the VA.

4.2.2 Inpatient: Indirect Care

Indirect Inpatient care is measured in DRG's for both DoD and VA. Note that a lot DRGs were coded to 000—and that volume is categorized as "Other."

The DoD is the primary purchaser of indirect care in all Markets. Excluding "Other", the largest volume of indirect inpatient care is in Medicine and Surgery. When looking at the HCSR claim detail for DoD it appears that in the "Other" category, at least an additional 148 discharges were Medicine, 112 were Newborn, 128 were Behavioral Health, and 28 were Surgery (the remaining 700 discharges in "Other" could not be further classified). The average length of stay for all indirect care in this Market was 7.7 days. The indirect inpatient admission use rate per 1,000 enrolled beneficiaries was 8.4 for DoD and 11.7 for VA. The VA use-rate is almost 4 times higher than the other Markets.

The majority of the VA activity was for Priority Groups 1 and 5, and the majority of inpatient activity for the DoD was nearly evenly split between Active Duty Family Members, Retiree, and Retiree Family Members. When the DoD activity is broken down by age, it is revealed that 36% of the discharges were for people over the age of 65—most likely TRICARE for Life enrollees. This is different than in the other Markets, where at least 50% of the discharges were for people over the age of 65.

Table 82: Indirect Care Discharges

Product Line	DoD	VA	Total
Behavioral	21	48	69
Medicine	329	164	493
Newborn	8		8
Ob/Gyn	35		35
Surgery	215	70	285
Other	1,111	63	1,174
Total	1,719	345	2,064

Table 83: Indirect Care Days

Product Line	DoD	VA	Total
Behavioral	196	280	476
Medicine	2,818	905	3,723
Newborn	15		15
Ob/Gyn	104		104
Surgery	1,225	685	1,910
Other	9,199	383	9,582
Total	13,557	2,253	15,810

Table 84: Indirect Care Discharges by Beneficiary Category and Priority Group

Beneficiary Group	Discharges	% of respective system
None provided	2	1%
PG 1	131	38%
PG 2	30	9%
PG 3	22	6%
PG 4	27	8%
PG 5	127	37%
PG 6	3	1%
PG 7	3	1%
Pg 8	0	0%
Subtotal	345	100%
Active Duty	142	8%
Active Duty Family Members	619	36%
Retiree	422	25%
Retiree Family Members	536	31%
Subtotal	1,719	100%
Total	2,064	

Table 85: DoD Direct Care Discharges by Age

Product Line	0-17	18-44	45-64	65+	Total
Behavioral	1	11	4	5	21
Medicine	56	37	37	199	329
Newborn	8				8
Ob/Gyn	3	26	4	2	35
Surgery	5	54	30	126	215
Other	308	315	193	295	1,111
Total	381	443	268	627	1,719
	22%	26%	16%	36%	100%

4.2.3 Outpatient: Direct Care

Residents of the Hawaii Market area generated nearly 1 million direct care visits. This activity includes visits to providers, diagnostic departments (such as lab and x-ray), therapeutic departments (such as radiation therapy, physical therapy), and emergency departments, and includes out-migration. When some specialties such as optometry, dental, audiology, ED, diagnostics and therapeutics are excluded (in order to focus mostly on medical/surgical ambulatory provider activity), there were about 800,000 direct care ambulatory visits to providers in Behavioral Health (including substance abuse), "Distinctive Programs" (such as Underseas Medicine & Flight Medicine), Medical Specialties (including rehab), Ob/Gyn, Surgical Specialties, and Primary Care.

The following observations focus on the 800,000 non-diagnostic and non-therapeutic visits. Of this, 87% (or about 691,000 visits) were DoD and 13% were VA. The majority of all visits in any Product Line were generated by the DoD. This profile is quite different from the other two Study Markets, where roughly 30% of Behavioral Health, 70% of Surgical Specialty and 60% of Medical Specialty direct care visits were DoD.

Table 86: Workload by Product Line

Product Line	DoD	VA	Total	% DoD	% VA
Behavioral Health	88,684	31,750	120,434	74%	26%
Distinctive Programs	15,311	0	15,311	100%	0%
Medical Specialty	84,222	16,932	101,154	83%	17%
Ob/Gyn	73,278	0	73,278	100%	0%
Primary Care	355,502	55,542	411,044	86%	14%
Surgical Specialty	74,216	2,533	76,749	97%	3%
Total	691,213	106,757	797,970	87%	13%

As seen in the case mix table below, of the subset of direct care outpatient visits described above generated by Combined Beneficiaries from this market, 52% were for Primary Care (which includes Internal Medicine, Pediatrics, Family Practice, and VA Women's Health), 15% for Behavioral Health, 10% for Surgery/Surgical Specialties, 13% for Medical Specialties, and 9% for Ob/Newborn. Note that the case mix for DoD and VA are fairly similar—except for Behavioral Health.

Table 87: Percent of Total Ambulatory Visits by Product Line and Service (Case Mix)

Product Line	DoD	VA	Combined
Behavioral Health	13%	30%	15%
Distinctive Programs	2%	0%	2%
Medical Specialty	12%	16%	13%
Ob/Gyn	11%	0%	9%
Primary Care	51%	52%	52%
Surgical Specialty	11%	2%	10%
	100%	100%	100%

Totals exceed 100% due to rounding

Direct care use rates per 1,000 enrolled population also show that the VA enrolled population uses the direct care system at about the same rate as does the DoD. This is different than the other two Study Markets, where the VA had much higher use rates than the DoD. In Hawaii, the VA has lower direct care use rates than in the other Markets (3,600 per 1,000 compared to 4,600 in Gulf Coast and 4,800 in Puget Sound). Also in Hawaii, the DoD has higher direct care use rates than the other Markets (3,400 per 1,000 compared to 2,600 in Gulf Coast and Puget Sound). This is most likely related to the use of indirect care: the percent of DoD users who accessed purchased care was lower in the Hawaii Market than the other two Markets. Likewise, the percent of VA users who accessed fee basis care was higher in Hawaii.

Table 88: Direct Care Outpatient Visit Use Rates per 1,000 Enrolled Population

Product Line	DoD	VA	Total DoD/VA
Behavioral Health	435	1,072	516
Distinctive Programs	75	0	66
Medical Specialty	413	572	434
Ob/Gyn	360	0	314
Primary Care	1,745	1,875	1,762
Surgical Specialty	364	86	329
Total	3,393	3,604	3,420

When viewed from the perspective of the *facility* (rather than the market), the facilities in the Gulf Coast Market saw more than 1.1 million direct care visits to providers, diagnostics, therapeutics, and emergency departments—including in-migration from other markets. Thirty-eight percent of the total outpatient activity supported by the facilities in the market was Primary Care, 19% was Medical Specialty (including Rehab), 12% was Behavioral Health, and 14% was "Outpatient Specialty" (a combination of dental, optometry, audiology, geriatrics, emergency department, home care and nutrition).

The greatest amount of activity was in the Clinical Service Lines of Internal Medicine (189,000 provider, diagnostic, and therapeutic visits), Family Practice (143,000 provider, diagnostic, and therapeutic visits), Mental Health (103,000 provider, diagnostic, and therapeutic visits), and Rehab (112,000 provider, diagnostic, and therapeutic visits). These four Clinical Service Lines represent nearly 50% of the total activity provided by the facilities.

The combined workload of all the facilities in this market is distributed as follows:

Table 89: Activity by Facility

Facility Name	% of workload
Tripler AMC	49%
Schofield Barracks	12%
VAMROC	10%
NMCL Pearl Harbor	10%
15th Med Group Hickam	5%
BMC Kaneohe Bay	4%
BMC Pearl Harbor	3%
CBOC Hilo	1%
CBOC Kailua-Kona	1%
CBOC Lihue	1%
CBOC Wailuku	1%

4.2.4 Outpatient: Indirect Care

A description of the outpatient indirect care activity is described in much more detail in a later section of this report. Below is a display of outpatient activity by Beneficiary Category/Clinical Service Line.

Table 90: Outpatient Indirect Care by Beneficiary Category

Beneficiary Group	Total	% of respective system volume
None noted	77	0%
PG 1	12,019	43%
PG 2	2,026	7%
PG 3	2,618	9%
PG 4	1,097	4%
PG 5	8,399	30%
PG 6	46	0%
PG 7	113	0%
PG 8	1,422	5%
Subtotal	27,817	100%
AD	6,807	4%
ADFM	79,543	47%
RT	31,378	18%
RTFM	52,569	31%
None Noted	26	0%
Subtotal	170,323	100%
Total	198,140	

4.3

4.4 Supply

4.4.1 Key Productive Spaces

Within a complex hospital, there are only a few areas that generally are considered the key productive spaces. Although the hospital provides a wide range of services, the major drivers of space and capacity tend to be inpatient beds, outpatient exam rooms, operating rooms, and diagnostic imaging equipment. As stated previously, in order to facilitate investigation of sharing opportunities, the two Departments should work diligently to develop standards and definitions for measuring the supply of these spaces and converting them into capacity

Since both the DoD and VA use 85% inpatient bed occupancy as a planning standard for Medical/Surgical beds, and 65% occupancy is a commonly accepted high level critical care standard, this Study did an initial assessment of Medical/Surgical, Psychiatry, and Critical Care bed capacity versus demand. The market has 190 staffed beds and 223 available beds in these categories. In 2002 Tripler had a weighted average staffed-bed occupancy of 63%.

Table 91: Productive Spaces

Market	Facility Name	Unit Type	2002 Acute Care Patient Days (Non-OB) Workload	(1)Patient Days Capacity (Staffed Beds) 85%/65%	(1) Patient Days Capacity (Available Beds) 85%/65%	Weighted Occupancy Target	(2)Actual Occupancy (Staffed Beds)	(2) Actual Occupancy (Available Beds)
Hawaii Total	Tripler AMC	Med/Surg	32,584	47,724	56,575	0.82	58%	47%
	Tripler AMC	DoD IP Psych	2,054	4,654	4,654	0.85	38%	38%
	Tripler AMC	VA IP Psych (3)	8,799	6,205	6,205	0.85	121%	121%
	Hawaii Total		43,437	58,583	67,434		63%	53%

Notes:
(1) Capacity based on bed counts provided from surveys and site visits. Capacity is bed count x 365 x 85% for Medical/Surgical regular, telemetry, and psych or 65% for Critical Care
(2) Actual occupancy is calculated as 2002 workload/(365*beds). (It does not first reduce capacity by 85% or 65% as in the capacity calculations). Current beds counts (used for "capacity") might be slightly different than bed counts in 2002 (data used for workload). Weighted occupancy target based on % of staffed beds that are regular/telemetry versus critical care. Patient Days exclude OB, Nursery, Rehab, Extended Care, Rehab, SCI. Patient days include in-migration. Patient Days exclude observation care. Med/Surg is combination regular, telemetry, and critical care. Tripler staffed ICU beds (5) seemed to be an error, so weighted occupancy target is based on available beds rather than staffed
(3) Tripler VA Psych days are a sum of the days that show up in VA and as Vets (K-61) in the DoD data

Facility Condition

Since TAMC recently completed a facilities master plan, architects and engineers from the project team did not complete cursory evaluations of the major clinical buildings in the Hawaii Market (as was done in the other Markets). However, some summary level information about Tripler is in the Attachment to this Appendix.

Access

Drive time analysis in Hawaii is limited to drive time within each island. In Oahu, all enrollees are within 60 minutes of a facility within their system. In the other Submarkets, only the VA beneficiaries are within 60 minutes of a facility. Although the DoD population in the other Submarkets is small, opening the VA to these beneficiaries would improve their access.

Costs

The total costs that were incurred by DoD and VA in FY02 to fund the care required by the Hawaii study market beneficiaries represent the current baseline total annual system costs for the Hawaii market. This is the annual cost required to fund the care provided to the Combined Beneficiary population in the Hawaii study market and includes all direct care provided directly by DoD and VA facilities as well as indirect care purchased by DoD and VA for these beneficiaries. The baseline cost performance for the Hawaii study market is illustrated in the table below.

Table 92: Costs in the Hawaii Market Area

Baseline Total Annual Cost to Deliver Care to DoD and VA Beneficiaries in Reside in the Hawaii Market (FY2002)			
	HAWAII COSTS BY AGENCY		
Cost Figures in Thousands ('000s)	DoD	VA	Total
In-Market Direct Care Provided			
Inpatient Care	93,149	11,253	104,402
Outpatient Care	153,434	49,457	202,891
Total In-Market	246,583	60,710	$ 307,293
Out-Migration (Direct Care Provided Outside Market)			
Inpatient Care	1,789	669	2,458
Outpatient Care	3,833	490	4,323
Total Out-Migratio	5,622	1,159	$ 6,781
Non-Direct Care (Purchased/Fee Basis Care)			
Inpatient Care	7,606	2,899	10,505
Outpatient Care	23,609	1,725	25,334
Total Non-Direct	31,215	4,624	$ 35,839
Total Delivery Costs			
Inpatient Care	102,544	14,822	117,366
Outpatient Care	180,876	51,672	232,548
TOTAL	**283,420**	**66,493**	**$ 349,913**
Total Delivery Costs per Enrollee and per User *(Per Capita Cost Figures are NOT in Thousands)*			
Total Enrollees (1)	203,712	29,624	233,336
Total Cost per Enrollee	*$ 1,391*	*$ 2,245*	*$ 1,500*
Total Market Users (1)	197,754	22,998	220,752
Total Cost per User	*$ 1,433*	*$ 2,891*	*$ 1,585*

(1) Market enrollees and market users for FY2002 extracted from the Joint Assessment Study Series 4 Database

The Hawaii study market current baseline annual costs summarized above provides a high level perspective of the total costs for delivering inpatient care and outpatient care, in the aggregate for the entire study market. These inpatient and outpatient costs can also be broken down by Product Line as illustrated in the tables that follow.

Table 93: Costs by Product Line

Baseline Total Annual Cost to Deliver Inpatient Care to DoD and VA Beneficiaries in Reside in the Hawaii Market (FY2002)

Figures in Thousands ('000s)	Direct Care In-Market			Direct Care Out-Migration			Non-Direct (Purchased) Care			FY 2002 Total		
	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total
Hawaii Inpatient												
Medicine (1)	25,660	5,615	31,275	1,073	-	1,073	2,650	1,164	3,814	29,383	6,779	36,162
Surgery	35,722	12	35,734	513	-	513	292	-	292	36,527	12	36,539
Ob/Newborn	23,974	-	23,974	123	-	123	923	1,226	2,149	25,020	1,226	26,246
Behavioral Health	7,793	5,626	13,419	80	669	749	1,561	160	1,721	9,434	6,455	15,889
Unknown/Other	-	-	-	-	-	-	2,180	349	2,529	2,180	349	2,529
Total	**$93,149**	**$11,253**	**$104,402**	**$1,789**	**$669**	**$2,458**	**$7,606**	**$2,899**	**$10,505**	**$102,544**	**$14,822**	**$117,366**

(1) Includes Extended Care for VA Direct Care In-Market

Baseline Total Annual Cost to Deliver Outpatient Care to DoD and VA Beneficiaries in Reside in the Hawaii Market (FY2002)

Figures in Thousands ('000s)	Direct Care In-Market			Direct Care Out-Migration			Non-Direct (Purchased) Care			FY 2002 Total		
	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total
Hawaii Outpatient												
Primary Care	51,057	10,415	61,472	1,536	74	1,610	2,040	38	2,078	54,633	10,528	65,161
Ob/Gyn	11,719	-	11,719	125	-	125	418	-	418	12,262	-	12,262
Medical Specialty	25,902	6,514	32,416	528	55	583	1,100	1,140	2,240	27,530	7,709	35,239
Surgical Specialty	22,658	718	23,376	429	104	533	7,119	355	7,474	30,206	1,177	31,383
Behavioral Health	17,246	8,792	26,038	240	25	265	134	25	159	17,620	8,843	26,463
Other Outpatient	24,852	23,017	47,869	975	231	1,206	1,200	167	1,367	27,027	23,416	50,443
Extended Care	-	-	-	-	-	-	11,598	-	11,598	11,598	-	11,598
Total	**153,434**	**49,457**	**202,891**	**3,833**	**490**	**4,323**	**23,609**	**1,725**	**25,334**	**180,876**	**51,672**	**232,548**

The cost data available for the Hawaii market can be used to calculate the current baseline cost performance for specific sub-segments of each study market, such as select geographic submarkets, for select beneficiary populations, and for select Product or Clinical Service Lines.

4.5 Findings from the Application of the Study Methodology to the Opportunity to Recapture Indirect Care

The geography of the islands and the distance from the mainland makes out-migration to other DoD or VA facilities less feasible than in other regions. Thus, in situations where the existing DoD or VA facilities cannot provide care, the Departments must purchase the needed care from the private sector.

As stated in other sections of this report, there are opportunities for the DoD and VA in Hawaii to improve their performance in clinical and business processes: coordination of care, utilization review, and clinical resource management. In purchased clinical services where there are high volumes, complaints about poor access, and/or high costs, the two Systems could work together to recruit specialists to serve the Combined Beneficiaries in Hawaii.

As an attempt to gauge the amount of care that is provided by non-federal providers, Mitretek Systems analyzed the outpatient indirect care for the DoD and VA in Hawaii. The level of detail in available in this report *highlights* the levels of activity—but more analysis would be required in order to isolate volume for the purposes of physician planning.

Table 94: Outpatient Indirect Care Volume by Product Line

Product Line	DoD	VA	Total
Behavioral Health	14,808	602	15,410
Medical Specialty (incl. rehab)	33,256	19,240	52,496
Ob/GYN	5,074	0	5,074
Outpatient Specialty	8,469	45	8,514
Primary Care	93,360	1786	9,5146
Surgical Specialty	15330	6170	21500
Total	170297	27843	198140

Note: much of the DoD Primary Care activity is from the managed care support contracts for this service[53]

When broken down by Clinical Service Line, there are some specialties where the combined indirect care activity of the two systems might be sufficient to employ a physician jointly in order to improve access for their beneficiaries. Due to the way the data are grouped, much of this "specialty" volume might actually occur in the offices of internal medicine practitioners—particularly for the VA. However, the magnitude of the visit activity in these Clinical Service Lines makes them worthy of additional research. Some of the highest volume Clinical Service Lines include:

Table 95: Outpatient Indirect Care and Direct Care Activity by Selected Clinical Service Line

Clinical Service Line	DoD Indirect Volume	DoD Direct Volume	VA Indirect Volume	VA Direct Volume	Dod % of Total That Is Indirect	VA % of Total That Is Indirect
Cardiology	3,233	17,271	3,610	877	16%	80%
Gastroenterology	2,840	4,438	2,038	2,174	39%	48%
Nephrology	821	7,027	3,797	299	10%	93%
Neurology	1,550		848	1,378	100%	38%
General Surgery	2,122	8,432	1,648		20%	100%
Orthopedics	3,318	31,806	2,474	2,143	9%	54%
Dermatology	3,163	10,837	350	777	23%	31%

It is interesting to compare the indirect care volumes to the direct care volumes in these Clinical Service Lines. In Cardiology, Nephrology, and Orthopedics, it is possible that the DoD could recapture their volume without additional providers, because the indirect care activity accounts for 16% or less of the activity. For the VA, however, indirect care accounts for nearly half or more of volume in all of these specialties (however, the specialty volumes for VA include activity that might have occurred with an internal medicine doctor). There is a combined volume of over 5,000 purchased visits in Gastroenterology—sufficient volume to jointly employ at least

[53] Managed care support contracts are risk contracts with civilian provider networks to compliment the healthcare services provided in the Military Treatment Facilities.

one physician. Note that for some Clinical Service Lines, such as Surgery and Neurology, 100% of the volume is indirect care for one of the Departments.

Much of the DoD activity is likely to be TRICARE for Life[54], presuming that most of the activities of patients over the age of 65 represent this category. Twenty-two percent of overall DoD activity is over age 65, and between 24-55% of the activity in the Clinical Service Lines above are over age 65.

It is also interesting to see that the DoD is purchasing the highest volume of care in Mental Health and in Rehab—traditionally two areas of clinical excellence for the VA. It could be worth evaluating whether the VA has capacity to service some DoD beneficiaries in these two services.

Table 96: DoD Outpatient Indirect Care in Select Clinical Service Lines

Clinical Service Lines	Volume
Mental Health	14,808
Rehabilitation	19,431

Overall, the outpatient indirect use rate of visits per 1,000 enrolled population is 836 for the DoD and 940 for the VA. The VA indirect care use rate is more than 60% larger in Hawaii than the other two markets. Of note, for inpatient activity, the indirect inpatient admission use rate per 1,000 enrolled beneficiaries was 8.4 for DoD and 11.7 for VA. The VA use rate is almost 4 times higher than in the other Markets, but the DoD use-rate is 1/3 that of the other Markets. Given the geography of Hawaii, one would expect to see lower indirect care rates than in other Markets since the majority of the population in Hawaii lives near the federal facilities (making access easier/quicker) and there are fewer alternatives for private care in the other islands. If the two Departments work closely to analyze the volume and type of indirect care activity, they might consider joint recruitment in key specialties. As will be discussed in the next section, there is opportunity for DoD and VA in this Market to enhance their collaboration in business processes and leadership/governance. Physician resource management is affected by both of these domains of collaboration and could serve as excellent next step in coordination of efforts.

4.6 Findings from the Assessment Applying the Collaboration Framework

Mitretek found the examination of the of the Hawaii market to be highly instructive in understanding the many dimensions (opportunities and challenges) of collaboration and in aiding the evolutionary development and application of the Study methodology. These dimensions are briefly described below.

The Hawaii market has a history of DoD and VA sharing in various ways over a period of decades. Significantly, a close physical and organizational bond emerged in the mid to late 1990's when the VA, in critical need of replacing obsolete facilities at its downtown Honolulu locations and in serious need of gaining better access to inpatient and specialized care for veterans, moved to The Tripler Army Medical Center site. DoD and VA in cooperation, developed four major capital projects: The Ambulatory Care Center (ACC), The Center for Aging, (CFA), a Parking Garage, and a lease arrangement that placed VA administrative

[54] TRICARE for Life: New benefits (October 1, 2001) for Medicare-eligible uniformed service retirees (and Medicare-eligible family members). TRICARE is a secondary payer to Medicare.

functions in an entirely renovated wing of the hospital. This transition has been hailed as a major accomplishment and is credited with saving tens of millions of taxpayer dollars in comparison with the alternative of the VA separately building facilities in other locations.

At the time of the first site visit, Mitretek learned of many organizational accomplishments that have occurred in recent years. For example, the DoD and VA have together developed a master sharing agreement that affects more than 25 distinct functions (annexes) and describes policies and procedures used to manage the arrangements. Interviewees frequently cited examples of existing successful shared arrangements to include:

- Emergency Room
- Inpatient Medical Surgical Care (including shared use of hospitalists)
- Inpatient psychiatry
- Dietetics
- Physical plant – housekeeping, security, and plant maintenance.
- The active development of a shared telehealth program (called The Pacific Telehealth Hui).

TAMC and VAMROC officials maintain records on sharing activities and noted that in FY02, reimbursement exchanges between the two organizations totaled approximately $18M for medical care and $15M in administrative services. These figures are significant but relatively small in comparison with the combined cost of care rendered to beneficiaries who reside within the market.

First Round Site Visits

Interviews during the first site visits also uncovered a number of issues, concerns, and challenges facing DoD and VA staff as they attempt to address the broad subject of sharing within the Hawaii market. Examples of these include:

- IM/IT incompatibilities are an issue for almost everyone.
- Apparently high support for collaboration at both the national and local levels, but significant breakdowns as decisions move up the chain of command.
- The need for single point responsibility.
- Lack of access to investment in collaborative initiatives and the need to pool financial savings to support other initiatives.
- Significant gap between national, regional, and local leadership (and the front line) related to vision, strategy, and expectations.
- Major differences in the use of language and terminology – Is the goal to cooperate, integrate, consolidate? – What do these terms really mean?
- Mixed feelings regarding whether or not momentum has been lost.
- Different views regarding how the relationship should be structured.
- Strong views on the impact and significantly different missions and culture of the two organizations has on collaboration efforts.
- Much too much time pursuing authorizations and reimbursement.
- Huge need for common policies and standards
- Different medical staff and credentialing processes.
- Frustrations with the lack of useful databases and terminology.

The site visit also revealed that, while there were examples of demand/supply imbalances, most individuals regarded these as subordinate and peripheral to other more compelling sets of issues noted above.

The interview process also uncovered a multitude of opportunities that may be pursued. Some of these relate to continued action or improvement on things that TAMC and VAMROC are already doing; others relate to ideas being planned or in process (such as development of ways to integrate Clinical Service Lines within the Department of Medicine). Additionally interviewees identified many ideas on new actions or activities that the DoD and VA could pursue in the future. (The critical questions on the table were: Which of these initiatives should be preserved? Who is making these decisions? Who is going to be held accountable?)

The field visits further revealed that DoD and VA officials on the Islands were interested in exploring completely new paradigms for improving their relationships and in serving common patient needs located throughout the Western Pacific region. Moreover, leadership had in fact conducted a planning retreat that described a proposed vision or end state that would have TAMC and VAMROC become an integrated academic health care system with one budget, one information system, one Graduate Medical Education program, one research program, one logistic system, and one standard of care etc. Additionally, the leadership of the two organizations wished to develop plans to explore, develop, and fund these notions. DoD and VA officials hoped the Joint Assessment Study could aid in moving the organization forward in these endeavors

Relationship Grid

The relationship assessment tools highlight the many complex issues in sharing and collaboration. The Relationship Continuum Grid for Hawaii highlights the following:

Patient care/clinical/workloads – The assessment involving TAMC and VAMROC indicated that the two organizations are largely Connected for outpatient services and Integrated for inpatient services. Participants emphasized that further analysis of patient care activities by Clinical Service and/or Product Line is possible and would be necessary to depict the true picture of the relationships existing within the patient care domain. Moreover, the patient care/clinical workload are often "constants" in any collaboration or sharing initiative in that they are really the motivating force behind most ideas. In a sense, the other collaboration domains are in service of this domain when talking about the common patient care mission of the two organizations.

Facilities – Participants described their facilities as Connected but not Integrated which reflects how facilities on the site were developed. Clearly, acquisitions of certain equipment and development of facilities should continue to flow from joint capital planning.

Staffing –DoD and VA leadership speak of collaboration on staffing as Integrated, citing many examples such as the joint hospitalist program. At the same time, concerns about recruitment and retention of scarce physician and technical/professional services prompt leadership to recognize that collaboration on staffing can be greatly improved and will require detailed attention to human resource policies, procedures, and practices.

Business and clinical processes – Participants assessed these processes as, at best, Coordinated. For the most part, they are different and supportive of the separate work of the two organizations reflecting entirely different accounting, fiscal, admission/discharge, medical records, and utilization management systems. Actions to improve collaboration in this domain should be a primary focus of the forthcoming Smith Amendment demonstration project.

Management and Governance – Participants scored the domain of Management and Governance as Coordinated, noting that DoD and VA already have two layers of structure in place: an Executive Management Board and a Joint Venture Steering Group. Generally participants regard historical organizational relationships as too often focused on reimbursement matters and the input of the Joint Assessment Study process (both quantitative and qualitative) was helpful in orienting the teams longer range strategic matters as well as continuing to deal with ongoing daily operational concerns.

IM/IT – Participants scored this area as Coordinated, although most participants are highly critical of the lack of interoperability between information systems at the local level. While attainment of this objective will flow from national IM/IT initiatives, the two departments expect to continue to devise ways to communicate electronically in as many areas and activities as possible.

Logistics- The participants scored this area as Coordinated and it is regarded as dependent on national direction.

Education and Training – Participants scored their relationship in this domain as Connected, citing shared access to education programs and use of classroom facilities. There are attempts at collaborating on GME efforts but the programs are largely distinct. Most parties see advantages in improving the triangular relationship between the VA, DoD and the University of Hawaii.

Research – Both the DoD and VA have active research programs which are Separate; each has its own funding sources, which tend to follow different protocols. Participants speak of the ideal state being a unified research capability and the federal approval to construct a single bio-medical research facility on the Tripler campus.

Table 97: Tripler and VAMROC Relationship Continuum Grid

Domain	Separate	Coordinated	Connected	Integrated	Consolidated
Clinical Workload	Insignificant referrals	Regular communications	High numbers of referrals Outpatient	Significant number of referrals as one Inpatient	Full sharing & management of all patients
Facilities	Distant	Some sharing where duplica-tion exists	Projects & facilities come from master planning	Many departments share space	One facility or set of facilities
Staffing	Distinct	Support in peaks and valleys	Joint staff planning	Multiple examples of single/joint staffing	Single staffing
Business Processes	Different	Reduce barriers	Work flows understood & acted on	Transparent	Single system
Management/ Governance	No Relation	Joint planning sessions	Overlap of key functions	Overlap of key functions	One governance body, management structure
IM/IT	Separate systems	Evidence of "E" exchange of info	Moving toward systems interface	Complete interoperability	One system
Logistics	Little if any exchange	Borrowing, bartering and contractual exchange	Mutual examination of best pricing and service	Selective joint contracting of major areas of procurement	One supply chain
Education & Training	Distinct	Selective exchange of methods	Frequent use of joint programs and curriculum	Most programs and curriculum are same/similar	Unified curriculum
Research	Distinct	Selective exchange of protocols	Joint planning and review of many studies	Significant overlap of protocols and review	Unified research

4.7 Recommendations for the Hawaii Market

Mitretek recommends that the two Departments work together closely to analyze indirect care activity—especially in specialties where the combined volume could justify jointly employing a specialist.

During the site visits, the DoD and VA both expressed need for additional specialists—particularly in Gastroenterology, Cardiology, and Dermatology. The Indirect Care analysis underscores the need to collaborate in physician recruitment and employment in these specialties. Mitretek recommends that the two Departments work closely to analyze the volume and type of indirect care activity—especially in specialties where the combined indirect care volume could justify jointly employing a specialist, such as Gastroenterology. This is particularly useful if DoD wishes to recapture the volume of TRICARE for Life enrollees.

For most specialties, the two Systems should first determine whether there is excess provider capacity in either of the Systems.

For example, if DoD has excess capacity in a specialty, it should first attempt to recapture "leaking volume" to use up its capacity. If after recapturing volume, some excess capacity remains, VA could take advantage of this opportunity to reduce fee basis care.

Likewise, the Systems should identify and describe DoD indirect care activity for Mental Health and Rehab and determine whether DoD direct care system has capacity to recapture the purchased services. If so, the DoD should encourage beneficiaries to use the direct care system. If not, the Systems should determine whether VA has capacity to support some of the DoD's needs.

DoD and VA together should evaluate whether jointly employing specialists will help equalize availability and access.

Because of the dynamic nature of the deployment of DoD specialists, Mitretek recommends that DoD and VA together evaluate whether jointly employing specialists will help even out the availability and access.

Mitretek recommends that, using the Collaboration Framework, the two Systems continue to pursue the 50 plus opportunities identified during the site visit.

However, these efforts need to proceed in an orderly, systematic, and information-driven manner. Leadership of both organizations must remain visionary and revitalize formal joint strategy, business, and facilities planning efforts.

Attachments to the Puget Sound Market Assessment

1. Options for Sharing/Collaboration Identified
2. Functional Assessment Definitions
3. Functional Assessment Grid
4. Facility Condition Grid
5. Supply Counts

Options for Sharing/Collaboration Identified

There is a long list of potential sharing opportunities in this market—some of them involve small shifts of volume, while other require much more systematic change. The lists below are recommendations for further assessment—not recommendations for implementation. At the highest level there appears to be opportunity to rationalize and realign primary, specialty, and inpatient care. Overall, there is an opportunity to improve access for the Veterans while providing a more rich case mix of patients for the DoD.

Puget Sound Market: Summary Level Options for Further Analysis

- Rationalize Primary Care
    1. Open PC access across two systems
    2. Right-size capacity after Step 1
    3. Open new primary care access points (DoD/VA)

- Realign of Inpatient and Specialty Care
    1. Open MAMC to I/P VA, excluding behavioral health (underway)
    2. Open NH Oak Harbor to VA
    3. Open NH Bremerton to VA
    4. Open VAMC Seattle to DoD
    5. Right-size capacity after Steps 1-4

- Open Joint Ambulatory Care Center – South Market

- Assess the Department's current relationships on the "Relationship Grids" and determine whether there are opportunities to achieve better outcomes through different levels of sharing

Summary of General Collaboration Ideas and Opportunities by Category Drawn from Research and Market Site Visits: General

Listed below are examples and representations of joint collaboration/sharing ideas (needs, practices, policies, and plans or initiatives) and opportunities in the study markets. Key X=primary driver; O = secondary driver; all categories may be impacted

Opportunity	PT Care	Facilities	Staffing	Bus/Clin Proc	Gov/Mgmt	IM/IT	Logistic	Education	Research
Develop interoperable IM/IT system	X			O		X			
Coordinate GME training			O		O			X	X
Develop coordinated QM/QI functions				X					
Develop coordinated Utilization Management system				X					
Develop useful balanced scorecard of collaboration relationships				X					
Pursue coordinated offering of primary care	X		O						
Consolidate inpatient (M&S) services at one site	O	X							
Coordinate research programs			O					X	X
Develop comprehensive free standing VA/DoD Ambulatory Care Center (ACC)	X	O							
Consolidate Ancillary Services - Radiology/Imaging	X	O							
Consolidate Ancillary services - laboratory/pathology	X	O							
Coordinate placement of VA CBOCs with DoD	O	X							
Develop uniform approach to managing patient (medical records)				O		X			
Offer single VA/DoD pharmacy formulary	X			O			O		
Institute joint procurement of medical equipment							X		
Institute joint procurement of supplies							X		
Institute joint procurement of information technology systems (software and hardware)						O	X		
Develop coordinated clinical information systems				O		X			
Integrate Pharmacy services				O			X		
Offer telemedicine services radiology/imaging	X			O					
Offer telemedicine services mental health	X			O					
Offer integrated clinical programs - all specialties	X		O						
Share housekeeping							X		
Share laundry							X		
Share engineering and maintenance							X		
Create common management infrastructure					X				
Develop joint ambulatory surgery program	X	O							
Offer consolidated nutrition care services				O			X		
Share Audiology services	X	O							
Unify VA/DoD mental health services on one site	X	O							
Create joint hospitalist program	X								
Develop coordinated health education and training program			O					X	X
Develop comprehensive and coordinated long term care services and facilities	X	O							
Coordinate recruitment and retention of physicians	O		X						
Coordinate recruitment and retention of technical and professional personnel			X						
Develop shared family practice residency program	O							X	X
Coordinate delivery of joint substance abuse program	X								
Develop medical and surgical specialty residency program	X							X	X
Coordinate panel sizes and productivity standards				X				O	O
Implement common access (time distance waiting) standards	O			X					
Coordinate development of clinical practice guidelines				O				X	X
Develop common protocols for measuring and monitoring clinical outcomes data	X			O					
Consolidate unused space		X							
Create joint planning office					X				
Develop common health promotion and prevention program	X			O					
Develop compressive and coordinated cancer management program	X		O						
Establish uniform and coordinated approach to dealing with community hospitals				O	X				
Coordinate HR policies particularly pay scales			O	X					
Revisit and intensify joint disaster preparedness				X					
Implement joint transportation services							X		
Consolidate emergency room services and facilities	O	X							
Create joint float pools			X						
Develop and coordinate home care programs	X		O						
Jointly investigate new technology				O			X		
Share library resources							X		
Share education space		X						O	O
Other									

Source: Research and Site Visits

Summary of collaboration Ideas and Initiatives by hospital facility drawn from market site visits: Puget Sound

Listed below are examples and representations of joint collaboration/sharing ideas (needs, practices, policies, and plans or initiatives) and opportunities in the study markets. Key X= Identified opportunity based on interview data base

Opportunity	VAMC	MAMC	NHB	Oak Harbor
Develop Eldercare program with VA pts (AM Lakes)	X	X		
Pursue opportunity to accommodate additional capacity;				
- Family Practice		X		
- Cardiology/Pulmonology		X		
- Consolidate Cardiac Surgery Program	X	X		
Utilize capacity for additional inpatient workload		X	X	X
Develop uniform method of coding	X	X	X	X
Expand telemedicine (already have capability)		X		
- teleradiology		X		
- telepsychiatry		X		
- tele dermatology		X		
Provide additional imaging services (NM, CT, MRI, PET)	X			
Provide all services South of Federal Way (serving VA DoD patients)		X		
Expand ENT sharing program between MAMC and VA	X	X		
Develop joint (GME) psychiatry program between DoD and VA	X	X	X	
Expand and/or consolidate primary ambulatory care	X	X	X	X
Develop standards for sharing (logistics) and procurement (VA/DoD summit)	X	X	X	X
Coordinate sharing procurement at a national level	X	X	X	X
Pursue opportunities for sharing in key areas	X			
- acute care	X	X	X	X
- pharmacy	X	X	X	X
- logistics	X	X	X	X
- common IT	X	X	X	X
- rehab	X	X		
- radiation oncology	X	X	X	
- laboratory	X	X	X	
- fiscal	X	X		
- education and research	X	X		
Expand/formalize GME	X	X	X	
Develop coordinated HR and employee orientation and training	X	X	X	
Develop shared education and training facilities	X	X		
- develop computer lab	X			
Expand access to geriatricians	X	X		
Develop a true regional federal health care system	X	X	X	X
Develop formal IT planning (contracting) office to oversee contracts	X			
Consolidate CBOCs and BMC's into regional ambulatory care centers (ACC)	X	X	X	
Expand coordination of benefits	X			
Simplify tracking and billing of patient activity	X			
Institute a uniform beneficiary package for federal beneficiaries	X			
Absorb DoD mental health workload at VA American Lake	X	X	X	
Regionalize Special Programs for all beneficiaries	x			
- SCI	X			
- Bone Marrow	X			
- Blind Rehab	X			
Standardize pharmacy programs	X	X	X	X
Create a coordinated approach toward QM/QI processes (eg use of balance scorecard approach)	X	X		
Consolidate long term care at VA American Lake				
Pursue joint recruitment and training of staff and alignment of HR policies	X	X	X	X
Develop joint case management systems	X			

Source: Site Visits

DoD/VA Joint Assessment Study
Site Visit Database Summary
Market: Puget Sound
Submarket: Seattle
Facility: VA Puget Sound Health Care System
Interview Summary

General Statement: VA Puget Sound Health Care System, located in Tacoma at American Lake and in Seattle, on Beacon Hill, is the largest and most comprehensive VA facility in the region. VA Puget Sound provides care to more than 46,000 veterans each year, which equates to more than 11, 000 inpatient visits and over 500,000 outpatient visits. VA Puget Sound is the major referral medical center, serving veterans from Alaska, eastern Washington and Idaho. Referrals are also made from VA medical centers around the country for programs such as the spinal cord injury center of excellence, the bone marrow transplant unit and the residential blind rehabilitation unit. The Seattle Division is the major tertiary care facility including acute care, spinal cord injury unit behavioral health services as well as major outpatient programs. VA American Lake is located in Tacoma and was initially constructed during the 1920's. Current services include neuro-psychiatry, ambulatory services, a nursing home unit, blind rehabilitation services, substance abuse programs and homeless domiciliary care.

Organizational Relationships:
Puget Sound VA Medical System includes a tertiary care facility in Seattle and a facility at American Lake in Tacoma

Oversees
- Shoreline CBOC in Seattle
- Bremerton CBOC

Primary referral center for VISN 20
Major teaching affiliation with UW Medical School and affiliates with Madigan Army Medical Center to provide care to Veterans
Facility is staffed by 2 separate unions as well as GS employees

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Patient/Clinical Care		
Inpatient		
Medical/Surgical	• Inpatient units require additional support space • Insufficient bathing and toilet facilities • Many inpatient units are undersized and lack privacy	• Review inpatient sharing opportunities with DoD
Specialty Care		• Investigate opportunities for collaborative center of excellence programs

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Behavioral Health	• Reluctance to mix different (mental health) beneficiary populations	• Consider development of shared mental health programs in selected areas. • Develop strategies that address each populations need using shared resources
Extended Care	• Inadequate number of beds resulting in spillover to the private sector	• Evaluate need for additional beds in specified locations
Surgery		
Emergency Department		• Moving ER services from AL to Madigan
Outpatient		
Medical Specialties	• Insufficient space for current and projected future workload • Incorrectly located Primary Care • Current outpatient areas were formerly inpatient space and lack design characteristics that support outpatient care	• Develop plans that identify and resolve appropriate space required to add services • Review in context of master joint facility planning
Surgical Specialties	• Staff reported shortages in oncology, spinal cord injury and amputee programs and mental health • Insufficient space for current and projected future workload	
Behavioral Health	• Reluctance to mix different beneficiary populations	• Consider shared programs for outpatient substance abuse
Ancillary Services	• Seattle has 2 Linear Accelerators • Potential to develop a shared radiation program with DoD	• Need to determine site and organizational structure for possible shared radiation oncology service.
Management/Governance	• Different missions • Recognize that sharing must be a Clinical Service Line to Clinical Service Line basis	• Review range of opportunities • Develop coordinated strategic planning function serving (West

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
		Sound) VA and military beneficiaries.
Clinical/Business Processes	• Incompatible	• Review DoD and VA processes for compatibility
Facilities	• Severe space constraints limit sharing opportunities • Research and administrative functions take up clinical space • Location of services in multiple buildings • Many areas have not undergone recent renovation	• Evaluate options to add parking (garage?) • Sharing should be organized around major functions: acute care, pharmacy, logistics, IT, fiscal, education and research • Evaluate functions by location • Develop coordinated DoD/VA master facilities plan that considers reallocation and configuration of space to achieve improved facility use.
Staffing	• Facility is staffed by 2 separate unions as well as GS employees resulting in inconsistencies and conflicts within the system and had impact on ability to recruit clinical staff	• Investigate alignment of DoD/VA human resource systems
IM/IT	• Lack of coordinated or interoperable information system between DoD and VA.	• Develop integrated comprehensive information system for DoD/VA
Logistics	• Insufficient space for current Pharmacy demand • Insufficient Pharmacy waiting space within the facility • Little success in sharing due to lack of standardization • No formal process to share procurement activities • Lack of coordination at "higher" levels	• Potential for shared pharmacy services with DoD • Renew DoD/VA purchasing workgroup • Review "top to bottom" sharing opportunities
Education and Training	• VA MDs and UW faculty	• Create joint teaching

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	have the ability to expand GME and become a resource to DoD staff • Shared GME program would require development of a shared governance structure • UW is the primary affiliation with PSHCS. UW provides faculty and participation in the heart program. Need to determine the volumes and sources for cases	program to include DoD • Develop model for shared GME program • Enhance GME with collaborative agreement with DoD
Research	• Lack of coordination between DoD and VA research programs	• Develop shared research protocols

DoD/VA Joint Assessment Study
Site Visit Database Summary
Market: Puget Sound
Submarket: North
Facility: Naval Hospital Bremerton
Interview Summary
General Statement:
Naval Hospital Bremerton is a fully accredited hospital offering a wide range of inpatient, primary and specialty out patient services.
The hospital is the host facility for three branch medical clinics, Puget sound Family Residency Program, and the Fleet Hospital Bremerton
The Hospital serves an enrolled population of approximately 22,450.

Organizational Relationships:
Bremerton has relatively little interface with VA patients except for some support in pharmacy and imaging for the local CBOC.
The land and/or ferry access are distant from VAMC Seattle.
Most of the relationships are with Madigan. About 80 providers have dual appointments with Madigan for specialty coverage.
NH Bremerton supports 3 Branch Medical Clinics; BMC Everett, BMC Bangor, and BMC Keyport.
There are relatively few referrals to and from community hospitals
NH maintains a variety of sharing or affiliation agreements with DoD and non DoD organizations.

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Patient/Clinical Care		
Inpatient		
Medical/Surgical		• NH Bremerton has capacity to accommodate additional inpatient workloads
Specialty Care		
Behavioral Health	• Limited access and coverage for patients needing mental health services	• There is major opportunity for Mental health sharing with VA and other DoD organizations – perhaps with Madigan
Extended Care		
Outpatient	• Bremerton CBOC is	• Consider

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	in close proximity to the hospital	absorbing all Bremerton CBOC workloads
Medical Specialties		• Interviews report sharing opportunity for providing radiation oncology at Bremerton and with Madigan support.
Surgical Specialties	• Concerns expressed regarding adequacy of case loads to maintain skills.	• Revisit opportunities for VA referrals to NH Bremerton
Behavioral Health	• Limited access and coverage for patients needing mental health services.	• Major opportunity for Mental health sharing with VA and other DoD – perhaps with Madigan
Ancillary Services	• Lack of demand (radiology)	• Consider providing further lab and imaging service to local VA patients at NH Bremerton
Management/Governance	• Different missions • Recognize that sharing must be on a service line to service line basis	• Develop coordinated strategic planning function serving VA and military beneficiaries.
Clinical/Business Processes	• There are no consistent performance measures (VA or DoD or Army or Navy). • Different payment/reimbursement and funding systems • Address patient/staff	• Develop coordinated performance measures.

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	transportation system requirements • Different financial systems - make sharing difficult	
Facilities	• The Hospital was built in 1980 and contains approximately 254,000 square feet on eight floors. The ambulatory care center contains 55,000 square feet on three floors offering abundant natural light and views. • Base access can be a problem especially during times of elevated alerts although an innovative "vehicular triage system" has successfully been employed.	• Review master planning requirements
Staffing	• One of the biggest challenge that Bremerton faces deals with handling medical coverage during deployment of the Fleet Hospital such as occurred during the Gulf War. • Lack of physicians (e.g. radiology) DoD deployment and turnover • DoD deployment and turnover.	• Revisit all elements of physician recruitment and coverage requirements in concert with other DoD and VA facilities.
IM/IT	• Incompatible	• Develop single integrated and interoperable integrated information management

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
		system
Logistics		
Education and Training	• Management and handling of GME/relationship between UW/DoD/VA. • Volume of patient episodes necessary to meet GME accreditation	• Consider developing a coordinated plan for GME services with other DoD and VA facilities.
Research	• Incompatible	• Consider unified research requirements

DoD/VA Joint Assessment Study
Site Visit Database Summary
Market: Puget Sound
Submarket: North Sound
Facility: Naval Hospital Oak Harbor
Interview Summary
General Statement: NH Oak Harbor provides a wide array of inpatient and outpatient services to military beneficiaries residing in the North Puget Sound region.

Organizational Relationships:
Very little VA sharing-- Only pharmacy scripts.
Transfers made to local hospitals for CT, Nuclear Med and MRI
Serious cases medi-vac to Madigan, Bremerton and other private hospitals. Most are high risk pregnancies

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Patient/Clinical Care	• "Not sure how we should relate to VA except that it makes no sense for disabled vet to travel (to Seattle or elsewhere) for anything that can be done here." • The opportunities and capabilities for greater sharing /collaboration with private area providers are unclear	• Develop coordinated plan with VA to better serve veterans and military beneficiaries.
Inpatient		
Medical/Surgical		
Specialty Care		
Behavioral Health	• Biggest problem seems to be mental health coverage and this is cited as a concern of local veterans	• Develop plan for care of mental health patients in concert with VA and local hospital providers
Extended Care		
Outpatient		
Medical Specialties		
Surgical Specialties		
Behavioral Health	• Biggest problem seems to be mental health coverage and this is cited as a concern of local veterans	• Develop plan for care of mental health patients in concert with VA and local hospital providers
Ancillary Services	• Lack of imaging capabilities—depend on local hospitals.	• Develop coordinated plan with DoD and community hospital facilities.

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Management/Governance		
Clinical/Business Processes		
Facilities	• Facility challenges being addressed with proposed Milcon	
Staffing	• Staffing is sometimes a problem—often rely on contract services for physician coverage	• Revisit staffing opportunities
IM/IT	• Lack of coordinated IM/IT program	• Develop single integrated and interoperable integrated information management system
Logistics	• Distances from NH Bremerton make logistical sharing difficult	
Education and Training		
Research		

DoD/VA Joint Assessment Study
Site Visit Database Summary
Market: Puget Sound
Submarket: South Sound
Facility: Madigan Army Medical Center
Interview Summary
General Statement:

Madigan Army Medical Center serves as the specialty care and tertiary care referral center for all military installations in the Puget Sound area

- Army Hospital with strong affiliation with VA American Lake
- Has joint venture project in place
- Inpatient M/S moving from VA American Lake to MAMC

Hospital has 3 major components

- Bed tower
- Diagnostic and support areas
- Medical Mall

Organizational Relationships:

MAMC is an Army Hospital with a strong affiliation with VA American Lake.
Has joint venture project in place.
All VA emergency care will be provided at MAMC.
Inpatient M/S is scheduled to move from VA American Lake to MAMC in 2003.

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Patient/Clinical Care	• Access to base is a major barrier • Active duty staff has priority for care; others are triaged to the private sector if space or specialists are unavailable • Sharing agreement in place with VA for case management	• Revisit solutions to base access for non DoD patients
Inpatient	• Current Joint Sharing Agreements are in place	• Review sharing opportunities in family practice, all ancillary services, surgery and inpatient care
Medical/Surgical	• Cardiology • Capacity exists for invasive and non-invasive cardiology without addition of clinical staff;	• Consider shared program with VA and eliminate duplicative service; consider how to incorporate VA staff

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	some administrative support would be needed • Currently 2 cath labs do 950 cases. Benchmark is 1,000 per room in private sector. • Turnover of resident staff (every 28 days in cardiology) decreases efficiency	• Potential to add mid-level providers
Specialty Care		
Behavioral Health	• Willingness to combine DoD and VA patient population. Transfer would provide additional inpatient capacity for other inpatient services	• Review consolidation of MH services on one campus
Extended Care		
Surgical Services	• Current operational model indicates long case lengths which limits ability for throughput and increased volume. • Current volume of cardiac surgery is low at both MAMC and VA Seattlle. Both sites wish to retain program due to impact on other surgical specialties (e.g. for vascular surgery and back-up for cath labs)	• Potential to increase surgical case volume to 12,000 procedures per year using a conservative benchmark of 1,000 cases per room per year • Explore feasibility of combining cardiac surgery program with the VA program at one facility. Benefits would be consolidation of equipment and staff and improved quality outcomes with increased case volume at one facility
Emergency Department		• Plans in process to move VA AL emergency patient to MAMC
Outpatient		
Medical Specialties	• Sharing opportunity with VA for audiology and speech services • Currently limited	• Explore development of joint program • Expansion of teleconferencing ability in

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	telehealth services available • Capacity to share patient care technology for disease management such as scales for heart patients	medicine, radiology, psychiatry and education and home monitoring
Surgical Specialties	• Shortages exist in several sub-specialties • ENT has sharing agreement with VA because ENT needs more volume	• Develop plan to add new MDs in critical specialties where shortages exist (GI, Dermatology)
Behavioral Health		
Ancillary Services	Radiology • Difficulty in recruiting medical staff • PET capability is lacking • Cost of duplicate equipment at 2 facilities • Capacity in Radiology exists MDs read 9,000-1,200/yr (Private sector 12,000-15,000/yr • Agreement in place with American Lake to do Nuclear Medicine and CT on weekends Pharmacy • Resolve differences at national level (contracting, agreement on standards, compatible information systems) • Differences exist between DoD and VA related to co-payment requirements Laboratory • Services could be shared	• Add PET as sharing opportunity with VAMC Seattle and other diagnostic modalities • Reduced expense of equipment when sharing and combining services • Potential to share with VA patients • Develop standardized joint formulary • Develop joint mail order program • Develop joint policies and procedures
Management/Governance	• Need to develop and operationalize a management and governance structure • Belief that sharing with the VA may not pass the	• Develop coordinated strategic planning function serving VA and military beneficiaries • Expand on DoD and VA

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	pain/gain test due to differences in regulations, payment, leadership, etc.	development of a "Balanced Scorecard" concept
Clinical/Business Processes	• Wide variety of opinion regarding what models and metrics were appropriate • Capacity is measured using RVU and RWP and there may be coding inaccuracies. No incentive to code correctly?	• Align business processes • Develop coordinated policies and procedures
Facilities	• Facility is composed of an inpatient bed tower currently operating 140 beds (formerly 500 beds), diagnostic areas and a "medical Mall for outpatient care • Overall the facility is in good condition • Former inpatient beds have been converted to outpatient space creating space that is less functional and uses more space than is required. • Cost would be substantial for any renovation to the existing building • Disruption would be only in the impacted area • Ample space is available for transition • Access to the facility is the biggest barrier to care • New dynamic force protection strategies may further limit access (and parking) in the future	• Additional capacity is available in many areas. Some targeted for new Elder care practice and M/S patients coming from VA AL • Excess capacity (space) exists in Radiology, Family Practice, Cardiopulmonary and Surgery • Review facility sharing opportunities in context of joint DoD/VA master planning
Staffing	• Need to recognize impact of deployment and finite length of assignments for military personnel	• Uniform or universal pay practices to ensure fairness • Align human resources policies

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	• Staff includes military, civilian, contract and resource sharing employees as well as Red Cross employees. Inequities in pay structures cause difficulties • Concern about ability to compete for staff, especially physicians • Radiologists in short supply for both MAMC and VA (salaries 50% of private sector) • Availability of nursing staff determines number of operational beds	
IM/IT	• Information systems between DoD and VA are not compatible for entering or obtaining patient information	• Develop single integrated and interoperable integrated information management system
Logistics	• Capital equipment is old and needs replacement; currently unbudgeted	• Develop long range capital budget planning for new and replacement equipment • Review joint sharing logistic opportunities for sharing
Education and Training	• VAMC/ UW (currently a program) willingness to include MAMC in a joint GME program • Additional sharing with VA for educational programs	• Shared GME program with VAMC and UW • Joint Psychiatry residency program with VA • Education through teleconferencing with VA
Research	• Differing DoD and VA research protocols and regulations • Funding stream for research is separate and decisions are difficult regarding "who needs to pay?"	• Combine clinical research programs with VA • "Seed" money for capital and transition costs for JV opportunities

DoD/VA Joint Assessment Study
Site Visit Database Summary
Market: Puget Sound
Submarket:
Facility: Everett BMC

General Statement: Provides routine ambulatory health care services to active duty assigned to Naval Station Everett, home ported and visiting ships, commands located in the surrounding areas and their TRICARE PRIME family members. The clinic also provides employee health services, occupational medicine and industrial hygiene to eligible civilian employees and commands. There is a dental clinic.

Organizational Relationship: Operated by Naval Hospital Bremerton

Clinical Service Line/ Department	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Patient/Clinical Care	• Access to clinic is through the main gate. • Volume fluctuates widely subject to which ships are in port and creates fluctuation in staffing requirements. • Capacity exists to accommodate increased volume • Everett patients go to Naval Hospital Bremerton for specialty care while VAMC Seattle is closer • Insufficient office space for MDs was cited as an issue	• Potential source of increased volume with addition of VA volume. (VA Clinic with shared ancillaries) • Share VA specialists at this location
Specialty	• Identified need for increased mental health services	

Clinical Service Line/ Department	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	• Other specialists (orthopedics and dermatology come as needed from Naval Hospital Bremerton • Some family member use the private sector for specialty care • Deployment contributes to staff shortages for both direct care providers and nursing staff	• Collaboration with VA for staff coverage especially during deployment periods
Information Technology	• No computerized medical record • No ability to access lab info via CHCS	• Implement information technology solutions
Education	• Lack of specialists for education	• Explore potential for VA guest lectures in specialties
Ancillaries	• 80% of lab volume goes to Quest • Currently low utilization of pharmacy	• Tests could be sent to VA with good turnaround times. • Provide pharmacy services for retirees and veterans

DoD/VA Joint Assessment Study
Site Visit Database Summary
Market:
Submarket:
Facility: McChord
General Statement:
McChord AFB clinic serves as a medical facility and health care resource to active duty personnel and area enrolled beneficiaries. Facility reports approximately 12,000 with an expected growth to 15,000 enrollees.

Organizational Relationships:
Patients needing inpatient care or specialty services are referred to Madigan. There are reported to be few and infrequent referrals to or from VA facilities. The clinic does fill VA pharmacy prescriptions. The base clinic has been seeing a growth in the number of retirees and those over age 65.

Collaboration Category	Operational Issues/Barriers	Opportunities
Patient/Clinical Care	• Dependence by veterans has not been tested.	• The facility would have the capacity to absorb additional workloads (presumably primary care serving veterans and DoD beneficiaries).
Facilities	• Base access adjoining is convenient but not direct from Madigan	• Conduct access review in concert with Madigan and VA

DoD/VA Joint Assessment Study
Site Visit Database Summary
Market: Puget Sound
Submarket: West Sound/Bremerton
Facility: Bremerton CBOC
General Statement: The clinic provides primary medical and mental health care with full-time VA staff. All specialty care is referred to VA Puget Sound, Seattle Division. The clinic contracts locally for stat lab, urgent pharmacy & routine x-ray services.

Organizational Relationships:
Division/extension of VAMC Seattle
Minimal sharing w NH Bremerton reported – some pharmacy and lab stat work

Clinical Service Line/ Department	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Patient/Clinical Care	• Need for better access for ER and imaging services • Subspecialty access to ophthalmology, orthopedics, mental health,	• Develop plans for increased collaboration and sharing with NH Bremerton: e.g. access to ER services, radiology, pharmacy, and urology • Coordinate subspecialty access to ophthalmology, orthopedics, mental health
Facilities	• Currently small clinic with capacity to handle greater workloads	• Consider consolidation at NH Bremerton
Staffing	• Currently 2.5 FTE provider and 3.5 FTE overall • Lack of sub-specialists in some areas	• Staffing can be adjusted to work load
IM/IT	• IM/IT is reported issue; concern about sharing	• Resolve IM/IT interoperability

Clinical Service Line/ Department	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	medical info w DoD	
Logistics	• Minimal sharing of supplies and equipment	• Possibly supplies and logistics – how ever concern about VA wide and DoD/VA coordination of purchasing

Functional Assessment Red/Amber/Green Definitions

	Size
G	Area within ± 10% of programmed area
A	Area is > ± 10% of Prog. Area
R	Area is < ± 10% of Prog. Area (GSF), and rooms have specific requirements which are difficult/expensive to repair
	Configuration
G	Configuration appropriate to accomplish mission
A	Not good, but could be easily altered in place
R	Not Configured To do Mission – ex. Department split, patient floor, inappropriate room size
	Location
G	Department located appropriately in building for efficiency and ease of staff and patients
A	Location is not an issue for efficiency and convenience for staff and patients
R	Department location is inconvenient in the building and causes inefficiency for staff and patients
	Adjacency
G	Adjacent to appropriate departments for operational or patient ease/efficiency or can stand independent of other departments
A	Would like certain adjacency but function OK
R	Needs to be located near another department
	Interior – Image
G	Appropriate and up to date
A	Appropriate but appears dated
R	Inappropriate for use
	Interior Condition
G	In excellent condition
A	In fair condition
R	Needs replacement
	ADA Compliance
G	Meets ADA requirements for area and access
A	ADA requirements met through adaptation of space and systems where possible
R	Does not meet ADA requirements

Key: G=Green, A=Amber, R=Red

DoD/VA Joint Assessment Study **Puget Sound Market Area**

Functional Assessments

Below are the results from cursory department tours made by architects on the project team. Only the major clinical buildings were reviewed. The departmental scores (size, configuration, location, adjacency, interior image, interior condition, ADA compliance) are subjectively derived from quick tours of the departments. The information contained in the database is not interchangeable with the level of detail that would be derived from a Facilities Master Plan and/or a Facilities Condition Assessment.

FACILITYNAME	DEPARTMENTNAME	SPECIFICDEPT		FLOOR	DGSF	SIZE SCORE	CONFIG SCORE	LOCATION SCORE	ADJACENCY SCORE	INT IMAGE SCORE	INT COND SCORE	ADA COMP SCORE
Madigan AMC	Audiology Speech Clinic	Audiology / Speech Pathology		2	4,612	A	G	G	G	G	G	R
Madigan AMC	Cardiac Cath Lab	Cardiac Catherization Lab		2	3,285	R	G	G	G	G	G	R
Madigan AMC	Critical Care IP	Medical ICU		2	7,503	G	G	G	G	G	G	R
Madigan AMC	Critical Care IP	Surgical ICU		2	6,791	G	G	G	G	G	G	R
Madigan AMC	Dental Clinic	Dental / Oral Surgery Clinic		2	10,473	G	G	G	G	G	G	R
Madigan AMC	Dental Clinic	Dental Clinic #2		1	14,715	G	R	R	R	R	R	R
Madigan AMC	Dental Clinic	Dental Clinic #3		1	14,715	G	R	R	R	R	R	R
Madigan AMC	Dental Clinic	Okubo Dental Clinic		1	18,323	G	G	G	G	G	G	G
Madigan AMC	Diagnostic Other	Radiology		1	49,429							
Madigan AMC	Diagnostic Other	Staff Urinalysis		1	330							
Madigan AMC	Distinctive Programs	Aviation Medicine / Special Forces Clinic	G		2,247	G	G	G	G	G	G	R
Madigan AMC	Emergency Department	Emergency Department & AMIC (Acute Minor Illness Clinic)		1	18,248	R	G	G	G	G	G	R
Madigan AMC	Emergency Department	Emergency Department and AMIC (Acute Minor Illness Clinic) Adm		1	4,035							
Madigan AMC	Family Practice Clinic	Family Practice Admin.	G		10,391	G	G	G	G	G	G	R
Madigan AMC	Family Practice Clinic	Family Practice Clinic - Acute Gold & Sports Medicine	G		10,551	G	G	G	G	G	G	R
Madigan AMC	Family Practice Clinic	Family Practice Clinic - Blue Team	G		6,660	G	G	G	G	G	G	R
Madigan AMC	Family Practice Clinic	Family Practice Clinic - Red & White Teams	G		13,247	G	G	G	G	G	G	R
Madigan AMC	Family Practice Clinic	OB / GYN	G		18,730	G	G	G	G	G	G	R
Madigan AMC	Family Practice Clinic	Optical	G		445	G	G	G	G	G	G	R
Madigan AMC	Family Practice Clinic	Optometry	G		6,189	G	G	G	G	G	G	R
Madigan AMC	Family Practice Clinic	Pediatrics Clinic		1	33,330	G	G	G	G	G	G	R
		MAMC FP			63,788							
Madigan AMC	Hematology Oncology Clinic	4 South Hematology / Oncology Clinic		4	13,107	G	G	G	G	G	G	R
Madigan AMC	Medical Surgical IP	4 North Pediatric / Observation Ward		4	13,044	G	G	G	G	G	G	R
Madigan AMC	Medical Surgical IP	6 North Oncology / Medical Ward		6	13,045	G	G	G	G	G	G	R
Madigan AMC	Medical Surgical IP	7 North Surgical / Orthopedic Ward		7	13,042	G	G	G	G	G	G	R
Madigan AMC	Medical Surgical IP	Medical / Surgical Step Down Unit		2	10,203	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	5 South Dialysis / Nephrology Clinic		5	9,349	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	6 South OP Infusion Therapy / Medical Ward (Short Stays < 24 Ho		6	12,462	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	Allergy / Immunization	G		5,601	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	Behavioral Science		1	13,449	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	Dept. of Medicine		5	3,591	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	Dermatology Clinic		1	2,519	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	Endocrinology and Rheumatology		1	4,652	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	Infection Control		1	101	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	Infectious Disease		1	2,695	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	Internal Medicine	G		19,345	A	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	Morgue	G		2,864	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	Neurology		1	9,228	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	Neurology Sleep Testing Lab		7	1,328	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	Occupational Health		1	3,947	G	R	R	R	R	R	R
Madigan AMC	Medicine Clinic	Occupational Health		1	808	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	Okubo Health Clinic		1	22,295	G	G	G	G	G	G	G
Madigan AMC	Medicine Clinic	Pathology	G		36,359	G	G	G	G	G	G	R
Madigan AMC	Medicine Clinic	Preventive Medicine		1	3,776	G	R	R	R	R	R	R
Madigan AMC	Medicine Clinic	Respiratory Care		2	2,539	G	G	G	G	G	G	R
Madigan AMC	Nursery	Neonatal ICU		3	10,022							
Madigan AMC	OB	Antenatal Diagnostic Intermediate Care Center		3	12,164	G	G	G	G	G	G	R
Madigan AMC	OB	Antepartum / Post Partum / Gynecology / Surgical Unit		3	12,783	G	G	G	G	G	G	R
Madigan AMC	OB	Labor and Delivery		3	15,262	G	G	G	G	G	G	R
Madigan AMC	Other	7 South Social Work Services		7	7,544							
Madigan AMC	Other	8 North Madigan Consolidated Education Division (MCED)		8	9,185							
Madigan AMC	Other	8 South / North Lead Agent		8	16,834							
Madigan AMC	Other	91W Nursing School (MCED)		1	22,703							

FACILITYNAME	DEPARTMENTNAME	SPECIFICDEPT	FLOOR	DGSF	SIZE SCORE	CONFIG SCORE	LOCATION SCORE	ADJACENCY SCORE	INT IMAGE SCORE	INT COND SCORE	ADA COMP SCORE
Madigan AMC	Other	AAFES - Exchange	G	1,865							
Madigan AMC	Other	AMO	7	382							
Madigan AMC	Other	AMO CHCS Classroom (IMD)	1	325							
Madigan AMC	Other	AMO Hardware & Customer Support	7	1,225							
Madigan AMC	Other	Administration / Residents Work / Residents Sleep (Vacant Cardia	2	7,033							
Madigan AMC	Other	Advance Life Support Trauma Training Classroom	1	2,720							
Madigan AMC	Other	Air Evac (Patient Administration Division)	1	383							
Madigan AMC	Other	American Red Cross	2	783							
Madigan AMC	Other	Army Community Health Nursing - Health Promotions Office	1	5,480							
Madigan AMC	Other	Automation Management	G	4,343							
Madigan AMC	Other	Barber	G	398							
Madigan AMC	Other	Billing (PAD)	1	603							
Madigan AMC	Other	Blood Bank Storage	1	510							
Madigan AMC	Other	CMS	G	6,284							
Madigan AMC	Other	Carpenter Shop	1	6,822							
Madigan AMC	Other	Clinical Engineering Branch / Biomedical Maintenance	G	6,284							
Madigan AMC	Other	Clinical Investigations Lab / Surgery / Quarantine	1	3,314							
Madigan AMC	Other	Clinical Investigations Large Animal Barn	1	1,940							
Madigan AMC	Other	Clinical Investigations Large Animal Building	1	1,299							
Madigan AMC	Other	Clinical Investigations Small Animal Building	1	1,975							
Madigan AMC	Other	Clinical Investigations Storage Building	1	150							
Madigan AMC	Other	Clinical Investigations Storage Building	1	200							
Madigan AMC	Other	Clinical Pastoral Education	1	2,000							
Madigan AMC	Other	Co. Admin.	1	2,200							
Madigan AMC	Other	Coding (PAD)	1	1,018							
Madigan AMC	Other	Coffee Shop / Vending / Seating Area	G	1,228							
Madigan AMC	Other	Command Suite	1	5,183							
Madigan AMC	Other	Commun. Clos.	1	162							
Madigan AMC	Other	Communications Closet	G	114							
Madigan AMC	Other	Consolidated Training Center	1	10,267							
Madigan AMC	Other	Continuing Education	1	1,135							
Madigan AMC	Other	Contracting	1	4,500							
Madigan AMC	Other	Corporate Wellness Program Task Force	1	3,526							
Madigan AMC	Other	Credential Management	1	1,001							
Madigan AMC	Other	DART Storage, RHO	1	3,900							
Madigan AMC	Other	Dental H.Q. Troop Command	1	3,723							
Madigan AMC	Other	Department of Clinical Investigation	G	11,241							
Madigan AMC	Other	Department of Nursing	1	1,937							
Madigan AMC	Other	Disaster Assistance Response Team (DART), RHO	1	4,028							
Madigan AMC	Other	E.H. / I.H. Hearing Conserv.	1	5,885							
Madigan AMC	Other	ENT	2	8,521							
Madigan AMC	Other	Energy Plant #1	G	34,822							
Madigan AMC	Other	Energy Plant #2	G	6,631							
Madigan AMC	Other	Facilities Management Branch	G	6,858							
Madigan AMC	Other	Facilities Management Branch - Sign / Paint Shop	G	933							
Madigan AMC	Other	Faculty Development Fellows (Family Practice)	G	1,025							
Madigan AMC	Other	Floral Shop	1	190							
Madigan AMC	Other	Food Court	G	2,443							
Madigan AMC	Other	GI Clinic	G	7,942							
Madigan AMC	Other	Health Physics (P.M.)	1	5,078							
Madigan AMC	Other	Henry Jackson Foundation Department of Medicine	7	401							
Madigan AMC	Other	Human Resources (RMD)	G	4,877							
Madigan AMC	Other	IMD	8	401							
Madigan AMC	Other	IMD	G	1,176							
Madigan AMC	Other	IMD	G	1,683							
Madigan AMC	Other	IMD	G	575							
Madigan AMC	Other	IMD / EOC	G	3,493							
Madigan AMC	Other	Inpatient Records (PAD)	1	3,715							
Madigan AMC	Other	Insp. Gen	G	247							
Madigan AMC	Other	J & J Maintenance and Martinez International Contractors (FMD)	1	4,120							

FACILITYNAME	DEPARTMENTNAME	SPECIFICDEPT	FLOOR	DGSF	SIZE SCORE	CONFIG SCORE	LOCATION SCORE	ADJACENCY SCORE	INT IMAGE SCORE	INT COND SCORE	ADA COMP SCORE
Madigan AMC	Other	J & J Maintenance and Martinez International Contractors (FMD)	1	4,697							
Madigan AMC	Other	J.A.G.	1	930							
Madigan AMC	Other	J.A.G.	1	942							
Madigan AMC	Other	Letterman Auditorium	G	3,452							
Madigan AMC	Other	Logistics	G	12,759							
Madigan AMC	Other	Logistics	G	33,889							
Madigan AMC	Other	Logistics	G	590							
Madigan AMC	Other	MAMC - Mail Room	G	947							
Madigan AMC	Other	MAMC - Retention / Recruitment	G	571							
Madigan AMC	Other	Madigan Consolidated Education Div. (MCED)	2	1,368							
Madigan AMC	Other	Maintenance Shop (Logistics)	1	502							
Madigan AMC	Other	Managed Care	2	2,904							
Madigan AMC	Other	Mechanical	G	314							
Madigan AMC	Other	Med. Hold . Troop Command	1	4,179							
Madigan AMC	Other	Medical Illustration	G	1,920							
Madigan AMC	Other	Medical Library	2	6,226							
Madigan AMC	Other	Medical Transcription (PAD)	1	1,200							
Madigan AMC	Other	Nursing Administration	2	2,068							
Madigan AMC	Other	Nursing Research	3	1,242							
Madigan AMC	Other	Nutrition	2	136							
Madigan AMC	Other	Nutrition	6	137							
Madigan AMC	Other	Nutrition	7	137							
Madigan AMC	Other	Nutrition	G	27,381							
Madigan AMC	Other	Nutrition	G	799							
Madigan AMC	Other	Nutrition Care Stor.	1	7,870							
Madigan AMC	Other	OP Social Work	G	236							
Madigan AMC	Other	On - Call	1	1,778							
Madigan AMC	Other	Outpatient Records	1	4,336							
Madigan AMC	Other	PAD, 3rd Party Collections	1	1,281							
Madigan AMC	Other	PT. Rep	G	1,423							
Madigan AMC	Other	Pastoral Care & Chapel	1	3,906							
Madigan AMC	Other	Patient Administration Division	1	3,903							
Madigan AMC	Other	Patient Library	1	3,943							
Madigan AMC	Other	Patient Services	3	214							
Madigan AMC	Other	Patient Services	4	104							
Madigan AMC	Other	Patient Services	5	129							
Madigan AMC	Other	Patient Services	6	110							
Madigan AMC	Other	Patient Services	7	111							
Madigan AMC	Other	Patient Services	8	110							
Madigan AMC	Other	Patient Support Services	G	38							
Madigan AMC	Other	Patient Support Services	G	964							
Madigan AMC	Other	Physical Evaluation Board / Auditorium (PAD)	1	4,721							
Madigan AMC	Other	Population Health Division	2	864							
Madigan AMC	Other	Population Health Division	8	451							
Madigan AMC	Other	Provost Marshall	2	757							
Madigan AMC	Other	Publications Storage (IMD)	1	2,466							
Madigan AMC	Other	QSD	2	500							
Madigan AMC	Other	R.H.O.	1	3,257							
Madigan AMC	Other	Readiness & Health Care Operations (RHO)	1	8,700							
Madigan AMC	Other	Regional Blood Center Amvets	1	5,922							
Madigan AMC	Other	Regional Blood Center Amvets	1	523							
Madigan AMC	Other	Registration (PAD)	1	1,227							
Madigan AMC	Other	Resource Management Division (RMD)	1	3,834							
Madigan AMC	Other	Safety	2	549							
Madigan AMC	Other	Shared Admin.	1	433							
Madigan AMC	Other	Social Work Services Family Advocacy	1	4,078							
Madigan AMC	Other	TRICARE	2	1,814							
Madigan AMC	Other	Tel / Com. Bldg.	1	496							
Madigan AMC	Other	Third Party Collection (PAD)	1	156							
Madigan AMC	Other	Toilet Rooms	1	167							

FACILITYNAME	DEPARTMENTNAME	SPECIFICDEPT	FLOOR	DGSF	SIZE SCORE	CONFIG SCORE	LOCATION SCORE	ADJACENCY SCORE	INT IMAGE SCORE	INT COND SCORE	ADA COMP SCORE
Madigan AMC	Other	Troop Command	2	4,500							
Madigan AMC	Other	U.S. Post Office	G	249							
Madigan AMC	Other	USA CHPPM West	1	18,149							
Madigan AMC	Other	Vet. Facility	1	5,356							
Madigan AMC	Other	Vet. H.Q. Building	1	2,499							
Madigan AMC	Other	Women Infant Children (WIC) Svcs. (Not Part of MAMC)	1	3,375							
Madigan AMC	Other	Women Infant Children (WIC) Svcs. (Not Part of MAMC)	1	4,371							
Madigan AMC	PT OT Clinic	Occupational Therapy	1	7,144	G	G	G	G	G	G	R
Madigan AMC	PT OT Clinic	Physical Therapy & Physical Medicine	1	15,898	G	G	G	G	G	G	R
Madigan AMC	Pharmacy	IP Pharmacy	G	4,678							
Madigan AMC	Pharmacy	Pharmacy	1	13,767							
Madigan AMC	Pharmacy	Pharmacy	6	213							
Madigan AMC	Pharmacy	Pharmacy	7	213							
Madigan AMC	Psychiatry IP	5 North IP Psychiatric Ward	5	13,136	G	G	G	G	G	G	R
Madigan AMC	Radiation Therapy	Radiation Therapy	G	9,276	A	G	G	G	G	G	R
Madigan AMC	Radiology - MRI	MRI Facility	1	5,463	G	G	G	G	G	G	R
Madigan AMC	Radiology - NM	Nuclear Medicine	G	11,237	G	G	G	G	G	G	R
Madigan AMC	Rehabilitation IP	IP Physical Therapy	7	709	G	G	G	G	G	G	R
Madigan AMC	Surgery Support	Recovery	2	9,646							
Madigan AMC	Surgery Support	Surgery / Anesthesiology	2	37,505	G	G	G	G	G	G	R
Madigan AMC	Surgery Support	Surgical Services Sleep Rm.	7	163							
Madigan AMC	Surgery Support	Surgical Services: Pre-Admission / Anesthesiology / Administratior	2	7,514	G						
Madigan AMC	Surgical Specialty Clinic	Brace Shop	1	3,513	G	G	G	G	G	G	R
Madigan AMC	Surgical Specialty Clinic	Cardio / Pulmonary Clinic	2	18,093	G	G	G	G	G	G	R
Madigan AMC	Surgical Specialty Clinic	Lasik Eye Surgery 3 Rooms - Outpatient Department of Surgery / C	7	1,224	G	G	G	G	G	G	R
Madigan AMC	Surgical Specialty Clinic	Ophthalmology	2	10,784	G	G	G	G	G	G	R
Madigan AMC	Surgical Specialty Clinic	Orthopedics / Podiatry Clinic	1	16,556	G	G	G	G	G	G	R
Madigan AMC	Surgical Specialty Clinic	Surgical Clinics	2	22,521	G	G	G	G	G	G	R
Madigan AMC	Surgical Specialty Clinic	Urology Clinic	2	13,412	G	G	G	G	G	G	R
American Lake VAMC	Blind Rehabilitation	Blind Rehabilitation	All	8,476	A	A	G	G	A	A	R
American Lake VAMC	Psychiatry IP	IP Mental Health	B	393	G	A	G	G	G	G	R
American Lake VAMC	Psychiatry IP	IP Mental Health	1	7,442	G	A	G	G	G	G	R
American Lake VAMC	PRRTP IP	PRRTP	1	1,046	G	A	G	G	G	G	R
American Lake VAMC	Psychiatry IP	IP Mental Health	2	8,544	G	A	G	G	G	G	R
American Lake VAMC	Blind Rehabilitation	IP Blind Rehabilitation	1	165	A	A	G	G	A	A	R
American Lake VAMC	Blind Rehabilitation	IP Blind Rehabilitation	1	470	A	A	G	G	A	A	R
American Lake VAMC	Surgical Specialty Clinic	Prosthetics	1	470	A	A	G	G	A	A	R
American Lake VAMC	Rehabilitation IP	Rehab Medicine	1	12,264	A	A	G	G	A	A	R
American Lake VAMC	Medicine Clinic	ACS/PC	1	15,572	A	A	G	G	A	A	R
American Lake VAMC	Emergency Department	ACS/UC	1	1,658	A	A	G	G	A	A	R
American Lake VAMC	Medicine Clinic	Pathology	1	121	A	A	G	G	A	A	R
American Lake VAMC	Diagnostic Other	Radiology	1	685	A	A	G	G	A	A	R
American Lake VAMC	Surgery OR	S.P.D.	1	3,677	A	A	G	G	A	A	R
American Lake VAMC	Medicine Clinic	ACS/SC	2	3,707	A	A	G	G	A	A	R
American Lake VAMC	Medicine Clinic	Cardiology	2	808	A	A	G	G	A	A	R
American Lake VAMC	Medicine Clinic	Clinical Services Admin.	2	440	A	A	G	G	A	A	R
American Lake VAMC	Dental Clinic	Dental	2	2,652	A	A	G	G	A	A	R
American Lake VAMC	Diagnostic Other	Radiology	2	4,261	A	A	G	G	A	A	R
American Lake VAMC	Medicine Clinic	ACS/SC	3	691	A	A	G	G	A	A	R
American Lake VAMC	GI Lab	GI	3	2,753	A	A	G	G	A	A	R
American Lake VAMC	Medical Surgical IP	Inpatient Medical	3	8,495	A	A	G	G	A	A	R
American Lake VAMC	Medicine Clinic	Pulmonary	3	1,861	A	A	G	G	A	A	R
American Lake VAMC	Medicine Clinic	ACS/SC	4	4,438	A	A	G	G	A	A	R
American Lake VAMC	Surgical Specialty Clinic	Surg. Prog.	4	2,278	A	A	G	G	A	A	R
American Lake VAMC	Blind Rehabilitation	IP Blind Rehabilitation	3	613	A	A	G	G	A	A	R
Seattle VAMC	Surgical Speicalty Care	Prosthetics	B	3,820	A	A	G	G	A	A	R
Seattle VAMC	Medicine Clinic	Pathology	B	22,681	A	A	G	G	A	A	R
Seattle VAMC	Surgery OR	S.P.D.	B	10,677	A	A	G	G	A	A	R
Seattle VAMC	Medicine Clinic	ACS/PC	1	1,699	A	A	G	G	A	A	R
Seattle VAMC	Emergency Department	ACS/UC	1	6,058	A	A	G	G	A	A	R

FACILITYNAME	DEPARTMENTNAME	SPECIFICDEPT	FLOOR	DGSF	SIZE SCORE	CONFIG SCORE	LOCATION SCORE	ADJACENCY SCORE	INT IMAGE SCORE	INT COND SCORE	ADA COMP SCORE
Seattle VAMC	Medicine Clinic	Eye Clinic	1	5,120	A	A	G	G	A	A	R
Seattle VAMC	Mental Health Clinic	Mental Health	1	1,792	A	A	G	G	A	A	R
Seattle VAMC	Medicine Clinic	ACS/SC	1	13,860	A	A	G	G	A	A	R
Seattle VAMC	Rehabilitation IP	Rehab. Medicine	1	20,216	A	A	G	G	A	A	R
Seattle VAMC	Surgical Speicalty Care	Prosthetics	1	520	A	A	G	G	A	A	R
Seattle VAMC	Surgery OR	S.P.D.	B	1,885	A	A	G	G	A	A	R
Seattle VAMC	Radiology MRI	MRI	1	2,425	A	G	G	G	G	G	R
Seattle VAMC	Radiation Therapyl	Lin Acc	All	10,191	A	G	G	G	G	G	R
Seattle VAMC	Mental Health Clinic	Mental Health	1	1,757	A	A	G	G	A	A	R
Seattle VAMC	Mental Health Clinic	Mental Health	1	15,446	A	A	G	G	A	A	R
Seattle VAMC	Mental Health Clinic	Social Work	2	2,978	A	A	G	G	A	A	R
Seattle VAMC	Surgical Speciality Clinic	Surgery	3	6,007	A	A	G	G	A	A	R
Seattle VAMC	Surgical Speciality Clinic	Ophthalmology	3	537	A	A	G	G	A	A	R
Seattle VAMC											
BMC Everett	Emergency Department	ACS/UC	1	5,776	G	G	G	G	G	G	G
BMC Everett	Medicine Clinic	Eye/Audio Clinic	1	3,520	G	G	G	G	G	G	G
BMC Everett	Diagnostic Other	Radiology	1	1,840	G	G	G	G	G	G	G
BMC Everett	Medicine Clinic	Pathology	1	1,152	G	G	G	G	G	G	G
BMC Everett	Dental Clinic	Dental Clinic	1	4,000	G	G	G	G	G	G	G

DoD/VA Joint Assessment Study **Puget Sound Market Area**

Supply Counts from Site Visits and Surveys

Below are the supply counts and characteristics provided by the sites either in response to a survey or via site visits. DoD sites are in capital letters to help quickly differentiate DoD from VA. Note that "Exam Rooms" cannot be added to derive the total number of exam rooms in a market, since some exam rooms are duplicated between multiple clinics (e.g. if cardiology has 5 exam rooms half of the week and endocrinology has the same 5 exam rooms half of the week, they each are assigned 5 exam rooms)

FACILITY NAME	DEPARTMENT NAME	UNIT NAME	UNIT TYPE	COUNT
Puget Sound Market				
American Lake	Audiology Speech Clinic		Exam Rooms	3
American Lake	Blind Rehabilitation		Avail Beds	15
American Lake	Blind Rehabilitation		AvgOccRate	64
American Lake	Blind Rehabilitation		Staffed Beds	15
American Lake	Diagnostic Other	Radiology	Proc Rooms	2
American Lake	Diagnostic Other	Ultra Sound	Proc Rooms	2
American Lake	Emergency Department		Spaces	7
American Lake	GI Lab		Backlog	75
American Lake	GI Lab		Field Reported Volume	1600
American Lake	GI Lab		HrsPerWeek	36
American Lake	GI Lab		Proc Rooms	2
American Lake	GI Lab		Recovery Spaces	4
American Lake	Medical Surgical IP		Avail Beds	23
American Lake	Medical Surgical IP		AvgOccRate	38
American Lake	Medical Surgical IP		Staffed Beds	23
American Lake	Medicine Clinic		HrsPerWeek	40
American Lake	Mental Health Clinic		Backlog	30
American Lake	Mental Health Clinic		Exam Rooms	129
American Lake	Mental Health Clinic		HrsPerWeek	45
American Lake	Other	Domiciliary	Avail Beds	60
American Lake	Other	Domiciliary	AvgOccRate	89
American Lake	Other	Domiciliary	Staffed Beds	60
American Lake	Other	Nursing Home	Avail Beds	83
American Lake	Other	Nursing Home	AvgOccRate	77
American Lake	Other	Nursing Home	Staffed Beds	83
American Lake	Pharmacy	Inpatient	HrsPerWeek	67
American Lake	Pharmacy	Inpatient	Initialrx	437115
American Lake	Pharmacy	Mail order	Initialrx	268682
American Lake	Pharmacy	Outpatient Pick-up	HrsPerWeek	48
American Lake	Pharmacy	Outpatient Pick-up	Initialrx	128218
American Lake	PRRTP IP		Avail Beds	30
American Lake	PRRTP IP		AvgOccRate	69
American Lake	PRRTP IP		Staffed Beds	30
American Lake	Psychiatry IP		Avail Beds	27
American Lake	Psychiatry IP		AvgOccRate	77
American Lake	Psychiatry IP		Staffed Beds	27
American Lake	Radiology - CT		Proc Rooms	1
American Lake	Surgery OR		Spaces	2
American Lake	Surgical Specialty Clinic		Exam Rooms	68
American Lake	Surgical Specialty Clinic		HrsPerWeek	40
MADIGAN AMC-FT. LEWIS	Audiology Speech Clinic		Backlog	28
MADIGAN AMC-FT. LEWIS	Audiology Speech Clinic		Exam Rooms	7
MADIGAN AMC-FT. LEWIS	Audiology Speech Clinic		HrsPerWeek	36
MADIGAN AMC-FT. LEWIS	Audiology Speech Clinic		Proc Rooms	5
MADIGAN AMC-FT. LEWIS	Cardiac Cath Lab		Proc Rooms	2
MADIGAN AMC-FT. LEWIS	Critical Care IP		Avail Beds	30
MADIGAN AMC-FT. LEWIS	Critical Care IP		AvgOccRate	75
MADIGAN AMC-FT. LEWIS	Critical Care IP		Staffed Beds	20
MADIGAN AMC-FT. LEWIS	Diagnostic Other	Vascular Lab	Backlog	28
MADIGAN AMC-FT. LEWIS	Diagnostic Other	Vascular Lab	HrsPerWeek	40

FACILITY NAME	DEPARTMENT NAME	UNIT NAME	UNIT TYPE	COUNT
MADIGAN AMC-FT. LEWIS	Diagnostic Other	Vascular Lab	Proc Rooms	3
MADIGAN AMC-FT. LEWIS	Emergency Department	Level II	ED Admit Percent	7
MADIGAN AMC-FT. LEWIS	Emergency Department	Level II	Field Reported Volume	74562
MADIGAN AMC-FT. LEWIS	Emergency Department	Level II	Spaces	36
MADIGAN AMC-FT. LEWIS	Family Practice Clinic		Backlog	207
MADIGAN AMC-FT. LEWIS	Family Practice Clinic		Exam Rooms	86
MADIGAN AMC-FT. LEWIS	Family Practice Clinic		HrsPerWeek	47
MADIGAN AMC-FT. LEWIS	GI Lab		Backlog	28
MADIGAN AMC-FT. LEWIS	GI Lab		HrsPerWeek	32
MADIGAN AMC-FT. LEWIS	GI Lab		Proc Rooms	5
MADIGAN AMC-FT. LEWIS	Medical Surgical IP		Avail Beds	86
MADIGAN AMC-FT. LEWIS	Medical Surgical IP		AvgOccRate	78
MADIGAN AMC-FT. LEWIS	Medical Surgical IP		Staffed Beds	82
MADIGAN AMC-FT. LEWIS	Medicine Clinic		Backlog	10
MADIGAN AMC-FT. LEWIS	Medicine Clinic		Exam Rooms	90
MADIGAN AMC-FT. LEWIS	Medicine Clinic		HrsPerWeek	45
MADIGAN AMC-FT. LEWIS	OB	LDR IP	Avail Beds	14
MADIGAN AMC-FT. LEWIS	OB	LDR IP	AvgOccRate	95
MADIGAN AMC-FT. LEWIS	OB	LDR IP	Staffed Beds	10
MADIGAN AMC-FT. LEWIS	OB	OB OR	Avail Beds	2
MADIGAN AMC-FT. LEWIS	OB	OB OR	Staffed Beds	2
MADIGAN AMC-FT. LEWIS	OB	PP IP	Avail Beds	24
MADIGAN AMC-FT. LEWIS	OB	PP IP	AvgOccRate	65
MADIGAN AMC-FT. LEWIS	OB	PP IP	Staffed Beds	24
MADIGAN AMC-FT. LEWIS	Pharmacy	Inpatient	HrsPerWeek	208
MADIGAN AMC-FT. LEWIS	Pharmacy	Inpatient	Initialrx	1299616
MADIGAN AMC-FT. LEWIS	Pharmacy	Outpatient Pick-up	HrsPerWeek	68
MADIGAN AMC-FT. LEWIS	Pharmacy	Outpatient Pick-up	Initialrx	576049
MADIGAN AMC-FT. LEWIS	Pharmacy	Outpatient Pick-up	Refills	329494
MADIGAN AMC-FT. LEWIS	Psychiatry IP		Avail Beds	8
MADIGAN AMC-FT. LEWIS	Psychiatry IP		AvgOccRate	63
MADIGAN AMC-FT. LEWIS	Psychiatry IP		Staffed Beds	8
MADIGAN AMC-FT. LEWIS	PT OT Clinic		Backlog	15
MADIGAN AMC-FT. LEWIS	PT OT Clinic		Exam Rooms	4
MADIGAN AMC-FT. LEWIS	PT OT Clinic		HrsPerWeek	50
MADIGAN AMC-FT. LEWIS	Radiation Therapy		Backlog	0
MADIGAN AMC-FT. LEWIS	Radiation Therapy		HrsPerWeek	40
MADIGAN AMC-FT. LEWIS	Radiation Therapy		Proc Rooms	2
MADIGAN AMC-FT. LEWIS	Radiology - CT		Backlog	20
MADIGAN AMC-FT. LEWIS	Radiology - CT		HrsPerWeek	95
MADIGAN AMC-FT. LEWIS	Radiology - CT		Proc Rooms	2
MADIGAN AMC-FT. LEWIS	Radiology - MRI		Backlog	20
MADIGAN AMC-FT. LEWIS	Radiology - MRI		HrsPerWeek	95
MADIGAN AMC-FT. LEWIS	Radiology - MRI		Proc Rooms	2
MADIGAN AMC-FT. LEWIS	Radiology - NM		Backlog	1
MADIGAN AMC-FT. LEWIS	Radiology - NM		HrsPerWeek	43
MADIGAN AMC-FT. LEWIS	Radiology - NM		Proc Rooms	5
MADIGAN AMC-FT. LEWIS	Surgery OR		AvgCaseLength	159
MADIGAN AMC-FT. LEWIS	Surgery OR		Field Reported Volume	8536
MADIGAN AMC-FT. LEWIS	Surgery OR		Spaces	14
MADIGAN AMC-FT. LEWIS	Surgical Specialty Clinic		Backlog	28
MADIGAN AMC-FT. LEWIS	Surgical Specialty Clinic		Exam Rooms	57
MADIGAN AMC-FT. LEWIS	Surgical Specialty Clinic		HrsPerWeek	32
MADIGAN AMC-FT. LEWIS	Surgical Specialty Clinic		Proc Rooms	14
MADIGAN AMC-FT. LEWIS			AvgCaseLength	86
MADIGAN AMC-FT. LEWIS			Field Reported Volume	421
62nd MED GRP-MCCHORD			Backlog	8
62nd MED GRP-MCCHORD			Exam Rooms	33
62nd MED GRP-MCCHORD			HrsPerWeek	45
NH BREMERTON	Critical Care IP		Avail Beds	6

FACILITY NAME	DEPARTMENT NAME	UNIT NAME	UNIT TYPE	COUNT
NH BREMERTON	Critical Care IP		Staffed Beds	3
NH BREMERTON	Emergency Department		Spaces	19
NH BREMERTON	Family Practice Clinic		Exam Rooms	67
NH BREMERTON	Family Practice Clinic		HrsPerWeek	64
NH BREMERTON	GI Lab		Proc Rooms	2
NH BREMERTON	Medical Surgical IP		Avail Beds	34
NH BREMERTON	Medical Surgical IP		Staffed Beds	34
NH BREMERTON	Medicine Clinic		Exam Rooms	13
NH BREMERTON	Medicine Clinic		HrsPerWeek	60
NH BREMERTON	Mental Health Clinic		Backlog	18
NH BREMERTON	Mental Health Clinic		Exam Rooms	9
NH BREMERTON	Mental Health Clinic		HrsPerWeek	40
NH BREMERTON	Mental Health Clinic		Proc Rooms	1
NH BREMERTON	OB	LDRP IP	Avail Beds	9
NH BREMERTON	OB	LDRP IP	Staffed Beds	9
NH BREMERTON	OB	OB OR	Avail Beds	1
NH BREMERTON	OB	OB OR	Staffed Beds	1
NH BREMERTON	Pharmacy	Inpatient	HrsPerWeek	168
NH BREMERTON	Pharmacy	Inpatient	Initialrx	195759
NH BREMERTON	Pharmacy	Outpatient Pick-up	HrsPerWeek	71
NH BREMERTON	Pharmacy	Outpatient Pick-up	Initialrx	233283
NH BREMERTON	Pharmacy	Outpatient Pick-up	Refills	135508
NH BREMERTON	Radiology - CT		Proc Rooms	1
NH BREMERTON	Radiology - NM		Proc Rooms	1
NH BREMERTON	Surgery OR		Spaces	4
NH BREMERTON	Surgical Specialty Clinic		Exam Rooms	25
NH BREMERTON	Surgical Specialty Clinic		HrsPerWeek	42
NH BREMERTON	Surgical Specialty Clinic		Proc Rooms	1
NH OAK HARBOR	Medical Surgical IP		Avail Beds	25
NH OAK HARBOR	Medical Surgical IP		Staffed Beds	25
NH OAK HARBOR	Medicine Clinic		Exam Rooms	18
NH OAK HARBOR	OB	OB OR	Avail Beds	1
NH OAK HARBOR	OB	OB OR	Staffed Beds	1
NH OAK HARBOR	Pharmacy	Inpatient	Initialrx	17436
NH OAK HARBOR	Pharmacy	Outpatient Pick-up	HrsPerWeek	52
NH OAK HARBOR	Pharmacy	Outpatient Pick-up	Initialrx	160674
NH OAK HARBOR	Pharmacy	Outpatient Pick-up	Refills	97598
NH OAK HARBOR	Radiology - CT		Proc Rooms	1
NH OAK HARBOR	Surgery OR		Spaces	2
Seattle VAMC	Cardiac Cath Lab		HrsPerWeek	48
Seattle VAMC	Cardiac Cath Lab		Proc Rooms	1
Seattle VAMC	Critical Care IP		Avail Beds	28
Seattle VAMC	Critical Care IP		Staffed Beds	28
Seattle VAMC	Emergency Department		Spaces	21
Seattle VAMC	GI Lab		Backlog	75
Seattle VAMC	GI Lab		HrsPerWeek	48
Seattle VAMC	GI Lab		Proc Rooms	3
Seattle VAMC	Medical Surgical IP		Avail Beds	100
Seattle VAMC	Medical Surgical IP		AvgOccRate	61
Seattle VAMC	Medical Surgical IP		Staffed Beds	100
Seattle VAMC	Medicine Clinic		Exam Rooms	58
Seattle VAMC	Medicine Clinic		HrsPerWeek	40
Seattle VAMC	Mental Health Clinic		Backlog	30
Seattle VAMC	Mental Health Clinic		Exam Rooms	90
Seattle VAMC	Mental Health Clinic		HrsPerWeek	46
Seattle VAMC	Other	Nursing Home	Avail Beds	48
Seattle VAMC	Other	Nursing Home	AvgOccRate	67
Seattle VAMC	Other	Nursing Home	Staffed Beds	48
Seattle VAMC	Pharmacy	Inpatient	HrsPerWeek	168
Seattle VAMC	Pharmacy	Inpatient	Initialrx	1088406

FACILITY NAME	DEPARTMENT NAME	UNIT NAME	UNIT TYPE	COUNT
Seattle VAMC	Pharmacy	Mail order	Initialrx	433348
Seattle VAMC	Pharmacy	Outpatient Pick-up	HrsPerWeek	58
Seattle VAMC	Pharmacy	Outpatient Pick-up	Initialrx	245804
Seattle VAMC	Psychiatry IP		Avail Beds	48
Seattle VAMC	Psychiatry IP		AvgOccRate	73
Seattle VAMC	Psychiatry IP		Staffed Beds	48
Seattle VAMC	Radiology - CT		Backlog	10
Seattle VAMC	Radiology - CT		HrsPerWeek	75
Seattle VAMC	Radiology - CT		Proc Rooms	2
Seattle VAMC	Radiology - MRI		Backlog	40
Seattle VAMC	Radiology - MRI		HrsPerWeek	68
Seattle VAMC	Radiology - MRI		Proc Rooms	2
Seattle VAMC	Radiology - NM		Backlog	40
Seattle VAMC	Radiology - NM		HrsPerWeek	42
Seattle VAMC	Radiology - NM		Proc Rooms	3
Seattle VAMC	Rehabilitation IP		Avail Beds	12
Seattle VAMC	Rehabilitation IP		AvgOccRate	55
Seattle VAMC	Rehabilitation IP		Staffed Beds	12
Seattle VAMC	SCI		Avail Beds	38
Seattle VAMC	SCI		AvgOccRate	82
Seattle VAMC	SCI		Staffed Beds	38
Seattle VAMC	Surgery OR		Spaces	7
Seattle VAMC	Surgical Specialty Clinic		Exam Rooms	65
Seattle VAMC	Surgical Specialty Clinic		HrsPerWeek	50
Seattle VAMC	Surgical Specialty Clinic		Proc Rooms	2

DoD/VA Joint Assessment Study
Building Condition Assessments

Puget Sound Market Area

Below is information gathered by the engineers on the project team. Building Infrastructure Condition is on a Poor, Fair, Good, Very Good, Excellent subjective scale derived from quick tours of the buildings. Only the major clinical buildings were reviewed. FCI (facility condition index), Plant Replacement Value, and Deferred Maintenance was entered only if provided by the sites. The information contained in the database is not interchangeable with the level of detail that would be derived from a Facilities Master Plan and/or a Facilities Condition Assessment.

FACILITYNAME	BLDG_NAME	BUILDINGID	BLDG_NUM	AGE	BGSF	BNSF	YEAR_BUILT	FCI	REPLACE_VALUE	DEFER_MAINT	CONDITION
American Lake	Administration Building	8	8		16866	14261	1923				
American Lake	Ambulatory Care Building	81	81		93747	76860	1947				
American Lake	Auditorium Building	9	9		10802	10143	1923				
American Lake	Blind Rehabilitation Building	5	5		10123	8476	1923				
American Lake	Canteen Building	132	132		12879	11953	1979				
American Lake	Chapel	111	111		5235	4469	1958				
American Lake	Domiciliary Building	6	6		30184	18809	1923				
American Lake	Drug & Alcohol Unit	4	4		23168	18644	1923				
American Lake	Exercise Hall	62	62		14548	13280	1932				
American Lake	Facility Management/Nursing	17	17		6728	5361	1923				
American Lake	Fire Station/Transport	20	20		5385	4688	1924				
American Lake	Greco/Supt Building	85	85		39592	32601	1947				
American Lake	Kitchen/Dining Hall	3	3		31279	24079	1923				
American Lake	Laundry Building	143	143		18900	17416	1988				
American Lake	Library	71	71		3971	3068	1932				
American Lake	Nursing Home Care Unit	2	2		69051	59150	1923				
American Lake	Operations Shops - FMS	50	50		5619	5023	1923				
American Lake	Operations Shops - FMS	27	27		889	698	1923				
American Lake	P.T.S.D. Building	7	7		21417	18315	1923				
American Lake	Psychiatry Building	61	61		49495	41120	1947				
American Lake	Research/IRM Building	18	18		21550	19280	1932				
American Lake	Social Work/Psychology	16	16		6115	5165	1923				
American Lake	Switchgear Room	86	86		469	388	1946				
American Lake	Vocational Rehabilitation Building	148	148		13698	12342	1989				
American Lake	Warehouse - A&MM	21	21		5046	4569	1923				
American Lake	Warehouse Annex	19	19		9867	9001	1924				
Bremerton OC	Bremerton CBOC	232									Poor
Seattle	Seattle VAMC	236					1980				Fair
NMCL EVERETT	Everett BMC	233					2002				Very Good

Attachments to the Gulf Coast Market Assessment

6. Options for Sharing/Collaboration Identified
7. Functional Assessment Definitions
8. Functional Assessment Grid
9. Facility Condition Grid
10. Supply Counts

Options for Sharing/Collaboration Identified
There is a long list of potential sharing opportunities in this market—some of them involve small shifts of volume, while other require much more systematic change. The lists below are recommendations for further assessment—not recommendations for implementation. At the highest level there appears to be opportunity to rationalize and realign primary, specialty, and inpatient care. Overall, there is an opportunity to improve access for the Veterans while providing a more rich case mix of patients for the DoD.

Gulf Coast Market: Summary Level Options for Further Analysis

- Redistribute, then Right Size Capacity for Primary Care
    1. Open BMCs to VA
    2. Consolidate CBOC Panama City and BMC Panama City
    3. New CBOC at/near Tyndall or open Tyndall to VA
    4. Open Mobile to DoD
    5. New CBOC at/near Eglin or open Eglin to VA

- Realign Inpatient and Specialty Care
    A. Biloxi/Gulfport Submarket – Multiple Options:
        1. Transfer all Medical/Surgical Inpatient Care from Biloxi to Keesler
        2. Transfer all Medical/Surgical Inpatient Care from Keesler to Biloxi
        3. Close BMC Gulfport and shift behavioral health services to Biloxi or Keesler
        4. Build New DoD/VA Federal Hospital to Replace:
            a) Keesler and Biloxi, *or*
            b) Keesler, Biloxi and BMC Gulfport
    B. Eastern submarket options:
        5. Expand /enhance VA access to NHP specialty and I/P care
        6. Expand/open/enhance VA access to Eglin specialty and I/P care

- Assess the Departments current relationships on the "Relationship Grids" and determine whether there are opportunities to achieve better outcomes through different levels of sharing

Summary of General Collaboration Ideas and Opportunities by Category Drawn from Research and Market Site Visits: General

Listed below are examples and representations of joint collaboration/sharing ideas (needs, practices, policies, and plans or initiatives) and opportunities in the study markets. Key X=primary driver; O = secondary driver; all categories may be impacted

Opportunity	PT Care	Facilities	Staffing	Bus/Clin Proc	Gov/Mgmt	IM/IT	Logistic	Education	Research
Develop interoperable IM/IT system				O		X			
Coordinate GME training	X		O		O			X	X
Develop coordinated QM/QI functions				X					
Develop coordinated Utilization Management system				X					
Develop useful balanced scorecard of collaboration relationships				X					
Pursue coordinated offering of primary care	X		O						
Consolidate inpatient (M&S) services at one site	X								
Coordinate research programs			O					X	X
Develop comprehensive free standing VA/DoD Ambulatory Care Center (ACC)	O	X							
Consolidate Ancillary Services - Radiology/Imaging	X	O							
Consolidate Ancillary services - laboratory/pathology	X	O							
Coordinate placement of VA CBOCs with DoD	O	X							
Develop uniform approach to managing patient (medical records)				X		O			
Offer single VA/DoD pharmacy formulary				O			X		
Institute joint procurement of medical equipment							X		
Institute joint procurement of supplies							X		
Institute joint procurement of information technology systems (software and hardware)						O	X		
Develop coordinated clinical information systems				O		X			
Integrate Pharmacy services				O			X		
Offer telemedicine services radiology/imaging	X			O					
Offer telemedicine services mental health	X			O					
Offer integrated clinical programs - all specialties	X		O						
Share housekeeping							X		
Share laundry							X		
Share engineering and maintenance							X		
Create common management infrastructure					X				
Develop joint ambulatory surgery program	X	O							
Offer consolidated nutrition care services				O			X		
Share Audiology services	X	O							
Unify VA/DoD mental health services on one site	X	O							
Create joint hospitalist program	X								
Develop coordinated health education and training program			O					X	X
Develop comprehensive and coordinated long term care services and facilities	O	X							
Coordinate recruitment and retention of physicians	O		X						
Coordinate recruitment and retention of technical and professional personnel			X						
Develop shared family practice residency program	O							X	X
Coordinate delivery of joint substance abuse program	X								
Develop medical and surgical specialty residency program	X							X	X
Coordinate panel sizes and productivity standards				X				O	O
Implement common access (time distance waiting) standards	O			X					
Coordinate development of clinical practice guidelines				O				X	X
Develop common protocols for measuring and monitoring clinical outcomes data	X			O					
Consolidate unused space		X							
Create joint planning office					X				
Develop common health promotion and prevention program			X	O					
Develop compressive and coordinated cancer management program	X		O						
Establish uniform and coordinated approach to dealing with community hospitals				O	X				
Coordinate HR policies particularly pay scales			O	X					
Revisit and intensify joint disaster preparedness				X					
Implement joint transportation services							X		
Consolidate emergency room services and facilities	O	X							
Create joint float pools			X						
Develop and coordinate home care programs	X		O						
Jointly investigate new technology				O			X		
Share library resources		O					X		
Share education space		X						O	O
Other									

Source: Research and Site Visits

Summary of General Collaboration Ideas and Opportunities by Category Drawn from Research and Market Site Visits: Gulf Coast

Listed below are examples and representations of joint collaboration/sharing ideas (needs, practices, policies, and plans or initiatives) and opportunities in the study markets. Key X= Identified opportunity based on interview data base

Opportunity	VAMC	Gulf Port	Keesler	NH Pensacola	Eglin
Develop Gulfport Campus for all long term care and mental health for all VA and DoD beneficiaries		X			
Maximize patient care space for patient care activities		X	X		
Develop opportunity for shared transportation systems	X	X	X	X	X
Develop shared contracts for procurement and materials management	X		X	X	X
Improve access to both inpatient and outpatient services for veterans in the eastern portion of the market	X			X	X
Consider closing Gulf Port and operate VAMC Biloxi and Keesler as a two hospital system	X	X	X		
Expand home care services by VA to DoD	X				
Collocate VA and DoD primary care services at Eglin and Tyndall AFB, and with Pensacola	X			X	X
Develop joint strategic planning process between VA and each major military facility	X		X	X	X
Share specialty staff between VA and military facilities	X		X		X
Sharing opportunities.					
1. Logistics	X	X	X	X	X
2. Pharmacy	X	X	X	X	X
3. Lab	X	X	X		
4. X-ray	X	X	X		
5. Resource Management	X	X	X		
6. Patient administration	X	X	X		
7. Human Resources	X	X	X		
8. Facility management	X	X	X		
9. Case management.	X	X	X		
10. Laundry/Linen	X	X	X		
11. Medical Waste	X	X	X	X	X
12. Transport	X	X	X		
13. Collaborative research	X	X	X		
14. Joint medical credentialing	X	X	X	X	X
15. Social work and psychology program.	X	X	X		
Culminate strong leadership to build on collaboration opportunities	X		X	X	X
Expand VA and DoD quality measurement initiatives	X		X	X	X
Develop joint credentialing program	X		X	X	X
Develop joint rehabilitation programs (PT, OT, cardiac)	X	X	X	X	X
Expand radiology and teleradiology capabilities to compensate for shortages of physicians and technicians	X		X	X	X
Develop joint education and training programs	X		X	X	X
Develop CBOC near Eglin	X				X
Develop sharing agreements in an incremental manner and responsive to real needs					X
Develop stronger joint GME programs that answer both training and readiness requirements	X		X	X	X
Develop programs that consolidate inpatient care, mental health and ancillaries for both populations	X		X		X
Offer MRI and cardiac cath in eastern (panhandle) markets at Eglin and Pensacola vs. relying on the private sector				X	X
Develop joint research programs between VA and DoD	X		X	X	X
Conduct joint research projects to discover best and most effective performance measurement indicators	X		X		X
Develop quality measures based on the metrics of "time spent with patients" These can be normalized for both VA and DoD.	X		X		
Develop health care delivery access using med evac capabilities of the three military services	X		X	X	X
Consider the Gulf Coast as a linear market with pockets of VA and DoD populations	X		X	X	X

DoD/VA Joint Assessment Study
Site Visit Database Summary
Market: Gulf Coast
Submarket: Biloxi/Gulfport
Facility: Keesler AFB
Interview Summary

- ***General Statement:*** Home to 81st Medical Group
- Second largest medical center in the Air Force.
- Keesler AFB offers a wide array of inpatient, outpatient, and specialty care services
- Serves more than 56,000 beneficiaries within a 40-mile catchment area
- Staff of more than 2,100
- Maintains active graduate medical education and research programs.

Organizational Relationships: Keesler maintains multiple impatient, outpatient, and ancillary service sharing arrangements with Biloxi VAMC. Mental health sharing agreements exist with VA Gulfport.

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Patient/Clinical Care	• The military has need for a challenging patient load, which the VA population can provide. Their patients are chronic, with multiple diseases and have terrific academic links. • It is fundamental that military and veteran beneficiaries should have reasonable access to any military or VA facility that is located along the coast. • The VA needs the access to care and the capital infrastructure, which the military health system can provide. • It is reported that many veterans are moving to this region creating an influx of demand for care, which may be best met by military assets. • The needs of each specialty are different and no one solution is going to work for all services. • Adjacent but separated VA and military outpatient facilities on campus of a medical center is	• Develop joint GME Programs • Placement of services that are accessible to all beneficiaries • Develop joint staffing model and place VA and active duty patients as appropriate

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	desirable. but different facilities to care for mental health patients should be assigned to the VA and obstetrics and pediatrics should be assigned to the military.	
Medical/Surgical	• Some inpatient services such as medicine and surgery could be shared.	• Opportunity for increased collaboration with the VA for inpatient services including intensive care assignment of personnel and technical equipment
Specialty Care	• The cardiovascular Center of excellence at Keesler is dependent upon a greater number of patients than exists in which can be supplemented through the air evacuation program serving both federal (VA and military) and civilian population. • Demand and utilization suggests that DoD and VA should consider having a joint center of excellence program in cardiovascular services	• Provide referrals to augment Keeslers programs. • Develop joint Center of Excellence with both DoD and VA patients.
Outpatient	• Physical therapy and emergency services can be subject to much more effective collaboration.	• Develop joint programs and processes
Medical Specialties	• Opportunities exist for greater collaboration in offering radiation oncology	• Consider development of joint programs
Surgical Specialties	• Capacity exists in outpatient surgery	• Joint outpatient surgery
Behavioral Health	• Sharing activity with the VA has focused primarily on mental health.	
Ancillary Services	• Better sharing of laboratory referrals and joint acquisition of blood and blood products can be worked out. • Shortage of Imaging physicians and technicians identified as an issue	• Develop collaborative programs • Expand radiology and teleradiology capabilities to compensate for shortages of physicians and technicians

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Management/Governance	• Where personalities mesh, there are good examples of effective collaboration. More often however, individuals within a command structure in the military or network executives within the VISN can reject or overrule sharing initiatives. This can hold true for any of the military services. Sharing agreements can be canceled with us 30 to 60 days notice. • The guidance from national authorities on the sharing program have been inconsistent and often contradictory leaving it to local authorities to figure out how best to shape sharing activities in terms of patient referrals	• The success is dependent on a win/win philosophy. • Strategic plan coordination with the VA should serve as the foundation for all performance measurement activities affecting collaboration activities. • Take advantage of strong leadership that currently exists to build on collaboration opportunities
Clinical/Business Processes	• Determinations of benefits are not uniform. It was noted that dental benefits are widely different between V. A. and department of defense • Real quality can be effectively measured by the "time" a clinician spends with a patient and measurements should be focused on this objective. DoD and VA can collaborate on this endeavor.	• Performance measurements reporting and the notion of the balance scorecard reporting between DoD and VA should be investigated • Build upon DoD and VA quality measurement initiatives
Facilities	• It was reported that much of the inpatient facilities have been converted to either outpatient functions or to administrative space. • Space shortages are reported to exist in a few areas concentrated in the surgical suite, training and conference space, and in some of the clinics areas. There are also significant areas of unused	• Conduct master facilities plan in coordination with the VA. • Consider closing Gulf Port and operate VAMC Biloxi and Keesler as a two hospital system.

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	space. • Campus expansion is somewhat limited at the Keesler site, although there is land currently used for base housing that directly abuts the veteran's administration campus. • Access to base is a barrier particularly during times of heightened security	
IM/IT	• IM/IT limit communication of vital information	• Identified need to develop interoperable information management systems
Logistics	• Currently there is some sharing that includes laundry services, security, fire and rescue.	• Develop more extensive sharing processes
Education and Training	• Currently medical care on the military bases is much less intense than military preparedness should warrant. The veterans provide a population that is challenging to the staff and which can support a meaningful graduate medical education and residency mission.	• Consider much stronger joint GME programs that answer both training and readiness requirements for both agencies • Develop arrangements whereby VA, DoD, and medical schools collaborate in ways that are dynamic and innovative
Research	• Currently very little research sharing has occurred with the veterans administration.	• Opportunities exist for greater sharing of research capabilities particularly relating to emergency training and provision of air evacuation capabilities • Develop joint research programs between DoD and VA • Conduct joint research projects to discover best and most effective performance measurement indicators

DoD/VA Joint Assessment Study
Site Visit Database Summary
Market: Gulf Coast
Sub market: Biloxi/Gulfport
Facility: VAMC Biloxi and Gulfport
Interview Summary

- ***General Statement***: The Gulf Coast Veterans Health Care System (GCVHCS) describes itself as having five divisions and is anchored by a two division Hospital – VAMC Biloxi and VA Gulfport. There are 3 CBOC's (Mobile, Pensacola, and Panama City).

Organizational Relationships: 21 documents identifying multiple sharing agreements, MOUs, and planning initiatives that affect:

- VAGCVHCS–Biloxi, 96th Medical Group, Eglin AFB
- VAMC–Biloxi, 16th Medical Group Hurlburt Field
- VAMC–Jackson, MS Naval Hospital Pensacola
- VAMC–New Orleans, 325th Medical Group Tyndall AFB
- VBA–Jackson, 81st Medical Group Keesler AFB
- VBA–Regional Office, St. Petersburg Armed Forces Retirement Home
- VBA–New Orleans, US Navy Retirement Home
- 13 DoD/VA Sharing agreements in place with six military facilities
- Agreements include selling, buying and sharing of staff, space, clinical and non-clinical services
- $1,659,976 Total DoD/VA Sharing FY 02
- $ 1,991,625.96 DoD/VA Sharing FY 03 through April 2003

DoD/VA Joint Assessment Study
Site Visit Database Summary
Market: Gulf Coast
Submarket: Pensacola
Facility: NH Pensacola
Interview Summary
General Statement: NH is a full service medical center offering a wide array of inpatient, outpatient, and ancillary services. It is responsible for ten (10) branch medical centers, of which seven (7) are located in the Gulf Coast market area and three (3) are located in other markets.

Descriptive features of NH Pensacola include:
- Sixth Naval medical facility built in the US
- Existing 8-story, 60-bed hospital (sixth construction) opened in 1976.
- First MTF to be built off base.
- Operates 10 Branch Medical Clinics (BMCs)
- NH and BMCs serve 20,000 active duty and 74,000 family members and retirees
- Family practice residency training program
- Fleet Hospital on-site (900 personnel)
- New Outpatient Clinic opened in January 2002
- Six new maternity suites were opened in March 2002 (currently 600 deliveries per year at NH)

Organizational Relationships: NH Pensacola maintains a number of resource sharing agreements with VAGCVHCS affecting the following Services: Inpatient ,Emergency ,Radiology, Orthopedics, Other Outpatient (e.g. Ophthalmology, Neurology, ENT),Pharmacy, Mental Health, and Laboratory

NH Pensacola and VA have been actively engaged in planning an outpatient ambulatory care center to be sited somewhere in the Pensacola area.

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Patient/Clinical Care	• The biggest opportunity for VA is to gain access to DoD (inpatient and outpatient facilities) in the eastern portion of the market (Florida Panhandle).	• Develop health care delivery access using med evac capabilities of the three military services
Inpatient		
Medical/Surgical		
Specialty Care		
Behavioral Health		
Extended Care		
Outpatient		
Medical Specialties		
Surgical Specialties		
Behavioral Health		
Ancillary Services	• Currently, physical therapists in the area only see TRICARE patients. • DoD and VA have different formularies.	• Provide for access to DoD facilities by veterans vs. having to travel to Biloxi. • Consider development of joint pharmacy formulary and plan for service delivery to both veteran and military beneficiaries.
Management/Governance		• Develop joint strategic planning process between VA and each major military facility
Clinical/Business Processes		• Opportunity for shared transportation systems • Build upon DoD and VA quality measurement initiatives • Develop joint credentialing program • Build upon joint sharing of patient satisfaction surveys.
Facilities	• Space and facility	• Low census allows use of

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	limitations at BMC Gulf Port	inpatient areas for outpatient and administrative functions
Staffing	• Lack of staff in some sub-specialties (e.g. urologists) • Different pay scales and employee benefits	• Coordinate recruitment and retention of physicians • Coordinate HR policies particularly pay scales
IM/IT	• Lack of interoperability between DoD and VA	• Develop interoperable information system
Logistics		
Education and Training		• Develop joint education and training programs • Consider much stronger joint GME programs that answer both training and readiness requirements
Research		• Develop joint research programs between DoD and VA

DoD/VA Joint Assessment Study
Site Visit Database Summary
Market: Gulf Coast
Submarket:/Eglin
Facility: Eglin AFB
Interview Summary

General Statement: Eglin AFB Medical Center is a full service facility offering a wide array of inpatient, outpatient, and ancillary services. The Eglin Air Force Base covers over 700 square miles. It is anticipated that the military mission will continue, if not grow for the foreseeable future

Organizational Relationships: Eglin AFB Medical Center maintains or is engaged in a number of resources sharing agreements or planning initiatives with VAGCVHCS including: compensation and pension examinations, and ENT consults.

Eglin AFB and VAGCVHCS are currently planning for development of an approximate 15,000 SF CBOC that will be located near but outside the gates of Eglin medical center. It is anticipated that the CBOC will procure some services from Eglin including radiology, laboratory, and pharmacy services.

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Patient/Clinical Care	• The biggest opportunity for VA is to gain access to DoD (inpatient and outpatient facilities) in the eastern portion of the market (Florida Panhandle).	• Develop unified strategic plan with VA to serve VA and military beneficiaries residing in the eastern areas of the Gulf Coast market.
	• Congress usually wants to "solve the dual eligible question". It is a highly sensitive issue and the numbers should be sorted out.	• Develop a unified data base that identifies dual user utilization.
	• There is need to distinguish patient and clinical care services that can be candidates for VA DoD collaboration	• Opportunities exist for Eglin Air Force Base hospital to do all inpatient, mental health, and ancillary services. Outpatient primary and

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	• VA needs military infrastructure capabilities and military needs VA patient mix	specialty care can continue to be separated. However, with two huge systems starving for funds, it is very important that every effort be made to improve sharing and collaboration. • Collocate DoD and VA primary care services at Eglin and Tyndall AFB.
Inpatient	• There have been mixed and uneven levels of satisfaction with various services that are referred to community hospitals.	• Concentrate on improving DoD and VA patient services that depend on community hospitals as second order back up facilities.
Behavioral Health	• Currently mental health patients are sent downtown and there are no provisions in the MILCON to accommodate mental health patients at this time	• Develop unified mental health plan with VA to serve mental health patients in the eastern areas of the Gulf Coast market.
Outpatient	• There is need for building a VA accessible CBOC near the Eglin Air Force Base hospital.	• CBOC is being planned to be located outside the gates so as to be accessible to the veterans.
Ancillary Services	• Lack of radiologists force us to rely on contractors and private providers.	• Offer MRI and cardiac cath in eastern (panhandle) markets at Eglin and Pensacola vs. relying on the private sector • Expand radiology and teleradiology capabilities to compensate for shortages of physicians and technicians
Management/Governance	• For sharing to be successful, it is important to develop memorandums of understanding in "real-time" and do it in an evolutionary manner rather	• Conduct "pilot studies" and then prepare DoD/VA collaboration initiatives based on tested experiences in order to gain support and achieve most effective

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	than trying to anticipate all possible outcomes. • Barriers almost always can be traced to leadership philosophy towards collaboration. A win - win attitude is key	outcomes. • Governance and leadership is the key to success. Every effort must be made to cultivate senior leadership and the rest will follow. • Take advantage of strong leadership that currently exists to build on collaboration opportunities
Clinical/Business Processes	• Quality has several elements including education and training, risk management, safety management, credentialing, and infection control. Efforts are underway at Eglin to combine these qualitative activities in an organized fashion. The interviewee believes that orientation and training is the key to any quality program. • In terms of performance measurement, interviewee believes this is essentially a decentralized process. it should be handled at the service line or departmental level using multiple sets of criteria meaningful to those actually rendering the care.	• Opportunity exists for DoD and VA. quality initiatives to be worked out in a coordinated fashion. • Opportunity for shared transportation systems • Opportunity to build upon DoD and VA quality measurement initiatives
Facilities	• Access to base is a barrier particularly during times of heightened security	• Develop access plan for veterans
Staffing	• Staffing is the limiting factor in most instances. There are deficiencies in some sub specialties	• Review opportunities to share staff (e.g. VA ENT physician at Eglin.)
IM/IT	• It is imperative to solve the information systems "lack of interoperability" or "all bets are off".	• Pursue development of interoperable IMIT system

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Education and Training	• Education, patient care, and readiness missions are key to military medicine key and may be met through VA relationships.	• Revisit entire GME requirements in the context of a stronger and different educational relationship with VA including possible controlled embedding of the GME program in VA facilities, • Develop joint education and training programs
Research	• Separate DoD and VA research activities	• Develop joint research programs between DoD and VA • Conduct joint research projects to discover best and most effective performance measurement indicators

Functional Assessment Red/Amber/Green Definitions

	Size
G	Area within ± 10% of programmed area
A	Area is > ± 10% of Prog. Area
R	Area is < ± 10% of Prog. Area (GSF), and rooms have specific requirements which are difficult/expensive to repair
	Configuration
G	Configuration appropriate to accomplish mission
A	Not good, but could be easily altered in place
R	Not Configured To do Mission – ex. Department split, patient floor, inappropriate room size
	Location
G	Department located appropriately in building for efficiency and ease of staff and patients
A	Location is not an issue for efficiency and convenience for staff and patients
R	Department location is inconvenient in the building and causes inefficiency for staff and patients
	Adjacency
G	Adjacent to appropriate departments for operational or patient ease/efficiency or can stand independent of other departments
A	Would like certain adjacency but function OK
R	Needs to be located near another department
	Interior – Image
G	Appropriate and up to date
A	Appropriate but appears dated
R	Inappropriate for use
	Interior Condition
G	In excellent condition
A	In fair condition
R	Needs replacement
	ADA Compliance
G	Meets ADA requirements for area and access
A	ADA requirements met through adaptation of space and systems where possible
R	Does not meet ADA requirements

Key: G=Green, A=Amber, R=Red

DoD/VA Joint Assessment Study **Gulf Coast Market Area**

Functional Assessments

Below are the results from cursory department tours made by architects on the project team. Only the major clinical buildings were reviewed. The departmental scores (size, configuration, location, adjacency, interior image, interior condition, ADA compliance) are subjectively derived from quick tours of the departments. The information contained in the database is not interchangeable with the level of detail that would be derived from a Facilities Master Plan and/or a Facilities Condition Assessment.

FACILITYNAME	DEPARTMENTNAME	SPECIFICDEPT	FLOOR	DGSF	SIZE SCORE	CONFIG SCORE	LOCATION SCORE	ADJACENCY SCORE	INT IMAGE SCORE	INT COND SCORE	ADA COMP SCORE
Biloxi VAMC	Critical Care IP	MICU (4)	4	4542	R	R	G	G	A	A	R
Biloxi VAMC	Critical Care IP	SICU (6)	4	4541	R	R	G	G	A	A	R
Biloxi VAMC	Dental Clinic	Dental Clinic	1	4403	G	G	G	G	G	A	R
Biloxi VAMC	Diagnostic Other	EEG/Neurology	3	217	G	G	G	G	A	A	R
Biloxi VAMC	Diagnostic Other	Pathology	3	9870							
Biloxi VAMC	Diagnostic Other	Radiology	2	15188	G	G	G	G	A	A	R
Biloxi VAMC	Emergency Department	Emergency	1	3583	R	R	G	A	A	A	R
Biloxi VAMC	Family Practice Clinic	Primary Care	1	14731	G	G	G	G	A	A	R
Biloxi VAMC	Medical Surgical IP	Intermediate Care Beds	5	3215	G	A	G	G	G	A	R
Biloxi VAMC	Medical Surgical IP	Medical	3	9495	G	A	G	G	G	A	R
Biloxi VAMC	Medical Surgical IP	Medical	5	3034	G	A	G	G	G	A	R
Biloxi VAMC	Medical Surgical IP	Surgical	3	2778	G	A	G	G	G	A	R
Biloxi VAMC	Medicine Clinic	Audiology	2	2604	G	G	G	G	A	A	R
Biloxi VAMC	Medicine Clinic	Cardiology	2	2474	G	G	G	G	A	A	R
Biloxi VAMC	Medicine Clinic	Pulmonary	3	1900	G	G	G	G	A	A	R
Biloxi VAMC	Other	35 Beds	1	18917							
Biloxi VAMC	Other	66 Beds	3	20544							
Biloxi VAMC	Other	70 Beds	2	22775							
Biloxi VAMC	Other	Administration	2	12000							
Biloxi VAMC	Other	Administration	2	3829							
Biloxi VAMC	Other	Chaplin	1	4475							
Biloxi VAMC	Other	Medical	3	1499							
Biloxi VAMC	Other	Nursing Home Care	2	23297							
Biloxi VAMC	Other	Pharmacy	1	3500							
Biloxi VAMC	Other	Pharmacy	2	5671							
Biloxi VAMC	Other	Substance Abuse Clinic	3	1642							
Biloxi VAMC	Other	Vacant	5	9548							
Biloxi VAMC	Radiology - NM	Nuclear Medicine	2	3053	G	G	G	G	A	A	R
Biloxi VAMC	SCI	Rehabilitation Medicine	1	4963	G	G	G	G	A	A	R
Biloxi VAMC	Surgery OR	OR Suite	4	12962	G	G	G	G	G	A	R
Biloxi VAMC	Surgery Support	Ambulatory Surgery	4	2354							
Biloxi VAMC	Surgery Support	SPD	3	8368							
Biloxi VAMC	Surgical Specialty Clinic	ACS	1	9671	G	A	A	A	G	A	R
Biloxi VAMC	Surgical Specialty Clinic	ACS	4	7074	G	R	R	R	A	A	R
Biloxi VAMC	Surgical Specialty Clinic	Eye	1	4963	G	G	G	G	A	A	R
Biloxi VAMC	Surgical Specialty Clinic	Geratric Clinic	1	11399							
Biloxi VAMC	Surgical Specialty Clinic	Unknown	2	1871	G	G	G	G	A	A	R
Biloxi VAMC	Surgical Specialty Clinic	Urology	1	2350	G	A	G	G	G	A	R
Eglin AFB	Dental Clinic	Dental Clinic	3 (N)	16800	G	A	A	A	A	A	R
Eglin AFB	Diagnostic Other	Mammo/Ultrasound	1	4096	G	A	A	A	A	A	R
Eglin AFB	Diagnostic Other	Radiligy	1	9728	G	A	A	A	A	A	R
Eglin AFB	Distinctive Programs	Aerospace Medicne	2 Clinic	12000	G	G	G	G	G	G	G
Eglin AFB	Distinctive Programs	Flight Medicne/Force Health	2 (N)	11200	G	A	A	A	A	A	R
Eglin AFB	Emergency Department	Emergency	1	10560	G	G	G	G	G	G	G
Eglin AFB	Family Practice Clinic	OB/GYN Clinic	2 Clinic	12000	G	G	G	G	G	G	G
Eglin AFB	Family Practice Clinic	Primary Care	1	39424	G	A	A	A	A	A	R
Eglin AFB	Family Practice Clinic	Primary Care	1 Clinic	24000	G	G	G	G	G	G	G
Eglin AFB	Medical Surgical IP	Med/Surg	4 (S)	21000	R	R	A	A	R	R	R
Eglin AFB	Medicine Clinic	Allergy/Immunization	1	5760	G	A	A	A	A	A	R
Eglin AFB	Mental Health Clinic	Life Skills	2 (N)	5600	G	A	A	A	A	A	R
Eglin AFB	OB	LDRs (9) & Mother/Baby Unit (38)	3 (S)	21000	G	G	G	G	G	G	R
Eglin AFB	Other	A & D	1	960							
Eglin AFB	Other	Command Suite	1	8064							
Eglin AFB	Other	Facilities	1	1920							

FACILITYNAME	DEPARTMENTNAME	SPECIFICDEPT	FLOOR	DGSF	SIZE SCORE	CONFIG SCORE	LOCATION SCORE	ADJACENCY SCORE	INT IMAGE SCORE	INT COND SCORE	ADA COMP SCORE
Eglin AFB	Other	IMD		1 7168							
Eglin AFB	Other	Kitchen		1 11520							
Eglin AFB	Other	Logistics		1 20480							
Eglin AFB	Other	Medical Library		1 1344							
Eglin AFB	Other	Medical Readiness Storage		1 1920							
Eglin AFB	Other	Outpatient Records		1 4224							
Eglin AFB	Other	Pathology		1 7680							
Eglin AFB	Other	Pharmacy		1 6336							
Eglin AFB	Other	TRICARE		1 7680							
Eglin AFB	Radiology - NM	Nuclear Medicne		1 1600	G	A	A	A	A	A	R
Eglin AFB	Surgery OR	Operating Rooms (4)	2 (S)	2200	G	A	A	A	A	A	R
Eglin AFB	Surgery Support	Prep/Recovery/Staff Areas	2 (S)	18000	G	A	A	A	A	A	R
Eglin AFB	Surgical Specialty Clinic	Cardio Pulmonary		1 11968	G	A	A	A	A	A	R
Eglin AFB	Surgical Specialty Clinic	ENT		1 1536	G	A	A	A	A	A	R
Eglin AFB	Surgical Specialty Clinic	Orthopedics		1 6656	G	A	A	A	A	A	R
Eglin AFB	Surgical Specialty Clinic	Surgery		1 7680	G	A	A	A	A	A	R
Gulfport VAMC	Diagnostic Other	Pathology		2 270	G	G	G	G	G	G	R
Gulfport VAMC	Diagnostic Other	Radiology		2 537	G	G	G	G	G	G	R
Gulfport VAMC	Family Practice Clinic	Primary Care		1 244	G	A	G	G	G	G	R
Gulfport VAMC	Family Practice Clinic	Primary Care		2 3082	G	A	G	G	G	G	R
Gulfport VAMC	Medicine Clinic	Rehab Medicine		1 1328	G	G	G	G	G	G	R
Gulfport VAMC	Mental Health Clinic	Mental Health		1 8373	G	G	G	G	G	G	R
Gulfport VAMC	Mental Health Clinic	Mental Health		2 241	G	G	G	G	G	G	R
Gulfport VAMC	Mental Health Clinic	Psycology		1 5543	G	G	G	G	G	G	R
Gulfport VAMC	Other	Administration		2 1216							
Gulfport VAMC	Other	Administration		2 12569							
Gulfport VAMC	Other	Administration		3 1032							
Gulfport VAMC	Other	Mental Health Day (33)		2 14525							
Gulfport VAMC	Other	Nursing Home Care (27)		2 13995							
Gulfport VAMC	Other	Nursing Home Care (29)		1 13666							
Gulfport VAMC	Other	Vacant		1 1352							
Gulfport VAMC	Other	Vacant		1 13626							
Gulfport VAMC	Other	Vacant		2 13097							
Gulfport VAMC	Other	Vacant		3 2402							
Gulfport VAMC	Other	Vacant		3 6908							
Gulfport VAMC	Psychiatry IP	Mental Health (29)		1 13708	R	R	G	G	R	R	R
Gulfport VAMC	Psychiatry IP	Mental Health (29)		2 13500	R	R	G	G	R	R	R
Gulfport VAMC	Psychiatry IP	Mental Health (33)		1 13083	R	R	G	G	R	R	R
Gulfport VAMC	Surgical Specialty Clinic	Podiatry		2 2508	G	G	G	G	G	G	R
Keesler MC	Critical Care IP	ICU/CCU		2 12510	G	R	G	G	R	R	R
Keesler MC	Dental Clinic	Oral Surgery		1 2000	G	G	G	G	R	R	R
Keesler MC	Diagnostic Other	Radiology		1 16800	G	G	G	G	R	R	R
Keesler MC	Distinctive Programs	Flight Medicine/Physical Exams	B	9600	G	G	G	G	R	R	R
Keesler MC	Emergency Department	Emergency Services Clinic	B	20898	G	G	G	G	R	R	R
Keesler MC	Family Practice Clinic	Family Practice	B	14000	A	G	G	G	R	R	R
Keesler MC	Family Practice Clinic	OB/GYN	B	11200	G	G	G	G	R	R	R
Keesler MC	Family Practice Clinic	Pediatric Speciality Clinic		5 6570	G	R	R	R	R	R	R
Keesler MC	Family Practice Clinic	Pediatrics	B	9100	G	G	G	G	R	R	R
Keesler MC	Medical Surgical IP	Medical/Pediatric Unit		4 8208	G	G	G	G	R	R	R
Keesler MC	Medical Surgical IP	Surgical Unit		3 9438	G	G	G	G	R	R	R
Keesler MC	Medicine Clinic	Allergy/Immunizations	B	6000	G	G	G	G	R	R	R
Keesler MC	Medicine Clinic	Cardiology/Pulmonary/Neurology		1 19000	G	G	G	G	R	R	R
Keesler MC	Medicine Clinic	Gastroenterology/Pulmonary		1 7200	G	G	G	G	R	R	R
Keesler MC	Medicine Clinic	Genetics	B	6750	G	G	G	G	R	R	R
Keesler MC	Medicine Clinic	Internal Medicine		1 13000	G	G	G	G	R	R	R
Keesler MC	Medicine Clinic	Nephrology/Dialysis		3 4300	G	R	G	G	R	R	R
Keesler MC	Medicine Clinic	Physical Medicine	B	3500	G	G	G	G	R	R	R
Keesler MC	Mental Health Clinic	Life Skills Support Center		5 8200	G	R	R	R	R	R	R
Keesler MC	Mental Health Clinic			1 7900	G	G	G	G	R	R	R
Keesler MC	OB	Labor and Delivery Suite		3 8721	R	R	G	G	R	R	R

FACILITYNAME	DEPARTMENTNAME	SPECIFICDEPT	FLOOR	DGSF	SIZE SCORE	CONFIG SCORE	LOCATION SCORE	ADJACENCY SCORE	INT IMAGE SCORE	INT COND SCORE	ADA COMP SCORE
Keesler MC	OB	OB Inpatient Unit	3	8280	R	R	G	G	R	R	R
Keesler MC	Other	CMS	B	24219							
Keesler MC	Other	Command/Auditorium/81st	1	20788							
Keesler MC	Other	Facilities Management	B	22482							
Keesler MC	Other	IMD	B	11706							
Keesler MC	Other	Kitcen/Dining	B	12000							
Keesler MC	Other	Logistics	B	10089							
Keesler MC	Other	Logistics	B	10692							
Keesler MC	Other	Logistics	B	14886							
Keesler MC	Other	Logistics	B	27909							
Keesler MC	Other	Optometry	B	7000							
Keesler MC	Other	Outpatient Records	B	2000							
Keesler MC	Other	Pathology	1	27000							
Keesler MC	Other	Pathology	B	28000							
Keesler MC	Other	Patient Administration	1	6000							
Keesler MC	Other	Pharmacy	B	6300							
Keesler MC	Other	Resident Call Rooms	2	6480							
Keesler MC	Other	TRICARE/Resource Management	4	7200							
Keesler MC	Radiation Therapy	Linear Accelerator	B	7700	G	G	G	G	R	R	R
Keesler MC	Radiology - CT	Cardiac Cath	1	2000	G	G	G	G	R	R	R
Keesler MC	Radiology - NM	Nuclear Medicine	1	3300	G	G	G	G	R	R	R
Keesler MC	Surgery OR	Operating Rooms	2	5000	R	R	G	G	R	R	R
Keesler MC	Surgery Support	PACU/Lockers	2	6000	A	R	G	G	R	R	R
Keesler MC	Surgery Support	Same Day Surgery	2	4230	G	R	G	G	R	R	R
Keesler MC	Surgical Specialty Clinic	EENT Clinic	B	9000	G	G	G	G	R	R	R
Keesler MC	Surgical Specialty Clinic	General/Vascular/Plactics	1	17600	G	G	G	G	R	R	R
Keesler MC	Surgical Specialty Clinic	Opthalmology	B	9600	G	G	G	G	R	R	R
Keesler MC	Surgical Specialty Clinic	Orthopedics	1	8800	G	G	G	G	R	R	R
Mobile CBOC	Diagnostic Other	Pathology	1	726							
Mobile CBOC	Diagnostic Other	Radiology	1	1084							
Mobile CBOC	Family Practice Clinic	Primary Care	1	5907	A	A	G	G	G	G	A
Mobile CBOC	Medicine Clinic	Audiology	1	1843	G	G	G	G	G	G	A
Mobile CBOC	Mental Health Clinic	Mental	6	700	G	A	A	G	G	G	A
Mobile CBOC	Other	Administration	1	2660							
Mobile CBOC	Other	Pharmacy	1	1879							
NH Pensacola	Diagnostic Other	Radiology	1	11592	G	G	G	G	G	G	R
NH Pensacola	Emergency Department	Emergency	1	10800	G	G	G	G	G	G	R
NH Pensacola	Family Practice Clinic	Family Practice	2	12000	G	G	G	G	G	G	G
NH Pensacola	Family Practice Clinic	OB/GYN Clinic	1	6552	G	G	G	G	G	G	G
NH Pensacola	Family Practice Clinic	Pediatric Clinic	1	8568	G	G	G	G	G	G	G
NH Pensacola	Medical Surgical IP	Inpatient Unit (34 Beds)	4	10160	R	R	G	G	R	R	R
NH Pensacola	Medicine Clinic	Internal Medicne Clinic	1	7020	G	G	G	G	G	G	R
NH Pensacola	Medicine Clinic	Neurology	6	5080	G	R	R	R	A	A	R
NH Pensacola	OB	Labor and Delivery	8	20320	G	G	G	G	G	G	G
NH Pensacola	OB	Post Partum Unit	7	5080	R	R	R	R	R	R	R
NH Pensacola	Other	Administration	1	3276							
NH Pensacola	Other	Administration	1	5040							
NH Pensacola	Other	Administration	3	12000							
NH Pensacola	Other	Administration	3	14420							
NH Pensacola	Other	Administration	4	10000							
NH Pensacola	Other	Administration	5	15240							
NH Pensacola	Other	Administration	6	15240							
NH Pensacola	Other	Administration	7	15240							
NH Pensacola	Other	Kitchen	1	9720							
NH Pensacola	Other	Laboratory	1	9720							
NH Pensacola	Other	Logistics	1	14976							
NH Pensacola	Other	Pharmacy	1	6084							
NH Pensacola	Radiology - NM	Nuclear Medicine	1	2016	G	G	G	G	G	G	R
NH Pensacola	Surgery OR	OR Suite	4	12000	A	A	G	G	A	A	R
NH Pensacola	Surgery Support	Phase II Recovery (13)	4	7000							

FACILITYNAME	DEPARTMENTNAME	SPECIFICDEPT	FLOOR	DGSF	SIZE SCORE	CONFIG SCORE	LOCATION SCORE	ADJACENCY SCORE	INT IMAGE SCORE	INT COND SCORE	ADA COMP SCORE
NH Pensacola	Surgical Specialty Clinic	Dermatology	2	5000	G	G	G	G	G	G	G
NH Pensacola	Surgical Specialty Clinic	ENT/Audiology	2	5000	G	G	G	G	G	G	G
NH Pensacola	Surgical Specialty Clinic	General Surgery Clinic	1	12960	G	G	G	G	G	G	R
NH Pensacola	Surgical Specialty Clinic	Opth/Opt	2	5000	G	G	G	G	G	G	G
NH Pensacola	Surgical Specialty Clinic	Orthopedics Clinic	1	8640	G	G	G	G	G	G	R
NH Pensacola	Surgical Specialty Clinic	Urology Clinic	1	1728	G	G	G	G	G	G	R
Pensacola CBOC	Dental Clinic	Dental	1	1410	G	G	G	G	A	R	R
Pensacola CBOC	Diagnostic Other	Pathology	1	1267							
Pensacola CBOC	Diagnostic Other	Radiology	1	2625	G	G	G	G	A	R	R
Pensacola CBOC	Diagnostic Other	Radiology	1	2625							
Pensacola CBOC	Family Practice Clinic	Primary Care	1	14415	G	G	G	G	A	R	R
Pensacola CBOC	Medicine Clinic	Audiology	1	1093	G	G	G	G	A	R	R
Pensacola CBOC	Mental Health Clinic	Mental	1	7000	G	G	G	G	G	G	G
Pensacola CBOC	Other	Administration	1	1944							
Pensacola CBOC	Other	Administration	1	2466							
Pensacola CBOC	Other	Compensation & Disposition	1	1980							
Pensacola CBOC	Other	Optometry	1	922							
Pensacola CBOC	Other	Pharmacy	1	3137							
Pensacola CBOC	Surgical Specialty Clinic	Opthalmology	1	607	G	G	G	G	A	R	R

DoD/VA Joint Assessment Study
Building Condition Assessments

Gulf Coast Market Area

Below is information gathered by the engineers on the project team. Building Infrastructure Condition is on a Poor, Fair, Good, Very Good, Excellent subjective scale derived from quick tours of the buildings. Only the major clinical buildings were reviewed. FCI (facility condition index), Plant Replacement Value, and Deferred Maintenance was entered only if provided by the sites. The information contained in the database is not interchangeable with the level of detail that would be derived from a Facilities Master Plan and/or a Facilities Condition Assessment.

FACILITYNAME	BLDG_NAME	BUILDINGID	BLDG_NUM	AGE	BGSF	BNSF	YEAR_BUILT	FCI	REPLACE_VALUE	DEFER_MAINT	CONDITION
16th MED GRP-HURLBURT FIELD	Clinic	212			68000		1992				Very Good
325th MED GRP-TYNDALL	Outpatient Clinic	238					1965				Fair
325th MED GRP-TYNDALL	Pediatrics Clinic	239					1942				Fair
81st MED GRP-KEESLER	Main Hospital	213	1		800000		1957				Very Good
96th MED GRP-EGLIN	Main Hospital	205			220000		1953				Good
96th MED GRP-EGLIN	Physical Plant	206									Good
BRMCL NAVTECHTRACEN PENSACOLA	Corry Station	204									Poor
Gulf Coast HCS	Main Hospital	201	1		116940		1932				Fair
Gulf Coast HCS	Nursing Home	202	2		75200		1933				Fair
Gulf Coast HCS	Outpatient Clinic	203	3		142609		1984				Fair
Gulfport	Clinics and Ward	207	1		30633		1923				Good
Gulfport	Psychiatric Ward	211	62		35844		1931				Good
Gulfport	Psychiatric Ward	210	57		57648		1946				Good
Gulfport	Psychiatric Ward	209	41		37002		1937				Good
Gulfport	Psychiatric Ward	208	3		60632		1923				Good
Mobile	Mobile Outpatient Clinit at USA	214			14867						Good
NBCL PANAMA CITY	Branch Medical Clinic	219					1950	0.06			Poor
NBMC MILTON/WHITING FIELD	Clinic	240	2985		30280		1976	0.25	5756387		Fair
NH BREMERTON	NH Bremerton	235					1980	0.12			Fair
NH BREMERTON	NH Bremerton	234					2000	0.12			Excellent
NH PENSACOLA	Main Building	215					1975	0.02			Good
NH PENSACOLA	Physical Plant	216						0.02			Excellent
Panama City	VA Clinic	218	387		3450		1986		813565		Very Good
Panama City	VA Clinic	217	386		3500		1986		622457		Very Good
Pensacola	HQ	220									Excellent
Pensacola	North Clinic	221									Excellent
Pensacola	South Clinic	222			42000		1986				Fair

DoD/VA Joint Assessment Study **Gulf Coast Market Area**

Supply Counts from Site Visits and Surveys

Below are the supply counts and characteristics provided by the sites either in response to a survey or via site visits. DoD sites are in capital letters to help quickly differentiate DoD from VA. Note that "Exam Rooms" cannot be added to derive the total number of exam rooms in a market, since some exam rooms are duplicated between multiple clinics (e.g. if cardiology has 5 exam rooms half of the week and endocrinology has the same 5 exam rooms half of the week, they each are assigned 5 exam rooms)

FACILITY NAME	DEPARTMENT NAME	UNIT NAME	UNIT TYPE	COUNT
Gulf Coast Market				
16th MED GRP-HURLBURT FIELD	Dental Clinic		Backlog	19
16th MED GRP-HURLBURT FIELD	Dental Clinic		Exam Rooms	20
16th MED GRP-HURLBURT FIELD	Dental Clinic		HrsPerWeek	40
16th MED GRP-HURLBURT FIELD	Dental Clinic		Proc Rooms	0
16th MED GRP-HURLBURT FIELD	Distinctive Programs		Backlog	1
16th MED GRP-HURLBURT FIELD	Distinctive Programs		Exam Rooms	6
16th MED GRP-HURLBURT FIELD	Distinctive Programs		HrsPerWeek	51
16th MED GRP-HURLBURT FIELD	Distinctive Programs		Proc Rooms	1
16th MED GRP-HURLBURT FIELD	Family Practice Clinic	Pediatrics and Women's He	Backlog	4
16th MED GRP-HURLBURT FIELD	Family Practice Clinic	Pediatrics and Women's He	Exam Rooms	4
16th MED GRP-HURLBURT FIELD	Family Practice Clinic	Pediatrics and Women's He	HrsPerWeek	40
16th MED GRP-HURLBURT FIELD	Family Practice Clinic	Pediatrics and Women's He	Proc Rooms	0
16th MED GRP-HURLBURT FIELD	Medicine Clinic		Backlog	1
16th MED GRP-HURLBURT FIELD	Medicine Clinic		Exam Rooms	16
16th MED GRP-HURLBURT FIELD	Medicine Clinic		HrsPerWeek	40
16th MED GRP-HURLBURT FIELD	Medicine Clinic		Proc Rooms	3
16th MED GRP-HURLBURT FIELD	Mental Health Clinic		Backlog	7
16th MED GRP-HURLBURT FIELD	Mental Health Clinic		Exam Rooms	0
16th MED GRP-HURLBURT FIELD	Mental Health Clinic		HrsPerWeek	50
16th MED GRP-HURLBURT FIELD	Mental Health Clinic		Proc Rooms	6
16th MED GRP-HURLBURT FIELD	Pharmacy	Outpatient Pick-up	HrsPerWeek	50
16th MED GRP-HURLBURT FIELD	Pharmacy	Outpatient Pick-up	Initialrx	94522
16th MED GRP-HURLBURT FIELD	Pharmacy	Outpatient Pick-up	Refills	73041
16th MED GRP-HURLBURT FIELD	PT OT Clinic		Backlog	1
16th MED GRP-HURLBURT FIELD	PT OT Clinic		Exam Rooms	4
16th MED GRP-HURLBURT FIELD	PT OT Clinic		HrsPerWeek	45
16th MED GRP-HURLBURT FIELD	PT OT Clinic		Proc Rooms	0
325th MED GRP-TYNDALL	Audiology Speech Clinic	VA/DoD AUDIOLOGY B	Backlog	0
325th MED GRP-TYNDALL	Audiology Speech Clinic	VA/DoD AUDIOLOGY B	Exam Rooms	1
325th MED GRP-TYNDALL	Audiology Speech Clinic	VA/DoD AUDIOLOGY B	HrsPerWeek	0
325th MED GRP-TYNDALL	Audiology Speech Clinic	VA/DoD AUDIOLOGY B	Proc Rooms	1
325th MED GRP-TYNDALL	Dental Clinic	Dental	Exam Rooms	15
325th MED GRP-TYNDALL	Dental Clinic	Dental	HrsPerWeek	45
325th MED GRP-TYNDALL	Distinctive Programs	FLIGHT MEDICINE	Backlog	1
325th MED GRP-TYNDALL	Distinctive Programs	FLIGHT MEDICINE	Exam Rooms	4
325th MED GRP-TYNDALL	Distinctive Programs	FLIGHT MEDICINE	HrsPerWeek	45
325th MED GRP-TYNDALL	Distinctive Programs	FLIGHT MEDICINE	Proc Rooms	1
325th MED GRP-TYNDALL	Family Practice Clinic	FAMILY PRACTICE	Exam Rooms	19
325th MED GRP-TYNDALL	Family Practice Clinic	FAMILY PRACTICE	HrsPerWeek	55
325th MED GRP-TYNDALL	Family Practice Clinic	FAMILY PRACTICE	Proc Rooms	2
325th MED GRP-TYNDALL	Family Practice Clinic	PEDIATRICS	Backlog	14
325th MED GRP-TYNDALL	Family Practice Clinic	PEDIATRICS	Exam Rooms	8
325th MED GRP-TYNDALL	Family Practice Clinic	PEDIATRICS	HrsPerWeek	52
325th MED GRP-TYNDALL	Family Practice Clinic	PEDIATRICS	Proc Rooms	1
325th MED GRP-TYNDALL	Family Practice Clinic	WOMEN'S HEALTH	Backlog	30
325th MED GRP-TYNDALL	Family Practice Clinic	WOMEN'S HEALTH	Exam Rooms	3
325th MED GRP-TYNDALL	Family Practice Clinic	WOMEN'S HEALTH	HrsPerWeek	48
325th MED GRP-TYNDALL	Family Practice Clinic	WOMEN'S HEALTH	Proc Rooms	0
325th MED GRP-TYNDALL	GI Lab	GI Lab	Backlog	30
325th MED GRP-TYNDALL	GI Lab	GI Lab	Field Reported Volume	140
325th MED GRP-TYNDALL	GI Lab	GI Lab	HrsPerWeek	53
325th MED GRP-TYNDALL	GI Lab	GI Lab	Proc Rooms	1
325th MED GRP-TYNDALL	GI Lab	GI Lab	Recovery Spaces	0
325th MED GRP-TYNDALL	Medicine Clinic	INTERNAL MEDICINE	Backlog	0
325th MED GRP-TYNDALL	Medicine Clinic	INTERNAL MEDICINE	Exam Rooms	24

325th MED GRP-TYNDALL	Medicine Clinic	INTERNAL MEDICINE	HrsPerWeek	48
325th MED GRP-TYNDALL	Medicine Clinic	INTERNAL MEDICINE	Proc Rooms	3
325th MED GRP-TYNDALL	Medicine Clinic	OPTOMETRY	Backlog	6
325th MED GRP-TYNDALL	Medicine Clinic	OPTOMETRY	Exam Rooms	4
325th MED GRP-TYNDALL	Medicine Clinic	OPTOMETRY	HrsPerWeek	45
325th MED GRP-TYNDALL	Medicine Clinic	OPTOMETRY	Proc Rooms	1
325th MED GRP-TYNDALL	Mental Health Clinic	LIFE SKILLS SUPPORT C	Backlog	7
325th MED GRP-TYNDALL	Mental Health Clinic	LIFE SKILLS SUPPORT C	Exam Rooms	3
325th MED GRP-TYNDALL	Mental Health Clinic	LIFE SKILLS SUPPORT C	HrsPerWeek	45
325th MED GRP-TYNDALL	Mental Health Clinic	LIFE SKILLS SUPPORT C	Proc Rooms	0
325th MED GRP-TYNDALL	Pharmacy	Outpatient Pick-up	HrsPerWeek	55
325th MED GRP-TYNDALL	Pharmacy	Outpatient Pick-up	Initialrx	284691
325th MED GRP-TYNDALL	PT OT Clinic	PHYSICAL THERAPY	Backlog	3
325th MED GRP-TYNDALL	PT OT Clinic	PHYSICAL THERAPY	Exam Rooms	1
325th MED GRP-TYNDALL	PT OT Clinic	PHYSICAL THERAPY	HrsPerWeek	45
325th MED GRP-TYNDALL	PT OT Clinic	PHYSICAL THERAPY	Proc Rooms	0
325th MED GRP-TYNDALL	Radiology - CT	CT	Backlog	4
325th MED GRP-TYNDALL	Radiology - CT	CT	Field Reported Volume	1213
325th MED GRP-TYNDALL	Radiology - CT	CT	HrsPerWeek	52
325th MED GRP-TYNDALL	Radiology - CT	CT	Proc Rooms	1
325th MED GRP-TYNDALL	Radiology - CT	CT	Recovery Spaces	0
325th MED GRP-TYNDALL	Radiology - Interventional	IVR	Field Reported Volume	12908
325th MED GRP-TYNDALL	Radiology - Interventional	IVR	HrsPerWeek	40
325th MED GRP-TYNDALL	Radiology - Interventional	IVR	Proc Rooms	3
81st MED GRP-KEESLER	Audiology Speech Clinic		Backlog	0
81st MED GRP-KEESLER	Audiology Speech Clinic		Exam Rooms	6
81st MED GRP-KEESLER	Audiology Speech Clinic		HrsPerWeek	40
81st MED GRP-KEESLER	Audiology Speech Clinic		Proc Rooms	2
81st MED GRP-KEESLER	Cardiac Cath Lab	Cardiac Cath Lab	Field Reported Volume	2026
81st MED GRP-KEESLER	Cardiac Cath Lab	Cardiac Cath Lab	HrsPerWeek	40
81st MED GRP-KEESLER	Cardiac Cath Lab	Cardiac Cath Lab	Proc Rooms	1
81st MED GRP-KEESLER	Cardiac Cath Lab	Cardiac Cath Lab	Recovery Spaces	1
81st MED GRP-KEESLER	Critical Care IP	SICU/MICU/CTV	Avail Beds	22
81st MED GRP-KEESLER	Critical Care IP	SICU/MICU/CTV	Staffed Beds	13
81st MED GRP-KEESLER	Dental Clinic		Backlog	0
81st MED GRP-KEESLER	Dental Clinic		Exam Rooms	59
81st MED GRP-KEESLER	Dental Clinic		HrsPerWeek	40
81st MED GRP-KEESLER	Distinctive Programs		Backlog	0
81st MED GRP-KEESLER	Distinctive Programs		Exam Rooms	5
81st MED GRP-KEESLER	Distinctive Programs		HrsPerWeek	40
81st MED GRP-KEESLER	Distinctive Programs		Proc Rooms	0
81st MED GRP-KEESLER	Emergency Department	Level II	ED Admit Percent	6
81st MED GRP-KEESLER	Emergency Department	Level II	Field Reported Volume	31793
81st MED GRP-KEESLER	Emergency Department	Level II	Proc Rooms	18
81st MED GRP-KEESLER	Emergency Department	Level II	Spaces	20
81st MED GRP-KEESLER	Family Practice Clinic	Family Practice	Backlog	30
81st MED GRP-KEESLER	Family Practice Clinic	Family Practice	Exam Rooms	30
81st MED GRP-KEESLER	Family Practice Clinic	Family Practice	HrsPerWeek	44
81st MED GRP-KEESLER	Family Practice Clinic	Family Practice	Proc Rooms	2
81st MED GRP-KEESLER	Family Practice Clinic	Pediatrics	Backlog	0
81st MED GRP-KEESLER	Family Practice Clinic	Pediatrics	Exam Rooms	26
81st MED GRP-KEESLER	Family Practice Clinic	Pediatrics	HrsPerWeek	40
81st MED GRP-KEESLER	Family Practice Clinic	Pediatrics	Proc Rooms	3
81st MED GRP-KEESLER	GI Lab	GI Lab	Backlog	28
81st MED GRP-KEESLER	GI Lab	GI Lab	Field Reported Volume	4289
81st MED GRP-KEESLER	GI Lab	GI Lab	HrsPerWeek	45
81st MED GRP-KEESLER	GI Lab	GI Lab	Proc Rooms	2
81st MED GRP-KEESLER	GI Lab	GI Lab	Recovery Spaces	1
81st MED GRP-KEESLER	Hematology Oncology Clinic	Hematology Oncology Clin	Backlog	0
81st MED GRP-KEESLER	Hematology Oncology Clinic	Hematology Oncology Clin	Field Reported Volume	5581
81st MED GRP-KEESLER	Hematology Oncology Clinic	Hematology Oncology Clin	Proc Rooms	13
81st MED GRP-KEESLER	Hematology Oncology Clinic	Hematology Oncology Clin	Recovery Spaces	0
81st MED GRP-KEESLER	Medical Surgical IP	General Med/Peds	Avail Beds	31
81st MED GRP-KEESLER	Medical Surgical IP	General Med/Peds	AvgOccRate	12
81st MED GRP-KEESLER	Medical Surgical IP	General Med/Peds	Staffed Beds	31
81st MED GRP-KEESLER	Medical Surgical IP	Med/Surg	Avail Beds	32

81st MED GRP-KEESLER	Medical Surgical IP	Med/Surg	AvgOccRate	14
81st MED GRP-KEESLER	Medical Surgical IP	Med/Surg	Staffed Beds	32
81st MED GRP-KEESLER	Medicine Clinic	Cardiology	Backlog	0
81st MED GRP-KEESLER	Medicine Clinic	Cardiology	Exam Rooms	3
81st MED GRP-KEESLER	Medicine Clinic	Cardiology	HrsPerWeek	40
81st MED GRP-KEESLER	Medicine Clinic	Cardiology	Proc Rooms	1
81st MED GRP-KEESLER	Medicine Clinic	CardioloVas Surg,	Backlog	0
81st MED GRP-KEESLER	Medicine Clinic	CardioloVas Surg,	Exam Rooms	2
81st MED GRP-KEESLER	Medicine Clinic	CardioloVas Surg,	HrsPerWeek	40
81st MED GRP-KEESLER	Medicine Clinic	CardioloVas Surg,	Proc Rooms	1
81st MED GRP-KEESLER	Medicine Clinic	Dermatology	Backlog	0
81st MED GRP-KEESLER	Medicine Clinic	Dermatology	Exam Rooms	6
81st MED GRP-KEESLER	Medicine Clinic	Dermatology	HrsPerWeek	40
81st MED GRP-KEESLER	Medicine Clinic	Dermatology	Proc Rooms	3
81st MED GRP-KEESLER	Medicine Clinic	Gastroenterology/Med Proc	Backlog	0
81st MED GRP-KEESLER	Medicine Clinic	Gastroenterology/Med Proc	Exam Rooms	5
81st MED GRP-KEESLER	Medicine Clinic	Gastroenterology/Med Proc	HrsPerWeek	40
81st MED GRP-KEESLER	Medicine Clinic	Gastroenterology/Med Proc	Proc Rooms	4
81st MED GRP-KEESLER	Medicine Clinic	Infectious Disease	Backlog	0
81st MED GRP-KEESLER	Medicine Clinic	Infectious Disease	Exam Rooms	6
81st MED GRP-KEESLER	Medicine Clinic	Infectious Disease	HrsPerWeek	40
81st MED GRP-KEESLER	Medicine Clinic	Infectious Disease	Proc Rooms	2
81st MED GRP-KEESLER	Medicine Clinic	Internal Medicine	Backlog	0
81st MED GRP-KEESLER	Medicine Clinic	Internal Medicine	Exam Rooms	20
81st MED GRP-KEESLER	Medicine Clinic	Internal Medicine	HrsPerWeek	40
81st MED GRP-KEESLER	Medicine Clinic	Internal Medicine	Proc Rooms	1
81st MED GRP-KEESLER	Medicine Clinic	Neurology	Backlog	0
81st MED GRP-KEESLER	Medicine Clinic	Neurology	Exam Rooms	2
81st MED GRP-KEESLER	Medicine Clinic	Neurology	HrsPerWeek	40
81st MED GRP-KEESLER	Medicine Clinic	Neurology	Proc Rooms	2
81st MED GRP-KEESLER	Medicine Clinic	Oncology	Backlog	0
81st MED GRP-KEESLER	Medicine Clinic	Oncology	Exam Rooms	8
81st MED GRP-KEESLER	Medicine Clinic	Oncology	HrsPerWeek	40
81st MED GRP-KEESLER	Medicine Clinic	Oncology	Proc Rooms	2
81st MED GRP-KEESLER	Medicine Clinic	Pulmonary	Backlog	0
81st MED GRP-KEESLER	Medicine Clinic	Pulmonary	Exam Rooms	3
81st MED GRP-KEESLER	Medicine Clinic	Pulmonary	HrsPerWeek	40
81st MED GRP-KEESLER	Medicine Clinic	Pulmonary	Proc Rooms	3
81st MED GRP-KEESLER	Mental Health Clinic		Backlog	0
81st MED GRP-KEESLER	Mental Health Clinic		Exam Rooms	20
81st MED GRP-KEESLER	Mental Health Clinic		HrsPerWeek	48
81st MED GRP-KEESLER	Mental Health Clinic		Proc Rooms	2
81st MED GRP-KEESLER	OB	LDR	Avail Beds	9
81st MED GRP-KEESLER	OB	LDR	AvgOccRate	15
81st MED GRP-KEESLER	OB	LDR	Staffed Beds	9
81st MED GRP-KEESLER	OB	Post-partum	Avail Beds	21
81st MED GRP-KEESLER	OB	Post-partum	AvgOccRate	11
81st MED GRP-KEESLER	OB	Post-partum	Staffed Beds	21
81st MED GRP-KEESLER	Pharmacy	Inpatient	HrsPerWeek	168
81st MED GRP-KEESLER	Pharmacy	Inpatient	InitialRx	523147
81st MED GRP-KEESLER	Pharmacy	Outpatient Pick-up	HrsPerWeek	56
81st MED GRP-KEESLER	Pharmacy	Outpatient Pick-up	InitialRx	420251
81st MED GRP-KEESLER	Pharmacy	Outpatient Pick-up	Refills	337063
81st MED GRP-KEESLER	PT OT Clinic		Backlog	0
81st MED GRP-KEESLER	PT OT Clinic		Exam Rooms	3
81st MED GRP-KEESLER	PT OT Clinic		HrsPerWeek	40
81st MED GRP-KEESLER	PT OT Clinic		Proc Rooms	2
81st MED GRP-KEESLER	Radiation Therapy	Radiation Therapy	Backlog	0
81st MED GRP-KEESLER	Radiation Therapy	Radiation Therapy	Field Reported Volume	7538
81st MED GRP-KEESLER	Radiation Therapy	Radiation Therapy	HrsPerWeek	40
81st MED GRP-KEESLER	Radiation Therapy	Radiation Therapy	Proc Rooms	2
81st MED GRP-KEESLER	Radiation Therapy	Radiation Therapy	Recovery Spaces	0
81st MED GRP-KEESLER	Radiology - CT	CT	Backlog	31
81st MED GRP-KEESLER	Radiology - CT	CT	Field Reported Volume	9384
81st MED GRP-KEESLER	Radiology - CT	CT	HrsPerWeek	40
81st MED GRP-KEESLER	Radiology - CT	CT	Proc Rooms	2

81st MED GRP-KEESLER	Radiology - CT	CT	Recovery Spaces	0
81st MED GRP-KEESLER	Radiology - Interventional	IVR	Backlog	2
81st MED GRP-KEESLER	Radiology - Interventional	IVR	Field Reported Volume	804
81st MED GRP-KEESLER	Radiology - Interventional	IVR	HrsPerWeek	40
81st MED GRP-KEESLER	Radiology - Interventional	IVR	Proc Rooms	1
81st MED GRP-KEESLER	Radiology - Interventional	IVR	Recovery Spaces	0
81st MED GRP-KEESLER	Radiology - MRI	MRI	Backlog	6
81st MED GRP-KEESLER	Radiology - MRI	MRI	Field Reported Volume	3312
81st MED GRP-KEESLER	Radiology - MRI	MRI	HrsPerWeek	40
81st MED GRP-KEESLER	Radiology - MRI	MRI	Proc Rooms	1
81st MED GRP-KEESLER	Radiology - MRI	MRI	Recovery Spaces	0
81st MED GRP-KEESLER	Radiology - NM	NM	Field Reported Volume	4669
81st MED GRP-KEESLER	Radiology - NM	NM	Proc Rooms	2
81st MED GRP-KEESLER	Surgery OR	OB OR	Spaces	2
81st MED GRP-KEESLER	Surgery OR	Total Only	AvgCaseLength	463
81st MED GRP-KEESLER	Surgery OR	Total Only	Field Reported Volume	4889
81st MED GRP-KEESLER	Surgery OR	Total Only	Spaces	9
81st MED GRP-KEESLER	Surgery Support	PACU	Spaces	9
81st MED GRP-KEESLER	Surgical Specialty Clinic	Cardio-thoracic	Exam Rooms	2
81st MED GRP-KEESLER	Surgical Specialty Clinic	Cardio-thoracic	HrsPerWeek	40
81st MED GRP-KEESLER	Surgical Specialty Clinic	Cardio-thoracic	Proc Rooms	0
81st MED GRP-KEESLER	Surgical Specialty Clinic	General	Exam Rooms	8
81st MED GRP-KEESLER	Surgical Specialty Clinic	General	HrsPerWeek	40
81st MED GRP-KEESLER	Surgical Specialty Clinic	General	Proc Rooms	2
81st MED GRP-KEESLER	Surgical Specialty Clinic	Neurosurgery, plastic	Exam Rooms	2
81st MED GRP-KEESLER	Surgical Specialty Clinic	Neurosurgery, plastic	HrsPerWeek	40
81st MED GRP-KEESLER	Surgical Specialty Clinic	Neurosurgery, plastic	Proc Rooms	1
81st MED GRP-KEESLER	Surgical Specialty Clinic	Ophthalmology	Exam Rooms	3
81st MED GRP-KEESLER	Surgical Specialty Clinic	Ophthalmology	HrsPerWeek	40
81st MED GRP-KEESLER	Surgical Specialty Clinic	Ophthalmology	Proc Rooms	3
81st MED GRP-KEESLER	Surgical Specialty Clinic	Ortho	Exam Rooms	2
81st MED GRP-KEESLER	Surgical Specialty Clinic	Ortho	HrsPerWeek	40
81st MED GRP-KEESLER	Surgical Specialty Clinic	Ortho	Proc Rooms	12
81st MED GRP-KEESLER	Surgical Specialty Clinic	Otolaryngology	Exam Rooms	6
81st MED GRP-KEESLER	Surgical Specialty Clinic	Otolaryngology	HrsPerWeek	40
81st MED GRP-KEESLER	Surgical Specialty Clinic	Otolaryngology	Proc Rooms	1
81st MED GRP-KEESLER	Surgical Specialty Clinic	Urology	Exam Rooms	4
81st MED GRP-KEESLER	Surgical Specialty Clinic	Urology	HrsPerWeek	40
81st MED GRP-KEESLER	Surgical Specialty Clinic	Urology	Proc Rooms	2
96th MED GRP-EGLIN	Audiology Speech Clinic	Ent/Audiology	Exam Rooms	2
96th MED GRP-EGLIN	Audiology Speech Clinic	Ent/Audiology	Proc Rooms	3
96th MED GRP-EGLIN	Critical Care IP	ICU	Avail Beds	10
96th MED GRP-EGLIN	Critical Care IP	ICU	Staffed Beds	4
96th MED GRP-EGLIN	Emergency Department		ED Admit Percent	2
96th MED GRP-EGLIN	Emergency Department		Field Reported Volume	27780
96th MED GRP-EGLIN	Emergency Department		Proc Rooms	2
96th MED GRP-EGLIN	Emergency Department		Spaces	8
96th MED GRP-EGLIN	Family Practice Clinic	Family Health	Exam Rooms	24
96th MED GRP-EGLIN	Family Practice Clinic	Family Practice	Exam Rooms	16
96th MED GRP-EGLIN	Family Practice Clinic	Family Practice	Proc Rooms	2
96th MED GRP-EGLIN	Family Practice Clinic	OB/Gyn	Exam Rooms	13
96th MED GRP-EGLIN	Family Practice Clinic	Pediatrics	Exam Rooms	12
96th MED GRP-EGLIN	Medical Surgical IP		Avail Beds	35
96th MED GRP-EGLIN	Medical Surgical IP		Staffed Beds	21
96th MED GRP-EGLIN	Medicine Clinic	Cardiology	Exam Rooms	1
96th MED GRP-EGLIN	Medicine Clinic	Dermatology	Exam Rooms	2
96th MED GRP-EGLIN	Medicine Clinic	Internal Medicine	Exam Rooms	4
96th MED GRP-EGLIN	Medicine Clinic	Oncology	Exam Rooms	1
96th MED GRP-EGLIN	Medicine Clinic	Pulmonolgy	Exam Rooms	1
96th MED GRP-EGLIN	Mental Health Clinic	Mental Health	Exam Rooms	16
96th MED GRP-EGLIN	Mental Health Clinic	Mental Health	Proc Rooms	3
96th MED GRP-EGLIN	OB	OB LDR IP	Avail Beds	6
96th MED GRP-EGLIN	OB	OB LDR IP	Staffed Beds	6
96th MED GRP-EGLIN	OB	OB Post Partum IP	Avail Beds	18
96th MED GRP-EGLIN	OB	OB Post Partum IP	Staffed Beds	18
96th MED GRP-EGLIN	Surgery OR		Spaces	5

96th MED GRP-EGLIN	Surgery Support	Phase I recovery	Spaces	8
96th MED GRP-EGLIN	Surgery Support	Pre-op holding beds	Spaces	3
96th MED GRP-EGLIN	Surgery Support	Pre-op/Phase II recovery be	Spaces	15
96th MED GRP-EGLIN		Gen Surgery	Exam Rooms	4
96th MED GRP-EGLIN		Gen Surgery	Proc Rooms	4
96th MED GRP-EGLIN		Ophthalmology	Exam Rooms	5
96th MED GRP-EGLIN		Ophthalmology	Proc Rooms	1
96th MED GRP-EGLIN		Ortho	Exam Rooms	8
96th MED GRP-EGLIN		Ortho	Proc Rooms	1
96th MED GRP-EGLIN		Urology	Exam Rooms	3
BRMCL NAS PENSACOLA	Pharmacy		HrsPerWeek	40
BRMCL NAS PENSACOLA	Pharmacy		Initialrx	29100
BRMCL NAS PENSACOLA	Pharmacy		Refills	2615
BRMCL NAS PENSACOLA			Exam Rooms	16
BRMCL NAS PENSACOLA			HrsPerWeek	40
BRMCL NAS PENSACOLA			Proc Rooms	0
BRMCL NAVTECHTRACEN PENSACOL	Pharmacy		HrsPerWeek	40
BRMCL NAVTECHTRACEN PENSACOL	Pharmacy		Initialrx	16850
BRMCL NAVTECHTRACEN PENSACOL	Pharmacy		Refills	1357
BRMCL NAVTECHTRACEN PENSACOLA			Exam Rooms	10
BRMCL NAVTECHTRACEN PENSACOLA			HrsPerWeek	40
BRMCL NAVTECHTRACEN PENSACOLA			Proc Rooms	1
Gulf Coast HCS (Biloxi Division)	Audiology Speech Clinic		Backlog	30
Gulf Coast HCS (Biloxi Division)	Audiology Speech Clinic		Exam Rooms	2
Gulf Coast HCS (Biloxi Division)	Audiology Speech Clinic		HrsPerWeek	40
Gulf Coast HCS (Biloxi Division)	Audiology Speech Clinic		Proc Rooms	3
Gulf Coast HCS (Biloxi Division)	Critical Care IP	Med/Surg ICU	Avail Beds	9
Gulf Coast HCS (Biloxi Division)	Critical Care IP	Med/Surg ICU	Staffed Beds	9
Gulf Coast HCS (Biloxi Division)	Critical Care IP	Medical ICU	AvgOccRate	89
Gulf Coast HCS (Biloxi Division)	Critical Care IP	Surgical ICU	AvgOccRate	96
Gulf Coast HCS (Biloxi Division)	Emergency Department		ED Admit Percent	19
Gulf Coast HCS (Biloxi Division)	Emergency Department		Field Reported Volume	17901
Gulf Coast HCS (Biloxi Division)	Emergency Department		Proc Rooms	6
Gulf Coast HCS (Biloxi Division)	Emergency Department		Spaces	8
Gulf Coast HCS (Biloxi Division)	Family Practice Clinic	PC Women's Health	Backlog	0
Gulf Coast HCS (Biloxi Division)	Family Practice Clinic	PC Women's Health	Exam Rooms	2
Gulf Coast HCS (Biloxi Division)	Family Practice Clinic	PC Women's Health	HrsPerWeek	40
Gulf Coast HCS (Biloxi Division)	Family Practice Clinic	PC Women's Health	Proc Rooms	1
Gulf Coast HCS (Biloxi Division)	Medical Surgical IP	Med/Surg Ward	Avail Beds	40
Gulf Coast HCS (Biloxi Division)	Medical Surgical IP	Med/Surg Ward	Staffed Beds	40
Gulf Coast HCS (Biloxi Division)	Medical Surgical IP	Surgical/Medical (Acute Ca	AvgOccRate	71
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Cardiology	Backlog	6
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Cardiology	Exam Rooms	3
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Cardiology	HrsPerWeek	42
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Dermatology	Backlog	39
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Dermatology	Exam Rooms	7
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Dermatology	HrsPerWeek	10
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Dermatology	Proc Rooms	2
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Endocrinology	Backlog	32
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Endocrinology	Exam Rooms	1
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Endocrinology	HrsPerWeek	4
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Gastroenterology	Backlog	61
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Gastroenterology	Exam Rooms	2
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Gastroenterology	HrsPerWeek	31
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Hematology	Backlog	15
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Hematology	Exam Rooms	1
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Hematology	HrsPerWeek	12
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Neurology	Backlog	47
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Neurology	Exam Rooms	2
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Neurology	HrsPerWeek	22
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Oncology	Backlog	10
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Oncology	Exam Rooms	1
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Oncology	HrsPerWeek	25
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Pain	Backlog	67
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Pain	Exam Rooms	2
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Pain	HrsPerWeek	24

Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Pulmonary	Backlog	11
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Pulmonary	Exam Rooms	1
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Pulmonary	HrsPerWeek	9
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Rehabilitlation	Backlog	49
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Rehabilitlation	Exam Rooms	1
Gulf Coast HCS (Biloxi Division)	Medicine Clinic	Rehabilitlation	HrsPerWeek	40
Gulf Coast HCS (Biloxi Division)	Mental Health Clinic		Backlog	0
Gulf Coast HCS (Biloxi Division)	Mental Health Clinic		Exam Rooms	2
Gulf Coast HCS (Biloxi Division)	Mental Health Clinic		HrsPerWeek	42
Gulf Coast HCS (Biloxi Division)	Pharmacy	Inpatient	HrsPerWeek	119
Gulf Coast HCS (Biloxi Division)	Pharmacy	Inpatient	Initialrx	1254158
Gulf Coast HCS (Biloxi Division)	Pharmacy	Mail order	Initialrx	106669
Gulf Coast HCS (Biloxi Division)	Pharmacy	Mail order	Refills	344516
Gulf Coast HCS (Biloxi Division)	Pharmacy	Outpatient Pick-up	HrsPerWeek	48
Gulf Coast HCS (Biloxi Division)	Pharmacy	Outpatient Pick-up	Initialrx	104489
Gulf Coast HCS (Biloxi Division)	PT OT Clinic	OT	Backlog	60
Gulf Coast HCS (Biloxi Division)	PT OT Clinic	OT	HrsPerWeek	40
Gulf Coast HCS (Biloxi Division)	PT OT Clinic	OT	Proc Rooms	2
Gulf Coast HCS (Biloxi Division)	PT OT Clinic	PT	Backlog	60
Gulf Coast HCS (Biloxi Division)	PT OT Clinic	PT	HrsPerWeek	40
Gulf Coast HCS (Biloxi Division)	PT OT Clinic	PT	Proc Rooms	4
Gulf Coast HCS (Biloxi Division)	Radiology - CT	CT	Backlog	20
Gulf Coast HCS (Biloxi Division)	Radiology - CT	CT	Field Reported Volume	6054
Gulf Coast HCS (Biloxi Division)	Radiology - CT	CT	HrsPerWeek	55
Gulf Coast HCS (Biloxi Division)	Radiology - CT	CT	Proc Rooms	2
Gulf Coast HCS (Biloxi Division)	Radiology - Interventional	IVR	Backlog	5
Gulf Coast HCS (Biloxi Division)	Radiology - Interventional	IVR	Field Reported Volume	312
Gulf Coast HCS (Biloxi Division)	Radiology - Interventional	IVR	HrsPerWeek	20
Gulf Coast HCS (Biloxi Division)	Radiology - Interventional	IVR	Proc Rooms	1
Gulf Coast HCS (Biloxi Division)	Radiology - MRI	MRI	Field Reported Volume	2211
Gulf Coast HCS (Biloxi Division)	Radiology - NM	NM	Backlog	20
Gulf Coast HCS (Biloxi Division)	Radiology - NM	NM	Field Reported Volume	2676
Gulf Coast HCS (Biloxi Division)	Radiology - NM	NM	HrsPerWeek	45
Gulf Coast HCS (Biloxi Division)	Radiology - NM	NM	Proc Rooms	3
Gulf Coast HCS (Biloxi Division)	Radiology - PET	PET	Field Reported Volume	10
Gulf Coast HCS (Biloxi Division)	Surgery OR	IP	AvgCaseLength	120
Gulf Coast HCS (Biloxi Division)	Surgery OR	IP	Field Reported Volume	729
Gulf Coast HCS (Biloxi Division)	Surgery OR	IP	Minor Rooms	1
Gulf Coast HCS (Biloxi Division)	Surgery OR	IP	Spaces	4
Gulf Coast HCS (Biloxi Division)	Surgery OR	OP	AvgCaseLength	120
Gulf Coast HCS (Biloxi Division)	Surgery OR	OP	Field Reported Volume	3474
Gulf Coast HCS (Biloxi Division)	Surgery OR	OP	Minor Rooms	1
Gulf Coast HCS (Biloxi Division)	Surgery OR	OP	Spaces	4
Gulf Coast HCS (Biloxi Division)	Surgery Support	ASOU	Spaces	10
Gulf Coast HCS (Biloxi Division)	Surgery Support	PACU	Spaces	7
Gulf Coast HCS (Biloxi Division)	Surgery Support	Pre-OP	Spaces	4
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Cysto	Backlog	120
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Cysto	Exam Rooms	1
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Cysto	HrsPerWeek	12
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Cysto	Proc Rooms	1
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Endo	Backlog	35
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Endo	Exam Rooms	1
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Endo	HrsPerWeek	40
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Endo	Proc Rooms	1
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	General Surgery	Backlog	45
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	General Surgery	Exam Rooms	5
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	General Surgery	HrsPerWeek	8
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	General Surgery	Proc Rooms	5
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Gynecology	Backlog	60
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Gynecology	Exam Rooms	1
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Gynecology	Proc Rooms	1
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Interventional Pain	Backlog	25
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Interventional Pain	Exam Rooms	1
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Interventional Pain	HrsPerWeek	24
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Interventional Pain	Proc Rooms	1
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Neurosurgery	Backlog	74

Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Neurosurgery	Exam Rooms	2
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Neurosurgery	HrsPerWeek	8
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Neurosurgery	Proc Rooms	0
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Ophthalmology / Optometr	Backlog	90
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Ophthalmology / Optometr	Exam Rooms	9
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Ophthalmology / Optometr	HrsPerWeek	20
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Ophthalmology / Optometr	Proc Rooms	9
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Otolaryngology	Backlog	30
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Otolaryngology	Exam Rooms	3
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Otolaryngology	HrsPerWeek	16
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Otolaryngology	Proc Rooms	1
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Podiatry	Backlog	120
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Podiatry	Exam Rooms	2
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Podiatry	HrsPerWeek	20
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Podiatry	Proc Rooms	2
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Thoracic Surgery	Backlog	60
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Thoracic Surgery	Exam Rooms	2
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Thoracic Surgery	HrsPerWeek	8
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Thoracic Surgery	Proc Rooms	2
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Urology	Backlog	60
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Urology	Exam Rooms	3
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Urology	HrsPerWeek	20
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Urology	Proc Rooms	1
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Vascular Lab	Backlog	210
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Vascular Lab	Exam Rooms	2
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Vascular Lab	HrsPerWeek	40
Gulf Coast HCS (Biloxi Division)	Surgical Specialty Clinic	Vascular Lab	Proc Rooms	1
Gulf Coast HCS (Biloxi Division)		Urology	Backlog	60
Gulf Coast HCS (Biloxi Division)		Urology	Exam Rooms	1
Gulf Coast HCS (Biloxi Division)		Urology	HrsPerWeek	4
Gulf Coast HCS (Biloxi Division)		Urology	Proc Rooms	1
Gulfport VA	Audiology Speech Clinic		Backlog	24
Gulfport VA	Audiology Speech Clinic		Exam Rooms	2
Gulfport VA	Audiology Speech Clinic		HrsPerWeek	40
Gulfport VA	Audiology Speech Clinic		Proc Rooms	3
Gulfport VA	Medicine Clinic		Backlog	0
Gulfport VA	Medicine Clinic		Exam Rooms	6
Gulfport VA	Medicine Clinic		HrsPerWeek	40
Gulfport VA	Medicine Clinic		Proc Rooms	0
Gulfport VA	Mental Health Clinic		Backlog	0
Gulfport VA	Mental Health Clinic		Exam Rooms	10
Gulfport VA	Mental Health Clinic		HrsPerWeek	42
Gulfport VA	Mental Health Clinic		Proc Rooms	2
Gulfport VA	Pharmacy	Mail order	HrsPerWeek	0
Gulfport VA	Pharmacy	Mail order	Initialrx	16287
Gulfport VA	Pharmacy	Mail order	Refills	74179
Gulfport VA	Pharmacy	Outpatient Pick-up	HrsPerWeek	40
Gulfport VA	Pharmacy	Outpatient Pick-up	Initialrx	18322
Gulfport VA	Psychiatry IP	Acute Psychiatry	Avail Beds	64
Gulfport VA	Psychiatry IP	Acute Psychiatry	AvgOccRate	150
Gulfport VA	Psychiatry IP	Acute Psychiatry	Staffed Beds	60
Gulfport VA	Psychiatry IP	Inpatient Geropsychiatry	Avail Beds	29
Gulfport VA	Psychiatry IP	Inpatient Geropsychiatry	AvgOccRate	79
Gulfport VA	Psychiatry IP	Inpatient Geropsychiatry	Staffed Beds	29
Gulfport VA	Psychiatry IP	Inpatient Psychiatry	Avail Beds	30
Gulfport VA	Psychiatry IP	Inpatient Psychiatry	Staffed Beds	0
Gulfport VA	PT OT Clinic	OT	Backlog	60
Gulfport VA	PT OT Clinic	OT	HrsPerWeek	40
Gulfport VA	PT OT Clinic	OT	Proc Rooms	3
Gulfport VA	PT OT Clinic	PT	Backlog	60
Gulfport VA	PT OT Clinic	PT	HrsPerWeek	40
Gulfport VA	PT OT Clinic	PT	Proc Rooms	2
Mobile CBOC	Audiology Speech Clinic		Backlog	152
Mobile CBOC	Audiology Speech Clinic		Exam Rooms	1
Mobile CBOC	Audiology Speech Clinic		HrsPerWeek	40
Mobile CBOC	Audiology Speech Clinic		Proc Rooms	4

Mobile CBOC	Mental Health Clinic		Backlog	40
Mobile CBOC	Mental Health Clinic		Exam Rooms	12
Mobile CBOC	Mental Health Clinic		HrsPerWeek	42
Mobile CBOC	Mental Health Clinic		Proc Rooms	2
Mobile CBOC	Pharmacy	Mail order	HrsPerWeek	0
Mobile CBOC	Pharmacy	Mail order	Initialrx	37357
Mobile CBOC	Pharmacy	Mail order	Refills	153675
Mobile CBOC	Pharmacy	Outpatient Pick-up	HrsPerWeek	40
Mobile CBOC	Pharmacy	Outpatient Pick-up	Initialrx	44581
Mobile CBOC		General Surgery	Backlog	37
Mobile CBOC		General Surgery	Exam Rooms	1
Mobile CBOC		General Surgery	HrsPerWeek	8
Mobile CBOC		General Surgery	Proc Rooms	1
Mobile CBOC			Backlog	8
Mobile CBOC			Exam Rooms	10
Mobile CBOC			HrsPerWeek	40
Mobile CBOC			Proc Rooms	0
NAVAL AVIATION TECH-PENSACOLA	Pharmacy		HrsPerWeek	40
NAVAL AVIATION TECH-PENSACOLA	Pharmacy		Initialrx	36531
NAVAL AVIATION TECH-PENSACOLA	Pharmacy		Refills	1136
NAVAL AVIATION TECH-PENSACOLA			Exam Rooms	10
NAVAL AVIATION TECH-PENSACOLA			HrsPerWeek	40
NAVAL AVIATION TECH-PENSACOLA			Proc Rooms	1
NBCL PANAMA CITY	Pharmacy		HrsPerWeek	40
NBCL PANAMA CITY	Pharmacy		Initialrx	5225
NBCL PANAMA CITY	Pharmacy		Refills	1197
NBCL PANAMA CITY			Exam Rooms	2
NBCL PANAMA CITY			HrsPerWeek	40
NBCL PANAMA CITY			Proc Rooms	1
NBMA PASCAGOULA	Pharmacy		HrsPerWeek	40
NBMA PASCAGOULA	Pharmacy		Initialrx	10432
NBMA PASCAGOULA	Pharmacy		Refills	1828
NBMA PASCAGOULA			Exam Rooms	7
NBMA PASCAGOULA			HrsPerWeek	40
NBMA PASCAGOULA			Proc Rooms	1
NBMC GULFPORT	Pharmacy		HrsPerWeek	40
NBMC GULFPORT	Pharmacy		Initialrx	18199
NBMC GULFPORT	Pharmacy		Refills	3064
NBMC GULFPORT			Exam Rooms	19
NBMC GULFPORT			HrsPerWeek	40
NBMC GULFPORT			Proc Rooms	2
NBMC MILTON/WHITING FIELD	Pharmacy		HrsPerWeek	40
NBMC MILTON/WHITING FIELD	Pharmacy		Initialrx	40287
NBMC MILTON/WHITING FIELD	Pharmacy		Refills	1951
NBMC MILTON/WHITING FIELD			Exam Rooms	16
NBMC MILTON/WHITING FIELD			HrsPerWeek	40
NBMC MILTON/WHITING FIELD			Proc Rooms	3
NH PENSACOLA	Audiology Speech Clinic		Exam Rooms	1
NH PENSACOLA	Audiology Speech Clinic		HrsPerWeek	40
NH PENSACOLA	Audiology Speech Clinic		Proc Rooms	1
NH PENSACOLA	Critical Care IP	Med/Surg ICU	Avail Beds	8
NH PENSACOLA	Critical Care IP	Med/Surg ICU	AvgOccRate	24
NH PENSACOLA	Critical Care IP	Med/Surg ICU	Staffed Beds	8
NH PENSACOLA	Dental Clinic	Dental	Exam Rooms	2
NH PENSACOLA	Dental Clinic	Dental	HrsPerWeek	38
NH PENSACOLA	Dental Clinic	Dental	Proc Rooms	1
NH PENSACOLA	Diagnostic Other	Mammography	Field Reported Volume	3107
NH PENSACOLA	Diagnostic Other	Mammography	HrsPerWeek	40
NH PENSACOLA	Diagnostic Other	Mammography	Proc Rooms	2
NH PENSACOLA	Diagnostic Other	Mammography	Recovery Spaces	0
NH PENSACOLA	Diagnostic Other	Ultra Sound	Field Reported Volume	4656
NH PENSACOLA	Diagnostic Other	Ultra Sound	HrsPerWeek	40
NH PENSACOLA	Diagnostic Other	Ultra Sound	Proc Rooms	2
NH PENSACOLA	Diagnostic Other	Ultra Sound	Recovery Spaces	0
NH PENSACOLA	Diagnostic Other	X-ray	Field Reported Volume	22088
NH PENSACOLA	Diagnostic Other	X-ray	HrsPerWeek	168

NH PENSACOLA	Diagnostic Other	X-ray	Proc Rooms	4
NH PENSACOLA	Diagnostic Other	X-ray	Recovery Spaces	0
NH PENSACOLA	Emergency Department	Fast Track	Field Reported Volume	6625
NH PENSACOLA	Emergency Department	Fast Track	Proc Rooms	0
NH PENSACOLA	Emergency Department	Fast Track	Spaces	11
NH PENSACOLA	Emergency Department	Main	ED Admit Percent	6
NH PENSACOLA	Emergency Department	Main	Field Reported Volume	20757
NH PENSACOLA	Emergency Department	Main	Proc Rooms	7
NH PENSACOLA	Emergency Department	Main	Spaces	7
NH PENSACOLA	Family Practice Clinic	Family Practice	Exam Rooms	28
NH PENSACOLA	Family Practice Clinic	Family Practice	HrsPerWeek	67
NH PENSACOLA	Family Practice Clinic	Family Practice	Proc Rooms	4
NH PENSACOLA	Family Practice Clinic	OB/GYN	Exam Rooms	14
NH PENSACOLA	Family Practice Clinic	OB/GYN	HrsPerWeek	42
NH PENSACOLA	Family Practice Clinic	OB/GYN	Proc Rooms	1
NH PENSACOLA	Family Practice Clinic	Pediatrics	Exam Rooms	13
NH PENSACOLA	Family Practice Clinic	Pediatrics	HrsPerWeek	50
NH PENSACOLA	Family Practice Clinic	Pediatrics	Proc Rooms	4
NH PENSACOLA	GI Lab	Endoscopy Clinic	Field Reported Volume	1095
NH PENSACOLA	GI Lab	Endoscopy Clinic	HrsPerWeek	40
NH PENSACOLA	GI Lab	Endoscopy Clinic	Proc Rooms	2
NH PENSACOLA	GI Lab	Endoscopy Clinic	Recovery Spaces	3
NH PENSACOLA	Medical Surgical IP	Med/Surg	Avail Beds	34
NH PENSACOLA	Medical Surgical IP	Med/Surg	AvgOccRate	47
NH PENSACOLA	Medical Surgical IP	Med/Surg	Staffed Beds	34
NH PENSACOLA	Medicine Clinic	Cardiology	Exam Rooms	2
NH PENSACOLA	Medicine Clinic	Cardiology	HrsPerWeek	40
NH PENSACOLA	Medicine Clinic	Cardiology	Proc Rooms	3
NH PENSACOLA	Medicine Clinic	Dermatology	Exam Rooms	4
NH PENSACOLA	Medicine Clinic	Dermatology	HrsPerWeek	42
NH PENSACOLA	Medicine Clinic	Dermatology	Proc Rooms	3
NH PENSACOLA	Medicine Clinic	Immunology	Exam Rooms	0
NH PENSACOLA	Medicine Clinic	Immunology	HrsPerWeek	45
NH PENSACOLA	Medicine Clinic	Immunology	Proc Rooms	2
NH PENSACOLA	Medicine Clinic	Internal Medicine	Exam Rooms	18
NH PENSACOLA	Medicine Clinic	Internal Medicine	HrsPerWeek	52
NH PENSACOLA	Medicine Clinic	Internal Medicine	Proc Rooms	3
NH PENSACOLA	Medicine Clinic	Neurology	Exam Rooms	2
NH PENSACOLA	Medicine Clinic	Neurology	HrsPerWeek	100
NH PENSACOLA	Medicine Clinic	Neurology	Proc Rooms	1
NH PENSACOLA	Medicine Clinic	Nutrition	Exam Rooms	0
NH PENSACOLA	Medicine Clinic	Nutrition	HrsPerWeek	40
NH PENSACOLA	Medicine Clinic	Nutrition	Proc Rooms	0
NH PENSACOLA	Medicine Clinic	Optometry	Exam Rooms	1
NH PENSACOLA	Medicine Clinic	Optometry	HrsPerWeek	36
NH PENSACOLA	Medicine Clinic	Optometry	Proc Rooms	0
NH PENSACOLA	Medicine Clinic	Pulmonary Function	Exam Rooms	0
NH PENSACOLA	Medicine Clinic	Pulmonary Function	HrsPerWeek	40
NH PENSACOLA	Medicine Clinic	Pulmonary Function	Proc Rooms	1
NH PENSACOLA	Medicine Clinic	Pulmonary Rehab	Exam Rooms	0
NH PENSACOLA	Medicine Clinic	Pulmonary Rehab	HrsPerWeek	40
NH PENSACOLA	Medicine Clinic	Pulmonary Rehab	Proc Rooms	1
NH PENSACOLA	Mental Health Clinic		Exam Rooms	0
NH PENSACOLA	Mental Health Clinic		HrsPerWeek	44
NH PENSACOLA	Mental Health Clinic		Proc Rooms	0
NH PENSACOLA	OB	LDRP/Nursery	Avail Beds	8
NH PENSACOLA	OB	LDRP/Nursery	AvgOccRate	68
NH PENSACOLA	OB	LDRP/Nursery	Staffed Beds	8
NH PENSACOLA	OB	Women & Children	Avail Beds	10
NH PENSACOLA	OB	Women & Children	AvgOccRate	58
NH PENSACOLA	OB	Women & Children	Staffed Beds	10
NH PENSACOLA	Pharmacy	Inpatient	HrsPerWeek	168
NH PENSACOLA	Pharmacy	Inpatient	Initialrx	148951
NH PENSACOLA	Pharmacy	Outpatient Pick-up	HrsPerWeek	67
NH PENSACOLA	Pharmacy	Outpatient Pick-up	Initialrx	334935
NH PENSACOLA	Pharmacy	Outpatient Pick-up	Refills	425656

NH PENSACOLA	PT OT Clinic	Inpatient and Outpatient Oc	Exam Rooms	1
NH PENSACOLA	PT OT Clinic	Inpatient and Outpatient Oc	HrsPerWeek	40
NH PENSACOLA	PT OT Clinic	Inpatient and Outpatient Oc	Proc Rooms	2
NH PENSACOLA	PT OT Clinic	Inpatient Physical Therapy	Exam Rooms	0
NH PENSACOLA	PT OT Clinic	Inpatient Physical Therapy	HrsPerWeek	40
NH PENSACOLA	PT OT Clinic	Inpatient Physical Therapy	Proc Rooms	0
NH PENSACOLA	Radiology - CT	CT	Field Reported Volume	3535
NH PENSACOLA	Radiology - CT	CT	HrsPerWeek	168
NH PENSACOLA	Radiology - CT	CT	Proc Rooms	1
NH PENSACOLA	Radiology - CT	CT	Recovery Spaces	0
NH PENSACOLA	Radiology - MRI	Mobile MRI Unit	Field Reported Volume	865
NH PENSACOLA	Radiology - MRI	Mobile MRI Unit	HrsPerWeek	16
NH PENSACOLA	Radiology - MRI	Mobile MRI Unit	Proc Rooms	1
NH PENSACOLA	Radiology - MRI	Mobile MRI Unit	Recovery Spaces	0
NH PENSACOLA	Radiology - NM	Nuclear Medicine	Field Reported Volume	2655
NH PENSACOLA	Radiology - NM	Nuclear Medicine	HrsPerWeek	45
NH PENSACOLA	Radiology - NM	Nuclear Medicine	Proc Rooms	2
NH PENSACOLA	Radiology - NM	Nuclear Medicine	Recovery Spaces	0
NH PENSACOLA	Surgery OR	OB OR	AvgCaseLength	60
NH PENSACOLA	Surgery OR	OB OR	Field Reported Volume	156
NH PENSACOLA	Surgery OR	OB OR	Spaces	2
NH PENSACOLA	Surgery OR	Total Only	AvgCaseLength	120
NH PENSACOLA	Surgery OR	Total Only	Field Reported Volume	2707
NH PENSACOLA	Surgery OR	Total Only	Spaces	5
NH PENSACOLA	Surgery Support	APU	Spaces	16
NH PENSACOLA	Surgical Specialty Clinic	General Surgery	Backlog	0
NH PENSACOLA	Surgical Specialty Clinic	General Surgery	Exam Rooms	10
NH PENSACOLA	Surgical Specialty Clinic	General Surgery	HrsPerWeek	45
NH PENSACOLA	Surgical Specialty Clinic	General Surgery	Proc Rooms	2
NH PENSACOLA	Surgical Specialty Clinic	Ophthalmology	Exam Rooms	3
NH PENSACOLA	Surgical Specialty Clinic	Ophthalmology	HrsPerWeek	40
NH PENSACOLA	Surgical Specialty Clinic	Ophthalmology	Proc Rooms	1
NH PENSACOLA	Surgical Specialty Clinic	Orthopedics/Podiatry	Exam Rooms	12
NH PENSACOLA	Surgical Specialty Clinic	Orthopedics/Podiatry	HrsPerWeek	40
NH PENSACOLA	Surgical Specialty Clinic	Orthopedics/Podiatry	Proc Rooms	2
NH PENSACOLA	Surgical Specialty Clinic	Otolaryngology	Exam Rooms	4
NH PENSACOLA	Surgical Specialty Clinic	Otolaryngology	HrsPerWeek	40
NH PENSACOLA	Surgical Specialty Clinic	Otolaryngology	Proc Rooms	1
NH PENSACOLA	Surgical Specialty Clinic	Pain Management Clinic	Exam Rooms	1
NH PENSACOLA	Surgical Specialty Clinic	Pain Management Clinic	HrsPerWeek	8
NH PENSACOLA	Surgical Specialty Clinic	Pain Management Clinic	Proc Rooms	0
NH PENSACOLA	Surgical Specialty Clinic	Urology	Exam Rooms	4
NH PENSACOLA	Surgical Specialty Clinic	Urology	HrsPerWeek	40
NH PENSACOLA	Surgical Specialty Clinic	Urology	Proc Rooms	3
Panama City CBOC	Family Practice Clinic		Backlog	49
Panama City CBOC	Family Practice Clinic		Exam Rooms	1
Panama City CBOC	Family Practice Clinic		HrsPerWeek	0
Panama City CBOC	Family Practice Clinic		Proc Rooms	0
Panama City CBOC	Medicine Clinic		Backlog	30
Panama City CBOC	Medicine Clinic		Exam Rooms	8
Panama City CBOC	Medicine Clinic		HrsPerWeek	40
Panama City CBOC	Medicine Clinic		Proc Rooms	0
Panama City CBOC	Mental Health Clinic		Backlog	50
Panama City CBOC	Mental Health Clinic		Exam Rooms	2
Panama City CBOC	Mental Health Clinic		HrsPerWeek	42
Panama City CBOC	Mental Health Clinic		Proc Rooms	0
Panama City CBOC	Pharmacy	Mail order	HrsPerWeek	0
Panama City CBOC	Pharmacy	Mail order	Initialrx	33313
Panama City CBOC	Pharmacy	Mail order	Refills	8315
Panama City CBOC	Pharmacy	Outpatient Pick-up	HrsPerWeek	40
Panama City CBOC	Pharmacy	Outpatient Pick-up	Initialrx	345
Pensacola CBOC	Audiology Speech Clinic		Backlog	82
Pensacola CBOC	Audiology Speech Clinic		Exam Rooms	2
Pensacola CBOC	Audiology Speech Clinic		HrsPerWeek	40
Pensacola CBOC	Audiology Speech Clinic		Proc Rooms	2
Pensacola CBOC	Dental Clinic		Backlog	365

Pensacola CBOC	Dental Clinic		Exam Rooms	5
Pensacola CBOC	Dental Clinic		HrsPerWeek	40
Pensacola CBOC	Family Practice Clinic	Bi-weekly OB GYN	Exam Rooms	2
Pensacola CBOC	Medicine Clinic	Bi-weekly Dermatology	Exam Rooms	2
Pensacola CBOC	Medicine Clinic	Bi-weekly Dermatology	HrsPerWeek	16
Pensacola CBOC	Medicine Clinic	EKG	Backlog	16
Pensacola CBOC	Medicine Clinic	EKG	Exam Rooms	4
Pensacola CBOC	Medicine Clinic	EKG	HrsPerWeek	40
Pensacola CBOC	Medicine Clinic		Backlog	16
Pensacola CBOC	Medicine Clinic		Exam Rooms	37
Pensacola CBOC	Medicine Clinic		HrsPerWeek	40
Pensacola CBOC	Mental Health Clinic		Backlog	0
Pensacola CBOC	Mental Health Clinic		Exam Rooms	12
Pensacola CBOC	Mental Health Clinic		HrsPerWeek	42
Pensacola CBOC	Pharmacy	Mail order	HrsPerWeek	0
Pensacola CBOC	Pharmacy	Mail order	Initialrx	82820
Pensacola CBOC	Pharmacy	Mail order	Refills	223539
Pensacola CBOC	Pharmacy	Outpatient Pick-up	HrsPerWeek	48
Pensacola CBOC	Pharmacy	Outpatient Pick-up	Initialrx	50274
Pensacola CBOC	Surgical Specialty Clinic	Bi-weekly Ortho	Exam Rooms	3
Pensacola CBOC	Surgical Specialty Clinic	Bi-weekly Ortho	HrsPerWeek	40
Pensacola CBOC	Surgical Specialty Clinic	Bi-weekly Ortho	Proc Rooms	2
Pensacola CBOC		GYN	Backlog	50
Pensacola CBOC		GYN	Exam Rooms	1
Pensacola CBOC		GYN	Proc Rooms	1
Pensacola CBOC		Optometry	Backlog	365
Pensacola CBOC		Optometry	Exam Rooms	3
Pensacola CBOC		Optometry	HrsPerWeek	6
Pensacola CBOC		Optometry	Proc Rooms	3
Pensacola CBOC		Orthopedics	Backlog	0
Pensacola CBOC		Orthopedics	Exam Rooms	1
Pensacola CBOC		Orthopedics	HrsPerWeek	18
Pensacola CBOC		Orthopedics	Proc Rooms	1

Attachments to the Hawaii Market Assessment

11. Options for Sharing/Collaboration Identified
12. Functional Assessment Definitions
13. Functional Assessment Grid
14. Facility Condition Grid
15. Supply Counts

Options for Sharing/Collaboration Identified

There is a long list of potential sharing opportunities in this market—some of them involve small shifts of volume, while other require much more systematic change.

The lists below are recommendations for further assessment—not recommendations for implementation.

Hawaii Market: Summary Level Options for Further Analysis

- Develop closer degree of collaboration, all services and functions
- Consolidate Utilization Management functions between Tripler and VA
- Joint Management Programs – i.e., jointly contract MDs (leverage need)
- Develop joint program in GME
- Open O/P primary and specialty care access between DoD and VA systems (for all CBOC, BMC's, etc.)
- Combine existing Pearl Harbor area centers into a single site (either new or one of the existing)
- Expand long term care capacity and consolidate home care services
- Consolidate lab services
- Provide joint Social Work and Psychiatry
- Expand telemedicine program
- Assess the departments current relationships on the "Relationship Grid" and determine whether there are opportunities to achieve better outcomes through different levels of sharing

Summary of General Collaboration Ideas and Opportunities by Category Drawn from Research and Market Site Visits

Listed below are examples and representations of joint collaboration/sharing ideas (needs, practices, policies, and plans or initiatives) and opportunities in the study markets. Key X=primary driver; O = secondary driver; all categories may be impacted

Opportunity	PT Care	Facilities	Staffing	Bus/Clin Proc	Gov/Mgmt	IM/IT	Logistic	Education	Research
Develop interoperable IM/IT system				O		X			
Coordinate GME training			O		O			X	X
Develop coordinated QM/QI functions				X					
Develop coordinated Utilization Management system				X					
Develop useful balanced scorecard of collaboration relationships				X					
Pursue coordinated offering of primary care	X		O						
Consolidate inpatient (M&S) services at one site	O	X							
Coordinate research programs			O					X	X
Develop comprehensive free standing VA/DoD Ambulatory Care Center (ACC)	O	X							
Consolidate Ancillary Services - Radiology/Imaging	X	O							
Consolidate Ancillary services - laboratory/pathology	X	O							
Coordinate placement of VA CBOCs with DoD	O	X							
Develop uniform approach to managing patient (medical records)				X		O			
Offer single VA/DoD pharmacy formulary				O			X		
Institute joint procurement of medical equipment							X		
Institute joint procurement of supplies							X		
Institute joint procurement of information technology systems (software and hardware)						O	X		
Develop coordinated clinical information systems				O		X			
Integrate Pharmacy services				O			X		
Offer telemedicine services radiology/imaging	X			O					
Offer telemedicine services mental health	X			O					
Offer integrated clinical programs - all specialties	X		O						
Share housekeeping							X		
Share laundry							X		
Share engineering and maintenance							X		
Create common management infrastructure					X				
Develop joint ambulatory surgery program	X	O							
Offer consolidated nutrition care services				O			X		
Share Audiology services	X	O							
Unify VA/DoD mental health services on one site	X	O							
Create joint hospitalist program	X								
Develop coordinated health education and training program			O					X	X
Develop comprehensive and coordinated long term care services and facilities	O	X							
Coordinate recruitment and retention of physicians	O		X						
Coordinate recruitment and retention of technical and professional personnel			X						
Develop shared family practice residency program	O							X	X
Coordinate delivery of joint substance abuse program	X								
Develop medical and surgical specialty residency program	X							X	X
Coordinate panel sizes and productivity standards				X				O	O
Implement common access (time distance waiting) standards	O			X					
Coordinate development of clinical practice guidelines				O				X	X
Develop common protocols for measuring and monitoring clinical outcomes data	X			O					
Consolidate unused space		X							
Create joint planning office					X				
Develop common health promotion and prevention program			X	O					
Develop compressive and coordinated cancer management program	X		O						
Establish uniform and coordinated approach to dealing with community hospitals				O	X				
Coordinate HR policies particularly pay scales			O	X					
Revisit and intensify joint disaster preparedness				X					
Implement joint transportation services							X		
Consolidate emergency room services and facilities	O	X							
Create joint float pools			X						
Develop and coordinate home care programs	X		O						
Jointly investigate new technology				O			X		
Share library resources		O					X		
Share education space		X						O	O
Other									

Source: Research and Site Visits

Summary of General Collaboration Ideas and Opportunities by Category Drawn from Research and Market Site Visits

Hawaii

Listed below are examples and representations of joint collaboration/sharing ideas (needs, practices, policies, and plans or initiatives) and opportunities in the study markets. Key X= Identified opportunity based on interview data base

Opportunity	VAMROC	TAMC
Develop expanded and coordinated substance abuse program for VA & DoD beneficiaries.	X	X
Maximize sharing opportunities at proximal facilities	X	X
Improve inpatient and specialty care in Western Pacific for both VA & DoD - (to address the huge distances that must be traveled for many simple referrals that are now made to Tripler	X	X
Improve IM/IT coordination.	X	X
Expand and share metrics and improve data analysis (eg develop combined balanced scorecard).	X	X
Improve site access to TAMC & VA.	X	X
Develop combined and improved GME program.	X	X
Resolve shortages and access problems for placement of long-term care patients.	X	X
Develop unified billing system.	X	X
Sharing opportunities.	X	X
1. Logistics	X	X
2. Pharmacy	X	X
3. Lab	X	X
4. X-ray	X	X
5. Resource Management	X	X
6. Patient administration	X	X
7. Human Resources	X	X
8. Facility management	X	X
9. Case management.	X	X
10. Laundry/Linen		X
11. Medical Waste	X	X
12. Transport		X
13. Collaborative research	X	X
14. Joint medical credentialing	X	X
15. Social work and psychology	X	X
Address continuity of care matters with particular attention to patients that receive care within community facilities.	X	X
Address outlying clinics as possible feeder to TAMC.		X
Provide all inpatient care for vets at TAMC (e.g., urology go to Kaiser, head and neck patients go to California).		X
Expand Hospitalist Program.	X	X
Develop governance model to bridge both systems	X	X
Develop coordinated public affairs office (PAO).		X
Develop coordinated planning office.	X	X
Coordinate physician recruitment and retention.	X	X
Expand homecare at TAMC	X	

Site Visit Database Summary
Market: Hawaii
Submarket: Oahu
Facility: VAMROC

General Statement: The Veterans Administration Medical and Regional Office Center (VAMROC) serves veterans in the Pacific Basin, a geographic service area of 4.8 million square miles. VAMROC provides outpatient treatment though the Ambulatory Care Center in Oahu co-located on the grounds of TAMC, and through five primary care clinics on the Hawaiian Islands and Guam. The Ambulatory Care Center provides primary care services that include mental health, women's health, specialty services, radiology and optometry with associated support services The Pacific Center for Post-Traumatic-Stress-Disorder (PTSD) is operating in Hawaii with unique capabilities for PTSD treatment, research and education. In addition to the Ambulatory Care Service there is a 60 bed Center for Aging (nursing home). The CFA is a free standing nursing facility providing convalescent, end of life care respite care, rehabilitation, geriatric and geri-psychiatric care to eligible veterans. Inpatient services for veterans are provided through a sharing agreement with TAMC and some community hospitals. A VA locked psychiatric ward at TAMC is jointly staffed by DoD and VA MDs.

Organizational Relationships: Affiliated with Tripler Army medical center (TAMC) . VAMROC is also affiliated with the University of Hawaii for Graduate Medical Education (GME). Other affiliations include nursing, pharmacy, dentistry and other specialties

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Patient/Clinical Care		
Inpatient	• Inpatient care provided to veterans at TAMC if space is available; patients are transferred to Palo Alto or to the private sector if beds or specific specialty care is unavailable • CFA provides rehabilitation, long term care, respite care up to 30 days per year, and hospice care. Demand for beds exceeds supply causing back ups and long LOS at TAMC. Lack of long term beds is identified as a major problem island wide	• Review opportunities for referring all inpatients to TAMC except under rare circumstances • Addition of LTC beds to meet demand and decompress inpatient beds at TAMC
Medical/Surgical	• VA Hospitalists oversee inpatient medical care for	• Expand hospitalist program to additional

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	both DoD and VA patients. This is a successful sharing initiative	inpatient services
Specialty Care	• VA has problems with back up for specialty care when military sub-specialists are deployed. At time of visit there were deficiencies in gastroenterology and nephrology • VA provides back-up for geriatrics to TAMC	• Explore unified DoD/VA program for recruiting and retaining professional staff particularly during times of deployment
Behavioral Health	• VA inpatients on a locked unit on the 3rd floor and share staff with TAMC (on 4th floor) • Practice is to keep DoD and VA patients separate due to incompatibility of medical care needs	• Explore potential for comprehensive joint behavioral health program
Extended Care	• CFA has insufficient beds to offer long term care and is currently not licensed for this type of care • Lack of long tem care is identified as acute island wide	• Explore potential of adding long term care beds with appropriate licensing.
Outpatient		
Medical Specialties		
Surgical Specialties		
Behavioral Health		
Ancillary Services	Pharmacy • There is a CHCS terminal located in the pharmacy • VA provides a mailing service for prescriptions (about 50% of total volume)	
Management/Governance	• Joint planning council was identified as a need • Culture differences need to be considered in determining governance	• Establish joint planning council and establish agreed upon metrics • Development of agreed on governance model

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	structure; 3 models described; 1. DoD headed 2. VA headed 3. Executive agent model • Need guidance from the top down to determine which initiatives should be used to avoid the appearance a "hit and miss" approach • Can the "cost of readiness" be separated out and the remaining medical requirements all be treated as joint initiatives?	
Clinical/Business Processes	• Problems exist between DoD and VA regarding how claims are handled (billed and paid) • Utilization data is not routinely shared with VAs • VA does not receive any VERA credit for being a TRICARE network provider or CHAMPUS certified provider • TAMC's system requires an authorization to see a patient and VA needs to issue an authorization before a claim can be made • TRICARE is considered an "entitlement" VA is considered a benefit • VA receives no back transfer of utilization/workload data from TAMC	• Alignment of business and billing procedures • Develop mechanism to interpret workload for both entities. Transfer of critical information needed
Facilities	• ACC relatively new and State of the Art • Inpatient units • CFA new and has expansion capability	
Staffing	• DoD and VA share psychiatric staff and an	

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	"on call" coverage system	
Surgery	• VAs get surgical care at TAMC providing specialty care is available • First priority is active duty so if a service is at capacity Veterans go either to Palo Alto or to the economy	
Emergency Services	• Veterans utilize the Emergency Department at TAMC	
IM/IT	• Incompatible IM/IS systems prevent sharing of pertinent medical information	• Identified need to develop interoperable information management systems
Logistics	• Prime vendor contracts for DoD and VA are separate	• Explore options for sharing prime vender contracts
Education and Training	• VA and TAMC have separate GME programs; VA has affiliations with UH in psychiatry, medicine and geriatrics	• Potential for shared, integrated GMR program with DoD and VA
Research	• Plans have been discussed for a major bio-medical research building, however funding on the VA side is questionable • There is willingness on both sides to establish a joint sharing venture but regulations and policies prevent full integration • Staffing, especially roles for "principal investigator" are different for DoD and VA. DoD must consider length of assignment of medical staff and potential for deployment when assigning these roles	• Resolve funding, policy and regulatory issues to develop a fully integrated research agenda • Develop guidelines for "principal investigators"

DoD/VA Joint Assessment Study
Site Visit Database Summary
Market: Hawaii
Submarket:
Facility: Tripler Army Medical Center
Interview Summary

General Statement: Tripler Army Medical Center is a major teaching hospital that provides tertiary care as well as ambulatory care to active-duty service members of all branches of service, their eligible family members, retirees and their families, veterans and many pacific Island Nation residents. TAMC is a major teaching facility providing GME in general surgery, otolaryngology, orthopedic surgery, psychiatry, OB/GYN, radiology, pathology oral surgery. In addition there are programs for hospital administration and nurse anesthesia. There is a Telehealth and Technology HUI that oversees a variety of telehealth projects. TAMC facilitates bringing together the military, academic institutions and relief organizations through research, education and training.

Organizational Relationships: TRICARE pacific is responsible for Hawaii and the western pacific (excluding Alaska) to include Japan, Okinawa, Guam. Philippines, Singapore and points west.

TAMC operates the US Army Health Clinic at Schofield Barrack, which provides health care to active duty soldiers assigned to the 25th Infantry Division and their families and some local military retirees.

TAMC and the Department of Veteran Affairs Medical Regional Office Center (VAMROC) work closely together on a variety of joint venture projects. In May, 2000 VAMROC co-located with TAMC and opened the Spark M. Matsunaga VA Ambulatory Care Clinic.

TAMC is affiliated with the University of Hawaii for GME

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
Patient/Clinical Care		
Inpatient	• Utilization management is separate for both entities (DoD and VA) resulting in inefficient patient flow • Active duty patients have first priority for access to services (mission driven) • Some veterans are diverted due to a lack of capacity at TAMC • Inpatient bed need is	• Integration of utilization management function • Combine and expand discharge planning for all

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	increasing; increased capacity will be necessary to provide care to all beneficiaries • Case managers and discharge planning are not extended to the entire VA population • "Care Homes" in the state have lost Medicare funding thereby eliminating one option for post-hospital treatment • Several inpatient floors have been "decommissioned" to serve as offices and administrative space • No automated medication dispensing systems	patients • Administrative space could be converted to patient care space if needed. • Identify alternative space for administrative functions
Medical/Surgical	• Inpatient beds at capacity; additional beds would require refitting of clinical space currently used for administrative space • At times elective surgery is cancelled or ED goes on diversion with lack of beds • Referrals to the private sector occur when specialists are not available for all beneficiaries • Hospitalists cover for DoD and VA patients on the medical service improving throughput	• Bed need analysis for all inpatient services • Opportunity to save space by combining administrative functions • Successful model could be expanded to all services
Specialty Care	• Orthopedic care for active duty is a problem due to backlog and availability of orthopedists • Availability of specialists in key areas impacts services sporadically; In March 2003 Neurosurgery was closed to VA patients. When specialists are not available patients go to the	• Conduct joint DoD/VA review of recruitment and retention requirements

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	economy	
Behavioral Health	• Joint programs with VA • RNs staff permanently assigned to each unit; MDs "float" between units • Reluctance to mix military and AD patients due to differences in goals of treatment and kind of care needed. DoD shorter LOS younger with psycho-social issues VA older with more chronic issues. Patients are said to get into fights (units had been previously combined) • DoD LOS 4-5 days; VA 9-10 days due to different financial incentives • 4th floor (DoD unit) locked or unlocked depending on patient population • Separate outpatient programs for DoD and VA • Difficulty finding long term care beds for mental health patients	• Potential to design comprehensive combined behavioral health programs • Have DoD and VA MDs see both DoD and VA patients in order to improve the exposure and experience for both groups
Extended Care	• Lack of Long Term care beds for existing population causing longer LOS for those awaiting placement (limited availability of meds in CFA) and back-up in critical care areas	• Conduct comprehensive bed need analysis for anticipated future volumes including need for long term care beds needed for VA and retirees
Surgery	• 12 OR suites- 10 currently in use; 5645 cases reported for FY02 • Users express need for additional ORs • Cardiac surgery cases @ 134/yr at TAMC; 3 cardiac surgeons also do cases at civilian hospitals in order to meet GME requirements • Current GI space is inadequate and demand is	• Capacity exists for additional surgery • Potential to combine cardiac surgery with another program to achieve efficiency • Increase capacity, add procedure and support space in GI and add hours of operations • Maintain desired amounts and types of sub-

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	increasing. 100 VA patients sent out monthly • Some surgical sub-specialists are not available or in short supply causing cases to be transferred to the economy • Average case length reported at 3.9 hours is considerably above the private sector averages • OR utilization reported at 90% • VA accounts for 5% of surgical case volume	specialists; use VA's ability to employ MDs to balance cyclical nature of DoD supply • Review practices to identify opportunities to reduce case length and improve turnaround time
Emergency Department	• VA patients prefer to come to Tripler – resulting in overcrowding of ED • There is no way to verify eligibility after hours • DoD uses paper chart; VA must be put into system and access to medical records is difficult • Insufficient treatment space for demand • Inadequate social service coverage	• See IM/IT section • Evaluate sources of ED demand: how much could be seen in scheduled clinics
Outpatient	• Provider capacity could be increased	
Medical Specialties	• More resources (providers and capital) are needed to meet growing demand	
Surgical Specialties	• There is a reported shortage of Gastroenterologists and dermatologists	• Explore potential for recruitment and coverage by VA MDs
Behavioral Health	• TAMC sends MDs to VA outpatient for GME • Joint planning with VA as well as ECT, and combined treatment plans • OP medications must be picked up by VA. Different standards and procedures cause confusion with	• Standardize pharmacy policies and procedures

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	Veterans sometimes using both systems	
Ancillary Services	Radiology • reported need for PET scanner; space identified as lacking and funding currently not available • Information system (PACS) is incompatible with VA system (VISTA) Palo Alto (VA tertiary facility) cannot access and films must be sent • Women's' Center planning in progress • Well-equipped service provides a high proportion of studies for VA (VA has 1 general unit and 1 radiologist to read films);All other services provided by TAMC staff • Tele-radiology service is comprehensive , however, no link to Palo Alto)VA tertiary facility • IM/IT disparities prevent full integration • VA desires to maintain some independent capabilities • Approvals from both DoD and VA are barriers to sharing • Cost of converting to one system and how to fund is an issue • Space described as limited. Describe need for 2nd MRI unit Pharmacy • VA refills are not authorized for DoD • Differences in practice- DoD gives 90 day supply; VA gives 30 day supply • Disparate policies and	• Evaluate need for additional diagnostic technology • Standardize Radiology information system to PACS • Coordinate UR/UM to assist with VA approvals for ancillary and other care • Full integration of radiology services with resolution of IT interoperability issues • Space plan evaluation • Develop comprehensive integrated pharmacy system with aligned policies and procedures and determine cost structure • Joint contracting for purchasing with one formulary • Explore feasibility of joint

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	procedures as to what prescriptions can be filled, when and by whom creates confusion within the system and for patients who "game the system" • Technology difference for stocking and dispensing between the 2 entities • Separate procurement and contracting for both entities • No mail order pharmacy done on site; TAMC pays TMOP thus mail order not encouraged • Other support services such as infection control, occupational health, separate services and departments are maintained with different standards Clinical Support Department • Handles some administrative functions in a centralized manner including scheduling, budget, HQ contracts, standards, policies, data analysis and customer satisfaction Social Services • TAMC social workers report to the department while VA social worker reports to the service line Rehabilitation Services • Share space only with VA 3 days/week for specified times (VA therapist) • More rehab providers are needed to meet demands • No programs for neuro or stroke patients or spinal cord injury. Veterans get care at civilian facility or sent to Palo Alto	mail order system • Consolidation / integration of services with uniform standards • Review structure and function to determine if some functions could be decentralized to departments with crossover to VA • Potential for one combined social services program with standardization of policies and procedures and determination of funding mechanism • Determine feasibility of additional services and space in rehab
Management/Governance	• There is a lack of clear	• Explore governance

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	guidelines for integration • Governance structure for sharing – a major issue- everyone has a different view of what the governance model should be structured • There is no defined/established organizational structure to assign responsibility for decision making. This is ad hoc. • The "Balanced Scorecard" is a good tool but few are expert at it's application • Public affairs officer at TAMC ;Currently there is an "acting PAO at VA. TAMC believes the position is successful to a joint venture while VA does not share this perspective. Also TAMC would provide this service and expect funding from VAMC to provide this service. Activities are not coordinated and communicated	models and facilitate a process to determine an effective governance structure • Assess political support to create a Federal Health Care System named the "Tripler-Matsunaga Federal Medical System" • Increase implementation of Balanced Scorecard in other areas
Clinical/Business Processes	• Business aspects are not fully integrated between TAMC and VA. Cultures are different. • The cost of operations and the allocation of costs for each service or episode of care is not clearly defined and each entity wants to pass the cost on to the other • No integrated billing systems • Payments for beneficiaries from VA is disputed • There is little sharing/collaboration in administrative, logistical	• Cooperative decision making along with the willingness to change promote integration activities • Determine if a joint pool for designated services or equipment is feasible • Agreements that result in the lowest cost/better quality option

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	and clinical support(medical records, procurement, warehousing) • There are no clear financial incentive for staying within the DoD/VA system	• Potential to explore an integrated solution
Facilities	• TAMC occupies a circa 1950 building that has a large deferred maintenance backlog; the diagnostic services are housed predominantly in 1985 expansion wings • Renovation of existing space often produces inefficient results due to existing constraints • The existing site along with the internal organization of TAMC poses challenging pedestrian and parking access issues • Barriers to access are due in part to the huge distances in the Pacific to reach a treatment facility • Difficulty in integrating care on neighboring island with DoD for VA patients where there is the perception that access to care for veterans in an integrated network would be diminished • During heightened security alerts, access to both VAMROC and TAMC is reduced due to their co-location	• Separate administrative office to be established in Okinawa for Westpac. (This TAMC based office will be responsible for HI) • VAMROC has an excellent new ambulatory services building with an adjacent parking garage • VAMROC and TAMC are physically co-located and the potential exists to share most/all facility and equipment assets • Continue to conduct joint master facility planning studies
Staffing	• Staffing shortages noted for nurses and social services • Potential to add more beds with the addition of nursing staff • Disparity in salaries	• Expand joint recruitment and retention and combine efforts • Resolve pay-scale inequities

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	between military, VA and GC nursing staff	
IM/IT	• IM/IT systems are not compatible and prevent effective flow of communication between entities. (database integration under development • Systems need to be more metrics driven to be efficient • IT systems for lab; TAMC uses CHCS; VA enters data manually into VISTA; Interoperability of the systems prevents the consolidation of services • The HUI is a group that has been working on integrating the systems; sometimes builds tools that then require support • The Operating Room has a home grown information system for scheduling and some reporting	• Evaluate potential of full integrated IM/IT at all levels • Evaluate need for comprehensive OR Management system with appropriate interfaces
Logistics	• There is no centralized agreement or policy for procurement of major capital equipment due to established Prime Vendor provider agreements. • Medical procurement cannot be integrated at this time due to Medcom SOP • Procurement for medical supplies is allocated to several different individuals	• Joint contracting initiative to reduce costs
Education and Training	• Diversion of veterans for inpatient care due to lack of capacity negatively impacts the GME program • Residents from the GME program go to Queens Hospital; medical students	• Joint programs for all entities ; Teaching programs are enhanced with VA mix • Develop collaborative continuity with VA MDs to plan for unexpected

Collaboration Category	Key Functional Characteristics/ Barriers to Sharing	Opportunities
	from University of Hawaii come to TAMC • There are some joint educational offerings between TAMC and VA but many are still separate • Military mission of readiness presents complications when deployment is requires especially when sub-specialty is impacted and decreased by deployment • Credentialing processes are separate for DoD and VA	vacancies caused by deployment • Establish joint credentialing process through procedure development
Research	• Clinical Investigation projects- 200 as of Sept 02 • There is potential to pursue a new joint research building but current issues, policies and procedures prevent full integration. These include confidentiality, medical records requirements, and method of selecting patients for studies, • Programs are not currently integrated with VA due to policies and regulations for "principal Investigators" • Length of assignment for Military MDs is a factor • Limited pool of "subjects" may have an impact in certain studies • Funding for research from 2 different entities is in question. Both organizations have issues with who pays for the facility and on going support • Currently there is a desire for collaboration if barriers can be overcome	Obstacles to overcome include 1. need to establish 1 IRB with accountability and infrastructure redefined 2. develop uniform set of regulations, policies and procedures 3. determine source of funding for each 4. Agreement on need for an accreditation process 5. defined accountability for PI and associates • Establish policies and procedures for joint clinical program especially assignment of PI role to establish comprehensive, coordinated and collaborative research agenda • Negotiate joint research and clinical trials collaboration with defined infrastructure

Functional Assessment Red/Amber/Green Definitions

	Size
G	Area within ± 10% of programmed area
A	Area is > ± 10% of Prog. Area
R	Area is < ± 10% of Prog. Area (GSF), and rooms have specific requirements which are difficult/expensive to repair
	Configuration
G	Configuration appropriate to accomplish mission
A	Not good, but could be easily altered in place
R	Not Configured To do Mission – ex. Department split, patient floor, inappropriate room size
	Location
G	Department located appropriately in building for efficiency and ease of staff and patients
A	Location is not an issue for efficiency and convenience for staff and patients
R	Department location is inconvenient in the building and causes inefficiency for staff and patients
	Adjacency
G	Adjacent to appropriate departments for operational or patient ease/efficiency or can stand independent of other departments
A	Would like certain adjacency but function OK
R	Needs to be located near another department
	Interior – Image
G	Appropriate and up to date
A	Appropriate but appears dated
R	Inappropriate for use
	Interior Condition
G	In excellent condition
A	In fair condition
R	Needs replacement
	ADA Compliance
G	Meets ADA requirements for area and access
A	ADA requirements met through adaptation of space and systems where possible
R	Does not meet ADA requirements

Key: G=Green, A=Amber, R=Red

DoD/VA Joint Assessment Study

Hawaii Market Area

Functional Assessments

Below are the results from cursory department tours made by architects on the project team. Only the major clinical buildings were reviewed. The departmental scores (size, configuration, location, adjacency, interior image, interior condition, ADA compliance) are subjectively derived from quick tours of the departments. The information contained in the database is not interchangeable with the level of detail that would be derived from a Facilities Master Plan and/or a Facilities Condition Assessment.

FACILITY NAME	DEPARTMENT NAME	SPECIFIC DEPT	FLOOR	DGSF	SIZE SCORE	CONFIG SCORE	LOCATION SCORE	ADJACENCY SCORE	INT IMAGE SCORE
Tripler AMC	Audiology Speech Clinic	Department of Surgery Clinic - ENT - Audiology and Speech	3	3,851	G	G	G	G	A
Tripler AMC	Cardiac Cath Lab	Cardiac Cath Lab / Specialty Proc. Rooms	6	1,858	G	G	G	G	A
Tripler AMC	Dental Clinic	Dental Clinic	G-1	6,384	A	G	G	G	A
Tripler AMC	Dental Clinic	Oral Surgery Clinic	G-1	5,750	A	G	G	G	A
Tripler AMC	Family Practice Clinic	Adolescent Medicine	4	4,010	G	G	G	G	A
Tripler AMC	Family Practice Clinic	Family Practice - Emergency Service	3	10,379	G	G	G	G	A
Tripler AMC	Family Practice Clinic	Family Practice Clinic & Family Practice Physical Exams	1	19,780	G	A	R	R	A
Tripler AMC	Family Practice Clinic	Pediatrics - Exceptional Family Members Program	7	7,832	G	G	G	G	A
Tripler AMC	Family Practice Clinic	Pediatrics Clinic - General Pediatric Service	4	11,105	G	G	G	G	A
Tripler AMC	Family Practice Clinic	Well Baby	4	2,443	G	G	G	G	A
Tripler AMC	GI Lab	Endoscopy	4	4,786	A	A	G	G	A
Tripler AMC	Hematology Oncology Clinic	Hematology Oncology Infusion	4	408	A	A	G	G	A
Tripler AMC	Medical Surgical IP	Pediatrics Ward	7	10,311	G	G	G	G	A
Tripler AMC	Medical Surgical IP	Telemetry	6	7,897	G	G	G	G	A
Tripler AMC	Medicine Clinic	Allergy	4	4,461	G	G	G	G	A
Tripler AMC	Medicine Clinic	Allergy / Immunization	4	2,557	G	G	G	G	A
Tripler AMC	Medicine Clinic	Cardiology Clinic - Non-Invasive Labs	4	5,993	G	G	G	G	A
Tripler AMC	Medicine Clinic	Department of Medicine - Administration	4	5,100					
Tripler AMC	Medicine Clinic	Department of Medicine - Respiratory Therapy	6	2,582	G	G	G	G	A
Tripler AMC	Medicine Clinic	Department of Medicine - Specialty Clinics: Infusion, Gastroenterology, Hematology / Oncology, Nephrology, Rheumatology, Infectious Disease	4	4,333	A	A	G	G	A
Tripler AMC	Medicine Clinic	Department of Medicine Clinic - Adult Medicine	3	10,210	G	G	G	G	A
Tripler AMC	Medicine Clinic	Department of Medicine Clinics- Dermatology	4	4,266	G	G	G	G	A
Tripler AMC	Medicine Clinic	Department of Medicine Clinics- Dialysis	4	1,913	G	A	G	G	A
Tripler AMC	Medicine Clinic	Endocrinology	4	2,018	A	G	G	G	A
Tripler AMC	Medicine Clinic	Medical Oncology	5	7,868	G	A	G	G	A
Tripler AMC	Medicine Clinic	Neurology	4	4,231	G	G	G	G	A
Tripler AMC	Medicine Clinic	Occupational Health	7	2,157	G	G	G	G	A
Tripler AMC	Medicine Clinic	Pathology and Area Lab	4	1,713	G	G	G	G	A
Tripler AMC	Medicine Clinic	Physical Medicine	3	1,158	G	G	G	G	A
Tripler AMC	Medicine Clinic	Preventive Medicine	7	4,606	G	G	G	G	A
Tripler AMC	Medicine Clinic	Pulmonary Clinic & Lab	4	6,280	A	G	G	G	A
Tripler AMC	Nursery	NICU Patient / ED Room (temporary location)	5	509					
Tripler AMC	OB	Antepartum Diagnostic Center	6	2,573	G	A	G	G	A
Tripler AMC	OB	OB / GYN	5	12,875	G	A	G	G	A
Tripler AMC	OB	OB / GYN Service	4	22,672	G	G	G	G	A
Tripler AMC	OB	Obstetrics - Labor / Delivery	6	18,835	G	A	G	G	A
Tripler AMC	OB	Obstetrics - Mother / Baby Ward	5	7,641	G	A	G	G	A
Tripler AMC	Other	Optometry	2	2,097					
Tripler AMC	Other	Administrative Services - IMD	4	1,081					
Tripler AMC	Other	Admissions / Discharge and Air Evacuation	1	1,090					
Tripler AMC	Other	American Red Cross	1	239					
Tripler AMC	Other	Blind Vendor	4	295					
Tripler AMC	Other	CSD - Benefits	4	1,415					
Tripler AMC	Other	CSD - Patient Rep.	4	392					
Tripler AMC	Other	Center of Excellence in Disaster Management	2	1,488					
Tripler AMC	Other	Chapel	6	586					
Tripler AMC	Other	Clinical Support	3	921					
Tripler AMC	Other	Clinical Support Division - Patient Appointment Office	G-1	1,303					
Tripler AMC	Other	Clinical Support Division Hospital Information	1	215					
Tripler AMC	Other	Clinical Support Informatics	7	281					
Tripler AMC	Other	Commanding General, Chief of Staff, Deputy Commander of Clinical Services	3	5,693					
Tripler AMC	Other	Community Health Nursing	1	1,124					
Tripler AMC	Other	Community Health Nursing	1	2,266					
Tripler AMC	Other	Community Library	1	2,276					
Tripler AMC	Other	Credit Union	1	863					
Tripler AMC	Other	DOHET	10	2,409					
Tripler AMC	Other	DOHET - Medical education	9	3,259					
Tripler AMC	Other	DOHET - Training Education	9	6,554					
Tripler AMC	Other	Department of Nursing - Administration	1	3,690					
Tripler AMC	Other	Department of Nursing - Critical Care	8	21,777					
Tripler AMC	Other	Department of Surgery - Administration	6	4,146					
Tripler AMC	Other	Department of Surgery Clinics- Administrative Support / Waiting / Toilet Rooms	2	8,041					
Tripler AMC	Other	Dietary / Food Service	1	32,653					
Tripler AMC	Other	E.D. - P.M.	4	746					
Tripler AMC	Other	Electrical	G-1	2,900					
Tripler AMC	Other	Family Practice Products	2	3,817					
Tripler AMC	Other	HFPA	2	342					
Tripler AMC	Other	IM - Information Engineering and Help Desk	5	996					
Tripler AMC	Other	IMD	2	2,123					
Tripler AMC	Other	IMD	2	332					
Tripler AMC	Other	IMD - Administrative Services	3	1,347					

FACILITY NAME	DEPARTMENT NAME	SPECIFIC DEPT	FLOOR	DGSF	SIZE SCORE	CONFIG SCORE	LOCATION SCORE	ADJACENCY SCORE	INT IMAGE SCORE
Tripler AMC	Other	IMD - Information Engineering	3	8,592					
Tripler AMC	Other	IMD - Information Management	10	2,293					
Tripler AMC	Other	IMD - Information Management	9	8,241					
Tripler AMC	Other	IMD Customer Support	G-1	8,251					
Tripler AMC	Other	IMD Storage	G-1	1,704					
Tripler AMC	Other	Inspector General	1	450					
Tripler AMC	Other	Internal Review	2	839					
Tripler AMC	Other	Joslin Research Project (DOM)	4	480					
Tripler AMC	Other	Judge Advocate	1	1,430					
Tripler AMC	Other	Kelki Coop	1	2,053					
Tripler AMC	Other	Kyser Auditorium	1	4,582					
Tripler AMC	Other	Liaison Office	1	1,892					
Tripler AMC	Other	Logistics	2	5,169					
Tripler AMC	Other	Logistics	6	742					
Tripler AMC	Other	Logistics - Analysis and Research	2	868					
Tripler AMC	Other	Logistics - Biomedical Maintenance	G-1	9,743					
Tripler AMC	Other	Logistics - Environmental Services	2	2,422					
Tripler AMC	Other	Logistics - Environmental Services	G-1	781					
Tripler AMC	Other	Logistics - Facilities Management	2	4,723					
Tripler AMC	Other	Logistics - Materials Division	2	6,323					
Tripler AMC	Other	Managed Care Division	3	888					
Tripler AMC	Other	Managed Care Division	3	969					
Tripler AMC	Other	Mechanical	10	2,623					
Tripler AMC	Other	Mechanical	10	2,881					
Tripler AMC	Other	Mechanical	10	5,084					
Tripler AMC	Other	Mechanical	12	3,888					
Tripler AMC	Other	Mechanical	13	2,352					
Tripler AMC	Other	Mechanical	3	1,817					
Tripler AMC	Other	Mechanical	7	4,029					
Tripler AMC	Other	Mechanical	7	4,258					
Tripler AMC	Other	Mechanical	8	34,975					
Tripler AMC	Other	Mechanical	G-1	8,088					
Tripler AMC	Other	Mechanical / Electrical	3	4,058					
Tripler AMC	Other	Med. Educ - Trans. Resid. Prog.	6	675					
Tripler AMC	Other	Medical Education	10	2,550					
Tripler AMC	Other	Medical Library	11	10,463					
Tripler AMC	Other	Ministry and Pastoral Care	3	9,886					
Tripler AMC	Other	Nutrition Care Clinic	4	576					
Tripler AMC	Other	P M O	3	203					
Tripler AMC	Other	P.M.O	3	400					
Tripler AMC	Other	PAD - Outpatient Records	4	3,067					
Tripler AMC	Other	PAD Storage	G-1	1,872					
Tripler AMC	Other	Pacific Regional Medical Command	2	7,556					
Tripler AMC	Other	Pathology - Anatomical	2	5,036					
Tripler AMC	Other	Pathology - Anatomical (Morgue)	G-1	3,485					
Tripler AMC	Other	Pathology - Blood Donor Center	2	2,008					
Tripler AMC	Other	Pathology - Clinical	2	39,178					
Tripler AMC	Other	Pathology - Storage Room	2	365					
Tripler AMC	Other	Patient Administration - Patient Accounts	3	1,965					
Tripler AMC	Other	Patient Administration Division - Admissions & Discharge (temporary locabon)	5	3,066					
Tripler AMC	Other	Patient Affairs	1	2,323					
Tripler AMC	Other	Patient Records Administration	G-1	1,081					
Tripler AMC	Other	Patient Records Administration	G-1	6,573					
Tripler AMC	Other	Personnel Administrative Center	4	694					
Tripler AMC	Other	Point of Care Staff	G-1	300					
Tripler AMC	Other	Post Exchange	1	6,162					
Tripler AMC	Other	Provost Marshall	4	1,068					
Tripler AMC	Other	Provost Marshall Office (P.M.O.)	11	250					
Tripler AMC	Other	Psychiatry - Adult Outpatient / Child and Adolescent	2	10,178					
Tripler AMC	Other	Psychology - Behavioral Medicine / Health Psychology / Child Psychology	8	16,554					
Tripler AMC	Other	Psychology - Pain Management	8	1,788					
Tripler AMC	Other	Public Affairs	1	483					
Tripler AMC	Other	Quality Services Division - (QSD)	9	6,217					
Tripler AMC	Other	Retention Office (MCHK-RE)	G-1	547					
Tripler AMC	Other	Robin Hood American Eatery and Dining Area	1	4,217					
Tripler AMC	Other	Safety	9	851					
Tripler AMC	Other	Smart Team Storage Area	3	538					
Tripler AMC	Other	Social Work	2	5,428					
Tripler AMC	Other	Specialized Nursing Care Center (SNCC)	5	10,535					
Tripler AMC	Other	TAMC P.O.	1	1,051					
Tripler AMC	Other	TRICARE	4	1,302					
Tripler AMC	Other	TRISARF	4	15,926					
Tripler AMC	Other	U.S. Post Office	1	1,250					
Tripler AMC	Other	Variety Retail - Travel / Dry Cleaners / Optometry / Florist / B.S.	1	2,375					
Tripler AMC	Other	1984th USAF	2	1,108					
Tripler AMC	Other	Mechanical / Electrical	3	4,136					
Tripler AMC	Other	Provost Marshall	3	760					
Tripler AMC	PRRTP IP	Veterans Administrabon Psychiatry (IP and OP)	3	18,921	G	A	G	G	A

FACILITY NAME	DEPARTMENT NAME	SPECIFIC DEPT	FLOOR	DGSF	SIZE SCORE	CONFIG SCORE	LOCATION SCORE	ADJACENCY SCORE	INT IMAGE SCORE
Tripler AMC	Pharmacy	Inpatient Pharmacy and Pharmacy Support Services	2	7,887					
Tripler AMC	Pharmacy	Outpatient Pharmacy / Pharmacy Information Service	4	3,662					
Tripler AMC	Pharmacy	Pharmacy Information Services	2	1,747					
Tripler AMC	Pharmacy	Satellite Pharmacy	6	388					
Tripler AMC	Psychiatry IP	Inpatient Psychiatry (Includes 3,102 SF of Administration)	4	15,903	A	A	R	R	A
Tripler AMC	Psychiatry IP	Psychiatric Relaxation Room	6	226	G	G	G	G	A
Tripler AMC	Radiation Therapy	Radiation Therapy - Linear Accelerator	G-1	9,316	G	G	G	G	A
Tripler AMC	Radiology - MRI	MRI	3	2,704	G	G	G	G	A
Tripler AMC	Radiology - MRI	Radiology - Diagnostics / MRI & Records	3	27,881	G	G	G	G	A
Tripler AMC	Radiology - NM	Radiology - Nuclear Medicine	3	13,260	G	G	G	G	A
Tripler AMC	Rehabilitation IP	Occupational Therapy	3	7,879	G	G	G	G	A
Tripler AMC	Rehabilitation IP	Physical Therapy	3	8,987	G	G	G	G	A
Tripler AMC	Surgery OR	Department of Surgery - Operating Rooms / Anesthesia / PACU	6	33,984	G	G	G	G	A
Tripler AMC	Surgery Support	6B1 NCOIC	6	132					
Tripler AMC	Surgery Support	Anesthesia NCOIC / Sleep Rooms	6	804					
Tripler AMC	Surgery Support	CMS - Central Material Sterilization - Surgery	2	11,044					
Tripler AMC	Surgery Support	Department of Surgery - Surgical Admission Center (SAC)	6	6,944					
Tripler AMC	Surgery Support	Sleep Rooms wing - Surgery, Family Practice, Psychiatry, OB / GYN, Residents	6	6,301					
Tripler AMC	Surgical Specialty Clinic	Department of Surgery - Ortho / Neuro. / Vascular Inpatient Ward	6	7,853	G	G	G	G	A
Tripler AMC	Surgical Specialty Clinic	Department of Surgery / Medicine - General Surgical / Plastics Ward	6	12,669	G	G	G	G	A
Tripler AMC	Surgical Specialty Clinic	Department of Surgery Clinic - Orthopedics	4	13,377	G	G	G	G	A
Tripler AMC	Surgical Specialty Clinic	Department of Surgery Clinic - Orthopedics - Brace Shop	3	2,381	G	G	G	G	A
Tripler AMC	Surgical Specialty Clinic	Department of Surgery Clinic - Otolaryngology (ENT)	3	8,343	G	G	G	G	A
Tripler AMC	Surgical Specialty Clinic	Department of Surgery Clinics - Cardiothoracic	2	1,597	G	G	G	G	A
Tripler AMC	Surgical Specialty Clinic	Department of Surgery Clinics - General	2	6,978	G	G	G	G	A
Tripler AMC	Surgical Specialty Clinic	Department of Surgery Clinics - Laser Eye Center	2	3,777	G	G	G	G	A
Tripler AMC	Surgical Specialty Clinic	Department of Surgery Clinics - Neurosurgery	2	1,262	G	G	G	G	A
Tripler AMC	Surgical Specialty Clinic	Department of Surgery Clinics - Ophthalmology	2	5,910	G	G	G	G	A
Tripler AMC	Surgical Specialty Clinic	Department of Surgery Clinics - Plastic Surgery	2	2,695	G	G	G	G	A
Tripler AMC	Surgical Specialty Clinic	Department of Surgery Clinics - Urology	2	8,340	G	G	G	G	A
Tripler AMC	Surgical Specialty Clinic	Department of Surgery Clinics - Vascular / Lab	2	1,684	G	G	G	G	A
Tripler AMC	Surgical Specialty Clinic	Department of Surgery Clinics - Vascular / Lab	2	770	G	G	G	G	A

DoD/VA Joint Assessment Study **Hawaii Market Area**
Building Condition Assessments

Below is information gathered by the engineers on the project team. Building Infrastructure Condition is on a Poor, Fair, Good, Very Good, Excellent subjective scale derived from quick tours of the buildings. Only the major clinical buildings were reviewed. FCI (facility condition index), Plant Replacement Value, and Deferred Maintenance was entered only if provided by the sites. The information contained in the database is not interchangeable with the level of detail that would be derived from a Facilities Master Plan and/or a Facilities Condition Assessment.

FACILITYNAME	BLDG_NAME	BUILDINGID	BLDG_NUM	AGE	BGSF	BNSF	YEAR_BUILT	FCI	REPLACE_VALUE	DEFER_MAINT	CONDITION
TRIPLER AMC	Tripler AMC	237	1		1203317		1948	0.14	250000000	35000000	Fair

DoD/VA Joint Assessment Study **Hawaii Market Area**

Supply Counts from Site Visits and Surveys

Below are the supply counts and characteristics provided by the sites either in response to a survey or via site visits. DoD sites are in capital letters to help quickly differentiate DoD from VA. Note that "Exam Rooms" cannot be added to derive the total number of exam rooms in a market, since some exam rooms are duplicated between multiple clinics (e.g. if cardiology has 5 exam rooms half of the week and endocrinology has the same 5 exam rooms half of the week, they each are assigned 5 exam rooms)

FACILITY NAME	DEPARTMENT NAME	UNIT NAME	UNIT TYPE	COUNT
Hawaii Market				
15th MED GRP-HICKAM	Dental Clinic		Exam Rooms	24
15th MED GRP-HICKAM	Dental Clinic		Proc Rooms	2
15th MED GRP-HICKAM			Exam Rooms	24
Hilo			Backlog	29
Hilo			Exam Rooms	5
Hilo			HrsPerWeek	42
Hilo			Proc Rooms	1
Honolulu	GI Lab		HrsPerWeek	42
Honolulu	GI Lab		Proc Rooms	1
Honolulu	Pharmacy	Inpatient	HrsPerWeek	40
Honolulu	Pharmacy	Inpatient	Initialrx	401303
Honolulu	Pharmacy	Mail order	HrsPerWeek	40
Honolulu	Pharmacy	Mail order	Initialrx	239127
Honolulu	Pharmacy	Outpatient Pick-up	HrsPerWeek	40
Honolulu	Pharmacy	Outpatient Pick-up	Initialrx	142397
Honolulu	Pharmacy	Outpatient Pick-up	Refills	381524
Honolulu	PRRTP IP		Avail Beds	16
Honolulu	PRRTP IP		Staffed Beds	16
Honolulu			Avail Beds	60
Honolulu			Backlog	60
Honolulu			Exam Rooms	42
Honolulu			HrsPerWeek	42
Honolulu			Staffed Beds	60
Kailua-Kona			Backlog	11
Kailua-Kona			Exam Rooms	2
Kailua-Kona			HrsPerWeek	42
Kailua-Kona			Proc Rooms	1
BRMCL MCAS KANEOHE BAY	Diagnostic Other	Radiology	Proc Rooms	2
BRMCL MCAS KANEOHE BAY	Family Practice Clinic	Family Practice	Backlog	30
BRMCL MCAS KANEOHE BAY	Family Practice Clinic	Family Practice	Exam Rooms	16
BRMCL MCAS KANEOHE BAY	Family Practice Clinic	Pediatrics	Backlog	30
BRMCL MCAS KANEOHE BAY	Family Practice Clinic	Pediatrics	Exam Rooms	4
BRMCL MCAS KANEOHE BAY		Optometry	Backlog	30
BRMCL MCAS KANEOHE BAY		Optometry	Exam Rooms	2
BRMCL MCAS KANEOHE BAY		Primary Care	Backlog	30
BRMCL MCAS KANEOHE BAY		Primary Care	Exam Rooms	12
Lihue			Backlog	15
Lihue			Exam Rooms	3
Lihue			HrsPerWeek	42
Lihue			Proc Rooms	1
NMCL PEARL HARBOR	Family Practice Clinic	Family Practice	Exam Rooms	16
NMCL PEARL HARBOR	Family Practice Clinic	Pediatrics	Exam Rooms	6
NMCL PEARL HARBOR	Medicine Clinic	Acute Care	Exam Rooms	6
NMCL PEARL HARBOR	Medicine Clinic	Dermatology and Internal M	Exam Rooms	6
NMCL PEARL HARBOR	Medicine Clinic	Optometry	Exam Rooms	5
NMCL PEARL HARBOR	Medicine Clinic	Primary Care	Exam Rooms	10
NMCL PEARL HARBOR	Mental Health Clinic		Exam Rooms	4
SCHOFIELD BARRACKS AHC	Audiology Speech Clinic	Audiology	Exam Rooms	1
SCHOFIELD BARRACKS AHC	Family Practice Clinic	Family Practice	Exam Rooms	22
SCHOFIELD BARRACKS AHC	Family Practice Clinic	OB	Exam Rooms	6
SCHOFIELD BARRACKS AHC	Family Practice Clinic	OB	Proc Rooms	2
SCHOFIELD BARRACKS AHC	Family Practice Clinic	Peds	Exam Rooms	8

SCHOFIELD BARRACKS AHC	Family Practice Clinic	Peds	Proc Rooms	1
SCHOFIELD BARRACKS AHC	Medicine Clinic	Allergy	Exam Rooms	1
SCHOFIELD BARRACKS AHC	Medicine Clinic	Cast	Exam Rooms	1
SCHOFIELD BARRACKS AHC	Medicine Clinic	Community Health	Exam Rooms	6
SCHOFIELD BARRACKS AHC	Medicine Clinic	Occupational Health	Exam Rooms	1
SCHOFIELD BARRACKS AHC	Medicine Clinic	Primary Care	Exam Rooms	5
SCHOFIELD BARRACKS AHC	Medicine Clinic	Urgent Care	Exam Rooms	4
SCHOFIELD BARRACKS AHC	Mental Health Clinic	ADAPCP/ Substance Abus	Exam Rooms	7
SCHOFIELD BARRACKS AHC	Mental Health Clinic	Family Advocacy	Exam Rooms	5
SCHOFIELD BARRACKS AHC	Mental Health Clinic	Mental Health	Exam Rooms	9
SCHOFIELD BARRACKS AHC	PT OT Clinic	OT	Exam Rooms	1
SCHOFIELD BARRACKS AHC	PT OT Clinic	PT	Exam Rooms	3
SCHOFIELD BARRACKS AHC	Surgical Specialty Clinic	Optometry	Exam Rooms	5
SCHOFIELD BARRACKS AHC	Surgical Specialty Clinic	Ortho	Exam Rooms	1
SCHOFIELD BARRACKS AHC	Surgical Specialty Clinic	Podiatry	Exam Rooms	1
TRIPLER AMC	Cardiac Cath Lab	Cardiac Cath Interventional	Field Reported Volume	571
TRIPLER AMC	Cardiac Cath Lab	Cardiac Cath Interventional	Proc Rooms	1
TRIPLER AMC	Critical Care IP	ICU	Avail Beds	24
TRIPLER AMC	Critical Care IP	ICU	Staffed Beds	5
TRIPLER AMC	Critical Care IP	NICU	Avail Beds	16
TRIPLER AMC	Critical Care IP	NICU	Staffed Beds	16
TRIPLER AMC	Emergency Department		Spaces	13
TRIPLER AMC	GI Lab	Endoscopy	Field Reported Volume	2127
TRIPLER AMC	GI Lab	Endoscopy	Proc Rooms	2
TRIPLER AMC	GI Lab	Endoscopy	Recovery Spaces	7
TRIPLER AMC	Medical Surgical IP	General Medicine	Avail Beds	24
TRIPLER AMC	Medical Surgical IP	General Medicine	Staffed Beds	24
TRIPLER AMC	Medical Surgical IP	General Surgery	Avail Beds	27
TRIPLER AMC	Medical Surgical IP	General Surgery	Staffed Beds	18
TRIPLER AMC	Medical Surgical IP	Medical Oncology	Avail Beds	24
TRIPLER AMC	Medical Surgical IP	Medical Oncology	Staffed Beds	24
TRIPLER AMC	Medical Surgical IP	Ortho/Neuro	Avail Beds	23
TRIPLER AMC	Medical Surgical IP	Ortho/Neuro	Staffed Beds	23
TRIPLER AMC	Medical Surgical IP	Pediatrics	Avail Beds	16
TRIPLER AMC	Medical Surgical IP	Pediatrics	Staffed Beds	16
TRIPLER AMC	Medical Surgical IP	Specialty Surgery	Avail Beds	23
TRIPLER AMC	Medical Surgical IP	Specialty Surgery	Staffed Beds	18
TRIPLER AMC	Medical Surgical IP	Telementary	Avail Beds	27
TRIPLER AMC	Medical Surgical IP	Telementary	Staffed Beds	27
TRIPLER AMC	OB	LDR IP	Avail Beds	8
TRIPLER AMC	OB	LDR IP	Staffed Beds	8
TRIPLER AMC	OB	PP IP	Avail Beds	37
TRIPLER AMC	OB	PP IP	Staffed Beds	37
TRIPLER AMC	Pharmacy	Inpatient	Initialrx	749274
TRIPLER AMC	Pharmacy	Inpatient	Refills	27
TRIPLER AMC	Pharmacy	Outpatient Pick-up	Initialrx	332561
TRIPLER AMC	Pharmacy	Outpatient Pick-up	Refills	114221
TRIPLER AMC	Psychiatry IP	Psych	Avail Beds	15
TRIPLER AMC	Psychiatry IP	Psych	Staffed Beds	15
TRIPLER AMC	Psychiatry IP	VA Psych	Avail Beds	20
TRIPLER AMC	Psychiatry IP	VA Psych	Staffed Beds	20
TRIPLER AMC	PT OT Clinic	OT	Exam Rooms	1
TRIPLER AMC	PT OT Clinic	Physical Medicine	Exam Rooms	2
TRIPLER AMC	PT OT Clinic	PT	Exam Rooms	1
TRIPLER AMC	PT OT Clinic	PT	Proc Rooms	1
TRIPLER AMC	Surgery OR	OR	AvgCaseLength	4
TRIPLER AMC	Surgery OR	OR	Spaces	12
TRIPLER AMC	Surgery Support	PACU	Spaces	9
TRIPLER AMC	Surgery Support	Pre-OP	Spaces	6
Wailuku			Backlog	15
Wailuku			Exam Rooms	6
Wailuku			HrsPerWeek	42
Wailuku			Proc Rooms	1

DoD/VA Joint Assessment Study
Index of Standard Outputs/Reports from Core Data Repository

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SERIES 2 Enrolled Population	2.0	Enrolled by County of Residence
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Table 1.0: Eligible Population by County of Residence

FY	2002

MARKET	SUBMARKET	COUNTY	DOD	VA	Grand Total	Dual Eligible	Net Eligible
Gulf Coast	Biloxi/Gulfport	GEORGE	591	1,689	**2,280**	187	2,093
		GREENE	181	1,054	**1,235**	58	1,177
		HANCOCK	1,891	5,867	**7,758**	571	7,187
		HARRISON	36,733	26,211	**62,944**	6,403	56,541
		JACKSON	13,840	15,545	**29,385**	2,722	26,663
		PEARL RIVER	1,692	5,232	**6,924**	502	6,422
		STONE	757	1,494	**2,251**	249	2,002
	Eglin	OKALOOSA	69,153	32,075	**101,228**	12,951	88,277
		WALTON	2,664	6,475	**9,139**	1,008	8,131
	Mobile	BALDWIN	6,346	19,231	**25,577**	2,367	23,210
		MOBILE	12,207	38,035	**50,242**	3,409	46,833
		WASHINGTON, AL	274	1,286	**1,560**	105	1,455
	Panama City	BAY	27,516	22,760	**50,276**	6,261	44,015
		HOLMES	916	2,336	**3,252**	344	2,908
		WASHINGTON, FL	1,045	2,689	**3,734**	397	3,337
	Pensacola	ESCAMBIA, AL	814	3,759	**4,573**	278	4,295
		ESCAMBIA, FL	57,309	46,051	**103,360**	11,451	91,909
		SANTA ROSA	24,375	18,775	**43,150**	5,509	37,641
Gulf Coast Total			**258,304**	**250,564**	**508,868**	54,772	**454,096**
Hawaii	Kauai	KAUAI	1,289	5,539	**6,828**	394	6,434
	Maui	MAUI	1,648	10,813	**12,461**	590	11,871
	Oahu	HONOLULU	136,132	84,417	**220,549**	12,800	207,749
	The Big Island	HAWAII	3,046	15,544	**18,590**	1,057	17,533
Hawaii Total			**142,115**	**116,313**	**258,428**	14,841	**243,587**
Puget Sound	North Sound	CHELAN	416	6,760	**7,176**	179	6,997
		ISLAND	26,040	11,329	**37,369**	3,161	34,208
		SAN JUAN	296	2,075	**2,371**	139	2,232
		SKAGIT	5,077	12,609	**17,686**	1,281	16,405
		SNOHOMISH	21,585	64,575	**86,160**	4,941	81,219
		WHATCOM	3,148	16,529	**19,677**	1,152	18,525
	Seattle	KING	28,401	157,232	**185,633**	9,324	176,309
		KITTITAS	517	3,321	**3,838**	180	3,658
	South	LEWIS	1,861	8,619	**10,480**	671	9,809
		PIERCE	98,006	93,539	**191,545**	17,731	173,814
		THURSTON	24,041	27,911	**51,952**	5,581	46,371
	West Sound	CLALLAM	3,463	10,143	**13,606**	1,167	12,439
		GRAYS HARBOR	1,655	7,921	**9,576**	577	8,999
		JEFFERSON	1,337	4,476	**5,813**	499	5,314
		KITSAP	49,605	36,709	**86,314**	7,445	78,869
		MASON	2,820	8,189	**11,009**	921	10,088
Puget Sound Total			**268,268**	**471,937**	**740,205**	54,949	**685,256**

Table 1.1: Eligible Population by County of Residence, Age and Gender

FY	2002

DoD Eligible by Gender and Age Cohort

			DOD										DOD Total (1)
			Female				Female Total	Male				Male Total	
MARKET	SUBMARK	COUNTY	0-17	18-44	45-64	65+		0-17	18-44	45-64	65+		
Gulf Coast	Biloxi/Gulfpo	GEORGE	66	62	103	75	306	55	57	89	83	284	590
		GREENE	13	19	31	33	96	16	16	24	28	84	180
		HANCOCK	177	205	296	266	944	183	220	255	288	946	1,890
		HARRISON	4,132	7,019	3,472	2,717	17,340	4,352	9,079	3,066	2,891	19,388	36,728
		JACKSON	1,796	2,431	1,554	1,107	6,888	1,848	2,662	1,366	1,073	6,949	13,837
		PEARL RIVER	139	212	274	219	844	191	178	264	215	848	1,692
		STONE	68	78	130	99	375	72	83	109	118	382	757
	Eglin	OKALOOSA	7,940	12,424	7,811	5,184	33,359	8,416	15,320	7,352	4,703	35,791	69,150
		WALTON	159	228	526	435	1,348	155	212	467	482	1,316	2,664
	Mobile	BALDWIN	369	556	1,156	1,175	3,256	404	457	939	1,288	3,088	6,344
		MOBILE	1,185	1,671	1,846	1,492	6,194	1,189	1,711	1,647	1,451	5,998	12,192
		WASHINGTON, AL	13	16	64	36	129	18	30	54	43	145	274
	Panama City	BAY	3,016	4,459	3,565	2,430	13,470	3,163	5,071	3,366	2,444	14,044	27,514
		HOLMES	62	58	176	175	471	54	57	159	175	445	916
		WASHINGTON, FL	68	88	209	163	528	81	70	175	191	517	1,045
	Pensacola	ESCAMBIA, AL	57	77	141	152	427	58	68	104	157	387	58,117
		ESCAMBIA, FL	5,092	8,650	6,510	4,755	25,007	5,289	16,586	5,899	4,522	32,296	
		SANTA ROSA	2,987	4,166	3,290	1,643	12,086	3,107	4,232	3,110	1,839	12,288	24,374
Gulf Coast Total			**27,339**	**42,419**	**31,154**	**22,156**	**123,068**	**28,651**	**56,109**	**28,445**	**21,991**	**135,196**	**258,264**
Hawaii	Kauai	KAUAI	100	153	184	156	593	127	192	185	187	691	1,284
	Maui	MAUI	149	157	269	259	834	106	150	262	291	809	1,643
	Oahu	HONOLULU	18,977	29,280	8,188	6,052	62,497	20,032	40,213	7,746	5,630	73,621	136,118
	The Big Islar	HAWAII	253	284	499	458	1,494	232	295	448	575	1,550	3,044
Hawaii Total			**19,479**	**29,874**	**9,140**	**6,925**	**65,418**	**20,497**	**40,850**	**8,641**	**6,683**	**76,671**	**142,089**
Puget Sound	North Sound	CHELAN	17	24	87	76	204	20	22	79	89	210	414
		ISLAND	3,438	5,314	2,001	1,117	11,870	3,649	7,602	1,831	1,088	14,170	26,040
		SAN JUAN	7	14	55	71	147	8	8	50	82	148	295
		SKAGIT	545	779	640	525	2,489	572	860	621	535	2,588	5,077
		SNOHOMISH	2,411	3,598	2,698	2,084	10,791	2,519	3,828	2,605	1,834	10,786	21,577
		WHATCOM	211	298	521	530	1,560	226	287	494	577	1,584	3,144
	Seattle	KING	1,821	2,999	4,350	5,223	14,393	1,900	3,307	4,164	4,614	13,985	28,378
		KITTITAS	31	52	99	57	239	51	54	89	84	278	517
	South	LEWIS	147	182	318	294	941	154	142	320	304	920	1,861
		PIERCE	11,361	17,179	10,166	7,807	46,513	12,199	22,722	9,746	6,812	51,479	97,992
		THURSTON	2,910	4,060	3,284	1,900	12,154	3,046	3,855	3,213	1,771	11,885	24,039
	West Sound	CLALLAM	215	350	503	680	1,748	238	367	443	659	1,707	3,455
		GRAYS HARBOR	121	173	266	247	807	139	174	243	291	847	1,654
		JEFFERSON	75	111	251	249	686	70	106	206	269	651	1,337
		KITSAP	6,862	9,688	4,899	2,105	23,554	7,408	11,930	4,746	1,963	26,047	49,601
		MASON	259	322	465	364	1,410	246	340	433	387	1,406	2,816
Puget Sound Total			**30,431**	**45,143**	**30,603**	**23,329**	**129,506**	**32,445**	**55,604**	**29,283**	**21,359**	**138,691**	**268,197**

Table 1.1: Eligible Population by County of Residence, Age and Gender

FY	2002

VA Eligible by Gender and Age Cohort

			VA								VA Total	Grand Total
			Female			Female Total	Male			Male Total		
MARKET	SUBMARKET	COUNTY	18-44	45-64	65+		18-44	45-64	65+			
Gulf Coast	Biloxi/Gulfport	GEORGE	47	22	-	69	368	612	640	1,620	1,689	2,279
		GREENE	32	15	10	57	245	409	343	997	1,054	1,234
		HANCOCK	208	101	87	396	1,167	2,031	2,273	5,471	5,867	7,757
		HARRISON	1,861	906	250	3,017	5,623	9,942	7,629	23,194	26,211	62,939
		JACKSON	780	383	196	1,359	3,632	6,215	4,339	14,186	15,545	29,382
		PEARL RIVER	216	102	67	385	1,060	1,804	1,983	4,847	5,232	6,924
		STONE	58	28	44	130	320	513	531	1,364	1,494	2,251
	Eglin	OKALOOSA	2,416	1,443	549	4,408	6,664	12,839	8,164	27,667	32,075	101,225
		WALTON	211	125	62	398	1,251	2,513	2,313	6,077	6,475	9,139
	Mobile	BALDWIN	444	228	338	1,010	3,589	6,804	7,828	18,221	19,231	25,575
		MOBILE	1,592	808	344	2,744	7,983	15,004	12,304	35,291	38,035	50,227
		WASHINGTON, AL	30	15	3	48	266	480	492	1,238	1,286	1,560
	Panama City	BAY	1,106	671	335	2,112	4,579	9,015	7,054	20,648	22,760	50,274
		HOLMES	55	30	30	115	488	908	825	2,221	2,336	3,252
		WASHINGTON, FL	77	46	22	145	574	1,128	842	2,544	2,689	3,734
	Pensacola	ESCAMBIA, AL	110	54	28	192	802	1,460	1,305	3,567	3,759	61,876
		ESCAMBIA, FL	2,971	1,725	585	5,281	9,853	18,803	12,114	40,770	46,051	46,051
		SANTA ROSA	996	608	116	1,720	3,947	7,904	5,204	17,055	18,775	43,149
Gulf Coast Total			**13,100**	**7,256**	**3,038**	**23,394**	**52,411**	**98,384**	**76,183**	**226,978**	**250,564**	**508,828**
Hawaii	Kauai	KAUAI	138	111	29	278	981	2,346	1,934	5,261	5,539	6,823
	Maui	MAUI	238	188	176	602	2,018	4,713	3,480	10,211	10,813	12,456
	Oahu	HONOLULU	3,595	2,662	1,087	7,344	14,971	32,712	29,390	77,073	84,417	220,535
	The Big Island	HAWAII	239	193	273	705	2,744	6,560	5,535	14,839	15,544	18,588
Hawaii Total			**4,210**	**3,154**	**1,565**	**8,929**	**20,714**	**46,331**	**40,339**	**107,384**	**116,313**	**258,402**
Puget Sound	North Sound	CHELAN	197	140	93	430	1,108	2,355	2,867	6,330	6,760	7,174
		ISLAND	681	468	193	1,342	2,053	4,219	3,715	9,987	11,329	37,369
		SAN JUAN	12	9	76	97	335	702	941	1,978	2,075	2,370
		SKAGIT	422	293	204	919	2,336	4,766	4,588	11,690	12,609	17,686
		SNOHOMISH	2,050	1,437	700	4,187	14,200	29,797	16,391	60,388	64,575	86,152
		WHATCOM	491	337	329	1,157	3,226	6,620	5,526	15,372	16,529	19,673
	Seattle	KING	4,869	3,371	2,800	11,040	31,657	64,846	49,689	146,192	157,232	185,610
		KITTITAS	64	43	75	182	662	1,282	1,195	3,139	3,321	3,838
	South	LEWIS	245	170	26	441	1,581	3,300	3,297	8,178	8,619	10,480
		PIERCE	4,723	3,309	1,019	9,051	20,114	41,491	22,883	84,488	93,539	191,531
		THURSTON	1,328	940	415	2,683	5,696	11,844	7,688	25,228	27,911	51,950
	West Sound	CLALLAM	303	217	168	688	1,556	3,170	4,729	9,455	10,143	13,598
		GRAYS HARBOR	180	125	120	425	1,398	2,895	3,203	7,496	7,921	9,575
		JEFFERSON	58	41	43	142	706	1,584	2,044	4,334	4,476	5,813
		KITSAP	1,789	1,261	402	3,452	8,141	17,074	8,042	33,257	36,709	86,310
		MASON	199	143	102	444	1,562	3,189	2,994	7,745	8,189	11,005
Puget Sound Total			**17,611**	**12,304**	**6,765**	**36,680**	**96,331**	**199,134**	**139,792**	**435,257**	**471,937**	**740,134**

Table 1.2: Eligible Population by Beneficiary Category/Priority Group

FY	2002

DoD Eligible by BenCat

Sum of ELIGIBLE			SYSTEM BCPG_COMMON					
			DOD (Beneficiary Category)					DOD Sum
MARKET	SUBMARKE	COUNTY	AD	ADFM	OTHER	RET	RETFM	
Gulf Coast	Biloxi/Gulfpo	GEORGE	32	104		187	268	591
		GREENE	5	11		58	107	181
		HANCOCK	181	390	6	571	743	1,891
		HARRISON	10,098	10,845	69	6,403	9,318	36,733
		JACKSON	2,496	4,347	36	2,722	4,239	13,840
		PEARL RIVER	144	326	6	502	714	1,692
		STONE	56	133	5	249	314	757
	Eglin	OKALOOSA	15,009	21,070	116	12,951	20,007	69,153
		WALTON	111	243	5	1,008	1,297	2,664
	Mobile	BALDWIN	274	713	5	2,367	2,987	6,346
		MOBILE	1,253	2,461	44	3,409	5,040	12,207
		WASHINGTON, AL	19	16		105	134	274
	Panama City	BAY	4,717	7,302	47	6,261	9,189	27,516
		HOLMES	28	82	1	344	461	916
		WASHINGTON, FL	33	102		397	513	1,045
	Pensacola	ESCAMBIA, AL	31	110	5	278	390	814
		ESCAMBIA, FL	16,721	11,996	92	11,451	17,049	57,309
		SANTA ROSA	3,538	6,947	47	5,509	8,334	24,375
Gulf Coast Total			**54,746**	**67,198**	**484**	**54,772**	**81,104**	**258,304**
		% of System Total	**21.2%**	**5213.2%**	**37.5%**	**4249.2%**	**6292.0%**	**20039.1%**
Hawaii	Kauai	KAUAI	166	227	1	394	501	1,289
	Maui	MAUI	97	226	1	590	734	1,648
	Oahu	HONOLULU	43,622	59,094	406	12,800	20,210	136,132
	The Big Islan	HAWAII	230	429	5	1,057	1,325	3,046
Hawaii Total			**44,115**	**59,976**	**413**	**14,841**	**22,770**	**142,115**
		% of System Total	**31.0%**	**42.2%**	**0.3%**	**10.4%**	**16.0%**	**100.0%**
Puget Sound	North Sound	CHELAN	12	26		179	199	416
		ISLAND	7,901	9,761	23	3,161	5,194	26,040
		SAN JUAN	7	11	1	139	138	296
		SKAGIT	680	1,221	9	1,281	1,886	5,077
		SNOHOMISH	3,138	6,007	88	4,941	7,411	21,585
		WHATCOM	181	364		1,152	1,451	3,148
	Seattle	KING	2,625	3,664	95	9,324	12,693	28,401
		KITTITAS	45	89		180	203	517
	South	LEWIS	74	206	9	671	901	1,861
		PIERCE	22,211	29,906	334	17,731	27,824	98,006
		THURSTON	3,053	6,610	44	5,581	8,753	24,041
	West Sound	CLALLAM	305	512	1	1,167	1,478	3,463
		GRAYS HARBOR	119	197	11	577	751	1,655
		JEFFERSON	79	137	8	499	614	1,337
		KITSAP	10,877	18,345	72	7,445	12,866	49,605
		MASON	216	466	12	921	1,205	2,820
Puget Sound Total			**51,523**	**77,522**	**707**	**54,949**	**83,567**	**268,268**

% of System Total	19.2%	28.9%	0.3%	20.5%	31.2%	100.0%

Table 1.2: Eligible Population by Beneficiary Category/Priority Group

FY	2002

VA Eligible by Priority Group

Sum of ELIGIBLE

			VA (Priority Group)								VA Sum	Grand Total
MARKET	SUBMARKET	COUNTY	1	2	3	4	5	6	7	8		
Gulf Coast	Biloxi/Gulfport	GEORGE	41	40	79	64	623	65	19	758	1,689	2,280
		GREENE	23	14	40	42	345	25	16	549	1,054	1,235
		HANCOCK	198	125	263	235	2,147	127	88	2,684	5,867	7,758
		HARRISON	1,224	921	1,911	831	8,515	517	493	11,799	26,211	62,944
		JACKSON	471	416	909	482	4,853	407	307	7,700	15,545	29,385
		PEARL RIVEI	190	96	263	194	1,978	99	66	2,346	5,232	6,924
		STONE	64	44	94	60	552	51	25	604	1,494	2,251
	Eglin	OKALOOSA	1,304	1,188	2,535	706	6,408	1,374	1,876	16,684	32,075	101,228
		WALTON	257	154	351	172	1,635	262	135	3,509	6,475	9,139
	Mobile	BALDWIN	423	356	897	597	4,020	557	509	11,872	19,231	25,577
		MOBILE	1,020	881	2,199	1,234	8,236	2,446	673	21,346	38,035	50,242
		WASHINGTO	37	24	51	39	291	58	28	758	1,286	1,560
	Panama City	BAY	952	801	1,808	499	5,302	320	588	12,490	22,760	50,276
		HOLMES	79	46	117	70	618	64	42	1,300	2,336	3,252
		WASHINGTO	130	73	144	84	636	77	60	1,485	2,689	3,734
	Pensacola	ESCAMBIA, A	109	81	197	138	865	153	83	2,133	3,759	4,573
		ESCAMBIA, F	1,853	1,432	3,222	1,111	10,654	2,037	1,100	24,642	46,051	103,360
		SANTA ROSA	650	549	1,191	437	4,072	685	645	10,546	18,775	43,150
Gulf Coast Total			**9,025**	**7,241**	**16,271**	**6,995**	**61,750**	**9,324**	**6,753**	**133,205**	**250,564**	**508,868**
		% of System Total	**3.6%**	**2.9%**	**6.5%**	**2.8%**	**24.6%**	**3.7%**	**2.7%**	**53.2%**	**100.0%**	
Hawaii	Kauai	KAUAI	136	101	225	104	1,115	165	205	3,488	5,539	6,828
	Maui	MAUI	252	178	415	213	1,994	300	514	6,947	10,813	12,461
	Oahu	HONOLULU	2,208	2,347	4,733	1,581	14,601	720	3,719	54,508	84,417	220,549
	The Big Island	HAWAII	625	237	598	297	3,189	419	711	9,468	15,544	18,590
Hawaii Total			**3,221**	**2,863**	**5,971**	**2,195**	**20,899**	**1,604**	**5,149**	**74,411**	**116,313**	**258,428**
		% of System Total	**2.8%**	**2.5%**	**5.1%**	**1.9%**	**18.0%**	**1.4%**	**4.4%**	**64.0%**	**100.0%**	
Puget Sound	North Sound	CHELAN	145	113	285	165	1,493	491	218	3,850	6,760	7,176
		ISLAND	505	504	897	228	2,005	815	497	5,878	11,329	37,369
		SAN JUAN	35	24	67	52	468	153	63	1,213	2,075	2,371
		SKAGIT	395	264	567	300	2,601	749	463	7,270	12,609	17,686
		SNOHOMISH	1,509	1,336	3,168	1,411	11,709	4,755	1,768	38,919	64,575	86,160
		WHATCOM	571	295	711	406	3,315	1,058	533	9,640	16,529	19,677
	Seattle	KING	3,532	2,845	7,269	4,129	32,352	7,630	4,979	94,496	157,232	185,633
		KITTITAS	94	54	148	83	716	247	76	1,903	3,321	3,838
	South	LEWIS	240	189	417	205	1,948	601	277	4,742	8,619	10,480
		PIERCE	4,531	4,153	8,202	2,161	16,994	6,400	3,206	47,892	93,539	191,545
		THURSTON	1,324	1,233	2,338	583	5,058	1,916	892	14,567	27,911	51,952
	West Sound	CLALLAM	388	188	460	257	2,264	437	279	5,870	10,143	13,606
		GRAYS HARI	287	168	410	190	1,884	631	214	4,137	7,921	9,576
		JEFFERSON	138	101	186	116	1,007	282	108	2,538	4,476	5,813
		KITSAP	1,446	1,600	3,162	816	5,954	4,108	2,320	17,303	36,709	86,314
		MASON	288	180	433	190	1,698	568	313	4,519	8,189	11,009
Puget Sound Total			**15,428**	**13,247**	**28,720**	**11,292**	**91,466**	**30,841**	**16,206**	**264,737**	**471,937**	**740,205**

% of System Total	3.3%	2.8%	6.1%	2.4%	19.4%	6.5%	3.4%	56.1%	100.0%

Table 2.0: Enrolled by County of Residence

FY	2002

			SYSTEM		
MARKET	SUBMARKET	COUNTY	DOD	VA	Grand Total
Gulf Coast	Biloxi/Gulfport	GEORGE	331	554	885
		GREENE	55	233	288
		HANCOCK	1,825	1,668	3,493
		HARRISON	53,196	10,348	63,544
		JACKSON	19,106	4,153	23,259
		PEARL RIVER	564	1,598	2,162
		STONE	826	573	1,399
	Eglin	OKALOOSA	96,009	6,108	102,117
		WALTON	1,547	1,114	2,661
	Mobile	BALDWIN	2,120	3,486	5,606
		MOBILE	3,431	9,141	12,572
		WASHINGTON, AL	37	272	309
	Panama City	BAY	36,440	6,249	42,689
		HOLMES	272	669	941
		WASHINGTON, FL	552	664	1,216
	Pensacola	ESCAMBIA, AL	161	893	1,054
		ESCAMBIA, FL	54,167	10,089	64,256
		SANTA ROSA	25,591	3,993	29,584
Gulf Coast Total			**296,230**	**61,805**	**358,035**
Hawaii	Kauai	KAUAI	178	1,533	1,711
	Maui	MAUI	268	2,025	2,293
	Oahu	HONOLULU	202,824	22,326	225,150
	The Big Island	HAWAII	442	3,740	4,182
Hawaii Total			**203,712**	**29,624**	**233,336**
Puget Sound	North Sound	CHELAN	31	877	908
		ISLAND	33,733	2,163	35,896
		SAN JUAN	51	208	259
		SKAGIT	3,052	1,741	4,793
		SNOHOMISH	19,800	8,132	27,932
		WHATCOM	758	2,248	3,006
	Seattle	KING	26,012	24,875	50,887
		KITTITAS	53	573	626
	South	LEWIS	794	1,690	2,484
		PIERCE	129,801	24,825	154,626
		THURSTON	27,426	6,497	33,923
	West Sound	CLALLAM	458	1,748	2,206
		GRAYS HARBOR	655	1,798	2,453
		JEFFERSON	864	743	1,607
		KITSAP	66,311	7,551	73,862
		MASON	2,407	1,404	3,811
Puget Sound Total			**312,206**	**87,073**	**399,279**

Table 2.1: Market Penetration by County of Residence

FY	2002

			Eligible			Enrolled			Market Penetration %		
MARKET	SUBMARKET	COUNTY	DOD	VA	Grand Total	DOD	VA	Grand Total	DOD	VA	Total
Gulf Coast	Biloxi/Gulfport	GEORGE	591	1,689	2,280	331	554	885	56.0%	32.8%	38.8%
		GREENE	181	1,054	1,235	55	233	288	30.4%	22.1%	23.3%
		HANCOCK	1,891	5,867	7,758	1,825	1,668	3,493	96.5%	28.4%	45.0%
		HARRISON	36,733	26,211	62,944	53,196	10,348	63,544	144.8%	39.5%	101.0%
		JACKSON	13,840	15,545	29,385	19,106	4,153	23,259	138.0%	26.7%	79.2%
		PEARL RIVER	1,692	5,232	6,924	564	1,598	2,162	33.3%	30.5%	31.2%
		STONE	757	1,494	2,251	826	573	1,399	109.1%	38.4%	62.2%
	Eglin	OKALOOSA	69,153	32,075	101,228	96,009	6,108	102,117	138.8%	19.0%	100.9%
		WALTON	2,664	6,475	9,139	1,547	1,114	2,661	58.1%	17.2%	29.1%
	Mobile	BALDWIN	6,346	19,231	25,577	2,120	3,486	5,606	33.4%	18.1%	21.9%
		MOBILE	12,207	38,035	50,242	3,431	9,141	12,572	28.1%	24.0%	25.0%
		WASHINGTON, AL	274	1,286	1,560	37	272	309	13.5%	21.2%	19.8%
	Panama City	BAY	27,516	22,760	50,276	36,440	6,249	42,689	132.4%	27.5%	84.9%
		HOLMES	916	2,336	3,252	272	669	941	29.7%	28.6%	28.9%
		WASHINGTON, FL	1,045	2,689	3,734	552	664	1,216	52.8%	24.7%	32.6%
	Pensacola	ESCAMBIA, AL	814	3,759	4,573	161	893	1,054	19.8%	23.8%	23.0%
		ESCAMBIA, FL	57,309	46,051	103,360	54,167	10,089	64,256	94.5%	21.9%	62.2%
		SANTA ROSA	24,375	18,775	43,150	25,591	3,993	29,584	105.0%	21.3%	68.6%
Gulf Coast Total			**258,304**	**250,564**	**508,868**	**296,230**	**61,805**	**358,035**	**114.7%**	**24.7%**	**70.4%**
Hawaii	Kauai	KAUAI	1,289	5,539	6,828	178	1,533	1,711	13.8%	27.7%	25.1%
	Maui	MAUI	1,648	10,813	12,461	268	2,025	2,293	16.3%	18.7%	18.4%
	Oahu	HONOLULU	136,132	84,417	220,549	202,824	22,326	225,150	149.0%	26.4%	102.1%
	The Big Island	HAWAII	3,046	15,544	18,590	442	3,740	4,182	14.5%	24.1%	22.5%
Hawaii Total			**142,115**	**116,313**	**258,428**	**203,712**	**29,624**	**233,336**	**143.3%**	**25.5%**	**90.3%**
Puget Sound	North Sound	CHELAN	416	6,760	7,176	31	877	908	7.5%	13.0%	12.7%
		ISLAND	26,040	11,329	37,369	33,733	2,163	35,896	129.5%	19.1%	96.1%
		SAN JUAN	296	2,075	2,371	51	208	259	17.2%	10.0%	10.9%
		SKAGIT	5,077	12,609	17,686	3,052	1,741	4,793	60.1%	13.8%	27.1%
		SNOHOMISH	21,585	64,575	86,160	19,800	8,132	27,932	91.7%	12.6%	32.4%
		WHATCOM	3,148	16,529	19,677	758	2,248	3,006	24.1%	13.6%	15.3%
	Seattle	KING	28,401	157,232	185,633	26,012	24,875	50,887	91.6%	15.8%	27.4%
		KITTITAS	517	3,321	3,838	53	573	626	10.3%	17.3%	16.3%
	South	LEWIS	1,861	8,619	10,480	794	1,690	2,484	42.7%	19.6%	23.7%
		PIERCE	98,006	93,539	191,545	129,801	24,825	154,626	132.4%	26.5%	80.7%
		THURSTON	24,041	27,911	51,952	27,426	6,497	33,923	114.1%	23.3%	65.3%
	West Sound	CLALLAM	3,463	10,143	13,606	458	1,748	2,206	13.2%	17.2%	16.2%
		GRAYS HARBOR	1,655	7,921	9,576	655	1,798	2,453	39.6%	22.7%	25.6%
		JEFFERSON	1,337	4,476	5,813	864	743	1,607	64.6%	16.6%	27.6%
		KITSAP	49,605	36,709	86,314	66,311	7,551	73,862	133.7%	20.6%	85.6%
		MASON	2,820	8,189	11,009	2,407	1,404	3,811	85.4%	17.1%	34.6%
Puget Sound Total			**268,268**	**471,937**	**740,205**	**312,206**	**87,073**	**399,279**	**116.4%**	**18.5%**	**53.9%**

Table 2.2: Enrolled by County of Residence, Age, and Gender

FY	2002

DoD Enrolled by Gender and Age Cohort

			DOD									
			Female				Female Total	Male				Male Total
MARKET	SUBMARKET	COUNTY	0-17	18-44	45-64	65+		0-17	18-44	45-64	65+	
Gulf Coast	Biloxi/Gulfport	GEORGE	46	64	58	9	177	36	47	45	26	154
		GREENE	7	7	12	7	33	7	5	8	2	22
		HANCOCK	240	268	257	192	957	240	186	205	237	868
		HARRISON	7,574	12,318	4,470	2,855	27,217	8,055	11,064	3,753	3,106	25,978
		JACKSON	2,932	4,188	1,976	1,022	10,118	2,947	3,219	1,658	1,163	8,987
		PEARL RIVER	42	108	95	34	279	64	82	93	46	285
		STONE	79	124	135	94	432	69	104	105	116	394
	Eglin	OKALOOSA	13,281	22,657	6,863	1,614	44,415	14,125	28,760	7,197	1,512	51,594
		WALTON	152	252	295	102	801	152	241	252	101	746
	Mobile	BALDWIN	175	288	387	200	1,050	222	308	312	228	1,070
		MOBILE	320	596	305	69	1,290	308	1,406	341	86	2,141
		WASHINGTON, AL	5	3	6	6	20	2	7	5	3	17
	Panama City	BAY	5,213	8,443	3,532	398	17,586	5,472	9,205	3,671	506	18,854
		HOLMES	30	36	52	14	132	45	40	42	13	140
		WASHINGTON, FL	53	95	121	18	287	82	64	93	26	265
	Pensacola	ESCAMBIA, AL	8	31	35	5	79	18	29	27	8	82
		ESCAMBIA, FL	8,281	12,881	4,577	1,300	27,039	8,733	12,454	4,612	1,329	27,128
		SANTA ROSA	3,908	6,035	1,945	231	12,119	4,006	6,920	2,231	315	13,472
Gulf Coast Total			**42,346**	**68,394**	**25,121**	**8,170**	**144,031**	**44,583**	**74,141**	**24,650**	**8,823**	**152,197**
Hawaii	Kauai	KAUAI	21	36	3	4	64	27	77	8	2	114
	Maui	MAUI	45	61	22	7	135	34	65	29	5	133
	Oahu	HONOLULU	34,197	55,887	8,819	1,991	100,894	35,919	55,368	8,754	1,889	101,930
	The Big Island	HAWAII	55	89	33	21	198	51	129	45	19	244
Hawaii Total			**34,318**	**56,073**	**8,877**	**2,023**	**101,291**	**36,031**	**55,639**	**8,836**	**1,915**	**102,421**
Puget Sound	North Sound	CHELAN	6	7	1	5	19	2	6	2	2	12
		ISLAND	6,093	9,237	2,273	298	17,901	6,594	6,851	2,080	307	15,832
		SAN JUAN	5	12	9	3	29	5	7	8	2	22
		SKAGIT	465	759	331	58	1,613	477	617	271	74	1,439
		SNOHOMISH	2,723	4,477	1,678	1,988	10,866	2,749	2,906	1,450	1,829	8,934
		WHATCOM	79	166	101	18	364	88	174	113	19	394
	Seattle	KING	1,520	2,884	3,398	5,617	13,419	1,630	3,147	2,906	4,910	12,593
		KITTITAS	4	5	11	1	21	4	13	11	4	32
	South	LEWIS	75	101	157	88	421	81	59	120	113	373
		PIERCE	19,893	30,331	11,751	5,720	67,695	21,288	25,509	10,260	5,049	62,106
		THURSTON	3,995	6,235	3,517	944	14,691	4,262	4,403	3,105	965	12,735
	West Sound	CLALLAM	45	74	68	39	226	45	87	57	43	232
		GRAYS HARBOR	65	79	137	56	337	78	53	127	60	318
		JEFFERSON	70	92	192	104	458	74	69	137	126	406
		KITSAP	11,479	17,015	5,718	990	35,202	12,398	12,190	5,464	1,057	31,109
		MASON	352	447	361	130	1,290	327	336	291	163	1,117
Puget Sound Total			**46,869**	**71,921**	**29,703**	**16,059**	**164,552**	**50,102**	**56,427**	**26,402**	**14,723**	**147,654**

DOD Total (1)
331
55
1,825
53,195
19,105
564
826
96,009
1,547
2,120
3,431
37
36,440
272
552
161
54,167
25,591
296,228
178
268
202,824
442
203,712
31
33,733
51
3,052
19,800
758
26,012
53
794
129,801
27,426
458
655
864
66,311
2,407
312,206

Table 2.2: Enrolled by County of Residence, Age, and Gender

FY	2002

VA Enrolled by Gender and Age Cohort

			VA								VA Total	Grand Total
			Female			Female Tota	Male			Male Total		
MARKET	SUBMARKET	COUNTY	18-44	45-64	65+		18-44	45-64	65+			
Gulf Coast	Biloxi/Gulfport	GEORGE	7	8	2	17	50	232	255	537	554	885
		GREENE	1	-	2	3	26	98	106	230	233	288
		HANCOCK	24	34	19	77	168	655	768	1,591	1,668	3,493
		HARRISON	462	296	129	887	1,632	4,221	3,608	9,461	10,348	63,543
		JACKSON	167	93	24	284	607	1,664	1,598	3,869	4,153	23,258
		PEARL RIVER	24	37	10	71	152	647	728	1,527	1,598	2,162
		STONE	15	14	3	32	63	223	255	541	573	1,399
	Eglin	OKALOOSA	317	219	48	584	836	2,657	2,031	5,524	6,108	102,117
		WALTON	29	39	6	74	116	468	456	1,040	1,114	2,661
	Mobile	BALDWIN	35	48	41	124	275	1,208	1,879	3,362	3,486	5,606
		MOBILE	240	141	46	427	1,311	3,884	3,519	8,714	9,141	12,572
		WASHINGTON, AL	3	-	1	4	26	112	130	268	272	309
	Panama City	BAY	214	172	67	453	764	2,575	2,457	5,796	6,249	42,689
		HOLMES	11	8	7	26	50	294	299	643	669	941
		WASHINGTON, FL	11	12	2	25	80	288	271	639	664	1,216
	Pensacola	ESCAMBIA, AL	24	10	4	38	89	352	414	855	893	1,054
		ESCAMBIA, FL	492	314	76	882	1,678	4,381	3,148	9,207	10,089	64,256
		SANTA ROSA	162	118	34	314	591	1,826	1,262	3,679	3,993	29,584
Gulf Coast Total			**2,238**	**1,563**	**521**	**4,322**	**8,514**	**25,785**	**23,184**	**57,483**	**61,805**	**358,033**
Hawaii	Kauai	KAUAI	17	23	10	50	148	668	667	1,483	1,533	1,711
	Maui	MAUI	37	29	19	85	200	954	786	1,940	2,025	2,293
	Oahu	HONOLULU	965	443	180	1,588	3,632	8,428	8,678	20,738	22,326	225,150
	The Big Island	HAWAII	63	63	33	159	336	1,845	1,400	3,581	3,740	4,182
Hawaii Total			**1,082**	**558**	**242**	**1,882**	**4,316**	**11,895**	**11,531**	**27,742**	**29,624**	**233,336**
Puget Sound	North Sound	CHELAN	15	8	11	34	78	351	414	843	877	908
		ISLAND	118	61	11	190	408	998	567	1,973	2,163	35,896
		SAN JUAN	1	2	7	10	16	88	94	198	208	259
		SKAGIT	50	23	17	90	256	806	589	1,651	1,741	4,793
		SNOHOMISH	302	190	66	558	1,691	3,612	2,270	7,573	8,131	27,931
		WHATCOM	56	41	33	130	378	972	768	2,118	2,248	3,006
	Seattle	KING	779	568	273	1,620	4,909	10,664	7,681	23,254	24,874	50,886
		KITTITAS	16	4	3	23	67	253	230	550	573	626
	South	LEWIS	25	24	14	63	191	716	720	1,627	1,690	2,484
		PIERCE	1,313	705	231	2,249	5,413	10,653	6,510	22,576	24,825	154,626
		THURSTON	305	214	54	573	1,254	3,047	1,623	5,924	6,497	33,923
	West Sound	CLALLAM	35	32	18	85	133	692	838	1,663	1,748	2,206
		GRAYS HARBOR	28	33	19	80	170	737	811	1,718	1,798	2,453
		JEFFERSON	11	15	11	37	62	316	328	706	743	1,607
		KITSAP	329	198	56	583	1,909	3,666	1,393	6,968	7,551	73,862
		MASON	24	27	22	73	218	598	515	1,331	1,404	3,811
Puget Sound Total			**3,407**	**2,145**	**846**	**6,398**	**17,153**	**38,169**	**25,351**	**80,673**	**87,071**	**399,277**

Table 2.3: Enrolled by County of Residence and Beneficiary Category/Priority Group

FY	2002

			DOD (Beneficiary Category)				DOD Sum	VA (Priority Group)								VA Sum	Grand Total
MARKET	SUBMARKET	COUNTY	AD	ADPM	RET	RETPM		1	2	3	4	5	6	7	NA		
Gulf Coast	Biloxi/Gulfport	GEORGE	25	79	75	152	**331**	45	33	60	24	257	8	3	124	**554**	**2,280**
		GREENE		2	13	40	**55**	28	13	27	15	110	1	1	38	**233**	**1,235**
		HANCOCK	134	587	463	641	**1,825**	206	96	160	66	750	18	16	356	**1,668**	**7,758**
		HARRISON	11,466	23,331	7,117	11,284	**53,198**	1,310	873	1,609	359	3,926	168	159	1,944	**10,348**	**62,944**
		JACKSON	2,937	8,357	2,923	4,889	**19,106**	471	369	653	103	1,458	74	45	980	**4,153**	**29,385**
		PEARL RIVER	72	154	139	199	**564**	185	63	192	62	805	16	11	264	**1,598**	**6,924**
		STONE	53	207	228	338	**826**	73	37	79	31	238	12	4	99	**573**	**2,251**
	Eglin	OKALOOSA	29,767	41,982	8,544	15,716	**96,009**	1,308	1,006	1,692	59	1,040	104	85	814	**6,108**	**101,228**
		WALTON	176	371	383	617	**1,547**	220	108	192	28	380	25	11	150	**1,114**	**9,139**
	Mobile	BALDWIN	295	509	538	778	**2,120**	400	266	491	116	1,200	57	52	904	**3,486**	**25,577**
		MOBILE	1,538	900	369	624	**3,431**	1,011	687	1,364	415	3,582	183	65	1,834	**9,141**	**50,242**
		WASHINGTON, AL	6	10	9	12	**37**	37	19	24	11	122	7	-	52	**272**	**1,560**
	Panama City	BAY	8,895	15,274	4,332	7,939	**36,440**	1,000	702	1,311	85	1,618	90	97	1,346	**6,249**	**50,276**
		HOLMES	30	65	54	123	**272**	115	50	82	29	273	9	7	104	**669**	**3,252**
		WASHINGTON, FL	39	147	134	232	**552**	147	59	85	30	218	14	5	106	**664**	**3,734**
	Pensacola	ESCAMBIA, AL	18	39	39	65	**161**	106	59	107	62	405	17	4	133	**893**	**4,573**
		ESCAMBIA, FL	11,895	25,033	6,234	11,005	**54,167**	1,789	1,132	2,035	231	3,178	197	99	1,428	**10,089**	**103,360**
		SANTA ROSA	6,788	11,476	2,585	4,742	**25,591**	808	522	876	53	1,002	69	45	618	**3,993**	**43,150**
Gulf Coast Total			**74,134**	**128,523**	**34,179**	**59,396**	**296,232**	**9,259**	**6,094**	**11,039**	**1,779**	**20,562**	**1,069**	**709**	**13,294**	**61,805**	**508,868**
Hawaii	Kauai	KAUAI	78	73	11	16	**178**	136	88	183	18	549	30	21	508	**1,533**	**6,828**
	Maui	MAUI	80	108	29	51	**268**	260	147	299	35	701	38	24	521	**2,025**	**12,461**
	Oahu	HONOLULU	61,716	117,410	8,221	15,477	**202,824**	2,736	2,515	4,355	236	5,300	174	514	6,496	**22,326**	**220,549**
	The Big Island	HAWAII	133	178	50	81	**442**	662	207	461	48	1,340	41	58	923	**3,740**	**18,590**
Hawaii Total			**62,007**	**117,769**	**8,311**	**15,625**	**203,712**	**3,794**	**2,957**	**5,298**	**337**	**7,890**	**283**	**617**	**8,448**	**29,624**	**258,428**
Puget Sound	North Sound	CHELAN	5	6	5	15	**31**	146	80	159	33	283	20	6	150	**877**	**7,176**
		ISLAND	6,283	19,913	2,575	4,962	**33,733**	518	416	668	17	200	40	38	266	**2,163**	**37,369**
		SAN JUAN	7	20	11	13	**51**	24	13	30	4	61	3	1	72	**208**	**2,371**
		SKAGIT	529	1,456	375	692	**3,052**	392	204	323	46	432	30	18	296	**1,741**	**17,686**
		SNOHOMISH	2,687	9,092	3,224	4,797	**19,800**	1,401	990	1,794	225	1,944	166	82	1,530	**8,132**	**86,160**
		WHATCOM	122	243	137	256	**758**	550	219	386	80	586	33	23	371	**2,248**	**19,677**
	Seattle	KING	2,644	4,046	7,947	11,375	**26,012**	3,390	2,095	4,350	1,282	7,738	470	308	5,242	**24,875**	**185,633**
		KITTITAS	13	12	13	15	**53**	101	45	89	19	175	11	2	131	**573**	**3,838**
	South	LEWIS	29	162	249	354	**794**	242	141	268	39	637	47	17	299	**1,690**	**10,480**
		PIERCE	22,442	61,629	16,090	29,641	**129,802**	4,826	3,631	6,179	739	4,976	714	342	3,418	**24,825**	**191,545**
		THURSTON	2,847	11,307	4,606	8,666	**27,426**	1,421	1,086	1,759	118	1,079	179	71	784	**6,497**	**51,952**
	West Sound	CLALLAM	73	113	111	161	**458**	383	143	278	53	472	33	24	362	**1,748**	**13,606**
		GRAYS HARBOR	34	145	189	287	**655**	304	150	278	50	628	43	14	331	**1,798**	**9,576**
		JEFFERSON	50	166	276	372	**864**	139	86	114	26	199	13	12	154	**743**	**5,813**
		KITSAP	9,750	35,621	7,002	13,938	**66,311**	1,516	1,436	2,432	200	892	181	98	796	**7,551**	**86,314**
		MASON	189	864	520	834	**2,407**	305	136	267	32	374	30	18	242	**1,404**	**11,009**
Puget Sound Total			**47,704**	**144,795**	**43,330**	**76,378**	**312,207**	**15,658**	**10,871**	**19,374**	**2,963**	**20,676**	**2,813**	**1,074**	**14,344**	**87,973**	**740,205**

Table 2.4: DoD Enrolled by County of Residence, and Enrollment Facility

FY	2002

		Facility Market	Gulf Coast												Gulf Coast Total
		Facility Submarket	Biloxi/Gulfport			Eglin		Panama City		Pensacola					
MARKET	SUBMARKET	COUNTY	81st MED GRP-KEESLER	NBMA PASCAGOULA	NBMC GULFPORT	16th MED GRP-HURLBURT FIELD	96th MED GRP-EGLIN	325th MED GRP-TYNDALL	NBCL PANAMA CITY	BRMCL NAS PENSACOLA	BRMCL NAVTECHTRACEN PENSACOLA	NAVAL AVIATION TECH-PENSACOLA	NBMC MILTON/ WHITING FIELD	NH PENSACOLA	
Gulf Coast	Biloxi/Gulfport	GEORGE	121	16											137
		GREENE	22												22
		HANCOCK	696	2	111			1		1				1	812
		HARRISON	20,911	59	2,388	32	21	29		8	1	1	3	17	23,470
		JACKSON	6,968	1,254	68	1	6	5	5	9	5	3		21	8,345
		PEARL RIVER	173		14					1				3	191
		STONE	329	2	8										339
	Eglin	OKALOOSA	159		9	10,074	33,247	22	16	9	1	6	21	68	43,632
		WALTON	1	1		33	638	14			1		2	14	704
	Mobile	BALDWIN	57	10	3	2	9	1	1	10	11	2	4	844	954
		MOBILE	566	101	16	2	8	2	2	13	2	1	1	48	762
		WASHINGTON, AL	15										1		16
	Panama City	BAY	35	4	5	29	178	14,220	1,047	5	1		4	54	15,582
		HOLMES	2			1	71	28				1	1	6	110
		WASHINGTON, FL				2	21	186	3						212
	Pensacola	ESCAMBIA, AL	3			1	6			2		1	17	49	79
		ESCAMBIA, FL	103	17	19	103	198	15	6	1,488	484	1,053	777	18,707	22,970
		SANTA ROSA	50		4	4,943	1,375	4		111	43	80	2,637	2,266	11,513
Gulf Coast Total			**30,211**	**1,466**	**2,645**	**15,223**	**35,778**	**14,527**	**1,090**	**1,657**	**549**	**1,148**	**3,468**	**22,098**	**129,850**
Hawaii	Kauai	KAUAI										1			1
	Maui	MAUI													
	Oahu	HONOLULU	18	5	12	10	11	4	10	13	18	10	21	17	149
	The Big Island	HAWAII									1	1		1	3
Hawaii Total			**18**	**5**	**12**	**10**	**11**	**4**	**10**	**13**	**19**	**12**	**21**	**18**	**153**
Puget Sound	North Sound	CITELAN													
		ISLAND	2	1			4		3	11		4		12	37
		SAN JUAN													
		SKAGIT							1	3		2		1	7
		SNOHOMISH	6	4	3			1	1	2	3	6	2	4	32
		WHATCOM										1			1
	Seattle	KING					2	1		1		1	2	1	8
		KITTITAS													
	South	LEWIS													
		PIERCE	19	1	3	17	8	2					1	5	56
		THURSTON	2			3	1	3							9
	West Sound	CLALLAM													
		GRAYS HARBOR													
		JEFFERSON								1					1
		KITSAP	1		3	1			5	8	4	2	4	9	37
		MASON													
Puget Sound Total			**30**	**6**	**9**	**21**	**15**	**7**	**10**	**26**	**7**	**16**	**9**	**32**	**188**
In Migration Total			**2,078**	**118**	**732**	**529**	**680**	**969**	**71**	**392**	**91**	**138**	**342**	**537**	**6,677**
Grand Total			**32,337**	**1,595**	**3,398**	**15,783**	**36,484**	**15,507**	**1,171**	**2,088**	**666**	**1,314**	**3,840**	**22,685**	**136,868**

Table 2.4: DoD Enrolled by County of Residence, and Enrollment Facility

FY	2002

		Facility Market	Hawaii								Hawaii Total
		Facility Submarket	Oahu								
MARKET	SUBMARKE	COUNTY	15th MED GRP-HICKAM	BRMAX NAVCAMS EASTPAC	BRMCL MCAS KANEOHE BAY	BRMCL NAS BARBERS PT	NMCL PEARL HARBOR	AHC SCHOFIELD BARRACKS	TMC-1-SCHOF 25th-SCHOFIELD BARRACKS	TRIPLER AMC	
Gulf Coast	Biloxi/Gulfpo	GEORGE					1		1		2
		GREENE									
		HANCOCK	3						1	3	7
		HARRISON	32	1	12		25	7	6	11	94
		JACKSON	5	2	1		19	8	1	4	40
		PEARL RIVER	1				2				3
		STONE						3			3
	Eglin	OKALOOSA	59		8		4	10	8	10	99
		WALTON	3								3
	Mobile	BALDWIN	2		2		7		2	5	18
		MOBILE	3		7		11	3	3	10	37
		WASHINGTON, AL									
	Panama City	BAY	10		1		12	5	2	5	35
		HOLMES									
		WASHINGTON, FL									
	Pensacola	ESCAMBIA, AL					1				1
		ESCAMBIA, FL	21	16	87		79	10	8	35	256
		SANTA ROSA	9		15		6	2	3	4	39
Gulf Coast Total			**148**	**19**	**133**		**167**	**48**	**35**	**87**	**637**
Hawaii	Kauai	KAUAI	5		2		9	7	4	11	38
	Maui	MAUI	16	1	8		11	14	5	24	79
	Oahu	HONOLULU	13,436	343	8,101	214	16,300	15,383	9,927	22,288	85,992
	The Big Island	HAWAII	8	2	10	1	35	21	9	45	131
Hawaii Total			**13,465**	**346**	**8,121**	**215**	**16,355**	**15,425**	**9,945**	**22,368**	**86,240**
Puget Sound	North Sound	CHELAN								1	1
		ISLAND		2	12		14			2	30
		SAN JUAN					1				1
		SKAGIT			3		5				8
		SNOHOMISH	1	3	2		17	1	1	4	29
		WHATCOM	2								2
	Seattle	KING	8	1	5		6	2	2	6	30
		KITTITAS		1				1		1	3
	South	LEWIS							1		1
		PIERCE	9	1	2		3	28	56	31	130
		THURSTON			2			11	12	8	33
	West Sound	CLALLAM									
		GRAYS HARBOR									
		JEFFERSON									
		KITSAP	2	4	3		53	9	2	9	82
		MASON					1				1
Puget Sound Total			**22**	**12**	**29**		**100**	**52**	**74**	**62**	**351**
In Migration Total			**473**	**35**	**854**	**1**	**896**	**824**	**588**	**860**	**4,531**
Grand Total			**14,108**	**412**	**9,137**	**216**	**17,518**	**16,349**	**10,642**	**23,377**	**91,759**

Table 2.4: DoD Enrolled by County of Residence, and Enrollment Facility

FY	2002

		Facility Market	Puget Sound								Puget Sound Total	No Facility Designated	Out Migration to Other Facilities	DOD Total
		Facility Submarket	North Sound		South			West Sound						
MARKET	SUBMARKET	COUNTY	NH OAK HARBOR	NMCL EVERETT	62nd MED GRP-MCCHORD	OKUBO FAM PRACT CLINC-FT LEWIS	TMC-1-FT. LEWIS	BRMCL SUBASE BANGOR	NBMC KEYPORT	NBMC PUGET SOUND	NH BREMERTON				
Gulf Coast	Biloxi/Gulfport	GEORGE											180	11	330
		GREENE											32	1	55
		HANCOCK											948	32	1,799
		HARRISON	10	19	11			5			11	56	27,864	403	51,887
		JACKSON	4	13	2			5		1	11	36	10,128	191	18,740
		PEARL RIVER			2							2	330	19	545
		STONE	1									1	468	10	821
	Eglin	OKALOOSA	18		26		1	1			5	51	49,640	698	94,120
		WALTON											779	31	1,517
	Mobile	BALDWIN									2	2	981	111	2,066
		MOBILE						1			2	3	1,968	359	3,329
		WASHINGTON, AL											19		35
	Panama City	BAY	4	1	13			1			4	23	19,705	349	35,694
		HOLMES											132	7	249
		WASHINGTON, FL	2									2	313	10	537
	Pensacola	ESCAMBIA, AL											72	6	158
		ESCAMBIA, FL	67	28	7			13		2	57	174	28,223	865	52,488
		SANTA ROSA	9	3	6			1			12	31	13,056	346	24,985
Gulf Coast Total			115	64	67		1	27		3	104	381	154,838	3,649	289,355
Hawaii	Kauai	KAUAI											114	22	175
	Maui	MAUI	1	1								2	146	24	251
	Oahu	HONOLULU	81	51	30	13	8	95		3	149	430	107,067	3,233	196,871
	The Big Island	HAWAII						1				1	238	58	431
Hawaii Total			82	52	30	13	8	96		3	149	433	107,565	3,337	197,728
Puget Sound	North Sound	CHELAN		1	1			1			4	7	21		29
		ISLAND	13,620	27	13			8		2	65	13,735	18,417	619	32,838
		SAN JUAN	5	1	1							7	32	6	46
		SKAGIT	1,019	46	6			4			31	1,106	1,761	102	2,984
		SNOHOMISH	255	4,041	37	2	1	45		7	98	4,486	10,859	3,898	19,304
		WHATCOM	120	4	12			1		1	45	183	463	51	700
	Seattle	KING	60	239	447	15	4	32		10	127	934	14,162	8,620	23,754
		KITTITAS	1									1	39	3	46
	South	LEWIS	1		16						2	19	438	8	466
		PIERCE	11	18	9,993	544	107	51	1	15	407	11,147	69,351	1,076	81,760
		THURSTON	1	6	1,030	83	17	3		2	8	1,150	14,538	164	15,894
	West Sound	CLALLAM	1	3	2			3		2	92	103	257	49	409
		GRAYS HARBOR	1	1	28					1	14	45	360	11	416
		JEFFERSON	4	1	2			41		1	311	360	414	59	834
		KITSAP	69	111	74	1	1	5,524		353	22,144	28,277	35,112	1,319	64,827
		MASON	3	4	19	1		49		7	741	824	1,298	62	2,185
Puget Sound Total			15,171	4,563	11,681	646	130	5,762	1	401	24,089	62,384	167,522	16,047	246,492
In Migration Total			398	385	436	28	4	285		23	507	2,066			13,274
Grand Total			15,766	5,004	12,214	687	143	6,170	1	430	24,839	65,264	429,925	23,033	746,849

Table 3.0: Market Users by Submarket and Direct vs Indirect Care

ORIGIN	Market Users
FY	2002

Sum of USERS		SYSTEM SUBSYSTEM							
		DOD			VA			Dual Users	Grand Total
MARKET	SUBMARKET	Direct	Indirect	Both	Direct	Indirect	Both	Direct	
Gulf Coast	Biloxi/Gulfport	47,146	28,186	903	16,811	1,620	1,597	4,720	100,983
	Eglin	50,993	46,493	1,269	4,551	1,036	948	4,135	109,425
	Mobile	3,881	16,774	275	9,680	1,539	1,509	497	34,155
	Panama City	19,029	24,565	1,182	5,205	1,244	1,185	1,814	54,224
	Pensacola	68,521	57,618	1,322	11,218	1,725	1,677	5,059	147,140
Gulf Coast Total		189,570	173,636	4,951	47,465	7,164	6,916	16,225	445,927
Hawaii	Kauai	392	1,241	8	872	582	580	73	3,748
	Maui	410	1,395	5	1,316	552	547	114	4,339
	Oahu	135,132	54,826	802	11,345	1,176	1,088	5,632	210,001
	The Big Island	831	2,687	25	2,595	1,178	1,167	218	8,701
Hawaii Total		136,765	60,149	840	16,128	3,488	3,382	6,037	226,789
Puget Sound	North Sound	32,909	26,866	629	8,695	1,473	1,280	1,671	73,523
	Seattle	6,487	12,583	156	19,289	1,087	1,049	686	41,337
	South	101,877	43,858	1,244	24,276	1,536	1,506	15,349	189,646
	West Sound	42,396	20,763	515	7,637	1,050	980	3,568	76,909
Puget Sound Total		183,669	104,070	2,544	59,897	5,146	4,815	21,274	381,415
Grand Total		510,004	337,855	8,335	123,490	15,798	15,113	43,536	1,054,131

Table 3.1: Market Users by Submarket Beneficiary Category/Priority Group (Direct and Indirect Care)

ORIGIN	Market Users
FY	2002

Sum of USERS		SYSTEM BCPG_COMMON																			
		DOD							VA											Dual Users	Grand Total
MARKET	SUBMARKET	AD	ADFM	OTHER	RET	RETFM	VET	(blank)	1	2	3	4	5	6	7	8	(blank)	(blank)	
Gulf Coast	Biloxi/Gulfport	16,250	16,649	32	5,506	8,681	28	29,089	1,421	2,813	1,321	2,021	838	6,129	111	142	2,159	3,073	4,720	100,983
	Eglin	16,562	21,166	25	5,178	8,058	4	47,762	387	1,652	662	823	106	1,205	42	58	424	1,176	4,135	109,425
	Mobile	1,254	711	6	807	1,092	11	17,049	70	1,750	955	1,380	470	4,187	89	73	1,784	1,970	497	34,155
	Panama City	5,597	7,179	2	2,485	3,761	5	25,747	170	1,589	692	897	166	1,739	52	73	869	1,387	1,814	54,224
	Pensacola	31,382	39,638	30	6,759	10,646	66	58,940	444	3,145	1,387	1,968	389	3,870	108	111	1,111	2,087	5,059	147,140
Gulf Coast Total		71,045	85,343	95	20,735	32,238	114	178,587	2,492	10,949	5,017	7,089	1,969	17,130	402	457	6,347	9,693	16,225	445,927
Hawaii	Kauai	189	44	2	29	88	40	1,249	5	255	121	204	30	506	13	19	297	584	73	3,748
	Maui	130	42	1	24	174	39	1,400	10	413	169	254	50	667	18	20	252	562	114	4,339
	Oahu	48,122	62,659	136	5,688	17,731	796	55,628	530	2,617	1,628	2,353	255	2,772	59	217	1,750	1,428	5,632	210,001
	The Big Island	249	116	7	59	339	61	2,712	24	1,066	280	453	81	1,292	20	42	460	1,222	218	8,701
Hawaii Total		48,690	62,861	146	5,800	18,332	936	60,989	569	4,351	2,198	3,264	416	5,237	110	298	2,759	3,796	6,037	226,789
Puget Sound	North Sound	13,556	14,336	22	1,897	3,097	1	27,495	167	3,100	987	1,233	381	2,218	61	102	1,059	2,140	1,671	73,523
	Seattle	2,944	1,547	5	712	1,276	3	12,739	2,220	3,568	1,378	2,217	1,309	5,136	136	164	2,334	2,963	686	41,337
	South	29,948	39,491	155	11,951	20,268	64	45,102	1,112	7,121	3,338	4,397	1,008	4,609	312	240	1,846	3,335	15,349	189,646
	West Sound	10,188	18,741	54	4,778	8,633	2	21,278	67	2,639	998	1,152	389	1,863	60	81	799	1,619	3,568	76,909
Puget Sound Total		56,636	74,115	236	19,338	33,274	70	106,614	3,566	16,428	6,701	8,999	3,087	13,826	569	587	6,038	10,057	21,274	381,415
Grand Total		176,371	202,319	477	45,873	83,844	1,120	346,190	6,627	31,728	13,916	19,352	5,472	36,193	1,081	1,342	15,144	23,546	43,536	1,054,131

Table 4.0: Market Demand - Direct Care Inpatient Admissions and Bed Days of Care by Product Line

WORKUNITTYP	IP
SERVICETYPE	Inpatient
FY	2002

			Data	
MARKET	SUBMARKET	PRODUCTLINE	**Admissions**	**Bed Days**
Gulf Coast	Biloxi/Gulfport	Behavioral Health	807	12,738
		Extended Care	321	52,836
		Medicine	2,932	20,615
		Surgery	1,697	8,545
		Ob/Newborn	1,463	3,904
	Eglin	Behavioral Health	51	854
		Extended Care	17	1,541
		Medicine	1,861	5,098
		Surgery	1,096	2,947
		Ob/Newborn	2,078	5,156
	Mobile	Behavioral Health	216	5,047
		Extended Care	108	9,793
		Medicine	412	4,078
		Surgery	257	1,348
		Ob/Newborn	48	173
	Panama City	Behavioral Health	66	923
		Extended Care	17	2,615
		Medicine	99	867
		Surgery	97	595
		Ob/Newborn	9	15
	Pensacola	Behavioral Health	294	6,270
		Extended Care	80	9,388
		Medicine	1,666	6,112
		Surgery	1,121	3,943
		Ob/Newborn	1,582	3,968
Gulf Coast Total			18,395	169,369
Hawaii	Kauai	Behavioral Health	28	533
		Extended Care	4	73
		Medicine	35	401
		Surgery	43	313
		Ob/Newborn	11	67
	Maui	Behavioral Health	37	564
		Extended Care	9	430
		Medicine	19	376
		Surgery	36	183
		Ob/Newborn	5	28
	Oahu	Behavioral Health	1,376	10,818
		Extended Care	120	12,993
		Medicine	2,678	13,925
		Surgery	3,608	14,149
		Ob/Newborn	5,672	17,013
	The Big Island	Behavioral Health	87	1,040
		Extended Care	5	283
		Medicine	43	628
		Surgery	64	456
		Ob/Newborn	15	118

Table 4.0: Market Demand - Direct Care Inpatient Admissions and Bed Days of Care by Product Line

WORKUNITTYP	IP
SERVICETYPE	Inpatient
FY	2002

			Data	
MARKET	SUBMARKET	PRODUCTLINE	**Admissions**	**Bed Days**
Hawaii Total			13,895	74,391
Puget Sound	North Sound	Behavioral Health	299	3,002
		Extended Care	77	8,390
		Medicine	1,055	5,304
		Surgery	600	2,038
		Ob/Newborn	944	2,080
	Seattle	Behavioral Health	969	12,060
		Extended Care	236	21,548
		Medicine	1,744	11,773
		Surgery	605	3,253
		Ob/Newborn	85	331
	South	Behavioral Health	1,187	11,366
		Extended Care	256	39,031
		Medicine	5,497	25,131
		Surgery	2,967	12,219
		Ob/Newborn	3,399	10,615
	West Sound	Behavioral Health	224	2,995
		Extended Care	66	3,161
		Medicine	1,655	6,881
		Surgery	1,005	4,179
		Ob/Newborn	1,516	4,064
Puget Sound Total			24,386	189,421
Grand Total			56,676	433,181

Table 4.1: Market Demand - Direct Care Inpatient Admissions by Service Line and Beneficiary Category/Priority Group

FY	2002																			
			DOD Beneficiary Category						VA Priority Group											Grand Total
MARKET	PRODUCTLINE	SERVICELINE	AD	ADFM	OTHER	RET	RETFM	VET	1	2	3	4	5	6	7	8	Unknown			
Gulf Coast	Behavioral Health	Mental Health	381				14	1	322	67	84	253	256	1	2	22	18			1,421
		Substance Abuse							4			4	3			1	1			13
	Behavioral Health Total		381				14	1	326	67	84	257	259	1	2	23	19			1,434
	Extended Care	Domiciliary							31	25	29	57	206	2	1	15	-			366
		Nursing Home							58	10	9	45	37			9	9			177
	Extended Care Total								89	35	38	102	243	2	1	24	9			543
	Medicine	Cardiology	17	2	1	31	16		4	2	1	1	13	1		1	-			90
		Dermatology		1													-			1
		Endocrinology		1													-			1
		Family Practice	40	166	4	227	262										-			699
		Gastroenterology	2	3		3	1										-			9
		Hematology/Oncology	3	2		8	8						2				-			23
		Internal Medicine	413	360	12	1,436	1,285	72	366	83	126	204	698	2	6	73	10			5,146
		Nephrology	1			2	2										-			5
		Neurology	7	1		1	6		1	1	2	2	1			2	-			24
		Pediatrics		650	1		46										-			697
		Pulmonary/Respiratory Diseas	1	5		3	2										-			11
		Rehabilitation	1						69	5	19	91	74			3	2			264
	Medicine Total		485	1,191	18	1,711	1,628	72	440	91	148	298	788	3	6	79	12			6,970
	Surgery	Cardio/Thoracic	5	6		44	42		17	4	4	3	28			3	-			156
		General Surgery	312	282	9	591	524	28	110	23	58	54	242	2		31	3			2,269
		Gynecology	75	289		23	248	11									-			646
		Neurosurgery	57	5		3	13	1	16	8	15	5	28			3	1			155
		Opthalmology	1			1	3		1				4			1	-			11
		Oral Surgery	32	17			5										-			54
		Orthopedic	170	60	4	115	169	7	23	2	2	5	28			1	1			587
		Otolaryngology	69	25		24	24	1	3		2		1				-			149
		Plastic Surgery	1				3		2				1			1	-			8
		Proctology				1											-			1
		Special Surgery				3											-			3
		Urology	35	13	1	105	23		4	2	1		13		1	4	-			202
		Vascular	1			10	2		4		2		8				-			27
	Surgery Total		758	697	14	920	1,056	48	180	39	84	67	353	2	1	44	5			4,268
	Ob/Newborn	Obstetrics	508	1,960	12	3	154	2									-			2,639
		Newborn Nursery		2,393	55		93										-			2,541
	Ob/Newborn Total		508	4,353	67	3	247	2									-			5,180
Gulf Coast Total			2,132	6,241	99	2,634	2,945	123	1,035	232	354	724	1,643	8	10	170	45			18,395

Table 4.1: Market Demand - Direct Care Inpatient Admissions by Service Line and Beneficiary Category/Priority Group

FY	2002																			
			DOD Beneficiary Category						VA Priority Group											Grand Total
MARKET	PRODUCTLINE	SERVICELINE	AD	ADFM	OTHER	RET	RETFM	VET	1	2		3	4	5	6	7	8	Unknown		
Hawaii	Behavioral Health	Mental Health	271	204	3	11	39	461	167		18	37	173	130			8	4		1,526
		Substance Abuse							2									-		2
	Behavioral Health Total		271	204	3	11	39	461	169		18	37	173	130			8	4		1,528
	Extended Care	Nursing Home							66		14	11	17	18	2		2	8		138
	Extended Care Total								66		14	11	17	18	2		2	8		138
	Medicine	Cardiology	36	24	3	53	42	56	1					1				-		216
		Endocrinology	1	6	5	1	8											-		21
		Family Practice	168	156		67	63	5										-		459
		Gastroenterology				2												-		2
		Hematology/Oncology	3	2		1		2										-		8
		Internal Medicine	128	193	16	286	242	594	8		1		1					2		1,471
		Neurology	1	3				1										-		5
		Pediatrics		509	27		29											-		565
		Pulmonary/Respiratory Disease			1	2	1	1										-		5
		Rehabilitation							12		1		5	4		1		-		23
	Medicine Total		337	893	52	412	385	659	21		2		6	5		1		2		2,775
	Surgery	Cardio/Thoracic	23	8	7	26	15	21	1		1	1		1				-		104
		General Surgery	300	235	36	173	169	189	2		1			1			1	-		1,107
		Gynecology	88	323	12	4	70	2										-		499
		Neurosurgery	82	37	11	11	7	17	2					1			1	-		169
		Opthalmology	9	7		3	4	6										-		29
		Oral Surgery	85	7			1											-		93
		Orthopedic	605	177	17	51	75	46	5		3		1	2				-		982
		Otolaryngology	119	91	16	21	22	22										-		291
		Pediatrics		44	3		1											-		48
		Plastic Surgery	46	33	3	2	6	1										-		91
		Special Surgery	1		1													-		2
		Urology	61	44	9	56	10	79										-		259
		Vascular	4	2		24	9	38										-		77
	Surgery Total		1,423	1,008	115	371	389	421	10		5	1	1	5			2	-		3,751
	Ob/Newborn	Obstetrics	567	2,408	5		29											-		3,009
		Newborn Nursery		2,662	18		14											-		2,694
	Ob/Newborn Total		567	5,070	23		43											-		5,703
Hawaii Total			2,598	7,175	193	794	856	1,541	266		39	49	197	158	2	1	12	14		13,895

Table 4.1: Market Demand - Direct Care Inpatient Admissions by Service Line and Beneficiary Category/Priority Group

FY	2002																			
			DOD Beneficiary Category						VA Priority Group											Grand Total
MARKET	PRODUCTLINE	SERVICELINE	AD	ADFM	OTHER	RET	RETFM	VET	1	2	3	4	5	6	7	8	Unknown			
Puget Sound	Behavioral Health	Mental Health	425	102	2	10	21	1	610	77	129	517	78	1	1	54	1			2,029
		Substance Abuse	1						80	14	62	393	63		5	27	5			650
	Behavioral Health Total		426	102	2	10	21	1	690	91	191	910	141	1	6	81	6			2,679
	Extended Care	Domiciliary							5	1	5	34	17	2		3	3			70
		Nursing Home							273	31	39	92	100	2	2	18	7			564
		Respite Care							1								-			1
	Extended Care Total								279	32	44	126	117	4	2	21	10			635
	Medicine	Cardiology	29	22	7	363	188	17	79	18	28	31	109			14	-			905
		Endocrinology	3	4		10	10										2			29
		Family Practice	238	378	7	330	364										-			1,317
		Gastroenterology	1	4		12	19										-			36
		Hematology/Oncology	23	3		23	17					2					-			68
		Immunology	1	1		2	2										-			6
		Infectious Disease		3		6	10										-			19
		Internal Medicine	214	280	30	1,107	951	29	995	249	347	501	1,026	13	10	164	6			5,922
		Nephrology	2	2		10	15										-			29
		Neurology	34	26	1	89	68	3	71	13	22	39	56			20	1			443
		Pediatrics		698	2		103										-			803
		Pulmonary/Respiratory Disease		2		8	9										-			19
		Rehabilitation							142	15	26	126	16		1	25	4			355
	Medicine Total		545	1,423	47	1,960	1,756	49	1,287	295	423	699	1,207	13	11	223	13			9,951
	Surgery	Cardio/Thoracic	17	7	1	42	18		42	10	11	11	50		2	12	-			223
		General Surgery	262	325	43	445	450	17	113	29	39	43	132		3	25	4			1,930
		Gynecology	77	320	1	3	284	2	8	5	2		6				-			708
		Neurosurgery	99	20	1	49	24		22	4	5	4	21			3	-			252
		Opthalmology	8	1		8			6	2	5	6	6				-			42
		Oral Surgery	77	19	1	3	12	1	7			2	1				-			123
		Orthopedic	229	94	9	114	161	2	105	30	27	30	58	1		13	-			873
		Otolaryngology	25	39	1	35	34	3	37	10	5	3	36			8	-			236
		Plastic Surgery	10	18		4	12		9	1			5			1	-			60
		Urology	37	26		96	42	1	60	17	27	15	63		1	13	-			398
		Vascular	16	6	1	77	36		38	19	21	31	74			13	-			332
	Surgery Total		857	875	58	876	1,073	26	447	127	142	145	452	1	6	88	4			5,177
	Ob/Newborn	Obstetrics	592	2,347	22	1	107										-			3,069
		Newborn Nursery		2,724	110		41										-			2,875
	Ob/Newborn Total		592	5,071	132	1	148										-			5,944
Puget Sound Total			2,420	7,471	239	2,847	2,998	76	2,703	545	800	1,880	1,917	19	25	413	33			24,386
Grand Total			7,150	20,887	531	6,275	6,799	1,740	4,004	816	1,203	2,801	3,718	29	36	595	92			56,676

Table 4.2: Market Demand - Direct Care Inpatient Bed Days of Care by Service Line and Beneficiary Category/Priority Group

FY	2002

			DOD Beneficiary Category						VA Priority Group									Grand Total
MARKET	PRODUCTLINE	SERVICELINE	AD	ADFM	OTHER	RET	RETFM	VET	1	2	3	4	5	6	7	8	Unknown	
Gulf Coast	Behavioral Health	Mental Health	1,016				1	19	9,038	1,403	2,026	6,812	4,414	26	16	259	389	25,419
		Substance Abuse							90			179	62			57	25	413
	Behavioral Health Total		1,016				1	19	9,128	1,403	2,026	6,991	4,476	26	16	316	414	25,832
	Extended Care	Domiciliary							3,233	1,481	3,396	6,436	23,490	260	47	1,733	-	40,076
		Nursing Home							6,378	2,094	2,054	5,679	5,832			2,029	12,031	36,097
	Extended Care Total								9,611	3,575	5,450	12,115	29,322	260	47	3,762	12,031	76,173
	Medicine	Cardiology	37	1	8	46	37		18	4	5	1	68	4		3	-	232
		Dermatology															-	
		Endocrinology		4													-	4
		Family Practice	78	357	8	506	559										-	1,508
		Gastroenterology	8	15		4	1										-	28
		Hematology/Oncology	47	80		57	6						21				-	211
		Internal Medicine	1,213	869	34	4,071	3,626	224	2,594	605	1,097	1,750	4,856	2	31	430	33	21,435
		Nephrology	2			6											-	8
		Neurology	28	4		1	16		3	1	21	28	3			18	-	123
		Pediatrics		1,472	2		126										-	1,600
		Pulmonary/Respiratory Disease	-	6		11	2										-	19
		Rehabilitation	72						2,293	229	922	4,557	3,372			100	57	11,602
	Medicine Total		1,485	2,808	52	4,702	4,373	224	4,908	839	2,045	6,336	8,320	6	31	551	90	36,770
	Surgery	Cardio/Thoracic	26	21		125	68		358	22	32	29	292			56	-	1,029
		General Surgery	871	767	43	2,696	2,609	152	507	145	459	503	1,537	3		239	10	10,541
		Gynecology	176	643		58	854	26									-	1,757
		Neurosurgery	61	14		27	32	16	65	30	92	51	116			12	2	518
		Opthalmology	9			1	5		3				7			1	-	26
		Oral Surgery	62	28			6										-	96
		Orthopedic	495	127	8	517	718	43	145	6	7	38	222			42	4	2,372
		Otolaryngology	93	38		50	38	1	8		16		2				-	246
		Plastic Surgery	2				6		9				33			9	-	59
		Proctology				6											-	6
		Special Surgery				39											-	39
		Urology	74	32	2	237	65		8	8	7		76		19	9	-	537
		Vascular	2			50	5		46		15		34				-	152
	Surgery Total		1,871	1,670	53	3,806	4,406	238	1,149	211	628	621	2,319	3	19	368	16	17,378
	Ob/Newborn	Obstetrics	1,305	4,755	27	5	450	4									-	6,546
		Newborn Nursery		6,162	210		298										-	6,670
	Ob/Newborn Total		1,305	10,917	237	5	748	4									-	13,216
Gulf Coast Total			5,677	15,395	342	8,513	9,528	485	24,796	6,028	10,149	26,063	44,437	295	113	4,997	12,551	169,369
Hawaii	Behavioral Health	Mental Health	921	642	7	97	305	4,413	2,682	297	450	1,660	1,117			160	185	12,936
		Substance Abuse							19								-	19
	Behavioral Health Total		921	642	7	97	305	4,413	2,701	297	450	1,660	1,117			160	185	12,955
	Extended Care	Nursing Home							6,104	591	598	2,508	985	27		91	2,875	13,779
	Extended Care Total								6,104	591	598	2,508	985	27		91	2,875	13,779
	Medicine	Cardiology	88	35	35	240	95	271	7				-				-	771
		Endocrinology	2	11	11	2	27										-	53
		Family Practice	441	371		467	273	24									-	1,576
		Gastroenterology				11											-	11
		Hematology/Oncology	15	8		30		10									-	63
		Internal Medicine	462	845	72	1,700	1,697	4,709	77	31		3					3	9,599
		Neurology	20	15				6									-	41
		Pediatrics		1,671	678		93										-	2,442
		Pulmonary/Respiratory Disease			15	8	11	8									-	42
		Rehabilitation							291	10		299	113		19		-	732
	Medicine Total		1,028	2,956	811	2,458	2,196	5,028	375	41		302	113		19		3	15,330
	Surgery	Cardio/Thoracic	100	52	58	268	80	234	13	7	15		21				-	848
		General Surgery	1,055	929	204	1,229	980	1,872	40	12			1			3	-	6,325
		Gynecology	222	760	48	10	268	4									-	1,312
		Neurosurgery	256	181	137	49	42	95	8				1			3	-	772
		Opthalmology	33	8		3	5	15									-	64
		Oral Surgery	147	9			1										-	157
		Orthopedic	1,229	449	212	415	430	431	27	8		20	13				-	3,234
		Otolaryngology	173	136	84	80	35	73									-	581
		Pediatrics		144	7		1										-	152
		Plastic Surgery	67	101	6	3	7	5									-	189
		Special Surgery	14		5												-	19
		Urology	116	90	23	220	19	400									-	868
		Vascular	7	3		142	35	393									-	580
	Surgery Total		3,419	2,862	784	2,419	1,903	3,522	88	27	15	20	36			6	-	15,101
	Ob/Newborn	Obstetrics	1,542	6,247	38		74										-	7,901
		Newborn Nursery		9,235	50		40										-	9,325
	Ob/Newborn Total		1,542	15,482	88		114										-	17,226

Table 4.2: Market Demand - Direct Care Inpatient Bed Days of Care by Service Line and Beneficiary Category/Priority Group

FY	2002

			DOD Beneficiary Category						VA Priority Group									Grand Total
MARKET	PRODUCTLINE	SERVICELINE	AD	ADFM	OTHER	RET	RETFM	VET	1	2	3	4	5	6	7	8	Unknown	
Hawaii Total			6,910	21,942	1,690	4,974	4,518	12,963	9,268	956	1,063	4,490	2,251	27	19	257	3,063	74,391
Puget Sound	Behavioral Health	Mental Health	1,164	288	8	25	68	8	8,016	964	1,088	6,061	882	15	10	513	7	19,117
		Substance Abuse	38						956	219	872	5,599	2,102		68	351	101	10,306
	Behavioral Health Total		1,202	288	8	25	68	8	8,972	1,183	1,960	11,660	2,984	15	78	864	108	29,423
	Extended Care	Domiciliary							495	214	494	4,044	2,192	963		459	1,906	10,767
		Nursing Home							35,991	4,440	4,401	4,003	5,593	21	1,464	977	4,473	61,363
		Respite Care							-								-	-
	Extended Care Total								36,486	4,654	4,895	8,047	7,785	984	1,464	1,436	6,379	72,130
	Medicine	Cardiology	77	37	12	1,055	455	28	292	78	144	134	489			52	-	2,853
		Endocrinology	16	15		28	44										3	106
		Family Practice	516	799	13	1,052	1,164										-	3,544
		Gastroenterology	1	12		56	88										-	157
		Hematology/Oncology	81	18		140	62					4					-	305
		Immunology															-	
		Infectious Disease		10		18	21										-	49
		Internal Medicine	791	921	128	4,359	4,443	64	5,096	1,358	1,809	3,074	5,715	93	33	669	14	28,567
		Nephrology	4	4		23	41										-	72
		Neurology	177	58	8	317	197	8	437	57	123	212	315			117	1	2,027
		Pediatrics		2,344	2		366										-	2,712
		Pulmonary/Respiratory Disease		5		36	24										-	65
		Rehabilitation							2,564	320	612	3,832	448		7	720	129	8,632
	Medicine Total		1,663	4,223	163	7,084	6,905	100	8,389	1,813	2,688	7,256	6,967	93	40	1,558	147	49,089
	Surgery	Cardio/Thoracic	71	14	2	270	143		396	108	100	163	453		24	101	-	1,845
		General Surgery	768	1,066	137	2,247	2,268	67	735	214	167	327	601		9	104	39	8,749
		Gynecology	180	760	3	6	789	5	15	13	5		14				-	1,790
		Neurosurgery	252	39	1	153	64		135	39	69	24	303			19	-	1,098
		Opthalmology	12	1		7			22	4	13	11	8				-	78
		Oral Surgery	105	28	2	46	17	1	8			3	1				-	211
		Orthopedic	638	285	26	517	708	17	493	118	128	283	233	17		51	-	3,514
		Otolaryngology	66	80	2	88	65	18	186	34	29	55	150			45	-	818
		Plastic Surgery	21	36		8	28		123	6			24			3	-	249
		Urology	82	43		259	137	1	187	29	70	38	233		5	45	-	1,129
		Vascular	47	42	5	520	217		493	65	150	271	318			80	-	2,208
	Surgery Total		2,242	2,394	178	4,121	4,436	109	2,793	630	731	1,175	2,338	17	38	448	39	21,689
	Ob/Newborn	Obstetrics	1,776	5,838	55	2	299										-	7,970
		Newborn Nursery		8,656	349		115										-	9,120
	Ob/Newborn Total		1,776	14,494	404	2	414										-	17,090
Puget Sound Total			6,883	21,399	753	11,232	11,823	217	56,640	8,280	10,274	28,138	20,074	1,109	1,620	4,306	6,673	189,421
Grand Total			19,470	58,736	2,785	24,719	25,869	13,665	90,704	15,264	21,486	58,691	66,762	1,431	1,752	9,560	22,287	433,181

Table 4.3: Facility Workload - Direct Care Inpatient Admissions by Facility, Product Line, and Market of Patient Origin

FY	2002		Visits		
FACMARKET	FACNAME	PRODUCTLINE	In Market	In Migration	Grand Total
Gulf Coast	81st MED GRP-KEESLER	Behavioral Health	365	185	550
		Medicine	1,805	145	1,950
		Surgery	1,578	189	1,767
		Ob/Newborn	1,698	102	1,800
	96th MED GRP-EGLIN	Medicine	1,772	55	1,827
		Surgery	960	71	1,031
		Ob/Newborn	2,106	108	2,214
	Gulf Coast HCS	Behavioral Health	181	42	223
		Medicine	1,472	132	1,604
		Surgery	464	34	498
	Gulfport	Behavioral Health	672	138	810
		Medicine	8	0	8
		Surgery	1	0	1
	NH PENSACOLA	Medicine	1,400	82	1,482
		Surgery	746	26	772
		Ob/Newborn	1,326	24	1,350
Gulf Coast Total			16,554	1,333	17,887
Hawaii	Honolulu	Behavioral Health	479	11	490
	TRIPLER AMC	Behavioral Health	974	56	1,030
		Medicine	2,611	272	2,883
		Surgery	3,654	487	4,141
		Ob/Newborn	5,685	46	5,731
Hawaii Total			13,403	872	14,275
Puget Sound	American Lake	Behavioral Health	472	17	489
		Medicine	758	70	828
		Surgery	2	0	2
	MADIGAN AMC-FT. LEWIS	Behavioral Health	530	117	647
		Medicine	4,252	140	4,392
		Surgery	2,923	236	3,159
		Ob/Newborn	3,654	43	3,697
	NH BREMERTON	Medicine	1,007	28	1,035
		Surgery	545	24	569
		Ob/Newborn	1,406	1	1,407
	NH OAK HARBOR	Medicine	380	7	387
		Surgery	219	3	222
		Ob/Newborn	852	0	852
	Seattle	Behavioral Health	1,263	199	1,462
		Extended Care	3	2	5
		Medicine	3,276	999	4,275
		Surgery	1,380	550	1,930
Puget Sound Total			22,922	2,436	25,358
Grand Total			52,879	4,641	57,520

Table 4.4: Facility Workload - Direct Care Inpatient Bed Days of Care by Facility, Product Line, and Market of Patient Origin

FY	2002

			Visits		
FACMARKET	FACNAME	PRODUCTLINE	In-Market	In-Migration	Grand Total
Gulf Coast	81st MED GRP-KEESLER	Behavioral Health	856	421	1,277
		Medicine	5,939	610	6,549
		Surgery	7,108	700	7,808
		Ob/Newborn	5,655	528	6,183
	96th MED GRP-EGLIN	Medicine	3,437	93	3,530
		Surgery	2,218	198	2,416
		Ob/Newborn	4,194	20	4,214
	Gulf Coast HCS	Behavioral Health	3,670	664	4,334
		Medicine	18,703	1,868	20,571
		Surgery	2,757	159	2,916
	Gulfport	Behavioral Health	17,915	2,466	20,381
		Medicine	165	-	165
		Surgery	11	-	11
	NH PENSACOLA	Medicine	3,632	157	3,789
		Surgery	2,169	92	2,261
		Ob/Newborn	3,086	57	3,143
Gulf Coast Total			81,515	8,033	89,548
Hawaii	Honolulu	Behavioral Health	4,199	55	4,254
	TRIPLER AMC	Behavioral Health	6,305	294	6,599
		Medicine	14,115	1,609	15,724
		Surgery	14,688	2,172	16,860
		Ob/Newborn	17,109	304	17,413
Hawaii Total			56,416	4,434	60,850
Puget Sound	American Lake	Behavioral Health	6,844	307	7,151
		Medicine	4,893	2,198	7,091
		Surgery	35	-	35
	MADIGAN AMC-FT. LEWIS	Behavioral Health	1,332	355	1,687
		Medicine	16,155	607	16,762
		Surgery	11,073	1,032	12,105
		Ob/Newborn	12,583	472	13,055
	NH BREMERTON	Medicine	2,759	70	2,829
		Surgery	1,652	64	1,716
		Ob/Newborn	2,835	3	2,838
	NH OAK HARBOR	Medicine	724	10	734
		Surgery	421	8	429
		Ob/Newborn	1,586	-	1,586
	Seattle	Behavioral Health	11,239	2,479	13,718
		Extended Care	47	40	87
		Medicine	23,180	12,284	35,464
		Surgery	7,910	4,230	12,140
Puget Sound Total			105,268	24,159	129,427
Grand Total			243,199	36,626	279,825

Table 4.5: Market Demand - Direct Care Outpatient Visits by Service Line and Service Type

FY	2002

				Visits		
MARKET	PRODUCTLINE	SERVICELINE	SERVICETYPE	DOD	VA	Grand Total
Gulf Coast	Behavioral Health	Mental Health	Ambulatory	24,485	54,269	78,754
			Diagnostic		98	98
			Therapeutic		25,840	25,840
		Substance Abuse	Ambulatory	10,957	6,976	17,933
			Therapeutic		4,605	4,605
	Behavioral Health Total			35,442	91,788	127,230
	Distinctive Program	Flight Medicine	Ambulatory	58,499		58,499
		Underseas Medicine	Ambulatory	126		126
	Distinctive Programs Total			58,625		58,625
	Medical Specialty	Cardiology	Ambulatory	15,240	2,378	17,618
			Diagnostic	100	11,348	11,448
		Dermatology	Ambulatory	11,552	2,836	14,388
		Endocrinology	Ambulatory	860	1,536	2,396
		Gastroenterology	Ambulatory	6,025	1,938	7,963
			Diagnostic		79	79
		Hematology/Oncology	Ambulatory	5,217	1,869	7,086
			Therapeutic	7,009	8,358	15,367
		Immunology	Ambulatory	9,555	631	10,186
		Infectious Disease	Ambulatory		561	561
		Nephrology	Ambulatory	4,996	145	5,141
		Neurology	Ambulatory		1,946	1,946
			Diagnostic	31	464	495
		Pulmonary/Respiratory Diseas	Ambulatory	3,573	514	4,087
			Diagnostic	285	2,294	2,579
			Therapeutic	22	91	113
		Rehabilitation	Ambulatory	49	24,882	24,931
			Diagnostic		516	516
			Therapeutic	83,488	28,528	112,016
	Medical Specialty Total			148,002	90,914	238,916
	Ob/Gyn	Genetics	Diagnostic	507		507
		Gynecology	Ambulatory	26,316		26,316
		Obstetrics	Ambulatory	33,847		33,847
	Ob/Gyn Total			60,670		60,670
	Outpatient Specialty	Audiology/Speech/Hearing	Ambulatory	8,342	13,959	22,301
		Dental	Ambulatory	302	10,152	10,454
		ED	Ambulatory	79,523		79,523
		Geriatrics	Ambulatory		7,838	7,838
		Home-based/Outreach Care	Ambulatory		321	321
			Diagnostic		1	1
			Therapeutic		63	63
		Nutrition	Ambulatory	10,590	4,413	15,003
		Optometry	Ambulatory	29,448	5,832	35,280
		Urgent Care	Ambulatory	426		426
	Outpatient Specialty Total			128,631	42,579	171,210
	Primary Care	Family Practice	Ambulatory	112,209		112,209
		Internal Medicine	Ambulatory	285,122	138,756	423,878
		Pediatrics	Ambulatory	77,515		77,515
		Women's Health	Ambulatory		2,434	2,434
			Diagnostic	135	1	136
	Primary Care Total			474,981	141,191	616,172
	Surgical Specialty	Cardio/Thoracic	Ambulatory	715	1,020	1,735
			Therapeutic		257	257
		General Surgery	Ambulatory	18,889	12,192	31,081
		Gynecology	Ambulatory		248	248
		Neurosurgery	Ambulatory	1,472	1,042	2,514
		Opthamology	Ambulatory	9,567	9,784	19,351
		Orthopedic	Ambulatory	35,028	6,029	41,057
			Therapeutic	2,884		2,884
		Otolaryngology	Ambulatory	11,119	3,987	15,106
		Pediatric Surgery	Ambulatory	2		2
		Plastic Surgery	Ambulatory	214	78	292
		Proctology	Ambulatory	3	1	4
		Special Surgery	Ambulatory		1	1
		Urology	Ambulatory	9,346	6,218	15,564
			Diagnostic		394	394
		Vascular	Ambulatory	1,360	101	1,461
			Diagnostic	136	1,266	1,402
	Surgical Specialty Total			90,735	42,618	133,353

Table 4.5: Market Demand - Direct Care Outpatient Visits by Service Line and Service Type

FY	2002

				Visits		
MARKET	PRODUCTLINE	SERVICELINE	SERVICETYPE	DOD	VA	Grand Total
Gulf Coast Total				997,086	409,090	1,406,176
Hawaii	Behavioral Health	Mental Health	Ambulatory	63,232	26,249	89,481
			Therapeutic		11,102	11,102
		Substance Abuse	Ambulatory	25,452	5,501	30,953
	Behavioral Health Total			88,684	42,852	131,536
	Distinctive Program	Flight Medicine	Ambulatory	15,053		15,053
		Underseas Medicine	Ambulatory	258		258
	Distinctive Programs Total			15,311		15,311
	Medical Specialty	Cardiology	Ambulatory	16,173	848	17,021
			Diagnostic	35	172	207
		Dermatology	Ambulatory	10,604	767	11,371
		Endocrinology	Ambulatory	1,270	466	1,736
		Gastroenterology	Ambulatory	4,140	2,037	6,177
			Diagnostic		5	5
		Hematology/Oncology	Ambulatory	8,445	132	8,577
			Therapeutic	4,563	2,151	6,714
		Immunology	Ambulatory	31,779	505	32,284
		Nephrology	Ambulatory	6,553	286	6,839
		Neurology	Ambulatory		1,321	1,321
			Diagnostic	2	2	4
		Pulmonary/Respiratory Diseas	Ambulatory	2,490	149	2,639
			Diagnostic	4	191	195
			Therapeutic		1	1
		Rehabilitation	Ambulatory	2,768	10,421	13,189
			Diagnostic		20	20
			Therapeutic	92,650	26	92,676
	Medical Specialty Total			181,476	19,500	200,976
	Ob/Gyn	Gynecology	Ambulatory	19,831		19,831
		Obstetrics	Ambulatory	53,447		53,447
	Ob/Gyn Total			73,278		73,278
	Outpatient Specialty	Audiology/Speech/Hearing	Ambulatory	31,808	12	31,820
		Dental	Ambulatory	10	3,624	3,634
		ED	Ambulatory	37,158		37,158
		Geriatrics	Ambulatory		4,288	4,288
		Home-based/Outreach Care	Ambulatory		163	163
			Diagnostic		4	4
			Therapeutic		17	17
		Nutrition	Ambulatory	6,059	568	6,627
		Optometry	Ambulatory	34,800	4,441	39,241
		Urgent Care	Ambulatory	28,210		28,210
	Outpatient Specialty Total			138,045	13,117	151,162
	Primary Care	Family Practice	Ambulatory	142,341		142,341
		Internal Medicine	Ambulatory	132,100	55,067	187,167
		Pediatrics	Ambulatory	81,061		81,061
		Women's Health	Ambulatory		475	475
			Diagnostic	2		2
	Primary Care Total			355,504	55,542	411,046
	Surgical Specialty	Cardio/Thoracic	Ambulatory	468	6	474
			Therapeutic		6	6
		General Surgery	Ambulatory	8,121	214	8,335
		Gynecology	Ambulatory		41	41
		Neurosurgery	Ambulatory	1,392	3	1,395
		Opthamology	Ambulatory	12,076	9	12,085
		Orthopedic	Ambulatory	30,670	2,111	32,781
			Therapeutic	13,398	1	13,399
		Otolaryngology	Ambulatory	10,483	8	10,491
		Pediatric Surgery	Ambulatory	392		392
		Plastic Surgery	Ambulatory	2,700	4	2,704
		Proctology	Ambulatory	1	125	126
		Urology	Ambulatory	6,102	11	6,113
		Vascular	Ambulatory	1,811	1	1,812
			Diagnostic	70	1	71
	Surgical Specialty Total			87,684	2,541	90,225
Hawaii Total				939,982	133,552	1,073,534
Puget Sound	Behavioral Health	Mental Health	Ambulatory	44,064	96,366	140,430
			Diagnostic		124	124
			Therapeutic		29,385	29,385
		Substance Abuse	Ambulatory	19,460	41,153	60,613

Table 4.5: Market Demand - Direct Care Outpatient Visits by Service Line and Service Type

FY	2002					
				Visits		
MARKET	PRODUCTLINE	SERVICELINE	SERVICETYPE	DOD	VA	Grand Total
			Therapeutic		34,671	34,671
	Behavioral Health Total			63,524	201,699	265,223
	Distinctive Program	Flight Medicine	Ambulatory	19,827		19,827
		Underseas Medicine	Ambulatory	342		342
	Distinctive Programs Total			20,169		20,169
	Medical Specialty	Cardiology	Ambulatory	7,359	4,698	12,057
			Diagnostic	44	7,529	7,573
		Dermatology	Ambulatory	13,490	6,654	20,144
		Endocrinology	Ambulatory	1,671	7,971	9,642
		Gastroenterology	Ambulatory	9,512	3,279	12,791
			Diagnostic		2,557	2,557
		Hematology/Oncology	Ambulatory	8,737	2,751	11,488
			Therapeutic	8,253	8,552	16,805
		Immunology	Ambulatory	12,759	3,975	16,734
		Infectious Disease	Ambulatory		859	859
		Nephrology	Ambulatory	12,361	1,172	13,533
		Neurology	Ambulatory		4,159	4,159
			Diagnostic	20	1,524	1,544
		Pulmonary/Respiratory Diseas	Ambulatory	9,947	4,604	14,551
			Diagnostic	9	1,578	1,587
			Therapeutic	7	6	13
		Rehabilitation	Ambulatory	2,973	7,148	10,121
			Diagnostic		623	623
			Therapeutic	103,794	15,296	119,090
	Medical Specialty Total			190,936	84,935	275,871
	Ob/Gyn	Genetics	Diagnostic	1		1
		Gynecology	Ambulatory	31,926		31,926
		Obstetrics	Ambulatory	48,387		48,387
	Ob/Gyn Total			80,314		80,314
	Outpatient Specialty	Audiology/Speech/Hearing	Ambulatory	15,211	12,510	27,721
		Dental	Ambulatory	297	14,260	14,557
		ED	Ambulatory	93,757		93,757
		Geriatrics	Ambulatory		12,714	12,714
		Home-based/Outreach Care	Ambulatory		2,713	2,713
			Diagnostic		2	2
			Therapeutic	8	3,357	3,365
		Nutrition	Ambulatory	14,040	3,347	17,387
		Optometry	Ambulatory	37,184	11,961	49,145
		Urgent Care	Ambulatory	605		605
	Outpatient Specialty Total			161,102	60,864	221,966
	Primary Care	Family Practice	Ambulatory	202,011		202,011
		Internal Medicine	Ambulatory	185,253	176,873	362,126
		Pediatrics	Ambulatory	86,826		86,826
		Women's Health	Ambulatory		4,384	4,384
			Diagnostic	152		152
	Primary Care Total			474,242	181,257	655,499
	Surgical Specialty	Cardio/Thoracic	Ambulatory	536	449	985
			Therapeutic		374	374
		General Surgery	Ambulatory	16,842	13,785	30,627
		Gynecology	Ambulatory		420	420
		Neurosurgery	Ambulatory	2,086	787	2,873
		Opthamology	Ambulatory	24,112	13,635	37,747
		Orthopedic	Ambulatory	34,130	14,553	48,683
			Therapeutic	16,692	1,145	17,837
		Otolaryngology	Ambulatory	14,807	5,043	19,850
		Pediatric Surgery	Ambulatory	2		2
		Plastic Surgery	Ambulatory	2,140	468	2,608
		Proctology	Ambulatory	2	1	3
		Urology	Ambulatory	13,388	6,008	19,396
			Diagnostic		3	3
		Vascular	Ambulatory	6,419	1,109	7,528
			Diagnostic	616	2,063	2,679
	Surgical Specialty Total			131,772	59,843	191,615
Puget Sound Total				1,122,059	588,598	1,710,657
Grand Total				3,059,127	1,131,240	4,190,367

Table 4.6: Facility Workload - Direct Care Outpatient Visits by Facility, Product Line and Market of Patient Origin

FY	2002		Visits		
FACMARKET	FACNAME	PRODUCTLINE	In Market	In Migration	Grand Total
Gulf Coast	16th MED GRP-HURLBURT FIELD	Behavioral Health	3,324	86	3,410
		Distinctive Programs	10,384	383	10,767
		Medical Specialty	4,497	21	4,518
		Ob/Gyn	3,107	48	3,155
		Outpatient Specialty	2,740	102	2,842
		Primary Care	35,664	876	36,540
	325th MED GRP-TYNDALL	Behavioral Health	2,624	182	2,806
		Distinctive Programs	7,509	1,521	9,030
		Medical Specialty	4,977	321	5,298
		Ob/Gyn	4,432	292	4,724
		Outpatient Specialty	8,565	798	9,363
		Primary Care	47,159	4,062	51,221
	81st MED GRP-KEESLER	Behavioral Health	6,287	2,268	8,555
		Distinctive Programs	3,136	1,880	5,016
		Medical Specialty	53,646	5,737	59,383
		Ob/Gyn	20,451	2,904	23,355
		Outpatient Specialty	41,822	6,887	48,709
		Primary Care	88,952	12,120	101,072
		Surgical Specialty	30,430	4,406	34,836
	96th MED GRP-EGLIN	Behavioral Health	6,381	105	6,486
		Distinctive Programs	14,034	499	14,533
		Medical Specialty	34,822	448	35,270
		Ob/Gyn	18,552	255	18,807
		Outpatient Specialty	36,072	1,601	37,673
		Primary Care	99,531	1,715	101,246
		Surgical Specialty	31,258	576	31,834
	BRMCL NAS PENSACOLA	Distinctive Programs	10,134	4,008	14,142
		Medical Specialty	5,466	1,022	6,488
		Outpatient Specialty	3,361	471	3,832
		Primary Care	8,222	2,977	11,199
		Surgical Specialty	1,310	186	1,496
	BRMCL NAVTECHTRACEN PENSA	Primary Care	16,690	599	17,289
	Gulf Coast HCS	Ancillary Services	65,924	7,694	73,618
		Behavioral Health	11,679	2,561	14,240
		Medical Specialty	60,264	4,392	64,656
		Outpatient Specialty	21,728	1,651	23,379
		Primary Care	49,684	6,209	55,893
		Surgical Specialty	30,474	2,286	32,760
	Gulfport	Ancillary Services	3	1	4
		Behavioral Health	43,221	5,952	49,173
		Medical Specialty	16,698	897	17,595
		Outpatient Specialty	2,640	339	2,979
		Primary Care	627	194	821
		Surgical Specialty	2,948	186	3,134
	Mobile	Ancillary Services	22,807	838	23,645
		Behavioral Health	10,991	234	11,225
		Medical Specialty	2,297	84	2,381
		Outpatient Specialty	4,179	129	4,308
		Primary Care	21,331	698	22,029
		Surgical Specialty	1,349	39	1,388
	NAVAL AVIATION TECH-PENSAC	Behavioral Health	1,464	101	1,565
		Medical Specialty	3,409	89	3,498
		Primary Care	33,347	1,681	35,028
	NBCL PANAMA CITY	Medical Specialty	132	143	275
		Primary Care	3,284	256	3,540
	NBMA PASCAGOULA	Medical Specialty	399	205	604
		Outpatient Specialty	36	22	58
		Primary Care	7,669	1,465	9,134
	NBMC GULFPORT	Ancillary Services	1	0	1
		Behavioral Health	1,012	881	1,893
		Medical Specialty	770	111	881
		Primary Care	13,235	6,973	20,208
	NBMC MILTON/WHITING FIELD	Distinctive Programs	9,536	985	10,521
		Medical Specialty	821	39	860
		Primary Care	8,546	243	8,789
	NH PENSACOLA	Behavioral Health	9,753	1,756	11,509
		Medical Specialty	33,112	871	33,983
		Ob/Gyn	12,495	361	12,856
		Outpatient Specialty	28,651	2,325	30,976

Table 4.6: Facility Workload - Direct Care Outpatient Visits by Facility, Product Line and Market of Patient Origin

FY	2002		Visits		
FACMARKET	FACNAME	PRODUCTLINE	In Market	In Migration	Grand Total
		Primary Care	93,010	2,177	95,187
		Surgical Specialty	24,049	1,103	25,152
	Panama City	Ancillary Services	4,162	331	4,493
		Behavioral Health	2,696	184	2,880
		Medical Specialty	218	16	234
		Outpatient Specialty	167	15	182
		Primary Care	18,697	1,265	19,962
		Surgical Specialty	145	5	150
	Pensacola	Ancillary Services	38,146	1,051	39,197
		Behavioral Health	18,406	356	18,762
		Medical Specialty	6,653	137	6,790
		Outpatient Specialty	12,355	300	12,655
		Primary Care	44,009	1,124	45,133
		Surgical Specialty	2,972	61	3,033
	TMC EGLIN AFB	Primary Care	601	1,959	2,560
Gulf Coast Total			1,468,341	122,331	1,590,672
Hawaii	15th MED GRP-HICKAM	Behavioral Health	2,547	30	2,577
		Distinctive Programs	4,292	222	4,514
		Medical Specialty	5,398	28	5,426
		Ob/Gyn	2,627	34	2,661
		Outpatient Specialty	4,395	97	4,492
		Primary Care	32,920	706	33,626
	BRMAX NAVCAMS EASTPAC	Primary Care	4,233	277	4,510
	BRMCL MCAS KANEOHE BAY	Behavioral Health	506	20	526
		Distinctive Programs	4,934	584	5,518
		Medical Specialty	7,985	442	8,427
		Outpatient Specialty	5,219	426	5,645
		Primary Care	27,757	760	28,517
	BRMCL MCB CAMP H.M. SMITH	Primary Care	7,198	1,144	8,342
	BRMCL NAS BARBERS PT	Primary Care	9,705	39	9,744
	BRMCL NSY PEARL HARBOR	Distinctive Programs	156	24	180
		Medical Specialty	11,919	1,093	13,012
		Outpatient Specialty	15,399	1,956	17,355
		Primary Care	4,480	871	5,351
	Hilo	Behavioral Health	2,269	37	2,306
		Medical Specialty	510	0	510
		Outpatient Specialty	880	0	880
		Primary Care	5,516	4	5,520
		Surgical Specialty	53	0	53
	Honolulu	Ancillary Services	26,358	491	26,849
		Behavioral Health	36,537	753	37,290
		Medical Specialty	17,977	903	18,880
		Outpatient Specialty	11,946	215	12,161
		Primary Care	36,978	1,314	38,292
		Surgical Specialty	2,032	109	2,141
	Kailua-Kona	Behavioral Health	1,569	7	1,576
		Medical Specialty	192	0	192
		Outpatient Specialty	60	0	60
		Primary Care	3,869	30	3,899
		Surgical Specialty	10	0	10
	Lihue	Behavioral Health	1,025	0	1,025
		Medical Specialty	263	0	263
		Outpatient Specialty	92	0	92
		Primary Care	4,184	22	4,206
		Surgical Specialty	63	0	63
	NBMA BARKING SANDS	Primary Care	214	20	234
	NMCL PEARL HARBOR	Behavioral Health	6,252	2,146	8,398
		Medical Specialty	9,901	907	10,808
		Ob/Gyn	2,584	273	2,857
		Outpatient Specialty	17,511	2,047	19,558
		Primary Care	65,194	3,288	68,482
		Surgical Specialty	846	106	952
	POHAKULOA TMC	Primary Care	10	5	15
	SCHOFIELD BARRACKS AHC	Behavioral Health	6,975	145	7,120
		Distinctive Programs	5,357	123	5,480
		Medical Specialty	38,965	927	39,892
		Outpatient Specialty	29,821	1,113	30,934
		Primary Care	46,873	607	47,480
		Surgical Specialty	5,831	139	5,970

Table 4.6: Facility Workload - Direct Care Outpatient Visits by Facility, Product Line and Market of Patient Origin

FY	2002		Visits		
FACMARKET	FACNAME	PRODUCTLINE	In Market	In Migration	Grand Total
	TMC-1-SCHOF 25th-SCHOFIELD BK	Primary Care	22,829	464	23,293
	TRIPLER AMC	Behavioral Health	71,356	4,028	75,384
		Medical Specialty	104,637	10,014	114,651
		Ob/Gyn	67,512	1,362	68,874
		Outpatient Specialty	62,063	4,279	66,342
		Primary Care	124,117	4,662	128,779
		Surgical Specialty	79,598	5,038	84,636
	Wailuku	Behavioral Health	1,281	8	1,289
		Medical Specialty	291	1	292
		Outpatient Specialty	69	0	69
		Primary Care	4,576	19	4,595
		Surgical Specialty	46	0	46
Hawaii Total			1,078,762	54,359	1,133,121
Puget Sound	62nd MED GRP-MCCHORD	Behavioral Health	1,677	31	1,708
		Distinctive Programs	5,023	396	5,419
		Medical Specialty	162	0	162
		Ob/Gyn	92	0	92
		Outpatient Specialty	2,503	118	2,621
		Primary Care	32,392	608	33,000
	American Lake	Ancillary Services	16,356	275	16,631
		Behavioral Health	82,223	2,379	84,602
		Medical Specialty	22,221	381	22,602
		Outpatient Specialty	23,366	324	23,690
		Primary Care	79,401	1,593	80,994
		Surgical Specialty	17,348	232	17,580
	Bremerton OC	Behavioral Health	471	0	471
		Primary Care	4,183	7	4,190
	BRMCL SUBASE BANGOR	Distinctive Programs	57	22	79
		Medical Specialty	2,200	540	2,740
		Outpatient Specialty	1,862	92	1,954
		Primary Care	19,286	1,066	20,352
	MADIGAN AMC-FT. LEWIS	Behavioral Health	39,803	1,488	41,291
		Medical Specialty	130,201	4,839	135,040
		Ob/Gyn	55,801	1,024	56,825
		Outpatient Specialty	91,268	7,222	98,490
		Primary Care	244,896	6,469	251,365
		Surgical Specialty	101,211	4,059	105,270
	NBMC KEYPORT	Medical Specialty	857	904	1,761
	NBMC PUGET SOUND	Medical Specialty	14,005	19,964	33,969
	NH BREMERTON	Behavioral Health	11,954	2,858	14,812
		Medical Specialty	21,145	646	21,791
		Ob/Gyn	15,510	624	16,134
		Outpatient Specialty	30,314	1,343	31,657
		Primary Care	76,554	428	76,982
		Surgical Specialty	20,505	1,009	21,514
	NH OAK HARBOR	Behavioral Health	7,301	195	7,496
		Distinctive Programs	11,904	620	12,524
		Medical Specialty	14,054	297	14,351
		Ob/Gyn	8,090	67	8,157
		Outpatient Specialty	27,973	623	28,596
		Primary Care	50,299	475	50,774
		Surgical Specialty	7,536	84	7,620
	NMCL EVERETT	Behavioral Health	338	7	345
		Medical Specialty	2,157	754	2,911
		Outpatient Specialty	1,009	236	1,245
		Primary Care	15,832	1,468	17,300
	OKUBO FAM PRACT CLINC-FT LE	Medical Specialty	2,238	2	2,240
		Outpatient Specialty	35	0	35
		Primary Care	14,890	2,465	17,355
	Seattle	Ancillary Services	142,436	7,908	150,344
		Behavioral Health	117,703	2,679	120,382
		Medical Specialty	61,047	8,705	69,752
		Outpatient Specialty	36,741	1,643	38,384
		Primary Care	93,956	4,374	98,330
		Surgical Specialty	41,525	6,675	48,200
	Seattle CBOC	Primary Care	1	3	4
	TMC-1-FT. LEWIS	Distinctive Programs	1,671	304	1,975
		Primary Care	4,260	58	4,318
Puget Sound Total			1,827,843	100,583	1,928,426

Table 4.6: Facility Workload - Direct Care Outpatient Visits by Facility, Product Line and Market of Patient Origin

FY	2002				
FACMARKET	FACNAME	PRODUCTLINE	In Market	In Migration	Grand Total
Grand Total			4,374,946	277,273	4,652,219

Table 5.0: Indirect Inpatient Admissions and Bed Days by Submarket and Product Line

FY	2002			
MARKET	SUBMARKET	INDIRECT_PL	Admissions	Bed Days of Care
Gulf Coast	Biloxi/Gulfport	Behavioral	13	118
		Medicine	630	2,876
		Newborn	7	12
		Ob/Gyn	34	91
		Surgery	376	2,523
		Other	1,344	11,156
	Biloxi/Gulfport Total		2,404	16,776
	Eglin	Behavioral	22	136
		Medicine	694	2,761
		Newborn	2	2
		Ob/Gyn	43	102
		Surgery	369	2,071
		Other	2,736	21,086
	Eglin Total		3,866	26,158
	Mobile	Behavioral	11	82
		Medicine	572	2,389
		Newborn	26	59
		Ob/Gyn	90	258
		Surgery	320	1,799
		Other	1,050	7,275
	Mobile Total		2,069	11,862
	Panama City	Behavioral	9	51
		Medicine	804	3,584
		Newborn	1	1
		Ob/Gyn	22	38
		Surgery	366	2,005
		Other	1,934	10,917
	Panama City Total		3,136	16,596
	Pensacola	Behavioral	23	107
		Medicine	1,016	4,566
		Newborn	8	14
		Ob/Gyn	59	161
		Surgery	671	4,233
		Other	2,390	19,300
	Pensacola Total		4,167	28,381
Gulf Coast Total			15,642	99,773
Hawaii	Kauai	Medicine	21	71
		Surgery	12	70
		Other	69	309
	Kauai Total		102	450
	Maui	Behavioral	6	43
		Medicine	41	222
		Ob/Gyn	1	2
		Surgery	18	262
		Other	72	370
	Maui Total		138	899
	Oahu	Behavioral	26	205
		Medicine	324	2,785
		Newborn	6	11
		Ob/Gyn	31	80
		Surgery	215	1,283
		Other	862	7,851
	Oahu Total		1,464	12,215
	The Big Island	Behavioral	37	228
		Medicine	107	645
		Newborn	2	4
		Ob/Gyn	3	22
		Surgery	40	295
		Other	171	1,052
	The Big Island Total		360	2,246
Hawaii Total			2,064	15,810
Puget Sound	North Sound	Behavioral	29	303
		Medicine	305	1,202
		Newborn	88	145
		Ob/Gyn	157	374
		Surgery	260	1,177
		Other	1,777	11,405
	North Sound Total		2,616	14,606
	Seattle	Behavioral	4	22

Table 5.0: Indirect Inpatient Admissions and Bed Days by Submarket and Product Line

FY	2002			
MARKET	SUBMARKET	INDIRECT_PL	Admissions	Bed Days of Care
		Medicine	399	1,313
		Newborn	39	61
		Ob/Gyn	71	134
		Surgery	222	1,026
		Other	640	5,852
	Seattle Total		1,375	8,408
	South	Behavioral	28	378
		Medicine	705	2,699
		Newborn	62	101
		Ob/Gyn	118	316
		Surgery	462	2,290
		Other	1,821	21,269
	South Total		3,196	27,053
	West Sound	Behavioral	55	313
		Medicine	290	1,217
		Newborn	12	21
		Ob/Gyn	33	94
		Surgery	216	1,263
		Other	1,028	8,497
	West Sound Total		1,634	11,405
Puget Sound Total			8,821	61,472
In Migration	In Migration	Behavioral	29	163
		Medicine	110	852
		Newborn	1	1
		Ob/Gyn	11	26
		Surgery	70	444
		Other	243	1,676
	In Migration Total		464	3,162
In Migration Total			464	3,162
Grand Total			26,991	180,217

Table 5.1: Indirect Inpatient Admissions by Service Line and Beneficiary Category

FY	2002						
			DoD Beneficiary Category				DOD Total
MARKET	INDIRECT_PL	INDIRECT_SL	AD	ADFM	RT	RTFM	
Gulf Coast	Behavioral	Behavioral	1	1	2	4	8
		Psychiatry	18	7	14	25	64
	Medicine	Cardiology	11	15	562	509	1,097
		Dermatology			3	7	10
		Endocrinology	2	10	45	84	141
		Gastroenterology	13	40	240	297	590
		General Medicine	13	21	66	73	173
		Hematology/Oncology	1	17	77	70	165
		Neonatology		48		5	53
		Nephrology	3	8	61	71	143
		Neurology	7	19	135	177	338
		Ophthalmology	2	1	9	6	18
		Other Specialty Care		1	5	1	7
		Otolaryngology	4	6	16	19	45
		Pulmonary	3	50	272	340	665
		Rheumatology			6	11	17
		Urology	2	10	117	42	171
	Newborn	Newborn		38		6	44
	Ob/Gyn	Gynecology		13	2	145	160
		Obstetrics	6	73		6	85
	Surgery	C/T Surgery	3	3	196	100	302
		Cardiology				1	1
		General Surgery	19	28	369	347	763
		Neurosurgery	9	15	94	92	210
		Oral Surgery			3	2	5
		Organ Transplant			1	1	2
		Orthopedics	16	16	298	308	638
		Other Specialty Care		1	2		3
		Other Surgical Care	5	7	27	20	59
		Vascular Surgery	1	1	62	37	101
	Other	Other	473	1,870	3,149	3,861	9,353
Gulf Coast Total			612	2,319	5,833	6,667	15,431
Hawaii	Behavioral	Behavioral					
		Psychiatry	8	3	3	7	21
	Medicine	Cardiology	1	3	36	36	76
		Endocrinology		3	4	10	17
		Gastroenterology	2	7	18	21	48
		General Medicine	5	11	4	6	26
		Hematology/Oncology		6	7	2	15
		Neonatology		23		2	25
		Nephrology	1	2	2	6	11
		Neurology	1	3	15	17	36
		Ophthalmology		2			2
		Other Specialty Care		1			1
		Otolaryngology	1		3		4
		Pulmonary	2	9	19	18	48
		Rheumatology		1			1
		Urology	1	3	11	4	19
	Newborn	Newborn		8			8
	Ob/Gyn	Gynecology		1		8	9
		Obstetrics	5	18		3	26
	Surgery	C/T Surgery	2	3	17	7	29
		General Surgery	8	32	31	26	97
		Neurosurgery	3	2	6	8	19
		Oral Surgery			1		1
		Organ Transplant				1	1
		Orthopedics	4	4	13	36	57
		Other Specialty Care					
		Other Surgical Care	3		1	1	5
		Vascular Surgery			4	2	6
	Other	Other	95	474	227	315	1,111
Hawaii Total			142	619	422	536	1,719

Table 5.1: Indirect Inpatient Admissions by Service Line and Beneficiary Category

FY	2002						
			DoD Beneficiary Category				DOD Total
MARKET	INDIRECT_PL	INDIRECT_SL	AD	ADFM	RT	RTFM	
Puget Sound	Behavioral	Behavioral		11	8	8	27
		Psychiatry	5	55	8	14	82
	Medicine	Cardiology	5	18	208	155	386
		Dermatology	1		2	2	5
		Endocrinology		15	19	29	63
		Gastroenterology	9	27	87	103	226
		General Medicine	2	22	21	44	89
		Hematology/Oncology	2	6	29	37	74
		Neonatology		78		3	81
		Nephrology	1	3	26	26	56
		Neurology	6	22	82	67	177
		Ophthalmology		3	1	1	5
		Other Specialty Care	1	3	3	3	10
		Otolaryngology	1	7	11	13	32
		Pulmonary	1	38	137	123	299
		Rheumatology		3	3	2	8
		Urology	3	2	55	10	70
	Newborn	Newborn		188		13	201
	Ob/Gyn	Gynecology	1	10	1	49	61
		Obstetrics	47	236		24	307
	Surgery	C/T Surgery		12	72	46	130
		Cardiology					
		General Surgery	19	45	198	172	434
		Neurosurgery	12	17	44	49	122
		Oral Surgery	1			2	3
		Organ Transplant			2		2
		Orthopedics	25	20	133	191	369
		Other Specialty Care					
		Other Surgical Care	4	4	4	9	21
		Vascular Surgery			15	15	30
	Other	Other	105	1,038	1,937	2,109	5,189
Puget Sound Total			251	1,883	3,106	3,319	8,559
In Migration	Behavioral	Behavioral				1	1
		Psychiatry		1		1	2
	Medicine	Cardiology			8	11	19
		Dermatology	1			1	2
		Endocrinology			2	1	3
		Gastroenterology		1	4	3	8
		General Medicine			1	1	2
		Hematology/Oncology					
		Neonatology		1			1
		Nephrology		2	1	1	4
		Neurology			6		6
		Pulmonary			5	3	8
		Urology			3		3
	Newborn	Newborn		1			1
	Ob/Gyn	Gynecology				2	2
		Obstetrics		3			3
	Surgery	C/T Surgery			5	1	6
		General Surgery	1		9	11	21
		Neurosurgery	1			1	2
		Orthopedics	1		4	9	14
		Other Surgical Care			1	1	2
		Vascular Surgery					
	Other	Other	2	42	64	98	206
In Migration Total			6	51	113	146	316
Grand Total			1,011	4,872	9,474	10,668	26,025

Table 5.1: Indirect Inpatient Admissions by Service Line and Beneficiary Category

FY	2002													
			VA Priority Category										VA To	Grand Total
MARKET	INDIRECT_I	INDIRECT_SL	1	2	3	4	5	6	7	8	Unknown			
Gulf Coast	Behavioral	Behavioral		1				1				-	2	10
		Psychiatry		3				1				-	4	68
	Medicine	Cardiology		18	3	5	2	16			4	1	49	1,146
		Dermatology										-		10
		Endocrinology		2	1		3	2				-	8	149
		Gastroenterology		7			1	5	1			-	14	604
		General Medicine		2				1				1	4	177
		Hematology/Oncology		1				1				-	2	167
		Neonatology										-		53
		Nephrology		1			2	1				-	4	147
		Neurology										-		338
		Ophthalmology										-		18
		Other Specialty Care										-		7
		Otolaryngology										-		45
		Pulmonary		1				1				-	2	667
		Rheumatology										-		17
		Urology										-		171
	Newborn	Newborn										-		44
	Ob/Gyn	Gynecology										-		160
		Obstetrics		2	1							-	3	88
	Surgery	C/T Surgery			1			1	1		1	-	4	306
		Cardiology										-		1
		General Surgery		3		1		2			1	-	7	770
		Neurosurgery										-		210
		Oral Surgery										-		5
		Organ Transplant										-		2
		Orthopedics		1			1	3				-	5	643
		Other Specialty Care										-		3
		Other Surgical Care		2								-	2	61
		Vascular Surgery										-		101
	Other	Other		44	3	5	5	41			3	-	101	9,454
Gulf Coast Total				88	9	11	14	76	2		9	2	211	15,642
Hawaii	Behavioral	Behavioral		1	1		2				1	-	5	5
		Psychiatry		19		1	9	14				-	43	64
	Medicine	Cardiology		32	10	7	4	33	1			-	87	163
		Endocrinology		6		1	3	2				-	12	29
		Gastroenterology		7	1		3	20				-	31	79
		General Medicine		6		2	2	3				-	13	39
		Hematology/Oncology				2		1				2	5	20
		Neonatology										-		25
		Nephrology			1			2				-	3	14
		Neurology										-		36
		Ophthalmology										-		2
		Other Specialty Care						1				-	1	2
		Otolaryngology										-		4
		Pulmonary		5	1	1		1				-	8	56
		Rheumatology						1				-	1	2
		Urology			1			2				-	3	22
	Newborn	Newborn										-		8
	Ob/Gyn	Gynecology										-		9
		Obstetrics										-		26
	Surgery	C/T Surgery		2	1			4				-	7	36
		General Surgery		15	7	1	2	13				-	38	135
		Neurosurgery										-		19
		Oral Surgery										-		1
		Organ Transplant										-		1
		Orthopedics		12	2	3		3			1	-	21	78
		Other Specialty Care						1				-	1	1
		Other Surgical Care						1				-	1	6
		Vascular Surgery						2				-	2	8
	Other	Other		26	5	4	2	23	2		1	-	63	1,174
Hawaii Total				131	30	22	27	127	3		3	2	345	2,064

Table 5.1: Indirect Inpatient Admissions by Service Line and Beneficiary Category

FY	2002												
			VA Priority Category									VA To	Grand Total
MARKET	INDIRECT F	INDIRECT SL	1	2	3	4	5	6	7	8	Unknown		
Puget Sound	Behavioral	Behavioral					1				-	1	28
		Psychiatry		6							-	6	88
	Medicine	Cardiology		29	4			9			1 -	43	429
		Dermatology									-		5
		Endocrinology		9	1						-	10	73
		Gastroenterology		10	2	2	2	3			-	19	245
		General Medicine		13	1		4	1			-	19	108
		Hematology/Oncology		2							-	2	76
		Neonatology									-		81
		Nephrology		8	1	1					1	11	67
		Neurology									-		177
		Ophthalmology									-		5
		Other Specialty Care						1			-	1	11
		Otolaryngology									-		32
		Pulmonary		10				2			-	12	311
		Rheumatology		1							-	1	9
		Urology									-		70
	Newborn	Newborn									-		201
	Ob/Gyn	Gynecology									-		61
		Obstetrics		3	4	1		1		2	-	11	318
	Surgery	C/T Surgery		3	1						1 -	5	135
		Cardiology		1							-	1	1
		General Surgery		13		1		6			1 -	21	455
		Neurosurgery		1							-	1	123
		Oral Surgery									-		3
		Organ Transplant									-		2
		Orthopedics		10	1	1		1			1 -	14	383
		Other Specialty Care		1							-	1	1
		Other Surgical Care		5							-	5	26
		Vascular Surgery		1							-	1	31
	Other	Other		63	3	1	4	5			1 -	77	5,266
Puget Sound Total				189	18	7	11	29		2	5 1	262	8,821
In Migration	Behavioral	Behavioral		2				2			1	5	6
		Psychiatry		10	1	1	6	3			-	21	23
	Medicine	Cardiology		10			1	7			6	24	43
		Dermatology									-		2
		Endocrinology		2				1			1	4	7
		Gastroenterology		8	2	1		1	1		1	14	22
		General Medicine		5			1	1			-	7	9
		Hematology/Oncology						1			1	2	2
		Neonatology									-		1
		Nephrology						1			-	1	5
		Neurology									-		6
		Pulmonary		1	1						-	2	10
		Urology									-		3
	Newborn	Newborn									-		1
	Ob/Gyn	Gynecology			1						-	1	3
		Obstetrics		1	1	1					2	5	8
	Surgery	C/T Surgery						2			1	3	9
		General Surgery		6	4	1		5			1	17	38
		Neurosurgery									-		2
		Orthopedics		2		1		1			-	4	18
		Other Surgical Care									-		2
		Vascular Surgery					1				-	1	1
	Other	Other		18	3	1	1	11			3	37	243
In Migration Total				65	13	6	10	36	1		17	148	464
Grand Total				473	70	46	62	268	6	2	17 22	966	26,991

Table 5.2: Indirect Inpatient Bed Days by Service Line and Beneficiary Category

FY	2002						
			DoD Beneficiary Category				DOD Total
MARKET	INDIRECT PL	INDIRECT SL	AD	ADFM	RT	RTFM	
Gulf Coast	Behavioral	Behavioral	16	3	27	15	61
		Psychiatry	119	34	110	150	413
	Medicine	Cardiology	25	43	1886	1835	3789
		Dermatology			5	45	50
		Endocrinology	3	18	184	405	610
		Gastroenterology	23	153	923	1254	2353
		General Medicine	57	64	354	426	901
		Hematology/Oncology	12	65	428	446	951
		Neonatology		438		95	533
		Nephrology	10	18	272	336	636
		Neurology	21	43	557	822	1443
		Ophthalmology	3	1	28	22	54
		Other Specialty Care		6	37	3	46
		Otolaryngology	9	14	43	64	130
		Pulmonary	27	142	1554	1941	3664
		Rheumatology			44	41	85
		Urology	2	17	429	186	634
	Newborn	Newborn		76		12	88
	Ob/Gyn	Gynecology		32	6	383	421
		Obstetrics	17	189		15	221
	Surgery	C/T Surgery	14	17	1581	907	2519
		Cardiology				6	6
		General Surgery	56	148	2104	2411	4719
		Neurosurgery	36	86	509	516	1147
		Oral Surgery			12	4	16
		Organ Transplant			20	8	28
		Orthopedics	65	70	1297	1485	2917
		Other Specialty Care		6	12		18
		Other Surgical Care	29	71	305	233	638
		Vascular Surgery	7	2	337	160	506
	Other	Other	2210	8794	25246	33096	69346
Gulf Coast Total			2761	10550	38310	47322	98943
Hawaii	Behavioral	Behavioral					
		Psychiatry	99	19	13	65	196
	Medicine	Cardiology	2	3	102	166	273
		Endocrinology		3	12	61	76
		Gastroenterology	3	27	74	72	176
		General Medicine	36	23	30	24	113
		Hematology/Oncology		17	59	37	113
		Neonatology		1325		4	1329
		Nephrology	4	10	5	25	44
		Neurology	3	7	96	124	230
		Ophthalmology		2			2
		Other Specialty Care		1			1
		Otolaryngology	2		21		23
		Pulmonary	6	17	173	159	355
		Rheumatology		1			1
		Urology	2	5	33	42	82
	Newborn	Newborn		15			15
	Ob/Gyn	Gynecology		1		44	45
		Obstetrics	12	40		7	59
	Surgery	C/T Surgery	14	24	165	46	249
		General Surgery	26	139	164	258	587
		Neurosurgery	6	5	30	35	76
		Oral Surgery			2		2
		Organ Transplant				6	6
		Orthopedics	18	13	95	130	256
		Other Specialty Care					
		Other Surgical Care	18		3	2	23
		Vascular Surgery			15	11	26
	Other	Other	288	4116	1523	3272	9199
Hawaii Total			539	5813	2615	4590	13557

Table 5.2: Indirect Inpatient Bed Days by Service Line and Beneficiary Category

FY	2002						
			DoD Beneficiary Category				DOD Total
MARKET	INDIRECT_PL	INDIRECT_SL	AD	ADFM	RT	RTFM	
Puget Sound	Behavioral	Behavioral		212	94	89	395
		Psychiatry	47	376	41	136	600
	Medicine	Cardiology	5	50	560	393	1008
		Dermatology	5		12	4	21
		Endocrinology		48	97	109	254
		Gastroenterology	25	70	275	450	820
		General Medicine	8	52	79	181	320
		Hematology/Oncology	5	62	144	132	343
		Neonatology		644		21	665
		Nephrology	4	11	123	91	229
		Neurology	15	89	316	277	697
		Ophthalmology		9	1	2	12
		Other Specialty Care	2	19	6	26	53
		Otolaryngology	1	28	18	22	69
		Pulmonary	1	196	579	570	1346
		Rheumatology		3	3	5	11
		Urology	7	6	155	52	220
	Newborn	Newborn		307		21	328
	Ob/Gyn	Gynecology	2	33	3	96	134
		Obstetrics	139	557		64	760
	Surgery	C/T Surgery		144	627	427	1198
		Cardiology					
		General Surgery	74	250	908	649	1881
		Neurosurgery	102	111	245	209	667
		Oral Surgery	2			6	8
		Organ Transplant			18		18
		Orthopedics	122	49	468	738	1377
		Other Specialty Care					
		Other Surgical Care	27	17	34	58	136
		Vascular Surgery			72	92	164
	Other	Other	572	6607	17664	21474	46317
Puget Sound Total			1165	9950	22542	26394	60051
In Migration	Behavioral	Behavioral				25	25
		Psychiatry		5		5	10
	Medicine	Cardiology			28	34	62
		Dermatology	2			3	5
		Endocrinology			6	3	9
		Gastroenterology		2	11	34	47
		General Medicine			3	13	16
		Hematology/Oncology					
		Neonatology		3			3
		Nephrology		6	5	4	15
		Neurology			76		76
		Pulmonary			24	16	40
		Urology			5		5
	Newborn	Newborn		1			1
	Ob/Gyn	Gynecology				4	4
		Obstetrics		7			7
	Surgery	C/T Surgery			35	6	41
		General Surgery	1		85	72	158
		Neurosurgery	1			6	7
		Orthopedics	2		8	34	44
		Other Surgical Care			7	7	14
		Vascular Surgery					
	Other	Other	9	172	388	722	1291
In Migration Total			15	196	681	988	1880
Grand Total			4480	26509	64148	79294	174431

Table 5.2: Indirect Inpatient Bed Days by Service Line and Beneficiary Category

FY	2002												
			VA Priority Group									VA Total	Grand Total
MARKET	INDIRECT_F	INDIRECT_SL	1	2	3	4	5	6	7	8	Unknown		
Gulf Coast	Behavioral	Behavioral		2				6			-	8	69
		Psychiatry		10				2			-	12	425
	Medicine	Cardiology		50	4	5	8	51			12 5	135	3924
		Dermatology									-		50
		Endocrinology		11	4		7	4			-	26	636
		Gastroenterology		32			3	20	2		-	57	2410
		General Medicine		16				0			6	22	923
		Hematology/Oncology		3				2			-	5	956
		Neonatology									-		533
		Nephrology		3			16	1			-	20	656
		Neurology									-		1443
		Ophthalmology									-		54
		Other Specialty Care									-		46
		Otolaryngology									-		130
		Pulmonary		14				18			-	32	3696
		Rheumatology									-		85
		Urology									-		634
	Newborn	Newborn									-		88
	Ob/Gyn	Gynecology									-		421
		Obstetrics		5	3						-	8	229
	Surgery	C/T Surgery			5			6	9		5 -	25	2544
		Cardiology									-		6
		General Surgery		5		4		13			12 -	34	4753
		Neurosurgery									-		1147
		Oral Surgery									-		16
		Organ Transplant									-		28
		Orthopedics		3			0	14			-	17	2934
		Other Specialty Care									-		18
		Other Surgical Care		41							-	41	679
		Vascular Surgery									-		506
	Other	Other		173	14	21	19	151			10 -	388	69734
Gulf Coast Total				368	30	30	53	288	11		39 11	830	99773
Hawaii	Behavioral	Behavioral		4	1		9				4 -	18	18
		Psychiatry		100		8	69	85			-	262	458
	Medicine	Cardiology		123	73	31	20	147	2		-	396	669
		Endocrinology		17		5	18	6			-	46	122
		Gastroenterology		28	3		14	112			-	157	333
		General Medicine		42		47	14	10			-	113	226
		Hematology/Oncology				3		4			6	13	126
		Neonatology									-		1329
		Nephrology			2			8			-	10	54
		Neurology									-		230
		Ophthalmology									-		2
		Other Specialty Care						31			-	31	32
		Otolaryngology									-		23
		Pulmonary		48	1	11		12			-	72	427
		Rheumatology						3			-	3	4
		Urology			4			60			-	64	146
	Newborn	Newborn									-		15
	Ob/Gyn	Gynecology									-		45
		Obstetrics									-		59
	Surgery	C/T Surgery		18	8			38			-	64	313
		General Surgery		171	31	3	36	80			-	321	908
		Neurosurgery									-		76
		Oral Surgery									-		2
		Organ Transplant									-		6
		Orthopedics		108	12	22		48			30 -	220	476
		Other Specialty Care						3			-	3	3
		Other Surgical Care						42			-	42	65
		Vascular Surgery						35			-	35	61
	Other	Other		144	27	34	20	145	12		1 -	383	9582
Hawaii Total				803	162	164	200	869	14		35 6	2253	15810

Table 5.2: Indirect Inpatient Bed Days by Service Line and Beneficiary Category

FY	2002												
			VA Priority Group									VA Total	Grand Total
MARKET	INDIRECT_B	INDIRECT_SL	1	2	3	4	5	6	7	8	Unknown		
Puget Sound	Behavioral	Behavioral					4				-	4	399
		Psychiatry		17							-	17	617
	Medicine	Cardiology		56	24			25			0 -	105	1113
		Dermatology									-		21
		Endocrinology		25	4						-	29	283
		Gastroenterology		23	3	8	5	19			-	58	878
		General Medicine		50	3		9	1			-	63	383
		Hematology/Oncology		3							-	3	346
		Neonatology									-		665
		Nephrology		25	2	12					2	41	270
		Neurology									-		697
		Ophthalmology									-		12
		Other Specialty Care						6			-	6	59
		Otolaryngology									-		69
		Pulmonary		29				28			-	57	1403
		Rheumatology		1							-	1	12
		Urology									-		220
	Newborn	Newborn									-		328
	Ob/Gyn	Gynecology									-		134
		Obstetrics		7	6	2		4		5	-	24	784
	Surgery	C/T Surgery		29	5						11 -	45	1243
		Cardiology		6							-	6	6
		General Surgery		54		1		31			11 -	97	1978
		Neurosurgery		6							-	6	673
		Oral Surgery									-		8
		Organ Transplant									-		18
		Orthopedics		87	6	4		2			9 -	108	1485
		Other Specialty Care		3							-	3	3
		Other Surgical Care		32							-	32	168
		Vascular Surgery		10							-	10	174
	Other	Other		240	33	4	14	411			4 -	706	47023
Puget Sound Total				703	86	31	32	527		5	35 2	1421	61472
In Migration	Behavioral	Behavioral		3				13			8	24	49
		Psychiatry		51	0	2	41	10			-	104	114
	Medicine	Cardiology		25			2	13			21	61	123
		Dermatology									-		5
		Endocrinology		3				0			8	11	20
		Gastroenterology		385	9	1		13	2		1	411	458
		General Medicine		59			6	1			-	66	82
		Hematology/Oncology						1			, 3	4	4
		Neonatology									-		3
		Nephrology						17			-	17	32
		Neurology									-		76
		Pulmonary		2	2						-	4	44
		Urology									-		5
	Newborn	Newborn									-		1
	Ob/Gyn	Gynecology			2						-	2	6
		Obstetrics		3	0	4					6	13	20
	Surgery	C/T Surgery						25			6	31	72
		General Surgery		35	14	1		32			2	84	242
		Neurosurgery									-		7
		Orthopedics		21		2		40			-	63	107
		Other Surgical Care									-		14
		Vascular Surgery					2				-	2	2
	Other	Other		290	7	2	2	28			56	385	1676
In Migration Total				877	34	12	53	193	2		111	1282	3162
Grand Total				2751	312	237	338	1877	27	5	109 130	5786	180217

Table 5.3: Indirect Outpatient Visits by Submarket, Product Line and Beneficiary Category

FY	2002						
			DoD Beneficiary Category				DOD Total
MARKET	SUBMARKET	INDIRECT_PL	AD	ADFM	RT	RTFM	
Gulf Coast	Biloxi/Gulfport	Ancillary Services	49	3,505	275	852	4,681
		Behavioral Health	175	7,134	1,053	3,834	12,196
		Medical Specialty	918	3,870	11,633	14,118	30,539
		Ob/Gyn	10	265	18	829	1,122
		Outpatient Specialty	16	999	887	1,713	3,615
		Primary Care	716	5,820	8,731	15,373	30,640
		Surgical Specialty	301	1,513	6,619	7,871	16,304
		Other	771	3,482	13,802	15,332	33,387
		(blank)					
	Eglin	Ancillary Services	46	587	1,420	2,672	4,725
		Behavioral Health	310	13,173	2,758	10,231	26,472
		Medical Specialty	2,340	14,220	16,313	21,927	54,800
		Ob/Gyn	29	564	76	3,759	4,428
		Outpatient Specialty	105	6,748	2,179	4,372	13,404
		Primary Care	2,641	11,479	21,747	36,540	72,407
		Surgical Specialty	623	1,871	11,531	12,649	26,674
		Other	1,216	2,069	23,723	29,398	56,406
		(blank)					
	Mobile	Ancillary Services	33	278	439	796	1,546
		Behavioral Health	104	894	422	1,501	2,921
		Medical Specialty	323	910	4,907	6,419	12,559
		Ob/Gyn	32	591	35	1,668	2,326
		Outpatient Specialty	12	319	495	990	1,816
		Primary Care	383	6,560	9,867	16,263	33,073
		Surgical Specialty	306	915	4,873	5,609	11,703
		Other	385	1,477	16,368	15,283	33,513
		(blank)					
	Panama City	Ancillary Services	55	147	585	842	1,629
		Behavioral Health	449	4,004	890	3,940	9,283
		Medical Specialty	1,758	4,321	8,273	12,811	27,163
		Ob/Gyn	171	838	23	1,040	2,072
		Outpatient Specialty	34	2,051	1,475	2,370	5,930
		Primary Care	1,124	6,053	15,208	22,010	44,395
		Surgical Specialty	2,045	1,986	7,059	8,104	19,194
		Other	3,106	3,543	17,306	19,218	43,173
		(blank)					
	Pensacola	Ancillary Services	2,480	5,672	4,290	6,616	19,058
		Behavioral Health	93	8,146	2,237	7,826	18,302
		Medical Specialty	1,375	5,489	15,669	19,708	42,241
		Ob/Gyn	93	632	444	2,842	4,011
		Outpatient Specialty	70	8,249	1,701	3,476	13,496
		Primary Care	4,096	15,330	32,670	52,174	104,270
		Surgical Specialty	379	2,180	15,802	17,672	36,033
		Other	651	3,126	23,780	29,264	56,821
		(blank)					
Gulf Coast Total			29,823	161,010	307,583	439,912	938,328

Table 5.3: Indirect Outpatient Visits by Submarket, Product Line and Beneficiary Category

FY	2002						
			DoD Beneficiary Category				DOD Total
MARKET	SUBMARKET	INDIRECT_PL	AD	ADFM	RT	RTFM	
Hawaii	Kauai	Ancillary Services	18	48	29	62	157
		Behavioral Health	29	57	24	99	209
		Medical Specialty	67	68	215	101	451
		Ob/Gyn	7	27	3	46	83
		Outpatient Specialty	2	12	5	9	28
		Primary Care	205	771	702	1,064	2,742
		Surgical Specialty	60	71	159	286	576
		Other	72	111	658	911	1,752
	Maui	Ancillary Services	0	14	37	31	82
		Behavioral Health	3	36	4	27	70
		Medical Specialty	52	157	231	515	955
		Ob/Gyn	1	40	1	76	118
		Outpatient Specialty	1	15	14	4	34
		Primary Care	181	857	810	1,246	3,094
		Surgical Specialty	24	74	393	319	810
		Other	16	40	554	756	1,366
	Oahu	Ancillary Services	127	11,114	569	1,785	13,595
		Behavioral Health	304	11,038	578	2,269	14,189
		Medical Specialty	3,341	6,913	7,816	10,025	28,095
		Ob/Gyn	19	2,268	18	2,107	4,412
		Outpatient Specialty	110	6,209	713	1,189	8,221
		Primary Care	1,384	47,182	11,267	21,088	80,921
		Surgical Specialty	338	1,864	4,412	5,842	12,456
		Other	1,658	6,402	14,238	17,495	39,793
		(blank)					
	The Big Island	Ancillary Services	5	4	9	33	51
		Behavioral Health	3	102	72	163	340
		Medical Specialty	369	271	1,060	2,055	3,755
		Ob/Gyn	3	125	6	327	461
		Outpatient Specialty	21	53	37	75	186
		Primary Care	247	1,250	2,142	2,964	6,603
		Surgical Specialty	36	83	696	673	1,488
		Other	58	79	1,396	1,317	2,850
		(blank)					
Hawaii Total			8,761	97,355	48,868	74,959	229,943

Table 5.3: Indirect Outpatient Visits by Submarket, Product Line and Beneficiary Category

FY	2002						
			DoD Beneficiary Category				DOD Total
MARKET	SUBMARKET	INDIRECT PL	AD	ADFM	RT	RTFM	
Puget Sound	North Sound	Ancillary Services	100	2,443	562	1,658	4,763
		Behavioral Health	69	4,037	527	1,745	6,378
		Medical Specialty	574	3,991	3,132	5,282	12,979
		Ob/Gyn	81	813	34	390	1,318
		Outpatient Specialty	30	6,287	617	846	7,780
		Primary Care	566	13,503	7,020	13,065	34,154
		Surgical Specialty	85	2,273	2,823	3,689	8,870
		Other	1,558	8,159	21,029	21,457	52,203
		(blank)					
	Seattle	Ancillary Services	141	360	174	369	1,044
		Behavioral Health	111	683	288	954	2,036
		Medical Specialty	1,137	1,065	2,425	3,034	7,661
		Ob/Gyn	15	157	57	301	530
		Outpatient Specialty	35	2,425	230	415	3,105
		Primary Care	497	6,172	3,792	6,845	17,306
		Surgical Specialty	146	375	1,509	2,002	4,032
		Other	578	1,642	13,717	16,031	31,968
		(blank)					
	South	Ancillary Services	41	2,005	995	2,683	5,724
		Behavioral Health	112	7,558	689	3,611	11,970
		Medical Specialty	252	12,634	4,747	7,729	25,362
		Ob/Gyn	19	432	26	727	1,204
		Outpatient Specialty	45	19,546	1,118	2,994	23,703
		Primary Care	511	23,873	10,196	20,769	55,349
		Surgical Specialty	123	1,031	3,235	5,070	9,459
		Other	902	6,720	25,372	32,561	65,555
		(blank)					
	West Sound	Ancillary Services	119	1,836	585	1,607	4,147
		Behavioral Health	43	5,517	737	2,750	9,047
		Medical Specialty	832	4,748	3,310	5,300	14,190
		Ob/Gyn	16	222	21	437	696
		Outpatient Specialty	116	8,988	799	1,663	11,566
		Primary Care	288	4,998	5,990	9,916	21,192
		Surgical Specialty	133	946	2,137	3,128	6,344
		Other	596	2,314	15,567	17,403	35,880
		(blank)					
Puget Sound Total			9,871	157,753	133,460	196,431	497,515
In Migration	In Migration	Behavioral Health					
		Medical Specialty					
		Ob/Gyn					
		Outpatient Specialty					
		Primary Care					
		Surgical Specialty					
		Other					
		(blank)					
In Migration Total							
Grand Total			48,455	416,118	489,911	711,302	1,665,786

Table 5.3: Indirect Outpatient Visits by Submarket, Product Line and Beneficiary Category

FY	2002											
			VA Priority Group								VA Total	Grand Total
MARKET	SUBMARKE	INDIRECT_PL	1	2	3	4	5	6	7	8	Unknown		
Gulf Coast	Biloxi/Gulfpo	Ancillary Services									-		4,681
		Behavioral Health	145		1				1		-	147	12,343
		Medical Specialty	2,352	347	288	1,171	1,162	7	3	235	364	5,929	36,468
		Ob/Gyn					8			15	-	23	1,145
		Outpatient Specialty									1	1	3,616
		Primary Care	2	1	103		18				1	125	30,765
		Surgical Specialty	526	110	172	521	472	1	7	145	1	1,955	18,259
		Other	22	13	12	3	21		1	10	-	82	33,469
		(blank)	216	240	287	2	202	2		87	84	1,120	1,120
	Eglin	Ancillary Services									-		4,725
		Behavioral Health	567	5						2	114	688	27,160
		Medical Specialty	1,461	214	213	208	110	12	8	33	626	2,885	57,685
		Ob/Gyn									-		4,428
		Outpatient Specialty	3								-	3	13,407
		Primary Care	27	5	4		15				14	65	72,472
		Surgical Specialty	674	140	158	293	129	3	3	18	55	1,473	28,147
		Other	51	6	6		8			1	18	90	56,496
		(blank)	52		5	4	24			1	10	96	96
	Mobile	Ancillary Services									-		1,546
		Behavioral Health	34				1				27	62	2,983
		Medical Specialty	1,513	110	241	293	975	3	3	84	27	3,249	15,808
		Ob/Gyn									-		2,326
		Outpatient Specialty		4							-	4	1,820
		Primary Care	1	2	3	6	3				8	23	33,096
		Surgical Specialty	1,221	198	222	669	552	3	2	115	11	2,993	14,696
		Other	53	10	30	3	71			6	2	175	33,688
		(blank)	271	220	213	2	77	8		63	61	915	915
	Panama City	Ancillary Services									-		1,629
		Behavioral Health	306	1			1				36	344	9,627
		Medical Specialty	1,358	244	190	42	169	7	4	110	192	2,316	29,479
		Ob/Gyn	21								-	21	2,093
		Outpatient Specialty	10								-	10	5,940
		Primary Care	12								4	16	44,411
		Surgical Specialty	1,876	206	274	107	315	4	4	71	63	2,920	22,114
		Other	65	5	5		18	1	4	7	4	109	43,282
		(blank)	20	5	3		49			2	3	82	82
	Pensacola	Ancillary Services									-		19,058
		Behavioral Health	92	1	1		1				37	132	18,434
		Medical Specialty	2,011	293	238	238	681	5	10	72	421	3,969	46,210
		Ob/Gyn	1								-	1	4,012
		Outpatient Specialty									-		13,496
		Primary Care	36				14				5	55	104,325
		Surgical Specialty	1,853	402	403	34	363	8	11	90	20	3,184	39,217
		Other	81	8	12	85	20		1	3	-	210	57,031
		(blank)	65	21	60	3	156				-	305	305
Gulf Coast Total			16,998	2,811	3,144	3,684	5,635	65	61	1,170	2,209	35,777	974,105

Table 5.3: Indirect Outpatient Visits by Submarket, Product Line and Beneficiary Category

FY	2002												
			VA Priority Group									VA Total	Grand Total
MARKET	SUBMARKE	INDIRECT_PL	1	2	3	4	5	6	7	8	Unknown		
Hawaii	Kauai	Ancillary Services									-		157
		Behavioral Health	38	36	18	27	90			16	-	225	434
		Medical Specialty	1,387	431	362	83	1,459	3	25	527	1	4,278	4,729
		Ob/Gyn									-		83
		Outpatient Specialty	2								-	2	30
		Primary Care	295	122	187	6	357	17	13	249	-	1,246	3,988
		Surgical Specialty	285	118	125	4	259	5	9	63	-	868	1,444
		Other	235	35	93	3	191		11	135	2	705	2,457
	Maui	Ancillary Services									-		82
		Behavioral Health	56		3		24			10	-	93	163
		Medical Specialty	1,154	353	356	99	1,534	3		138	10	3,647	4,602
		Ob/Gyn									-		118
		Outpatient Specialty	2				1				-	3	37
		Primary Care	77	25	40		27	1		5	-	175	3,269
		Surgical Specialty	579	70	79	46	325	2	8	23	-	1,132	1,942
		Other	113	16	35	14	96	6	1	33	2	316	1,682
	Oahu	Ancillary Services									-		13,595
		Behavioral Health	11				13	8			-	32	14,221
		Medical Specialty	3,277	244	375	304	767		24	95	10	5,096	33,191
		Ob/Gyn									-		4,412
		Outpatient Specialty	11								-	11	8,232
		Primary Care	90								-	90	81,011
		Surgical Specialty	598	175	153	45	128	3		4	1	1,107	13,563
		Other	216	106	146	2	77	1	4	30	52	634	40,427
		(blank)	4	4	4				1		3	16	16
	The Big Islan	Ancillary Services									-		51
		Behavioral Health	132		5	24	74			17	-	252	592
		Medical Specialty	2,672	220	491	349	2,209	4	28	168	78	6,219	9,974
		Ob/Gyn									-		461
		Outpatient Specialty	1	4	13		11				-	29	215
		Primary Care	75	14	12	8	162			4	-	275	6,878
		Surgical Specialty	1,277	214	399	102	959		6	103	3	3,063	4,551
		Other	639	74	91	37	370	1	3	36	9	1,260	4,110
		(blank)	15				23				-	38	38
Hawaii Total			13,241	2,261	2,987	1,153	9,156	54	133	1,656	171	30,812	260,755

Table 5.3: Indirect Outpatient Visits by Submarket, Product Line and Beneficiary Category

FY	2002												
			VA Priority Group									VA Total	Grand Total
MARKET	SUBMARKE	INDIRECT_PL	1	2	3	4	5	6	7	8	Unknown		
Puget Sound	North Sound	Ancillary Services									-		4,763
		Behavioral Health	4,200	151	74	142	42			7	601	5,217	11,595
		Medical Specialty	4,423	507	841	1,672	639	20	19	235	343	8,699	21,678
		Ob/Gyn		17	1						-	18	1,336
		Outpatient Specialty									-		7,780
		Primary Care	98	24	33	1	70			31	65	322	34,476
		Surgical Specialty	2,688	223	154	65	208	1		55	412	3,806	12,676
		Other	533	108	68	16	137	8		71	127	1,068	53,271
		(blank)	84	30	47	32	99			14	16	322	322
	Seattle	Ancillary Services									-		1,044
		Behavioral Health	1,073	41	67	39	22			8	89	1,339	3,375
		Medical Specialty	2,723	290	274	2,044	783	44	6	271	68	6,503	14,164
		Ob/Gyn	48	25	28	8	31		13		-	153	683
		Outpatient Specialty	1								-	1	3,106
		Primary Care	30	12	6	3	60	2	5	44	14	176	17,482
		Surgical Specialty	971	66	155	41	235		34	71	41	1,614	5,646
		Other	186	51	97	21	202		3	96	11	667	32,635
		(blank)	55	14	16	20	62				-	167	167
	South	Ancillary Services									-		5,724
		Behavioral Health	1,181	56	11	23	5			1	61	1,338	13,308
		Medical Specialty	3,850	327	427	2,567	371	121	1	267	50	7,981	33,343
		Ob/Gyn	142	28	38		3		47		-	258	1,462
		Outpatient Specialty	3						1		-	4	23,707
		Primary Care	8	3			2			1	-	14	55,363
		Surgical Specialty	2,902	180	135	71	260	8	1	51	52	3,660	13,119
		Other	168	24	14	25	45	1	2	10	7	296	65,851
		(blank)	242	9	28	8	124			9	-	420	420
	West Sound	Ancillary Services									-		4,147
		Behavioral Health	2,137	42	17	6	41				164	2,407	11,454
		Medical Specialty	2,148	463	149	599	302	2	1	65	119	3,848	18,038
		Ob/Gyn			11			4			-	15	711
		Outpatient Specialty									-		11,566
		Primary Care	69			3	2				11	85	21,277
		Surgical Specialty	1,928	189	138	30	75	13	2	26	217	2,618	8,962
		Other	285	75	39	29	28	2	2	33	29	522	36,402
		(blank)	31	63	17	21	35		2	9	-	178	178
Puget Sound Total			32,207	3,018	2,885	7,486	3,883	226	139	1,375	2,497	53,716	551,231
In Migration	In Migration	Behavioral Health	941	40	2	41	85		12	1	178	1,300	1,300
		Medical Specialty	5,579	439	608	1,552	1,292	2	29	172	2,078	11,751	11,751
		Ob/Gyn	31	19	23						-	73	73
		Outpatient Specialty	56	5		2	1				25	89	89
		Primary Care	121	14	22	14	15		5	24	42	257	257
		Surgical Specialty	2,487	190	249	173	537	2	10	114	239	4,001	4,001
		Other	342	52	68	12	153	2		19	225	873	873
		(blank)	105	49	66	50	174	3		10	129	586	586
In Migration Total			9,662	808	1,038	1,844	2,257	9	56	340	2,916	18,930	18,930
Grand Total			72,108	8,898	10,054	14,167	20,931	354	389	4,541	7,793	139,235	1,805,021

Table 5.4: Indirect Outpatient Visits by Service Line and Beneficiary Category

	FY	2002					
			DoD Beneficiary Category				DOD Total
MARKET	INDIRECT_PL	INDIRECT_SL	AD	ADFM	RT	RTFM	
Gulf Coast	Ancillary Services	Imaging	39	263	1,372	1,704	3,378
		Lab	6	36	409	489	940
		Pathology	2	18	151	253	424
		Pharmacy	3	25	124	60	212
		P/C Non-MD Services	2,613	9,847	4,953	9,272	26,685
	Behavioral Health	Mental Health	1,131	33,351	7,360	27,332	69,174
		Psychiatry					
	Medical Specialty	Adverse Reactions					
		Allergy					
		Cardiology	560	798	18,640	15,252	35,250
		Dermatology	219	1,274	3,042	4,405	8,940
		Ear, Nose, Throat					
		Endocrinology	95	815	640	1,499	3,049
		Gastroenterology	510	973	4,091	5,833	11,407
		Hematology/Oncology					
		Immunology	1,058	5,253	2,730	9,383	18,424
		Infectious Disease					
		Injury					
		Nephrology	53	358	3,627	2,872	6,910
		Neurology	1,951	3,198	6,697	9,641	21,487
		Pulmonary/Respiratory Disease	150	170	2,925	2,963	6,208
		Rehabilitation	2,118	15,971	14,403	23,135	55,627
		Rheumatology					
	Ob/Gyn	Gynecology	335	2,886	595	10,130	13,946
		Obstetrics		4	1	8	13
	Outpatient Specialty	Audiology/Speech/Hearing	40	7,806	104	1,043	8,993
		Geriatrics	1	1	204	227	433
		Home-based/Outreach Care	112	3,147	1,786	4,890	9,935
		Nutritional					
		Optometry	80	7,345	4,495	6,604	18,524
		Dental	4	67	148	157	376
	Primary Care	Family Practice	7,884	25,843	54,252	86,999	174,978
		Internal Medicine	993	4,969	33,697	49,778	89,437
		Pediatrics	83	14,430	274	5,583	20,370
		Special Pediatrics					
	Surgical Specialty	Cardio/Thoracic	28	125	447	507	1,107
		General Surgery	708	1,342	5,807	9,329	17,186
		Gynecology					
		Neurosurgery	308	310	853	1,183	2,654
		Ophthalmology					
		Oral Surgery					
		Orthopedics	1,436	2,117	8,769	13,246	25,568
		Otolaryngology	494	1,815	3,606	5,239	11,154
		Plastic Surgery	106	346	474	639	1,565
		Proctology	1	3	60	66	130
		Urology	279	496	15,541	8,201	24,517
		Opthalmology	294	1,911	10,327	13,495	26,027
	Other	Other	6,129	13,697	94,979	108,495	223,300
		Unknown					
	(blank)	(blank)					
Gulf Coast Total			29,823	161,010	307,583	439,912	938,328

Table 5.4: Indirect Outpatient Visits by Service Line and Beneficiary Category

	FY	2002					
			DoD Beneficiary Category				DOD Total
MARKET	INDIRECT_PL	INDIRECT_SL	AD	ADFM	RT	RTFM	
Hawaii	Ancillary Services	Imaging	6	24	110	112	252
		Lab	1	1	168	183	353
		Pathology	0	2	2	1	5
		Pharmacy	0	4	3	6	13
		P/C Non-MD Services	143	11,149	361	1,609	13,262
	Behavioral Health	Mental Health	339	11,233	678	2,558	14,808
		Psychiatry					
	Medical Specialty	Adverse Reactions					
		Allergy					
		Cardiology	97	166	1,721	1,249	3,233
		Dermatology	45	1,187	703	1,228	3,163
		Ear, Nose, Throat					
		Endocrinology	2	52	284	421	759
		Gastroenterology	130	588	990	1,132	2,840
		Hematology/Oncology					
		Immunology	5	233	163	495	896
		Infectious Disease					
		Injury					
		Nephrology		74	265	482	821
		Neurology	92	421	411	626	1,550
		Pulmonary/Respiratory Disease	38	29	243	253	563
		Rehabilitation	3,420	4,659	4,542	6,810	19,431
		Rheumatology					
	Ob/Gyn	Gynecology	30	2,456	28	2,555	5,069
		Obstetrics		4		1	5
	Outpatient Specialty	Audiology/Speech/Hearing	29	356	54	67	506
		Geriatrics			59	57	116
		Home-based/Outreach Care	17	232	55	87	391
		Nutritional					
		Optometry	75	5,691	598	1,059	7,423
		Nutrition	13	0			13
		Dental	0	10	3	7	20
	Primary Care	Family Practice	1,653	20,061	5,539	9,872	37,125
		Internal Medicine	341	3,075	9,294	12,953	25,663
		Pediatrics	23	26,924	88	3,537	30,572
		Special Pediatrics					
	Surgical Specialty	Cardio/Thoracic	1	12	38	11	62
		General Surgery	149	505	490	978	2,122
		Gynecology					
		Neurosurgery	12	13	44	51	120
		Ophthalmology					
		Oral Surgery					
		Orthopedics	115	278	1,084	1,841	3,318
		Otolaryngology	15	224	505	670	1,414
		Plastic Surgery	34	179	85	68	366
		Proctology			1		1
		Urology	29	42	872	236	1,179
		Opthalmology	103	839	2,541	3,265	6,748
	Other	Other	1,804	6,632	16,846	20,479	45,761
		Unknown					
	(blank)	(blank)					
Hawaii Total			8,761	97,355	48,868	74,959	229,943

Table 5.4: Indirect Outpatient Visits by Service Line and Beneficiary Category

	FY	2002					
			DoD Beneficiary Category				DOD Total
MARKET	INDIRECT_PL	INDIRECT_SL	AD	ADFM	RT	RTFM	
Puget Sound	Ancillary Services	Imaging	22	108	212	256	598
		Lab	2	5	118	91	216
		Pathology	3	4	10	3	20
		Pharmacy	3	5	12	117	137
		P/C Non-MD Services	371	6,522	1,964	5,850	14,707
	Behavioral Health	Mental Health	335	17,795	2,241	9,060	29,431
		Psychiatry					
	Medical Specialty	Adverse Reactions					
		Allergy					
		Cardiology	152	526	3,082	2,302	6,062
		Dermatology	54	630	1,025	1,516	3,225
		Ear, Nose, Throat					
		Endocrinology	13	198	258	406	875
		Gastroenterology	27	307	591	1,038	1,963
		Hematology/Oncology					
		Immunology	11	811	239	867	1,928
		Infectious Disease					
		Injury					
		Nephrology	5	173	883	921	1,982
		Neurology	39	584	806	1,127	2,556
		Pulmonary/Respiratory Disease	25	177	962	930	2,094
		Rehabilitation	2,469	19,032	5,768	12,238	39,507
		Rheumatology					
	Ob/Gyn	Gynecology	128	1,406	84	1,736	3,354
		Obstetrics	3	218	54	119	394
		Perinatal/Newborn					
	Outpatient Specialty	Audiology/Speech/Hearing	7	10,918	115	1,490	12,530
		Geriatrics			10	7	17
		Home-based/Outreach Care	32	22,337	204	683	23,256
		Nutritional					
		Optometry	184	3,712	2,392	3,521	9,809
		Nutrition		2	7	5	14
		Dental	3	277	36	212	528
	Primary Care	Family Practice	1,495	15,902	16,221	28,785	62,403
		Internal Medicine	327	2,712	10,704	15,932	29,675
		Pediatrics	40	29,932	73	5,878	35,923
		Special Pediatrics					
	Surgical Specialty	Cardio/Thoracic	1	29	37	62	129
		General Surgery	74	539	912	1,525	3,050
		Gynecology					
		Neurosurgery	25	101	155	190	471
		Ophthalmology					
		Oral Surgery					
		Orthopedics	208	1,697	2,854	4,988	9,747
		Otolaryngology	64	1,115	781	1,445	3,405
		Plastic Surgery	6	89	91	154	340
		Proctology	2	11	60	77	150
		Urology	31	184	1,401	464	2,080
		Opthalmology	76	860	3,413	4,984	9,333
	Other	Other	3,634	18,835	75,685	87,452	185,606
		Unknown					
	(blank)	(blank)					
Puget Sound Total			9,871	157,753	133,460	196,431	497,515
In Migration	Behavioral Health	Psychiatry					

Table 5.4: Indirect Outpatient Visits by Service Line and Beneficiary Category

	FY	2002					
			DoD Beneficiary Category				DOD Total
MARKET	INDIRECT_PL	INDIRECT_SL	AD	ADFM	RT	RTFM	
	Medical Specialty	Adverse Reactions					
		Allergy					
		Cardiology					
		Dermatology					
		Ear, Nose, Throat					
		Endocrinology					
		Gastroenterology					
		Hematology/Oncology					
		Infectious Disease					
		Injury					
		Nephrology					
		Neurology					
		Pulmonary/Respiratory Disease					
		Rheumatology					
	Ob/Gyn	Obstetrics					
		Perinatal/Newborn					
	Outpatient Specialty	Nutritional					
	Primary Care	Special Pediatrics					
	Surgical Specialty	General Surgery					
		Gynecology					
		Neurosurgery					
		Ophthalmology					
		Oral Surgery					
		Orthopedics					
		Urology					
	Other	Other					
		Unknown					
	(blank)	(blank)					
In Migration Total							
Grand Total			48,455	416,118	489,911	711,302	1,665,786

Table 5.4: Indirect Outpatient Visits by Service Line and Beneficiary Category

FY	2002											
MARKET	INDIRECT_PL	INDIRECT_SL	1	2	3	4	5	6	7	8	Unknown	VA Total	Grand Total
Gulf Coast	Ancillary Services	Imaging											3,378
		Lab											940
		Pathology											424
		Pharmacy											212
		P/C Non-MD Services											26,685
	Behavioral Health	Mental Health									-		69,174
		Psychiatry	1,144	7	2		3	1		2	214	1,373	1,373
	Medical Specialty	Adverse Reactions	26				3				3	32	32
		Allergy	216	85	65						120	486	486
		Cardiology	1,106	100	97	152	320	4	1	46	240	2,066	37,316
		Dermatology	172	68	135	2	5		1		35	418	9,358
		Ear, Nose, Throat	235	150	148	16	80	7	13	75	296	1,020	1,020
		Endocrinology	504	151	64	100	99	2	3	42	22	987	4,036
		Gastroenterology	143	17	19	17	78	1		5	13	293	11,700
		Hematology/Oncology	1,259	135	281	328	1,598	9	2	280	21	3,913	3,913
		Immunology									-		18,424
		Infectious Disease	32	7	3		26				-	68	68
		Injury	505	52	114	246	144		1	5	14	1,081	1,081
		Nephrology	1,556	2	2	77	465			5	382	2,489	9,399
		Neurology	1,124	227	198	613	138	11	7	62	368	2,748	24,235
		Pulmonary/Respiratory Disease	854	98	13	393	112			13	50	1,533	7,741
		Rehabilitation									-		55,627
		Rheumatology	963	116	31	8	29			1	66	1,214	1,214
	Ob/Gyn	Gynecology									-		13,946
		Obstetrics	22				8			15	-	45	58
	Outpatient Specialty	Audiology/Speech/Hearing									-		8,993
		Geriatrics									-		433
		Home-based/Outreach Care									-		9,935
		Nutritional	13	4							1	18	18
		Optometry									-		18,524
		Dental									-		376
	Primary Care	Family Practice									-		174,978
		Internal Medicine									-		89,437
		Pediatrics									-		20,370
		Special Pediatrics	78	8	110	6	50				32	284	284
	Surgical Specialty	Cardio/Thoracic									-		1,107
		General Surgery	438	87	198	175	416		11	119	34	1,478	18,664
		Gynecology	12	5	6		17		1	4	-	45	45
		Neurosurgery	229	20	15		12			2	15	293	2,947
		Ophthalmology	1,638	593	691	118	1,037	11	9	229	38	4,364	4,364
		Oral Surgery	146	4	2	33					6	191	191
		Orthopedics	1,686	324	297	44	292	8	5	84	42	2,782	28,350
		Otolaryngology									-		11,154
		Plastic Surgery									-		1,565
		Proctology									-		130
		Urology	2,001	23	20	1,254	57		1	1	15	3,372	27,889
		Opthalmology									-		26,027
	Other	Other	272	42	61	91	138	1	6	27	24	662	223,962
		Unknown			4						-	4	4
	(blank)	(blank)	624	486	568	11	508	10		153	158	2,518	2,518
Gulf Coast Total			16,998	2,811	3,144	3,684	5,635	65	61	1,170	2,209	35,777	974,105

Table 5.4: Indirect Outpatient Visits by Service Line and Beneficiary Category

FY	2002											
											VA Total	Grand Total
MARKET	INDIRECT_PL	INDIRECT_SL	1	2	3	4	5	6	7	8	Unknown		
Hawaii	Ancillary Services	Imaging									-		252
		Lab									-		353
		Pathology									-		5
		Pharmacy									-		13
		P/C Non-MD Services									-		13,262
	Behavioral Health	Mental Health									-		14,808
		Psychiatry		237	36	26	51	201	8		43 -	602	602
	Medical Specialty	Adverse Reactions		47		5	12	1			1	66	66
		Allergy		76		3		76			17 -	172	172
		Cardiology		1,294	232	370	65	1,318	4	23	303 1	3,610	6,843
		Dermatology		211	36	38	4	54			6 1	350	3,513
		Ear, Nose, Throat		179	95	171	2	53	3	23	4 3	533	533
		Endocrinology		693	151	188	83	1,108	1	10	206 -	2,440	3,199
		Gastroenterology		792	117	187	49	706		8	170 9	2,038	4,878
		Hematology/Oncology		822	84	102	193	390		2	116 43	1,752	1,752
		Immunology									-		896
		Infectious Disease		21		22	47	73			2 2	167	167
		Injury		399	93	111	169	290			9 -	1,071	1,071
		Nephrology		2,458	217	4	102	1,010			6 -	3,797	4,618
		Neurology		359	67	122	59	196			20 25	848	2,398
		Pulmonary/Respiratory Disease		672	53	131	43	538	2	10	34 3	1,486	2,049
		Rehabilitation									-		19,431
		Rheumatology		467	103	130	7	156		1	35 11	910	910
	Ob/Gyn	Gynecology									-		5,069
		Obstetrics									-		5
	Outpatient Specialty	Audiology/Speech/Hearing									-		506
		Geriatrics									-		116
		Home-based/Outreach Care									-		391
		Nutritional		16	4	13		12			-	45	45
		Optometry									-		7,423
		Nutrition									-		13
		Dental									-		20
	Primary Care	Family Practice									-		37,125
		Internal Medicine									-		25,663
		Pediatrics									-		30,572
		Special Pediatrics		537	161	239	14	546	18	13	258 -	1,786	1,786
	Surgical Specialty	Cardio/Thoracic									-		62
		General Surgery		663	96	141	49	602	2	15	80 -	1,648	3,770
		Gynecology		22				22			9 -	53	53
		Neurosurgery		83	49	98	1	38			2 -	271	391
		Ophthalmology		182	30	42	15	109			-	378	378
		Oral Surgery		58		1		3			-	62	62
		Orthopedics		1,271	324	320	64	448	2	6	35 4	2,474	5,792
		Otolaryngology									-		1,414
		Plastic Surgery									-		366
		Proctology									-		1
		Urology		460	78	154	68	449	6	2	67 -	1,284	2,463
		Opthalmology									-		6,748
	Other	Other		1,199	231	365	56	734	8	19	234 65	2,911	48,672
		Unknown		4							-	4	4
	(blank)	(blank)		19	4	4		23		1	3	54	54
Hawaii Total				13,241	2,261	2,987	1,153	9,156	54	133	1,656 171	30,812	260,755

Table 5.4: Indirect Outpatient Visits by Service Line and Beneficiary Category

FY	2002											
MARKET	INDIRECT_PL	INDIRECT_SL	1	2	3	4	5	6	7	8	Unknown	VA Total	Grand Total
Puget Sound	Ancillary Services	Imaging									-		598
		Lab									-		216
		Pathology									-		20
		Pharmacy									-		137
		P/C Non-MD Services									-		14,707
	Behavioral Health	Mental Health									-		29,431
		Psychiatry	8,591	290	169	210	110			16	915	10,301	10,301
	Medical Specialty	Adverse Reactions	227	63	6	4	27	2		22	22	373	373
		Allergy	315	82	84	18	17	9		12	20	557	557
		Cardiology	1,316	136	119	61	424	1	7	127	129	2,320	8,382
		Dermatology	390	31	23	10	73	42		20	38	627	3,852
		Ear, Nose, Throat	165	32	63	25	80	2		93	27	487	487
		Endocrinology	834	112	112	6	289		14	164	88	1,619	2,494
		Gastroenterology	4,645	704	721	6,376	226	13		200	22	12,907	14,870
		Hematology/Oncology	651	112	169	159	358	112	3	61	49	1,674	1,674
		Immunology									-		1,928
		Infectious Disease	23		20		73			8	14	138	138
		Injury	1,096	126	171	28	157			33	37	1,648	1,648
		Nephrology	422	10	2	3	15	2		6	3	463	2,445
		Neurology	1,285	25	37	109	107		2	33	65	1,663	4,219
		Pulmonary/Respiratory Disease	1,393	78	124	63	188	4		27	44	1,921	4,015
		Rehabilitation									-		39,507
		Rheumatology	382	76	40	20	61		1	32	22	634	634
	Ob/Gyn	Gynecology									-		3,354
		Obstetrics	184	62	63	6	34	4	58		-	411	805
		Perinatal/Newborn	6	8	15	2			2		-	33	33
	Outpatient Specialty	Audiology/Speech/Hearing									-		12,530
		Geriatrics									-		17
		Home-based/Outreach Care									-		23,256
		Nutritional	4						1		-	5	5
		Optometry									-		9,809
		Nutrition									-		14
		Dental									-		528
	Primary Care	Family Practice									-		62,403
		Internal Medicine									-		29,675
		Pediatrics									-		35,923
		Special Pediatrics	205	39	39	7	134	2	5	76	90	597	597
	Surgical Specialty	Cardio/Thoracic									-		129
		General Surgery	722	103	123	63	179	2	8	42	82	1,324	4,374
		Gynecology	43	2	14	4	11	8		3	-	85	85
		Neurosurgery	225	7	44	63	35			10	1	385	856
		Ophthalmology	251	24	18	3	17		27		43	383	383
		Oral Surgery	4,788	137	94	3	68			62	439	5,591	5,591
		Orthopedics	1,979	353	263	55	369	12	2	61	106	3,200	12,947
		Otolaryngology									-		3,405
		Plastic Surgery									-		340
		Proctology									-		150
		Urology	481	32	26	16	99			25	51	730	2,810
		Opthalmology									-		9,333
	Other	Other	1,171	258	218	91	412	11	7	210	174	2,552	188,158
		Unknown	1								-	1	1
	(blank)	(blank)	412	116	108	81	320		2	32	16	1,087	1,087
Puget Sound Total			32,207	3,018	2,885	7,486	3,883	226	139	1,375	2,497	53,716	551,231
In Migration	Behavioral Health	Psychiatry	941	40	2	41	85		12	1	178	1,300	1,300

Table 5.4: Indirect Outpatient Visits by Service Line and Beneficiary Category

FY	2002											
MARKET	INDIRECT_PL	INDIRECT_SL	1	2	3	4	5	6	7	8	Unknown	VA Total	Grand Total
	Medical Specialty	Adverse Reactions		29			5	3			12	49	49
		Allergy		56	16	2		2			30	106	106
		Cardiology		478	45	72	22	151			67	107	942	942
		Dermatology		71	5	11	19	4		3	3	28	144	144
		Ear, Nose, Throat		73	39	54	1	7		1	4	90	269	269
		Endocrinology		314	6	21	49	39		12	10	789	1,240	1,240
		Gastroenterology		324	35	59	260	107			11	128	924	924
		Hematology/Oncology		731	58	181	157	512	2	8	45	137	1,831	1,831
		Infectious Disease		88			2				1	32	123	123
		Injury		416	38	18	3	123			10	65	673	673
		Nephrology		1,169	1	21	315	141			1	556	2,204	2,204
		Neurology		1,100	110	154	693	73			1	65	2,196	2,196
		Pulmonary/Respiratory Disease		502	78	12	24	129		3	17	27	792	792
		Rheumatology		228	8	3	2	1		2	2	12	258	258
	Ob/Gyn	Obstetrics		30	19	12						-	61	61
		Perinatal/Newborn		1		11						-	12	12
	Outpatient Specialty	Nutritional		56	5		2	1				25	89	89
	Primary Care	Special Pediatrics		121	14	22	14	15		5	24	42	257	257
	Surgical Specialty	General Surgery		436	22	60	11	151		5	43	54	782	782
		Gynecology		17	1	5		3			1	-	27	27
		Neurosurgery		174	3	2	8	10				27	224	224
		Ophthalmology		258	51	65	22	102	2	4	13	13	530	530
		Oral Surgery		476	4	6	2	8				33	529	529
		Orthopedics		739	91	102	29	210		1	43	42	1,257	1,257
		Urology		387	18	9	101	53			14	70	652	652
	Other	Other		340	52	68	12	149	2		19	225	867	867
		Unknown		2				4				-	6	6
	(blank)	(blank)		105	49	66	50	174	3		10	129	586	586
In Migration Total				9,662	808	1,038	1,844	2,257	9	56	340	2,916	18,930	18,930
Grand Total				72,108	8,898	10,054	14,167	20,931	354	389	4,541	7,793	139,235	1,805,021

DoD/VA Joint Assessment Study

Appendix B
Developing a Study Methodology – A Formula for Identifying and Assessing Sharing Opportunities in Other Markets

presented to

Office of Special Programs
TRICARE Management Activity

31 December 2003

by

Mitretek Systems
Falls Church, VA & Lexington, MA

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Table of Contents

Attachments

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1.0 INTRODUCTION

This document describes Mitretek Systems' methodology for identifying sharing opportunities in a health care services market area that is jointly served by the health care delivery system resources of the Departments of Defense (DoD) and Veterans Affairs (VA). Over the last 20 years, DoD and VA have actively partnered in a variety of resource sharing activities, and the two systems continue to pursue and capitalize on joint venture opportunities wherein the efforts and outcomes would prove to be of mutual benefit.

Section 8147 of the FY 2002 Defense Appropriations Act required the Secretaries of Defense and Veterans Affairs to jointly conduct a comprehensive assessment that identifies and evaluates changes to DoD and VA health care delivery policies, methods, practices and procedures, in order to provide improved health care services at reduced costs to the taxpayer. To implement the Congressional study mandate, the Office of Special Programs, TRICARE Management Activity, contracted with Mitretek Systems (MTS) to conduct demonstration projects in three DoD/VA market areas: Puget Sound, Hawaii, and the Gulf Coast areas of western Florida, Alabama, and southern Mississippi.

A primary objective of this DoD/VA Joint Assessment Study was to develop a replicable study methodology and a standard data repository to support the study objectives at both the demonstration sites and in future applications in other markets nationally. The intent of this document is to explain the approach used to develop the replicable methodology, describe the data repository, document the methodology's key components and tasks, and identify methodology implementation requirements.

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2.0 OVERVIEW AND APPROACH

To develop a methodology designed to be repeated and applied to different market areas where DoD and VA provide health care services, the MTS project team focused on a key question such a methodology should be designed to address:

> *What is the best approach (or combination of approaches) for organizing the system resources of the DoD and VA to deliver timely, accessible, effective, efficient, and high quality health care to meet the needs of eligible beneficiaries in the market?*

Based on team discussion and consultations with TMA and VA representatives, the MTS project team formulated *several principles* for guiding the development of the replicable methodology. These are:

- DoD and VA need a study methodology that will withstand external scrutiny.
- Prior and current delivery system realignment efforts (e.g., VA CARES, Joint Venture sites, President's Task Force) are useful starting points, but should not be constraining.
- Conclusions should be tied to and supported by data–i.e., "call it by the numbers".
- Best practices/methods should be used to address the key question.

With these guiding principles in mind, the MTS project team shaped specific design objectives for the methodology. When completed, the methodology had to contain data, techniques, and methods that would collectively:

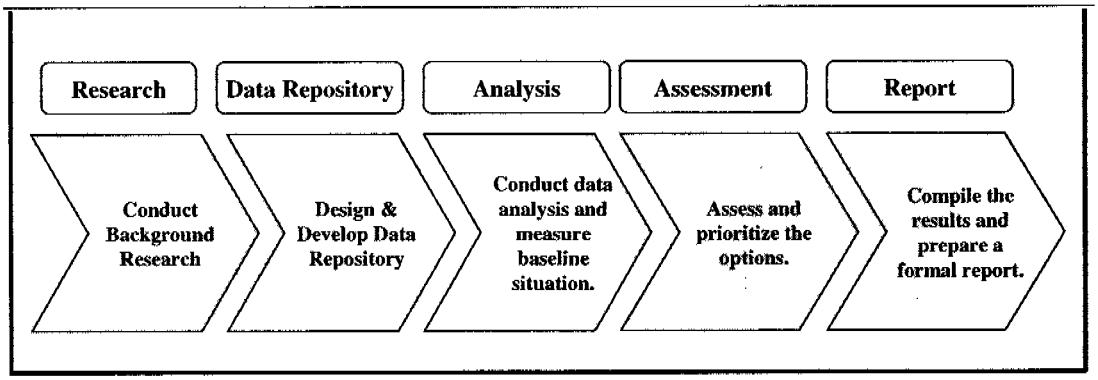
- Measure current levels of utilization from the populations served
- Document current DoD and VA capacities and current annual costs incurred for providing these services
- Project future demand on the DoD/VA system based on expected changes in future service populations and other factors
- Identify gaps and imbalances between service demand and service capacity that might exist now and in the future
- Define those sharing and integration alternatives that could improve future system performance based upon expected improvements in service or reduced costs compared to continuing the status quo operations

To meet the objectives listed above, the study team developed a methodology and refined each of its components during and after its application to the three study market areas. The major steps in its development included:

1. Development of a population-based demand analysis methodology
2. Development of a integrated data model that would account for and accommodate the lack of common data available from the Departments on current operations
3. Capturing required data in an enterprise-level database
4. Developing tools, methods, and techniques required to support the analysis
5. Executing the methodology in each study market area
6. Refining the methodology iteratively following each execution
7. Producing a methodology description that is applicable on national scale

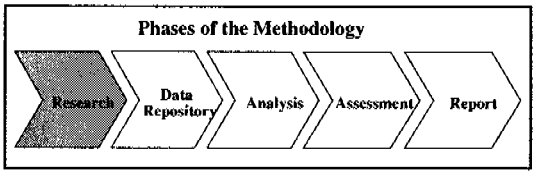
The methodology described in this document provides a useful framework for guiding future studies of other DoD/VA market areas. The methodology is categorized into five key Phases, as shown in the exhibit below. The remainder of this document provides an overview of each Phase.

Figure 1: Phases of the DoD/VA JAS Methodology



3.0 PHASES OF THE METHODOLOGY

3.1 Research



The qualitative elements of the assignment involved the pursuit of a research agenda which called for review of a broad array of documentation on the subject of DoD/VA sharing and collaboration. Also, it required extensive interviewing with individuals who have knowledge of and experience in dealing with the dynamics of sharing.

The first Phase of the Methodology is research, which is needed to develop a thorough understanding and appreciation of the issues surrounding DoD/VA sharing. To apply this methodology, the key research objectives are as follows:

- To understand the context of DoD/VA organizational relationships;
- To serve as input into the study design and other Phases of the methodology;
- To understand substantive matters: key elements, issues, barriers, and ingredients for successful collaboration.

The major focus of the background research is to identify and understand market-specific history and current plans for joint ventures and sharing initiatives between DoD and VA. This information provides insight into market areas and helps to identify target areas for potential sharing opportunities. Pertinent studies, reports, analyses, proposals or initiatives associated with the Study market areas are researched and analyzed to identify current or planned initiatives as well as to help clarify and/or validate the relevant market area definitions. The subsections below characterize how the research was conducted for the initial application of this methodology in the Joint Assessment Study.

Research Conducted for Initial Application of Methodology

Conducting the background research involved collecting and reviewing previously prepared documentation pertaining to the broad subject of DoD/VA sharing and collaboration. Mitretek team members reviewed a wide spectrum of reports, studies, websites, briefings and presentation materials. Information sources came from many government agencies including the Department of Defense and its component services, the Department of Veterans Affairs, the Department of Health and Human Services (DHHS), Congressional committees and testimony, General Accounting Office (GAO), Office of Management and Budget (OMB), and the Congressional Budget Office (CBO). Additionally, reference was made to non-government documentation relating to the planning of large health delivery systems.

The initial Joint Assessment Study drew from a wide variety of sources including, but not limited to, the following:

- Special Commissions (i.e., The President's Task Force to Improve Health Care for our Nation's Veterans)
- CARES Initiatives
- TRICARE Initiatives
- GAO Reports
- Special Congressional Investigations
- Salient findings from field investigations of various joint venture sites

Information sources came from many government agencies including the Department of Defense and its component services, the Veterans Administration, Department of Health and Human Services (DHHS), Congressional committees and testimony, General Accounting Office (GAO), Office of Management and Budget (OMB), Congressional Budget Office (CBO). Additionally reference was also made to non government documentation relating to planning of large health delivery systems. See Attachment 1 for a listing of key reference documents that were reviewed for the initial Study.

Reviewing and Assimilating Key Information to Inform the Analysis

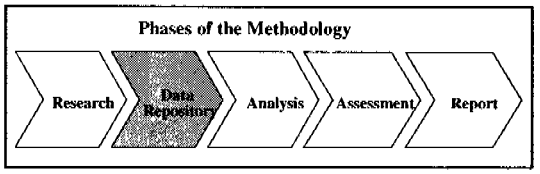
The research effort also involves personal contact with organizations and interviews with individuals who have knowledge about or interest in the history and development of DoD/VA sharing and collaboration activities. Input is sought from participants involved in other DoD/VA joint venture sites around the country, and individuals from other government and non-government agencies affected by DoD/VA planning and collaboration. See Attachment 2 for a full listing of the individuals and representative organizations who were interviewed about DoD/VA sharing for the initial application of this methodology during the Joint Assessment Study.

Research also included a series of meetings with representatives at current Joint Venture sites to investigate what is working well and what barriers the staff, leaders, and others have encountered in their sharing efforts:

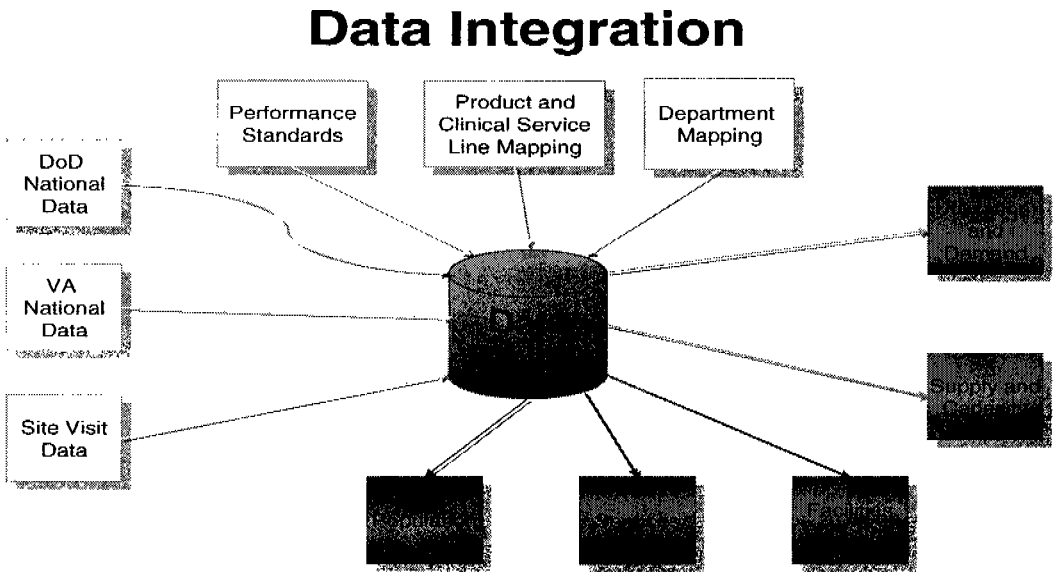
- Sacramento and Fairfield, CA
  – David Grant Medical Center, (Travis AFB) *and*
  – VA Northern California Health Care System.
- Albuquerque, NM
  – Kirtland AFB Clinic and
  – Albuquerque VAMC
- Las Vegas, NV
  – Mike O'Callaghan Federal Hospital, (Nellis AFB) *and*
  – VA Southern Nevada Health Care System.

The research effort will naturally vary in terms of depth and time required depending on the market being analyzed and the magnitude of the problems or issues. For example, an analysis of a specific set of sharing opportunities at a regional/local level may only require limited review of relevant material for background purposes with particular focus on "primary research," – i.e., interviews/meetings with informed individuals who could help frame the issues for analysis.

3.2 Data Repository



This Phase of the methodology, which is highly technical in nature, is *the* foundation to executing the Analysis and Assessment Phases. This section describes, in general terms, how the data obtained from the national DoD and VA sources are organized and integrated to accomplish the objectives of the methodology. A significant challenge that this Phase of the methodology addresses is the integration of data from two very different health care delivery Systems, with disparate file structures, data sources, and data formats, and in some cases, unique data with sometimes contradictory meanings. The following diagram provides a general sense of how the source data (left side) and reference data (i.e., data maps) are captured in the data repository to generate the data outputs necessary to support the analysis.



Data Collection

Source data that are gathered from the DoD and VA national sources are organized into a single, multi-file data repository and integrated through data mapping tools so that the output data provides comparable and consistent measures of population, demand, supply, access, and cost, for DoD and VA services and facilities within the study market area.

The table below lists some of the key data sources required to support this methodology. These data sets and the specific levels at which the data are captured are essential

elements—in terms of the range of variables and depth or degree of detail—to execute the Analysis and Assessment Phases of the methodology.

Data Source	Data Source Name	System	Key Elements
PITE	Point In Time Extract file	DoD	Counts and demographic description of Eligible beneficiaries
VetPop	Veteran Population	VA	
LENR	Longitudinal Enrollment Record	DoD	Counts and demographic description of Enrolled beneficiaries
EMF	Enrollment Master File	VA	
SIDR	Standard Inpatient Data Record	DoD	Patient record level activity providing counts of users, and procedural detail for direct care services from Federal health care providers
SADR	Standard Ambulatory Data Record	DoD	
PTF	Patient Treatment File	VA	
OPC	Outpatient Care File	VA	
HCSR-I, and HCSR-NI	Health Care Services Record, Institutional and Non-institutional files	DoD	Claims activity establishing counts of users, with procedural detail for indirect care services received from non-federal providers, both facilities (HCSR-I and PTF fee) and clinicians (HCSR-NI an OPC fee)
PTF and OPC Fee-	Patient Treatment File and Outpatient Care Fee-basis files	VA	
MEPRS	Medical Expense Performance and Reporting System	DoD	Cost data reports for facilities and health care systems
ALBCC	Account Level Budget Cost Center cost reports	VA	

To implement this methodology, the data request requires data in both a current year and base year time horizon. All person-level records of health care utilization for eligible persons residing in each county and ZIP code of the market area are requested, regardless of where these beneficiaries obtained care. All person-level records of health care utilization, regardless of patient origin, for VA providers, DoD providers, and other non-federal providers paid by DoD and/or VA to provide health care services for their beneficiary populations within the market areas are requested.

The government and the contractor need to agree upon the data transfer. Data requests developed for the initial application of this methodology should be used as the foundation for future requests. The data specifications for the Joint Assessment Study are provided as Attachment 7 of this Appendix. That attachment provides a technical description of how the data are imported into the data repository, as well as the processes, interface programs, and tools utilized to prepare the data for subsequent analysis.

Data Repository Design

In addition to providing information that drives data analysis, the data repository itself is a key component of the methodology, as it organizes diverse DoD and VA data into a coherent and integrated whole, identifying and defining the essential information needed to support effective and timely decision-making on sharing and collaboration opportunities between DoD and VA. The challenge of designing an effective data repository is to develop methods to efficiently collect these large volumes of disparate data, integrate and organize the data physically, and apply conceptually effective frameworks to retrieve and present the data to address questions about the population,

workload and facilities from both Systems in a timely manner. In the initial application of the methodology, the components of the data repository included:

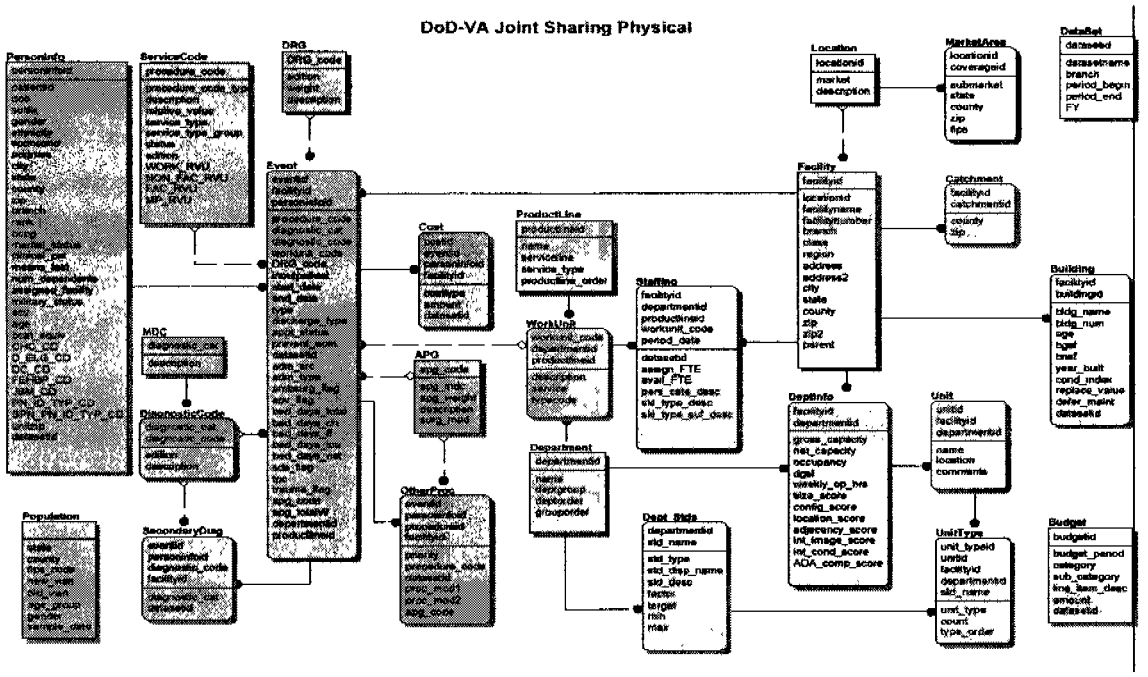
- an entity relationship diagram (ERD);
- a common data dictionary;
- mapping of DoD and VA data to common database elements;
- a physical database schema; and,
- data tables or decision support tools to support the Analysis and Assessment tasks.

Data Modeling

In data modeling, the data are categorized into broad categories (e.g., demographic information about the population, workload volumes and costs, facility descriptive elements, staff related elements, etc.). These broad categories are further analyzed to identify *entities*. (If data modeling had a grammar with parts of speech, entities would be the nouns). Examples of entities include patients, facilities, providers, etc. Data modeling then establishes relationships among entities to describe the extent to which they interact, or the degrees of their dependence or interdependence. For example, Patient A received care at Facility B from Provider C. These conceptual relationships are documented and displayed using an Entity-Relationship Diagram (ERD).

Once the conceptual relationship among the entities is established, data modeling identifies *attributes* that describe the entities in more detail. (Attributes are the adjectives) For example, Mitretek established the attributes of age, gender, beneficiary group, and location of residence to apply to the entity of "person." Data modeling establishes and identifies relevant attributes which are both necessary and sufficient to include in the data repository. Some attributes (e.g., height) are not relevant; others (e.g., patient classification based on previous use of either System) may be relevant, but not available in the data obtained.

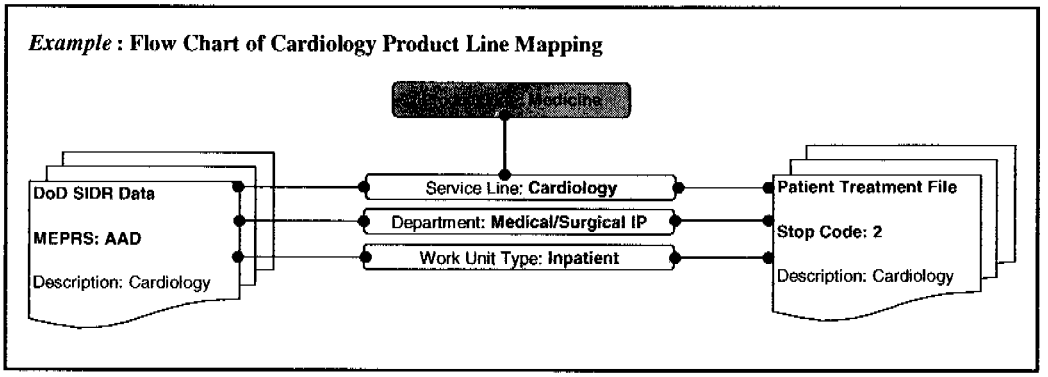
The entities and their attributes are then organized into data tables to reduce redundancy and improve efficiency, and the corresponding relationships among them are established. This process is called normalization. Below is the physical layout of the data repository developed for the initial application of this methodology.



Data Mapping

Once a normalized database structure is in place, the next step is to map the existing fields from the many DoD and VA data sources to their corresponding "locations" in the normalized data repository. This was a lengthy and iterative process that involved establishing rules to account for the different ways which data is captured in the datasets of each System.

A product and clinical service line crosswalk (PSL) is created, as part of this methodology, to map the volumes of clinical services received (defined by work unit, or place of service, by the DoD's MEPRS codes and the VA's Bed Station and Clinic Stop codes) into similar and meaningful groups, representing broad product and more detailed clinical services lines (e.g., primary care/family practice, surgical specialty/vascular). The PSL crosswalk also identifies services by setting (e.g., ambulatory, inpatient, diagnostic, or therapeutic). The PSL mapping creates a single, integrated description of the DoD and VA health care service volumes and workload data. For example, the exhibit below diagrams the mapping of cardiology data from DoD and VA data sources into the Cardiology Service Line as it is defined in the methodology.



A department mapping was also created, as part of this methodology, to group site-specific data into a standard set of operational departments. These departments group the DoD's MEPRS codes and the VA's Bed Station and Clinic Stop codes into common resource categories to provide a single, integrated description of the site supply data. In this way, the supply data from each facility or site can be compared to and analyzed with the national demand data across the DoD and VA. This mapping also furnishes an audit trail that provides a view back from the "joint" product and clinical service lines defined for the methodology to the DoD's MEPRS codes and the VA's Bed Station and Clinic Stop codes. The Product/Service Line (PSL) crosswalk developed for the initial application of this methodology is provided as an attachment to this appendix.

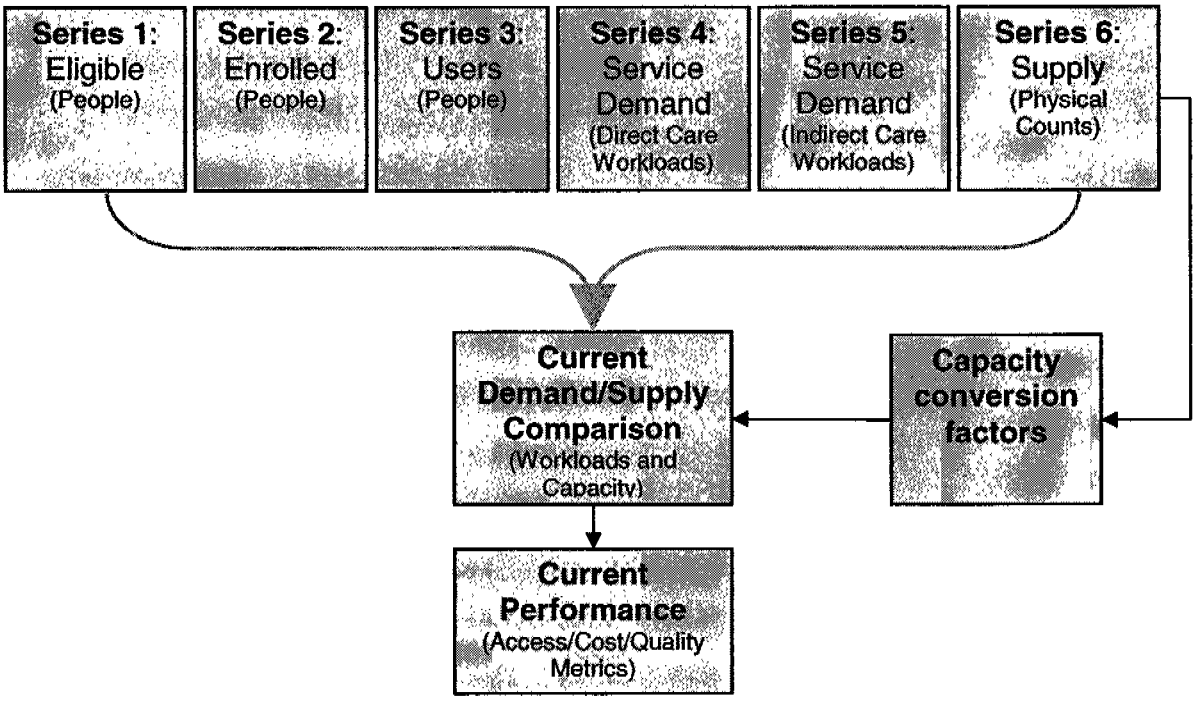
The product and clinical service line mappings–along with the department mapping–translate the DoD and VA national data and the site visit data in the data repository into the information required to complete the population, services, and facilities and staff components in the analysis Phase of the methodology.

Data Loading

After the data mapping is complete, data types and indexes are defined so that the data from each System can be loaded into the Data Repository in Oracle. The appropriate procedures/insert queries are written to transfer the different data formats to the data repository and conduct any transformations needed in the process. A lengthy period of quality control must follow, to insure the transfer is completed successfully and that the data in the repository is correctly organized, loaded, and ready for analysis.

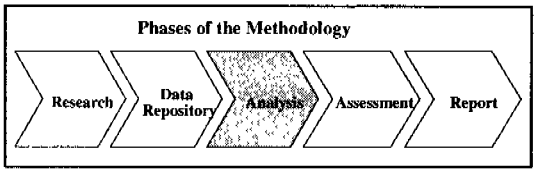
Preparation for the Analysis

The data for each study market are exported into a Decision Support Tool, which is comprised of several sets of Microsoft Excel Pivot Tables (a pivot table is a function of MS Excel). This tool permits flexible manipulation of large datasets by enabling the user to specify various groupings and filters of attributes on the entities contained in the data repository. The analyst can organize the Decision Support Tools into several "series," each containing data about a specific entity (e.g., eligible beneficiaries) with a variety of attributes (e.g., age, gender, beneficiary group, location of residence). A series of analytical data tables from the initial application of this methodology are illustrated in the figure below.



The data was channeled into these "Series" to establish a flexible analytical tool in a user-friendly environment. The Series were created in Microsoft Pivot Tables with a set of standard "tables" to display a set of preliminary combinations of outputs at a specific level. A full description of these Series can be found in *Attachment 7 - Decision Support Tool Technical Documentation.*

3.3 Analysis

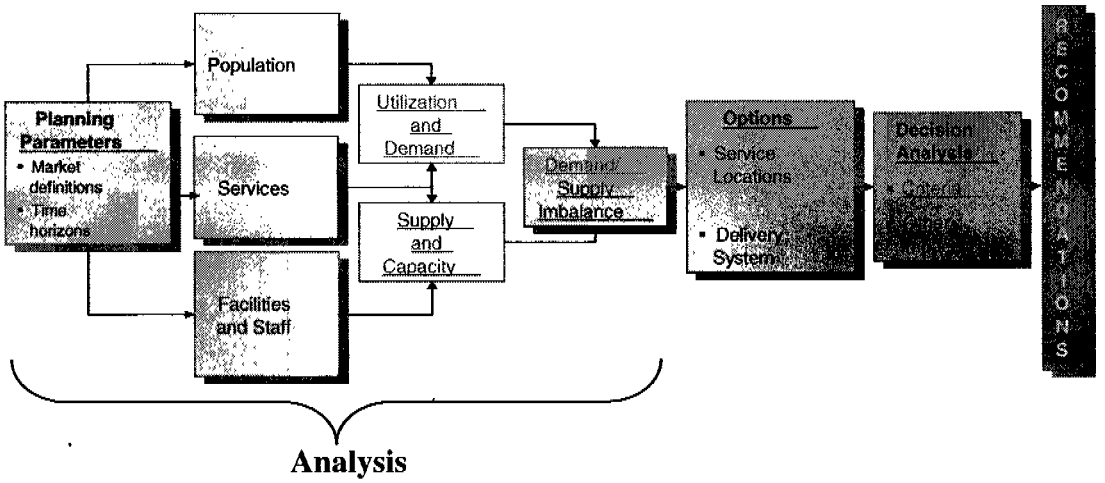


This section describes and documents the analytic steps of the methodology used to transform the background information obtained (Research Phase), and data collected from the national datasets (Data Repository Phase) into market-specific results that inform the identification and assessment of sharing opportunities. This section provides the fundamentals of analysis as it pertains to DoD and VA markets, while using the initial application of the methodology as an example to illustrate the process and key components.

The objective of the Analysis Phase is to describe the current health care system performance in each Market area, including current populations of eligible and enrolled beneficiaries and users; the volume of health care services workload generated by these users; the capacity of the DoD and VA health care facilities to provide these services; and the current performance of the Market measured by access to services and the costs of providing these services. The Analysis Phase produces a baseline description of people, service demand and workload, supply and capacity, and access and cost performance, for each Market and Submarket in the Study. The baseline analysis is the key input to the Assessment Phase, which identifies and assesses options for addressing imbalances between demand and supply, and potential circumstances and situations where greater collaboration, sharing or integration of DoD and VA programs and services would have a mutually beneficial impact.

The flow chart below displays key components of the Analysis Phase and how it leads to the Assessment of the options. The subsections below describe those six components of the process conducted during the Analysis Phase.

Key Components of Analysis and Assessment



Planning Parameters

The Analysis Phase first establishes two key planning parameters: the geographic space or spaces that should be the focus of the study, and the time periods and future planning horizon that the study should encompass. These parameters are needed to define and bound the scope and analytic requirements of the Analysis effort.

Defining Markets and Submarkets

Defining a Market as a bounded geographic area, at a ZIP code and county level, is used to focus the Analysis Phase. DoD and VA define their "market areas" differently. VA specifies geographically delimited, non-overlapping areas—typically encompassing existing political subdivisions such as counties—within a larger Veterans Integrated Service Network (VISN). Also, these markets are typically "anchored" by one or more VA Medical Centers (VAMC). DoD uses a "catchment area" concept. The outer boundaries of a catchment area are defined by a set distance from a Military Treatment Facility (MTF), typically 40 miles for a hospital, and 20 miles for an outpatient center.

In defining the market areas, the initial application of this methodology used the union of the existing DoD and VA market definitions as much as possible, and defined a *Market area* as the smallest geographically delimited area that encompasses both the VA VISN Market (and submarkets where defined) and the catchment areas of the DoD MTFs located in this VA VISN market.

For the initial Joint Assessment Study, applying this logic resulted in the following market area definitions:

- Puget Sound: 16 counties in western Washington, consistent with the VA CARES "Western Washington" submarket;
- Hawaii: the entirety of the Hawaiian islands (5 counties, but only 4 with DoD or VA beneficiaries)
- Gulf Coast: 18 counties; 7 in the western panhandle of Florida, 4 in southern Alabama, and 7 in southern Mississippi. Although this market is incongruent with the markets used for CARES planning, it is the current geographic area of responsibility of the VA Gulf Coast Veterans Health Care System, headquartered in Biloxi, MS.

These geographically-based Market area definitions are needed to obtain a planning perspective that is broader than that of a single facility. It is useful to also subdivide the Market area into smaller geographic units—Submarkets—for meaningful analysis. Submarkets are defined based on existing geo-political boundaries (i.e., ZIP codes, counties), taking into account topographical features that may practically distinguish one Submarket from another (e.g., rivers, mountains, highway patterns, etc.)

To continue with the example from the initial application of the methodology in the Joint Assessment Study, the Puget Sound market was divided along county lines into four Submarkets: North Sound, Seattle, South, and West Sound. Two of these regions contain both DoD and VA facilities; the other two contain only VA (Seattle) or DoD facilities (North Sound). Hawaii's market was broken down by island boundaries into Kauai, Maui, Oahu, and The Big Island.[1] In the Gulf Coast, Submarket divisions used counties, creating five regions: Biloxi/Gulfport, Mobile, Pensacola, Eglin, and Panama City. These were based on geographic "clusters" of medical treatment facilities at approximately 40-mile intervals along the coast.

The designation of Market and Submarket areas are ultimately arbitrary; however, they are necessary to bound and limit the scope of the joint planning issues that the study is trying to frame and address. The Market and Submarket area definitions can be expanded or contracted to accommodate changes in these issues when applying this methodology.

Study Periods and the Planning Horizon

The Analysis Phase identifies and compares the service demand and system supply and capacity imbalances at specified points in time. There are three such points:

- Analysis or current year: The analysis or current year data should be the most recent full year of data. These data will establish the current baseline performance of the delivery system in the defined market area. In the initial application of the methodology, the analysis year was the 2002 federal Fiscal Year (FY 2002, October 1, 2001-Spetember 30, 2002, inclusive).
- Base or reference year: The data for the base or reference year establish a common reference point for limited historic trend analysis through a comparison with data

[1] Mitretek used the submarket designation of "The Big Island" rather than "Hawaii" to avoid confusion with the market as a whole

from the analysis year. This initial study used FY 2000 and it is recommended that this base year remain the same for all future implementations of the methodology.

- Projection years: The projection years are the future horizon of the study results. The initial study used projection years in 5-year increments forward in time from the analysis year, for a total horizon of 20 years (i.e., 2007, 2012, 2017 and 2022).

Population

The methodology is grounded in a population-based paradigm, focused on the health care needs of the combined population of both DoD and VA beneficiaries in a market area. The population's size and demographic characteristics drive the demand for health care services and the utilization of facilities and staff in the market area.

This methodology creates a unique perspective for identifying the populations of interest—that of a Combined Beneficiary. A Combined Beneficiary is a current DoD, VA, or dually eligible beneficiary, for whom health care access, cost and quality would be improved if sharing and collaboration between DoD and VA were increased. Adopting this perspective positions the Analysis and Assessment Phases of the methodology to address the common and best interests of the Combined Beneficiaries in the Market as a whole, rather than the potentially conflicting interests of the two delivery Systems taken separately.

The methodology defines *population* as the total number of persons of a particular group or class residing in a given geographic area. There are three major beneficiary population groups whose data are included in the Analysis Phase:

- Eligible - Those persons determined to be eligible to receive health care services and other benefits from VA and/or DoD, due to their prior or current military service, or their status as a dependent of a current or retired military service member.
- Enrollees - Those eligible persons identified as potential users of health care services, and entered (enrolled) into the administrative systems of VA and/or DoD.
- Users - Those persons identified, via individual patient-level records of health care utilization, claims, or other transactions, as having actually used the health care services of VA and/or DoD during the analysis and/or base year.

A user is an individual who received health care services provided or paid for by the VA or DoD during the time period of the analysis. Understanding the service demands placed on the systems' resources by the current users—and how circumstances might change the numbers of users and the level of service demand in the future—is a primary focus of the methodology. Accurately describing current users and their utilization of health care services is the foundation for planning the resources required to most efficiently and effectively meet the current and future demands of DoD and VA beneficiaries.

Each population group—eligible, enrollees, and users—is described and categorized using relevant characteristics or demographics. These characteristics typically include their geographic location or origin (provided by the ZIP code of their residence) age,

gender, and beneficiary groups (e.g., beneficiary categories–or *BenCats*–in DoD: active duty, active duty family member, retired, etc.; in the VA, enrollment priority groups 1-8).

With respect to the definitions of the three population cohorts, three other elements of the analysis merit special attention and are discussed below.

Dual Beneficiaries

The primary factor in determining a veteran's eligibility to receive VA health care benefits is veteran status. Veteran status is established by active duty service in the military, naval, or air service, and a discharge or release from active military service under other than dishonorable conditions. In addition, since 1980 veteran status has required completion of 24 continuous months of active military service, with certain exceptions.[2] Most veterans are eligible to enroll and receive health care services from the VA.[3]

Although all veterans have served in the armed services, only some veterans remain eligible to receive health care services from DoD facilities after the completion of their active term of service. The methodology quantifies the number of these "dual beneficiaries" but the procedures differ depending on whether the estimate is for eligible, enrollees or users as follows:

- Dual Eligible: DoD maintains a detailed data set (DEERS, the Defense Enrollment Eligibility Reporting System) recording the eligibility of individuals to enroll for health care and other benefits. DEERS records both eligibility status and actual enrollment. However, VA does not maintain individual-level data on eligible veterans. It estimates the number of veterans in the general population from a variety of data sources, including Census data and DoD discharge data. The differences in the two approaches preclude estimating dually-eligible beneficiaries directly from individual-level data. Following the practice used in other studies of this type, the methodology uses the DoD retiree cohort—excluding their family members and other dependents—as a reasonable estimate of the dual eligible beneficiary population.
- Dual Enrollees: The methodology does not estimate the size of the dual enrolled cohort, because the enrollment status of veteran beneficiaries was obtained at an aggregate, market-area level, rather than at a detailed individual level. Such information is available, however, and could be used to provide an estimate of the dual enrolled cohort, following the methodology's procedures for estimating dual users described below.
- Dual Users: The data collection protocols of this methodology produce individual-level records of health care utilization for all persons residing in the market areas of interest, who also used either DoD or VA health care delivery systems. DoD data identifies individuals using true Social Security numbers (SSN); however, because of privacy concerns, VA data identified individuals using scrambled Social Security

[2] Department of Veteran Affairs web site, www.appc1.va.gov/elig/

[3] As of January, 2003, the ability of some eligible veterans to enroll has been restricted.

numbers (SCRSSN). The methodology incorporates the following steps to estimate the dual user cohort:[4]

- Mitretek developed a "finder file" containing the SSNs of known users of the DoD system, and provided this finder file to the VA's Austin Automation Center (AAC).
- AAC staff used this finder file to match against the VA's utilization files (i.e., Patient Treatment File (PTF) and the Outpatient Care (OPC)) to identify those DoD beneficiaries also receiving care from the VA;
- AAC staff returned two files to Mitretek:
  - The original finder file, containing real SSNs, modified to indicate which DoD beneficiaries received VA care. This file was coded to indicate whether the individual received care from a VA facility, had their care paid for by the VA, or both.
  - A separate file, with the same data, but with the VA SSCRN rather than real SSN.

These two files enable the methodology to both describe the dual user cohort, in terms of its size, demographic and other characteristics, and describe the volume and characteristics of the health care services received by the dual user cohort in each system. These estimates are at an aggregate level however, and cannot describe the services received by a specific individual in both systems of care.

Market Users and Facility Users

The individual-level records of health care utilization incorporated in the methodology enable a count of the number of unique persons living in the Market[5] area who receive health care services from the VA and/or DoD, regardless of whether the services were provided in or outside of the Market area. The methodology defines this unduplicated count (i.e., each user is counted only once) of users as *Market Users.*

However, each facility where care is provided also counts the number of "its" users, and at the facility level this is an unduplicated count as well. Because each user may visit one or more health care facilities, both in and outside of the market, and users may also come into the market to receive care, the sum of users counted at each facility—*Facility Users*—is larger than the number of Market Users.

Market Users is correctly used when the Analysis is based on the perspective of a Market or Submarket, i.e., a population-based perspective. *Facility Users* is correctly used when the Analysis is based on the perspective of one or more facilities.

Markets and Migration

[4] The procedures described would not be necessary in a potential future study, if VA agreed to make the its utilization data available to the Analysis team with true SSNs. Alternatively, DoD and VA could develop a common method or algorithm to de-identify the data by scrambling the true SSNs, so that the beneficiaries of both Systems could be readily identified in the utilization records of the other.

[5] Market Users by definition include Submarket Users.

An additional clarification on *Facility Users* is necessitated by juxtaposing the specific geographically-based Market definitions and the methodology's Combined Beneficiary perspective. A user residing in a Market may receive health care services from facilities also located in that same Market. Alternatively, a user may travel to facilities outside the Market to receive care, and many users exhibit both behaviors in the same time period.[6] The methodology describes the former as *In-market*, and the latter as *Out-migration.*

Similarly, a user residing outside the Market may travel into the Market to receive care; the methodology describes this as *In-migration.*[7] While defined in this section as applying to users, this terminology also extends[8] to the volume of services and facility workloads generated by these users, as described in the next section.

Demand and Workload

This component of the Analysis Phase focuses on the health care services used by the population during the Study periods. The objective of this component is to describe and classify the demand for clinical services from DoD and VA users residing in a Market, and then quantify the total volume of workload accommodating this demand, by type of clinical service at each facility. These services are measured in workload units that are consumed by the population. The workload units are defined by the metrics utilized by each Department (e.g., discharges, bed days of care, visits, clinic stops, etc.)

Inpatient and outpatient service workload volumes are described and measured somewhat differently by each Department. To insure consistency in results for the current and potential future studies, the methodology incorporates a Product/Clinical Service Line "crosswalk" that includes a standard set of clinical service definitions — incorporating the product and clinical service categories of both DoD and VA into a consistent set of definitions that are applicable to both systems — for classifying the range of inpatient and outpatient services provided by the two systems. Creating these common service categories was essential to combine the DoD and VA data into a single marketplace view of the health care services used by the two beneficiary populations.[9]

The basic metrics used to determine service workload volumes for both inpatient and outpatient services are described briefly below:

Inpatient Services

There are two basic units of measure for inpatient services that are used to quantify demand: number of episodes and episode length. Although episodes can be enumerated using either the discrete start (admission) or end (discharge) dates of the episode, discharges are used in the study since it is the unit of measure most commonly used in health care market planning and analysis. The duration of an inpatient episode is the

[6] This describes the "snowbirds," who temporarily relocate to warmer climates during the winter months. It also applies to DoD users, a significant number of whom are annually reassigned.

[7] Logically, there is a 4th category, but users who reside outside a Study Market, and who use facilities outside a Study Market, are by definition not within the scope of the Study.

[8] The logic of In-Market, In- and Out-migration also extends to enrolled populations in DoD, where a person is typically enrolled at a specific facility.

[9] The Product/Service Line Crosswalk is Attachment 3 to this Appendix.

second basic unit of measure of inpatient workload volume. Formally termed Length of Stay (LOS), it is measured by the difference between the episode start and end dates. Average Length of Stay (ALOS) for inpatient episodes of comparable types is a basic tool for evaluating the performance of a health care delivery system compared to expected or normative values for ALOS. Finally, a total bed days of care (BDOC) required for inpatient services can be derived by aggregating the length of stay for each inpatient episode for a given time period (usually on an annual basis). The methodology uses discharges and BDOC by work unit/MEPRS code, summarized into product and service lines, to determine inpatient volume.

Outpatient Services

There are several potential units of measure for outpatient services workloads:

- Trip: A care-related appearance by a single person at a single facility on a single day.
- Visit/Clinic Stop: An appearance by a person at an ambulatory care clinic, by type of clinic. Multiple visits (individually called "clinic stops" in the VA and "clinic visits" in the DoD) to different clinics (e.g., primary care, radiology, pharmacy, etc.) can be associated with a single trip.
- Encounter: A term in broad use in health care typically meaning an interaction between a patient and a clinician. Multiple encounters may actually be associated with a clinic stop or clinic visit.
- Procedures: Procedures or treatments received are also recorded, using industry-standard codes such as Current Procedural Terminology (CPT-4) or International Classification of Diseases (ICD-9) procedure codes. Multiple procedures may actually be associated with a single visit or single encounter.

As with bed days of care (BDOC) for inpatient services, the multiple units describing outpatient workload volumes provide a comprehensive and detailed method for linking the health care needs of individuals with the delivery system's resource requirements. For example, ICD-9 and CPT-4 procedure classification schemes typically have a very large number of codes (CPT codes exceed 9000). This level of detail can provide great specificity and can be aggregated using standard groupers for summarizing detailed data into more manageable increments (the Product/Clinical Service Line "crosswalk" described above is an example of a grouper). Further, other reference tools, such as the Berenson-Eggers Type of Service (BETOS) codes used by the Centers for Medicare and Medicaid Services (CMS), permit arraying the voluminous outpatient care workload into other potentially useful views. The methodology uses visits/clinic stops, summarized into product and service lines, to determine outpatient workload.

Ancillary Services

Ancillary services include such activities as surgery, imaging, and radiation therapy. There are several measures of ancillary services, depending on the activity. These include:

- Visit/Clinic Stop: An outpatient appearance by a person at an ancillary service.

- Procedures: Procedures are measured using Current Procedural Terminology (CPT-4) or International Classification of Diseases (ICD-9) procedure codes. Multiple procedures might be associated with a single visit.
- Departmental Logs of Workload: Frequently, an ancillary department keeps records of its inpatient and outpatient workloads for purposes of staff and schedule planning.
- Inpatient Diagnosis-Related Groups (DRGs): Some ancillary activity on the inpatient side can be assumed based on certain DRGs. For example, surgical DRGs can be assumed to have generated a case in the operating room.

Measuring relevant operational workload statistics in ancillary services can be difficult. The purpose of the Analysis Phase was to compare demand to capacity in these services, and as a result, it is necessary to derive volumes at an appropriate level to compare against the facility's or staff's ability to support those volumes. CPT-4/ICD-9, which is available at the medical record level, is usually too fine a level of detail for measuring demand for staff and facilities. But since ancillary departments often provide services to both inpatients and outpatients, outpatient-based visit data do not provide sufficient detail. One way of obtaining demand data for ancillary services is to survey the hospital or clinic for its departmental log data. Managers of departments use this level of data to determine their staffing and schedule, and it is thus the data most directly related to capacity. In addition to surveying the departments, the methodology also includes Demand Conversion Factors for converting record-level detail into the required operational workload statistics. Examples of these included:

- Surgery: For each unique combination of person and date, combining all surgical DRGs and all clinic stops/visits to ambulatory surgery to estimate surgical case workload for both inpatient and outpatient settings.
- Cardiac Catheterization: For each unique combination of person and date, combining all catheterization/electrophysiology-related DRGs and all ambulatory clinic stops/visits to the catheterization lab to estimate catheterization case workload.
- Imaging and Radiation Therapy: For each unique combination of person and date, for each imaging modality (e.g., MRI, CT scan, etc.), count the visits where modality-specific CPT4 code appears at least once, to estimate cases for that modality.

Please see *Attachment 7* for supporting documentation about Demand Conversion Factors.

Types of Care

Both DoD and VA provide services to their beneficiaries from health care facilities operated and controlled by each System. Following DoD convention, the methodology terms this type of care as *Direct Care*, i.e., provided directly to beneficiaries by the System to which they "belong." Both Systems also pay for services provided to their beneficiaries by other parties; this is referred to as *Indirect Care.*

Within DoD, Direct Care is concentrated on those who enroll in the "TRICARE Prime" plan, where Military Treatment Facilities (MTFs) are the principal providers of health care

services. All other TRICARE options[10] are considered Indirect Care for purposes of the Analysis. However, the Analysis also captures within the Direct Care workloads at each MTF that portion generated by non-Prime enrollees who may occasionally use the MTFs for some services. Similarly, Indirect Care includes the workloads generated by Prime enrollees who may elect or be directed to non-MTF providers for a variety of reasons, including beneficiary satisfaction, lack of capacity in a particular service or specialty, long waiting times, disruptions due to deployment, etc.

The VA also has Indirect Care, but unlike DoD does not allow its beneficiaries to enroll in insurance-type plans to receive services as an alternative to VA Direct Care. Rather, the VA will pay for medically necessary services required by its users, but either not available within the VA, or not available in a timely manner. Within the VA, this is referred to as Fee-basis care. For consistency of terminology, the methodology categorizes this as Indirect Care.

The combination of Direct and Indirect care services received by a Market's users provides a relatively complete picture of the total service demands generated by the beneficiary population residing within the Study Market. The ability of the facilities within the market to meet their share of this demand depends upon their available resources and their capacity to provide these services. These are described in the section that follows.

Current and Future Demand

In addition to estimating current demand, as described above, the methodology encompasses an estimation of future demand.[11] The methodological approach to estimating demand, current or future, is grounded in a population-based paradigm, assuming that the demand for services placed on a health care delivery system will arise from the size and demographic characteristics of the population the delivery system is intended to serve. As the characteristics of the population change, the shape of the demand (the specific pattern of type, frequency, and volume of services) also changes. Developing a replicable methodology that is sufficiently robust to apply in potentially very different local health care markets places a premium on identifying and understanding the specific characteristics of the populations that are driving the demand for health care services in these markets.

The demand for health care delivery system capacity arises from the interaction of a number of factors, in particular:

- The number and characteristics (e.g., age, gender, ethnicity, geographic location, ability to pay, etc.) of the eligible and enrolled populations within the defined market area served by the delivery system

[10] These include insurance-type plans such as TRICARE Extra, a Preferred Provider Organization (PPO) option; TRICARE Standard, a fee-for-service or indemnity-type option; and TRICARE for Life (TFL), in which TRICARE provides "Medi-gap" type coverage for Medicare-eligible (i.e, 65 years of age and older) beneficiaries.

[11] Future demand was not estimated in the Joint Assessment Study.

- The number and characteristics of those members of the overall population who actually use the delivery system
- The specific characteristics of their use (e.g., type of services used, frequency of use, intensity/ depth of use, facilities visited, etc.)

Provided that the demographic and other characteristics of both current and future populations can be described in detail, future demand is estimated in this methodology from current demand via use rates for each type of service. A use rate is a ratio of the annual volume of a specific type of service to a specific population cohort. An example inpatient use rate calculation for different population cohorts is shown in the table below:

Example: Use Rates

	Eligible Population			Enrolled Population			Actual Discharges (Incl. OB & Behavioral Health)		
MARKET	DOD	VA	Total	DOD	VA	Total	DOD	VA	Total
Mkt A Total	258,304	250,633	508,937	188,318	61,805	250,123	15,579	5,995	21,574
Use Rate/1,000	60.31	23.92	42.39	82.73	97.00	86.25			

This table is an example of use rates that can be derived from the methodology's data repository. It shows the Eligible and Enrolled Populations and the actual 2002 inpatient discharge volumes generated by that population within the DoD and VA systems (including out-migration, but Indirect Care volumes are not included in this example). With these data, a total Use Rate Per 1,000 Population can be derived for the Study Market.

Use rates provide the population-based metric to project the demand in a Market from the current year to the future projection years. The methodology assumes as a default that the use rates by population cohort will remain constant, unless there are factors known to the analyst (e.g., known policy changes) that will change future use rates.

Supply and Capacity

This component of the Analysis Phase identifies, describes and measures the physical characteristics of health care delivery facilities in the Market, the characteristics of key clinical staff at these facilities, and other resources that in combination supply or deliver the health care services demanded. Additionally, the methodology converts these data into estimates of the capacity at each facility available to meet the demand.

Resources

Key delivery resources that determine the productive capacity of a treatment facility include the number of inpatient beds, operating rooms, clinic exam rooms, procedure rooms, major diagnostic and treatment equipment (e.g., MRIs, PET scanners, linear accelerators, etc.), administrative and office space, and the number of clinical staff resources (e.g., physicians, physician extenders, nurses, technicians, etc.).

The methodology requires that these data be obtained and developed using survey documents[12] and site visits as the primary data collection mechanism. During the initial application of the methodology, Mitretek visited and reviewed each of the DoD and VA facilities located in the study market areas to count and characterize those facilities and staff resources. The facility resources were measured in terms of both quantity and quality; in addition to a physical count (quantity) of the facilities, quality in terms of condition or useful life remaining was also identified. Buildings were characterized by age, plant replacement value, and functional quality of the space (e.g., size versus standards, critical adjacencies, etc.).

Additionally, the methodology obtains the number of available Full-Time Equivalent (FTE)[13] staff for each clinic and inpatient treating specialty at each facility from the relevant DoD[14] and VA[15] central data sources.

Capacity Conversion Factors

The current supply of key productive resources at a facility is expressed in terms of counts. These counts are then translated into workload capacity using Capacity Conversion Factors. Capacity conversion factors (e.g., visits per physician per unit time, surgeries per OR, etc.) are metrics that express the per unit volume of services that can be expected to be accomplished within the facility, based upon the supply of resources available. This translation of supply counts into capacity defines how much workload can be accommodated by this facility over time, given the current counts of facility resources and clinical staff. Any location-specific constraints to the throughput possible (e.g., staffed beds versus available beds) affecting the capacity calculation are also taken into account in the methodology.

Capacity Conversion Factors were created for the initial study for both inpatient and outpatient services. These factors enable supply data such as staff, equipment, and space to be converted into a workload capacity to support workload demand. To the extent possible, these factors are derived by researching DoD's and VA's own standards or by using factors employed in other DoD and VA studies. "Private sector" benchmarks are also researched (such as Medical Group Management Association). Examples of conversion factors include:

- Primary care visits per clinical FTE per hour
- Specialty care visits per specialty clinical FTE per hour(distinct for each specialty)
- Annual cases per operating room
- Exam rooms per provider
- Maximum inpatient occupancy percentage

[12] See Attachment 7 for survey instrument

[13] An FTE is defined as a work force equivalent of one individual working full-time for a specific period, which may be made up of several part-time individuals or one full-time individual. *Glossary of Health care Terminology (DoD 6015.1-M, January, 1999).*

[14] Medical Expense and Performance Reporting System (MEPRS).

[15] Account Level Budget Cost Center (ALBCC) data sets for each VA facility, from the VA's Decision Support System (DSS) National Data Extracts.

- Annual patient days per inpatient nurse by care type
- Annual number of CT scans per scanner

The methodology's capacity conversion factors are the tool that estimates the potential workload capacity of an organization's resources, and will highlight potential sharing opportunities at a very high level. The methodology's intention is to identify examples of demand and supply imbalance. The capacity conversion factors, per se, are *not* benchmarks intended to evaluate the productivity of a department or staff.[16]

In the initial application of the methodology, Mitretek recognized that the capacity conversion factors within a particular department or area may provide different and potentially conflicting results, depending on the resource and factor used to convert it. For example, primary care capacity could be estimated based on the actual number of clinical provider FTEs, using visits per provider per hour and annual hours available. However, using space factors such as FTEs supported per exam room or departmental gross square feet (DGSF) to estimate rather than count FTE, may show that while FTEs may be available, the physical space available may drive a lower bound to the estimate of capacity, as shown in the table below. From an analysis perspective, using different and somewhat independent factors to convert resources into capacity helps to bind the capacity estimates in the Analysis, providing more robust and potentially more stable basis for future planning.

Estimating Workload Capacity Based on the Supply of Different Resources

Example	Resource Base	Logic	Result Annual Visit Capacity
1	FTEs as base	1. 7.3 actual Clinical FTE's x 3,051 annual visits per Clinical FTE	22,277
2	Exam Rooms as base	1. 10 exam rooms/2 exam rooms per provider = 5 FTE supported capacity 2. 5 FTE capacity x 3,051 annual visits	15,255
3	DGSF as base	1. 10,000 DGSF/1200 DGSF per provider = 8.3 FTE supported capacity 2. 8.3 FTE supported x 3,051 annual visits	25,323

For this methodology, Mitretek developed capacity conversion factors for multiple primary care, medical, and surgical specialties. The FTE for these factors are "Clinical Full Time Equivalents," which are derived from the time clinical staff spent in an outpatient clinic. For example, two full time surgeons each spending only 50% of their time in the clinic (and the other 50% in the OR) would yield one Clinical FTE. The conversion factors for clinical providers were developed as follows:

[16] However, large imbalances between potential workload capacity and actual workload demand could reflect low productivity.

- Using actual DoD and VA data, developed visits per clinical FTE-hour factors for medical and surgical specialties in the three market areas.
- Developed a volume-weighted average of the values for DoD and VA to derive a "Federal Composite" of visits per hour by specialty.
- Used data from the Medical Group Management Association (MGMA)[17] to develop visit per hour factors for providing medical and surgical specialties in both academic[18] and non-academic settings.
- Compared the Federal Composite to either the MGMA median for physicians who work 40+ hours (pediatrics, internal medicine, family practice) or to the MGMA median for academic practices (all medical and surgical specialties).
- The midpoint between the Federal Composite and the MGMA standard was used as the capacity conversion factor for the initial Joint Assessment Study.[19]

Example: Calculating Capacity Conversion Factors: Internal Medicine

DoD Visits Per Hour in Study Market	VA Visits Per Hour in Study Market	"Federal Composite" (average of DoD and VA)	MGMA Median for Physicians Who Work 40+ Hours	Conversion Factor (median of Federal Composite & MGMA) for the Study
1.41	1.43	1.42	2.04	1.73

To estimate the available capacity to provide services at each facility, the methodology applies the following equation, for each specialty:

Annual Capacity (visits) = FTE Supply x Capacity Conversion Factor x Annual Hours

Where:

- **FTE Supply** = the number of FTE in a particular specialty or Clinical Service Line;
- **Capacity Conversion Factor** = an estimate of the average capacity of one FTE provider in that Clinical Service Line, as the number of visits that can be performed in one hour; and
- **Annual Hours** is the number of annual hours that one FTE provider is assumed to be available to provide services; this is also the basis for what is considered to be the equivalent of "full-time."

In determining Annual Hours, the methodology recognizes that the definition of full-time equivalency differs between DoD and VA. DoD's MEPRS system calculates and reports

[17] MGMA Physician Compensation and Production Survey, 2002.

[18] An academic setting is one associated with a graduate medical education program in one of the primary care Clinical Service Lines/medical specialties. Because of the additional time needed to achieve instructional objectives while engaged in delivering patient care, productivity in terms of visits per hour is typically lower in these settings, compared to non-academic settings.

[19] The full set of FTE visit per hour factors developed is included as Attachment 4 to this Appendix. Other capacity conversion factors are also included as Attachment 5.

FTE by dividing the monthly hours recorded by 168 available hours per month, or an annual FTE basis of 2, 016 hours. VA uses a standard federal work year of 2080 hours, or 40 hours per week for 52 weeks. When an allowance for holidays is taken into account, DoD and VA are using an FTE basis of approximately 2000-2016 hours. In the methodology, the DoD FTE basis of 2016 hours is used as a reasonable estimate of full-time equivalency.[20]

However, not all of these hours could, in reality, be expected to be completely productive with respect to providing primary care services; DoD military providers in particular are expected, as part of their daily routine, to attend to their military-unique duties, which may not be accounted for elsewhere in the MEPRS system. Therefore, the methodology assumes that 1 hour per day, or 12.5% of a typical 8-hour day, would be non-productive with respect to providing patient care. Applying this 12.5% reduction to the FTE basis of 2016 hours yields an adjusted value of 1764 Annual Hours per FTE position.

Access and Cost

The Analysis Phase of the methodology concentrates on developing a baseline description of each Market, which is then used to identify and assess options for change—specifically involving sharing and collaboration between DoD and VA—in the Assessment Phase. In addition to developing an initial comparison of demand and supply, the baseline also includes a "performance" baseline for access to services, and the cost of providing these services. A brief description of the access and cost baselines is provided here; more detailed descriptions of these performance dimensions are provided in the Assessment Phase that follows.

Access

Both DoD and VA use comparable performance standards for evaluating geographic access to health care services: access is considered acceptable if services are located within specified "drive-time" distances a beneficiary's residence, as shown in the table below:

Access/Drive Time Standards			
(minutes)	**DoD**	**VA**	**VA Rural**
Primary Care	30 Min.	30 Min.	30 Min.
Specialty Care	60 Min.	60 Min.	90 Min.
Inpatient Care		60 Min.	90 Min.
Tertiary Care		240 Min.	in VISN

Because specific address information is not readily available in the person-level utilization data, the methodology uses ZIP-code centroids as a proxy for location of residence, and conducted drive-time analyses using GIS software. The drive-time

[20] It is important to distinguish between the productive capacity of an FTE position, which may by definition be filled by more than one individual, and what a single individual's annual productive work hours might total. This analysis deals with the former, including and summarizing but not explicitly addressing the latter.

analyses identified that proportion of the current enrollees and in-Market workload, for both inpatient and outpatient services met the above drive-time access standards. These proportions, expressed as percents, establish the access performance baseline for each Study Market and Submarket.

Cost

The cost performance of a particular sharing opportunity, or a set of opportunities bundled into one or more scenarios, is measured by incremental changes to the total annual system cost in a particular market. The total baseline system-wide costs are established using the analysis year data (FY02 for the initial study). These are the costs required to fund the care provided to the combined beneficiary population in the Study Market, and include the annual costs associated with:

- direct care services provided by the DoD and VA facilities located *within* the Study Markets to DoD and VA beneficiaries who reside within the Study Market area;
- direct care services utilized at *other* DoD and VA facilities outside the Study Market by beneficiaries who reside within the market area; and
- indirect care services that are purchased from other providers by DoD and VA for their beneficiaries who reside within the Study Market area – i.e., purchased care.

Using the current year cost data for each of these components of care delivery (i.e., all services provided directly by DoD and VA facilities either within or outside the market and those services purchased by DoD and VA for their beneficiaries who reside within the market area) the methodology creates a complete picture of the total annual costs funded by DoD and VA to care for the Market beneficiary population and establishes the baseline system costs for each market.

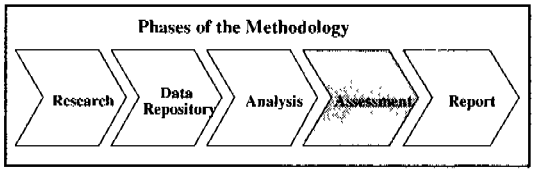
Initial Comparison

At the conclusion of the Analysis Phase, an initial comparison of demand and supply at each facility within a Market and/or Submarket is prepared as an input to the Assessment Phase. This comparison identifies and highlights both shortages of and excess capacity for each type of service, i.e., Primary Care, Medical and Surgical specialties (by specialty or service line), routine Acute Inpatient Care (by specialty or service line) and Tertiary Inpatient Care (by specialty and service line). Additionally, the access and cost baselines performance values, specific to each care type, accompany the initial comparison of demand and supply. The table below shows a generic representation of an initial comparison for Market, for Primary Care visits, that results from application of this methodology.

Example Initial Comparison (Primary Care)

Submarket	Facility	Baseline Workload (Visits)	Net Capacity Available/ (Needed)	Current Capacity (Visits)	Cost per Visit
A	Navy 1	50,774	7,329	58,103	$156
	Navy 2	17,300	1,871	19,171	$167
B	VA 1	98,330	24,135	122,465	$170
C	AF 1	33,000	1,823	34,823	$154
	VA 2	80,994	(8,514)	72,480	$142
	Army 1	264,046	20,425	284,471	$139
D	VA 3	4,190	4,990	9,180	$172
	Navy 3	20,352	(1,617)	18,735	$150
	Army 2	76,982	39,985	116,967	$151
Total		**645,968**	**90,428**	**736,396**	$162
Access Performance %		**74.2%**			

3.4 Assessment



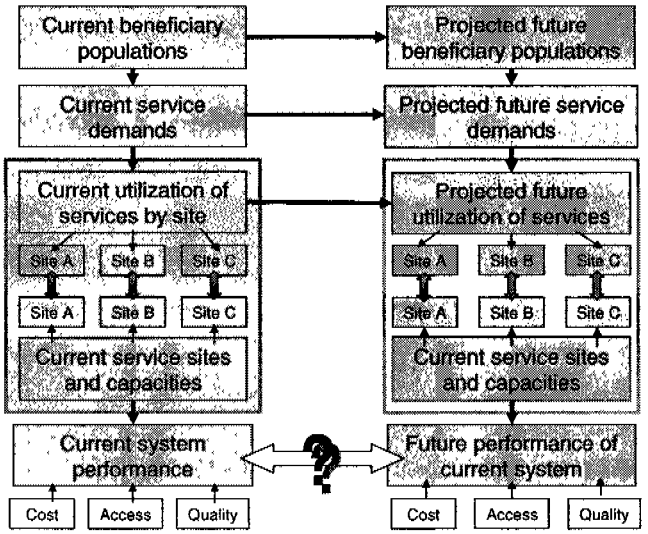
The methodology includes interdependent quantitative and qualitative aspects, leading to a holistic approach. The quantitative analysis and assessment can identify promising opportunities for increased sharing and collaboration by showing the "numeric" impact of rationalization or redistribution of access points and providers. While the quantitative/numeric outcome might appear quite *desirable*, it might not be completely *feasible* due to the numerous mission, policy, infrastructure, and organizational culture issues that raise practical barriers to implementation. The quantitative assessment highlights the *numeric impact* of a change and the qualitative analysis highlights the *organizational impact and readiness* for change.

Quantitative

A key component of the methodology is the identification of the differences between the current and projected future workload demand generated by the population and the workload capacity of the current supply of DoD and VA resources available. Demand and supply need to be expressed in the same units of measure. The current time horizon compares the current service demand by location with the supply by location and identifies imbalances. The imbalances projected in the future time horizons contrast the current supply and capacity with projected future service demand based upon changes projected for the population. The current patient populations by submarket areas and their

migration patterns are also analyzed to determine the system capacity requirements based on where patients live as well as based upon where DoD and VA facilities are located. The figure below illustrates the process for assessing the demand and supply imbalance for both the current and future time horizons.

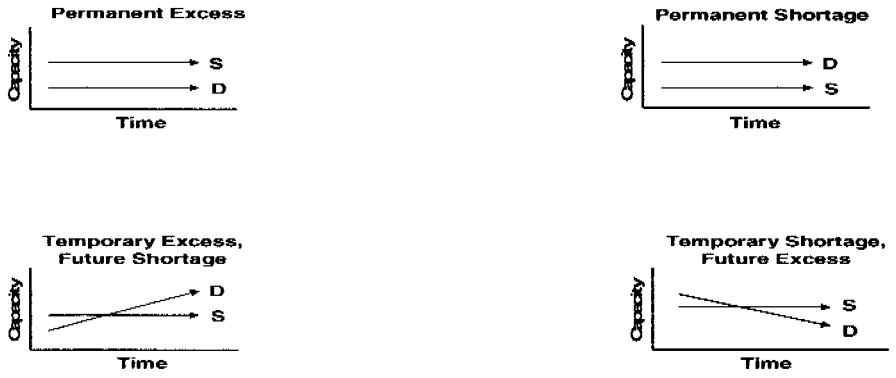
Demand/Supply Imbalance – An Illustration



Demand and Supply Imbalance - measuring current and potential future performance

As the population-based demand and the capacity of the current supply are viewed over the time horizon of the study, there are four potential imbalances that might be observed as depicted in the charts below.

Demand/Supply Imbalances



Demand and Supply Imbalances - there are four possible scenarios

The demand and supply imbalances can be viewed over time for the DoD alone, for the VA alone, and for their combined capacity. It is these demand/supply imbalance

conditions for specific services and/or specific geographies within the study market that will focus the identification of sharing options for the study. If there is a permanent excess of capacity projected compared to future demand, then the options should focus on reducing excess capacity or potentially increasing demand (if by moving patients from other service sites might improve access for these populations). If the DoD has permanent excess of capacity projected for a specific service while the VA has permanent shortage of capacity in this service, but the combined view has sufficient capacity, then options will be identified that focus on using the DoD excess to accommodate the VA shortage.

Baseline Access and Cost Performance

In addition to identifying the workload imbalances, other pertinent system performance factors are identified and measured. These factors include level of access (e.g., both in travel time and distance as well as wait times), cost measurements at a location level (including both variable and fixed costs), and service quality (e.g., patient satisfaction). With this data, the current and projected future system performance against DoD and VA guidelines and benchmarks for access, quality, and cost can be evaluated.

Using these factors, the methodology quantifies the current combined DoD and VA system performance in the study market area in meeting the needs of their beneficiaries in terms of access to services, service quality, and the costs incurred by DoD and VA, and then projects future system performance in the market based on the current delivery system capacity and the projected future workload demand from the population in terms beneficiary access, service quality, and costs. Finally, the methodology identifies areas of opportunity for greater DoD and VA sharing and integration in either the current and future organization of the delivery system based upon the potential to improve access, service quality, and costs to the system.

Framework for Developing the Options

A primary objective of the study methodology is to explore sharing options focused on collocating or sharing facilities and care providers in areas where duplication and excess capacity may exist for each market area and to identify the most promising opportunities to be pursued. Given this objective, the methodology is structured to measure total service demands of the combined DoD and VA populations and contrast these with the current supply of DoD and VA resources in order to determine where current and future imbalances between the demand and the supply in a particular market might exist. The methodology identifies those sharing and integration options available and quantifies their projected impact on current or future demand and supply imbalances. The alternatives may have a facility, staffing, support service, information system, or other resource or organizational implications.

The objective is to recognize the options where greater sharing of DoD and VA programs and services could have a beneficial impact. The following examples of imbalances that may be observed in the data illustrate examples that would trigger identification of alternatives:

- Below standard current performance indicators for access, cost, or quality
- Significant service area overlaps or duplication of services and resources
- Over- or under-utilization of existing capacity (staff, facilities, equipment)
- Lack of availability or access to specific services for specific beneficiary populations

By considering both the current imbalance measured for the market and the environmental assumptions for the future over the planning horizon, targets of opportunities for potential sharing are established. The largest imbalances are prioritized as focus areas for potential sharing opportunities. These imbalances can be either over or under capacity as compared to the required demand. Then alternate care delivery options are identified based on common services to be provided to the market population. These alternatives can include alternate location of service options or alternate delivery system options. These options should also consider any already planned DoD and VA changes, including planned increases or decrease in supply or capacity, new care delivery structure, and new joint ventures or sharing strategies. The potential impact of the alternatives should then be quantified in terms of access, service quality and cost.

The methodology focuses the assessment of the impact of changes to the current situation based on the principal criterion of demonstrably positive benefits to eligible beneficiaries in term of enhanced access and/or service quality and to the taxpayers in terms of lower cost. To allow for a more systematic process for identifying the range of sharing opportunities that might exist in any study market, a standard step-by-step approach that can be applied across all markets has been incorporated as part of this methodology. This approach focuses first on *desirability* from the beneficiaries' and taxpayers' perspective based on improving access and quality and reducing costs. This approach temporarily suspends the consideration of significant "real world" barriers to sharing (such issues as base security, IM/IT, credentialing/privileges, reimbursement and leadership/governance) to first measure the expected "benefits" to beneficiaries and taxpayers (e.g., access improvements and/or cost savings). Once the expected benefits are determined, the study methodology considers their *feasibility* by identify the specific barriers and impediments to implementing any particular sharing option that exists, and assessing if the option can feasibly be pursued. The qualitative component of the Assessment provides a framework for understanding these barriers.

The methodology's generic framework for developing the potential options for change to be analyzed based upon the current system access and cost performance and demand/supply imbalances documented within the combined DoD and VA market is as follows:

A. Rationalize Primary Care

Step 1: Rationalize Access to Existing Service Sites: open access across the two Systems
Step 2: Rationalize Volume at Existing Service Sites: right-size capacities after Step 1
Step 3: Consolidate Duplicate Service Sites: if excess capacity still exists
Step 4: Create New Access Points: if required to meet primary care access standards

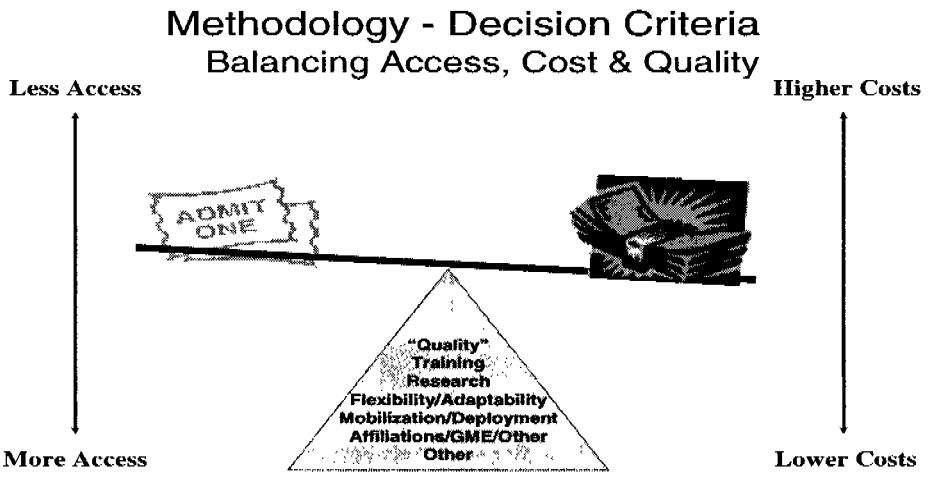
B. Rationalize Specialty Care and Inpatient Care
Step 1: Open DoD providers to VA patients and VA providers to DoD patients
Step 2: Rationalize Volume at Existing Service Sites: right-size capacities after Step 1
Step 3: Consolidate Duplicate Service Sites: if excess capacity still exists
Step 4: Create New Access Points: if required to meet access standards

C. Rationalize Tertiary Care Services
Step 1: Consolidate select programs: if duplication exists and volume below thresholds
Step 2: Consolidate facilities: if a single facility can accommodate the required workload

Applying this framework for developing the potential options, in addition to the identification of sharing opportunities that are incorporated in the methodology through the site visit data collection processes, will help to facilitate the identification of the full range of potential sharing opportunities that can be evaluated for any study market area.

Weighing the Options – Decision Criteria

The methodology prioritizes the most promising sharing and integration options based upon the magnitude of the projected impact on future access, service quality, and cost. This activity applies consistent decision criteria to measure the relative costs and benefits of each alternative sharing and integration option that has been identified. The option evaluation may show that the projected impacts can have opposite effects on the baseline system as illustrated in the figure below.



Balancing Access, Cost & Quality - When access is easier for users, costs may rise due to a greater number of access points or care providers. Conversely, if cost savings are effected (e.g., reduced staff or closing a facility), this could potentially diminish users' access to health care services.

The first step in the decision analysis process is to measure the incremental impact of change on access (at facility and location), service quality (to the extent metrics are

available), and cost (projecting future operating costs incorporating any required incremental investment cost) for each of the alternative options. Next, the projected "second order" impacts are assessed and incorporated into the decision criteria as illustrated in the table below. The options are then prioritized with the first order impacts (access, quality, cost) having a higher influence on the ranking than the second order impacts.

Measuring Impact on Access

DoD and the VA have published access standards for health care services. Both already use the concept of drive times, which are fairly easily quantifiable. The DoD and VA define their access standards as follows:

Access/Drive Time Standards

(minutes)	DoD	VA	VA Rural
Primary Care	30 Min.	30 Min.	30 Min.
Specialty Care	60 Min.	60 Min.	90 Min.
Inpatient Care		60 Min.	90 Min.
Tertiary Care		240 Min.	in VISN

Based on these types of drive time standards, the VA defines "access gaps" based on where enrollees reside. For Primary Care, a gap exists if less than 70% of enrollees live within the 30-minute drive standard and more than 11,000 enrollees are outside of the 30-minute area. For Inpatient Care, a gap exists if fewer than 65% of enrollees live within the 60-minute standard and at least 12,000 enrollees are outside that area. For tertiary care, an access gap is defined as fewer than 65% of enrollees within 240 minutes drive of any facility, with at least 12,000 outside that standard.[21]

The drive time analysis should answer the questions:

- How accessible and convenient are the locations of the facilities, for each System, given historical migration patterns?
- Are there access gaps that need to be addressed?
- Can access be improved through co-locating or sharing of facilities?

The drive time analysis can also be used to assess the impact on the populations served of opening a new access point (clinic, hospital, etc.) or closing an existing facility. Achieving a higher percentage of people within the drive time standard equates to an increase in access.

This methodology uses ArcView® GIS and its Network Analyst module to determine drive time areas. The facility sites are added to the market area map, and road and ferry route network files are downloaded from the US Census (TIGER files). A standard road classification table, which includes speed limits and traffic signals (lights and stop sign locations), is added to the map file. The Network Analyst is then run to determine 30, 60

[21] SOURCE: National CARES Plan, Appendix P <http://www1.va.gov/cares/docs/DNP_appP.pdf>

and 90-minute drive time "rings" for each facility in the market area. The drive-time rings are used to select ZIP code centroids, assuming that the majority of the population within a given ZIP code will access the facility in roughly the same amount of time. The numbers of eligible population, users, enrollees, primary or specialty care visits, and inpatient discharges by the ZIP code of residence are then be compared to the drive-time "rings" to determine the percentage of people/visits that are within the drive time standards.

After the data for a baseline year are determined, change options can be examined and their potential impact on access can be quantified. Population projections for future years can be used to forecast future demand and any changes on current baseline access percentages can be measured. New primary care access points can be added and the populations within the newly created 30-minute drive time areas can be counted to determine by how much the access to health care services is improved for the submarket and market. Access can be opened to the population to facilities of either system, and that increase in accessibility can be quantified. These percentages were used to determine by how much the particular option increases or decreases access and to thus evaluate the relative desirability of a given option against each of the others.

Measuring Impact on Operating Costs

The cost of providing health care to the DoD and VA beneficiaries is another important criterion for assessing current delivery system performance that is considered in this study methodology. The total cost to the federal government to provide health care to these beneficiaries, now and in the future, is probably the single most relevant metric for assessing the combined DoD and VA system's performance from the taxpayer's perspective within any study market area.

The components of cost that are included in the methodology data repository and the approach for using these data to measure the impact on total system cost of alternative sharing options for care delivery during the Assessment Phase are summarized in the following sections.

Cost Components

In reviewing the collected data, the following two views of the total annual cost of providing health care to the DoD and VA beneficiaries can be quantified for any study market: (1) the total cost incurred for providing care to the study market beneficiaries; and (2) the total cost of the care that is provided by the DoD/VA facilities within the study market area. The major components of the annual cost data that comprise each of these two perspectives on total system cost are illustrated in the table below.

Beneficiary Populations	Annual Cost of Direct Care Delivered by Market Area DoD/VA Facilities		Annual Cost of Direct Care Delivered by DoD/VA Facilities Outside the Market		Annual Cost of Care Purchased for Beneficiaries by DoD/VA from Non-DoD/VA Facilities		Total Annual Cost of Care Provided to Defined Study Market Beneficiaries and Financed by DoD/VA		
	DoD	VA	DoD	VA	DoD	VA	DoD	VA	Total
Beneficiaries Who Reside in the Defined Study Market	$	$	$	$	$	$	$	$	$
Other Beneficiaries Using Study Market DoD/VA Facilities	$	$	x	x	x	x	x	x	x
All Beneficiaries Using Study Market DoD/VA Facilities	$	$	x	x	x	x	x	x	x

Total Cost for Market Beneficiaries

Total Cost for Market Facilities

The decision support tool (analytical tool supported by the data repository) can generate total annual system cost for any study market from both a market beneficiary perspective as well as a market facility perspective as illustrated above. In addition, the annual cost of the services provided to beneficiaries is also quantified by product and service line and by unit of workload. The portion of these per unit cost that are variable expenses compared to fixed expenses are also estimated with the detailed cost data that are collected as part of this methodology. These unit cost components of the methodology are illustrated in the table below:

Product and Service Line	Cost per Unit for Care Provided to Study Market Beneficiaries by Study Market DoD Facilities			Cost per Unit for Care Provided to Study Market Beneficiaries by Study Market VA Facilities			Purchased Care Cost per Unit for These Beneficiaries
	Variable Expense	Fixed Expense	Total Expense	Variable Expense	Fixed Expense	Total Expense	Variable Expense
Primary Care	$/Visit	$/Visit	$/Visit	$/Visit	$/Visit	$/Visit	$/Visit
Specialty O/P Care	$/Visit	$/Visit	$/Visit	$/Visit	$/Visit	$/Visit	$/Visit
Inpatient Care	$/Disch $/Day	$/Disch $/Day	$/Disch $/Day	$/Disch $/Day	$/Disch $/Day	$/Disch $/Day	$/Disch $/Day

With these detailed data on DoD's and VA's current per unit cost of care by type of patient and by type of service, the incremental annual cost impact of potentially

expanding, redistributing, or consolidating certain services among DoD/VA facilities and/or moving service demand from one facility to another to facilitate a greater level sharing can be quantified and compared to the baseline status quo system costs.

Measuring the Cost Impact of Alternatives

Utilizing the annual operating cost data elements as described above, an quantitative analysis for each study market of both the current baseline total annual system costs and the expected incremental impact on cost of implementing any number of alternative sharing opportunities are conducted.

Calculating the Relevant Baseline Costs

To quantify the current baseline costs of providing care to the study market beneficiaries, the relevant cost components for all the care being financed by DoD/VA for any study market can be aggregated and the example current performance cost metrics can be calculated. With the service population and cost data elements that are available in the study database, the current baseline cost performance can be calculated for all services in the aggregate at the total market level, as is illustrated below with example data in the table below.

DoD/VA Joint Assessment Study Market	Total Number of Enrollees in the Study Market	Annual Cost of Care in Market Area DoD/VA Facilities	Annual Cost of Care in Other DoD/VA Facilities	Annual Cost of Care Purchased by DoD/VA	Total Annual Cost of Care Provided to Study Market Beneficiaries	Total Annual Cost per Enrollee
Market "A"	100,000	$200,000,000	$50,000,000	$50,000,000	$300,000,000	$3,000

In addition to this ability to calculate the current baseline cost performance for all services in the aggregate at the total market level, the methodology allows the current baseline cost performance to be calculated for specific sub-segments of each study market, such as select geographic submarkets (e.g., a county within the market), select beneficiary populations (e.g., active duty versus other beneficiaries in the DoD or by priority level within the VA), and select product or service lines (e.g., primary care only). This feature of the methodology provides the ability to document a baseline or "status quo" cost performance at either a submarket and/or at a service line level for comparison purposes that is most appropriate to the particular sharing opportunity being assessed.

Calculating the Incremental Operating Cost Impact

To quantify the cost impact of a sharing opportunity, the current baseline costs of the services and facilities that would be impacted by the alternative being evaluated are measured (as described above). An analysis of the incremental impact on future operating costs based upon implementing the alternative is then conducted. The methodology's approach to this incremental cost analysis is based upon the changes in

workloads by facility that are projected to result from the service changes being considered and the per unit variable and fixed cost data that are applicable to these service volumes and facilities.

An illustration of how these cost data are used to measure incremental impact compared to the baseline is presented in Figure xxx below. In this illustration, the incremental annual operating cost impact of an alternative for improving access by moving some primary care volumes from a hospital service setting (Hospital Facility A) to a outpatient service site (Clinic Facility B) is projected.

Hospital Facility A	Current Annual Workloads (a)	Incremental Annual Workload w/Alternative (b)	Current Annual Variable Costs (c)	Current Annual Fixed Costs (d)	Total Current Costs Baseline (c + d)	Incremental Cost of this Alternative (c/a)*b
Primary Care	50,000	-20,000	4,000,000	2,000,000	6,000,000	-1,600,000
O/P Specialty	50,000	0	5,000,000	2,500,000	7,500,000	0
Inpatient Care	2,000	0	8,000,000	6,000,000	14,000,000	0
Total	N/A	N/A	17,000,000	10,500,000	27,500,000	**-1,600,000**

Clinic Facility B	Current Annual Workloads (a)	Incremental Annual Workload w/Alternative (b)	Current Annual Variable Costs (c)	Current Annual Fixed Costs (d)	Total Current Costs Baseline (c + d)	Incremental Cost of this Alternative (c/a)*b
Primary Care	30,000	+20,000	2,000,000	1,400,000	3,400,000	+1,333,333
O/P Specialty	0	0	0	0	0	0
Inpatient Care	0	0	0	0	0	0
Total	30,000	+20,000	2,000,000	1,400,000	3,400,000	**+1,333,333**

Facility A + B Combined	Current Annual Workloads	Incremental Annual Workload w/Alternative	Current Annual Variable Costs	Current Annual Fixed Costs	Total Current Costs Baseline	Incremental Cost of this Alternative
Primary Care	80,000	0	6,000,000	3,400,000	9,400,000	-266,667
O/P Specialty	50,000	0	5,000,000	2,500,000	7,500,000	0
Inpatient Care	2,000	0	8,000,000	6,000,000	14,000,000	0
Total	N/A	N/A	19,000,000	11,900,000	30,900,000	**-266,667**

The analysis of the projected annual operating cost impact of a sharing alternative using this methodology as illustrated above provides a measure of the expected annual

operating cost savings (or cost increases) that would be realized if the DoD and VA implemented the sharing alternative being evaluated.

Incorporating the Transition Costs

In order to evaluate the full future cost impact of an alternative, the methodology combines the future incremental annual operating costs along with the transition costs that are required to implement the alternative (e.g., infrastructure investments required in facilities).

As with the annual operating cost analysis, a baseline future cost of annual expenditures and capital investments that will be required to be made in the DoD and VA's current facilities and infrastructure under a status quo future over the next 5, 10 and 20 years need to be included along with the annual operating costs to more accurately describe the total costs that would need to be incurred to maintain the status quo delivery system into the future in each study market. These future costs are the baseline transition costs that will be required to be invested to maintain status quo operations.

These baseline transition costs are input to the database as part of this methodology and reflect both the estimated added annual expenditures (above current expense levels reflected in the operating cost data) that would be required to sustain existing facilities in their current condition as well as the cost of any planned and/or approved capital investments to renovate or replace existing facilities. Future expenditures that are required to maintain the status quo can be stated in terms of an equivalent annual cost over each facility's lifecycle and added to the baseline annual operating costs to create a measure of the full annual cost required to maintain status quo operations in a study market over the long term.

Once the baseline transition costs have been projected for those facilities that would be impacted by the sharing alternative being evaluated, the incremental transition costs associated with implemented the alternative are estimated. These include any projected capital investment or other one-time expenditures required to implement a defined alternative. In order to evaluate the impact of these transition costs, an annual equivalent cost of these investments over their lifecycle is calculated and added to projected annual operating costs impact of the alternative in order to measure the full incremental cost impact of implementing the alternative compared to the baseline.

In addition to incorporating the cost impact of the investments required to implement a defined alternative, the study methodology also recognizes that the implementation of an alternative could possibly result in an opportunity to avoid some future capital expenditures that are projected in the baseline scenario. In this case, the net impact of the alternative's transition costs would include the added investments required to implement the alternative net of any potential savings on infrastructure investments projected in the baseline future scenario that might be avoided under the alternative scenario.

Impact on Quality of Care

Impact on the quality of care is an important decision criterion, but few quantifiable decision metrics exist. Quantifying quality is a challenging task. Research has shown that higher volumes and lower variation usually result in higher quality output (fewer "rejects") in many industries. In some specific clinical services, such as open heart surgery and major joint replacements, studies have measured the relationship between volumes and iatrogenic morbidity/mortality and general long term outcomes and reached similar conclusions. The data in this study can be used to identify areas where volumes are low and to measure whether there are opportunities to increase volume–and presumably quality–through sharing of DoD and VA patients. In addition, one could argue that the access criterion also serves as a quality criterion, in that beneficiaries may be more likely to use services that are more convenient which would result in higher volumes.

Other contributors to quality, such as coordination of care, can not be accurately quantified with the data in this study. However, information gathered on site visits can provide valuable insights into assessing opportunities for improvements in these other, less easily quantified, contributors to quality.

Alternatives Evaluation

This section describes how the defined options are evaluated to produce the final recommendations. The Analysis Phase emphasizes factors that are of most critical importance in the delivery of health services to the DoD and VA beneficiaries - specifically access, costs, and service quality. These primary decision criteria (i.e., access, service quality and costs) are consistently applied to the alternative sharing and integration options within a market area during the Assessment Phase.

Recognizing that there are always many factors involved, the methodology also considers other important "second order" decision criteria can also influence decision making. Examples include:

- Research/teaching mission impact
- Expanding the patient-mix for GME programs
- Environmental impact
- Mobilization/deployment
- Optimal utilization of current capacity
- Limiting the capital investment requirement
- Support of operationally deployed forces
- Outsourcing savings
- Maintenance of wartime readiness within the services of DoD
- Overall TRICARE operations

Where possible, each one of these second order criterion is quantified based on available or estimated data. For criterion where quantifiable measures are not easy to develop, a set of definitions for rating each option are developed. There may be other impacts (e.g.,

department missions, legislation, department policies) that affect the evaluation of the alternatives that are not included in the defined criteria. The alternatives should be evaluated based on these other impacts to develop the final prioritization of the options.

Qualitative: The Collaboration Framework

One of the findings during the research process for this initial application of the methodology indicated that the identification and planning of DoD/VA sharing initiatives have historically been "opportunistic" in nature–i.e., they occurred through an informal surfacing of needs, at a time when local leaders had positive working relationships and were personally ready to explore possibilities. To make substantive progress in the future, a more systematic approach is required; one that can provide a consistent frame of reference on the level of system integration that exists to inform the criteria and performance expectations from market to market.

As part of developing this methodology, Mitretek developed an analytical framework that:

- Channels the opportunities for or enablers of collaboration into a few domains that cover most of the activities observed in a given market or sharing site.
- Clarifies language and definitions applicable to the VA-DoD relationships.
- Identifies the goals and ideals that an organization should seek to achieve when considering collaboration initiatives.
- Can be used to inform a planning framework for the ongoing improvement of collaboration activities.

Brief descriptions of the major elements of this framework are discussed in the following sections.

Domains of Collaboration

One building block is categorizing sharing activities to effectively *define the major domains of collaboration* that may occur among or between organizations within a local or regional market. Collaboration activities and organizational relationships fall within one or more of nine domains: Clinical Workload, Facilities & Equipment, Staffing & HR, Governance & Management, Business Processes, Information Management/Information Technology, Logistics, Education & Training and Research. Each of these domains serves as a potential collaboration enabler, which–if present and performed well–will help to achieve the overriding goal of effective care delivery. If they aren't handled well, problems and breakdowns are likely to occur. The table below illustrates the influence of each of these domains on collaboration efforts.

Major Categories of Collaboration

Domain	Influence on Collaboration
Clinical Workload	Determines need, demand, and patient flow
Facilities and Equipment	Influences supply/capacity
Staffing & Human Resources	Influences supply/capacity and skills maintenance
Governance and Management	Provides structure and leadership
Business Processes	Organizes work flow
Information Management/ Information Technology	Informs decision making throughout the organization
Logistics	Provides material support, including pharmaceuticals
Education & Training	Fuels development of competent workforce.
Research	Enhances advancement and exchange of knowledge.

Patient Care/Clinical Workload: The examination of this domain highlights the "end game" in undertaking a collaborative endeavor in the interest of patient care. A profile of clinical workload answers the question "What business are we in?" and underscores and the value of having a data repository that is accessible to two or more organizations. Here it is helpful to have access to a side-by-side quantitative profiling of the departments or service lines, which provides a fact-based platform to address collaborative patient care initiatives. The existing or desired degree of collaboration within the domain of patient care will typically vary by inpatient vs. outpatient and certainly by Product Line or Clinical Service Line.

Facilities and Equipment: The domain of facilities and equipment focuses on the geographic distance that exists between two or more facilities. The "availability" (of space and equipment) and the physical and functional condition of affected buildings and departments highlight the need to undertake extensive levels of facility planning. Facility-dominated collaboration is generally considered when the need for a major capital asset is identified. It is expected that the domain of facilities collaboration will continue to be emphasized by both DoD and VA in the future.

Staffing: The domain of staffing and the broad subject of allocating human resources can have a significant impact upon both the needs to collaborate as well as the ability to collaborate – i.e., it can be a *driver* or it can become a *barrier*. The extent to which scarce talents are shared, integrated or otherwise coordinated represents one of the best ways to help deliver patient care and affected support services. This is particularly important when considering the many serious staffing shortages that plague DoD and VA care providers throughout the nation. However, it is important it is to understand some of the key variables within both Systems that impact the access to staff and the capabilities

of staff. For example, the readiness mission of the DoD, and the DoD policy of transfers approximately every two years, have a significant impact on local staffing needs. Additionally, the lack of experience of VA physicians and clinical staff with delivering babies or caring for very sick children is a reality in any discussion of collaborative possibilities. Other dimensions of the staffing challenges are greatly influenced by different pay scales and/or union contracts that may be present.

Business Processes: The domain of collaborating on business and clinical processes addresses the importance of having smooth and efficient handling of clinical, administrative or supporting functions affecting inter-organizational transactions. Processes having both patient care and business process implications should be included. Developing other forms of system integration (e.g., IM/IT), while not integrating business processes, can present a significant barrier to achieving expected efficiencies and cost savings.

Management and Governance: Leadership is a driving force in inspiring and bringing about any hope of success in DoD/VA collaboration. Thus, management and governance issues are of central importance as enablers of effective collaboration. While there is debate about whether management and governance issues should precede or follow the development of collaboration plans, there is no doubt that a concept of rigorous joint planning is needed at all levels of the DoD and VA.

Information Management/Information Technology: The lack of integrated information systems is clearly a major barrier to substantive integration of services. It is also an example of an area in which major investment of capital dollars will be required to address the problem in order to garner the needed support for system integration efforts.

Most authoritative inquiries on the subject of health care services (and every interview that Mitretek conducted in every facility while piloting this methodology), pointed to effective information management and integrated information systems as the single most important enabler to the safe and efficient delivery of care and effective operations of administrative support activities. Achieving this goal, within the context of integrating the services of two separate organizations which have evolved in different ways over many years, clearly requires an evaluation of the opportunities for integrating both hardware and software systems at national, regional, and local levels. The need for easy access to both clinical and business information affects everyone in both Systems: clinicians, executive personnel, employees throughout the organization, and patients. Such accessibility can either "make or break" the success of many collaborative activities.

The integration of information systems has been identified as one of the primary strategic goals of the newly formed VA DoD Joint Strategic Planning initiative. The written strategic plan states the intention to "Enable the efficient sharing of beneficiary data, medical records, and other information through secure and interoperable information management systems."

Logistics (including pharmacy): There is inherent logic in pursuing collaboration in the area of logistics. Both departments must acquire and manage very similar supplies and equipment in carrying out their patient care duties. Yet there are difficulties in dealing with multiple contracts and vendors, many of which are established nationally. The need

for action is longstanding, and numerous activities are underway nationally to improve procurement and acquisition processes, establish standards for purchasing goods and services, and leverage favorable pricing capabilities.

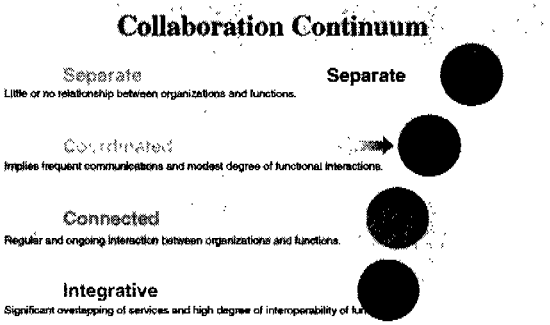
Education: This domain includes both staff education and graduate medical education. There is opportunity for both Systems to improve staff skills while saving expenses if staff training (clinical and other) is coordinated or integrated in some markets. In addition, Graduate Medical Education is a worthy topic for collaboration, despite differences between the two Departments. VA has affiliations with medical schools which are different from the GME mission within the military. However, the military physicians' need for clinical volumes, which are often present within the VA environment, presents a rich opportunity for collaboration.

Research: Both organizations have strong research agendas, particularly at a national level. However, due primarily to different funding and research protocols, collaboration in research activities is relatively sparse. Many participants involved in the Joint Assessment Study saw collaboration in research activities as an untapped opportunity that could greatly strengthen quality of care outcomes.

Collaboration Continuum

The methodology also addresses matters of terminology. The exhibit below suggests demarcations and definitions for several terms – *separate*, *coordinated*, *connected*, *integrated*, and *consolidated* – that can be useful for the assessment of baseline performance and the feasibility of identified options.

Suggested Definitions for Collaborative Spectrum of Terms



These categories of terminology make up a continuum of degrees of relatedness that can exist among or between organizations in a given market. These are relative definitions only. It should also be clearly noted that "consolidated" is not necessarily the preferred end-state of a given sharing opportunity. This continuum can apply to multiple and differing levels of relationships within any organization or group of organizations. It could apply at an agency level (e.g., Department of Veterans Affairs to Department of Defense) or to facility-to-facility relationships within a local market, or to specific

service-level interactions. The latter may be described as departments, service lines, or a group of functional entities.

Relationship Grid

Current levels of collaboration in a study market are assessed with this methodology in the framework of a relationship grid, which matches the five elements of the collaboration continuum with the nine domains of collaboration. Examples of the descriptive components of this relationship grid are presented as the table below. Application of both this methodology's data findings and perceptual feedback information from the research and site visits will demonstrate current relationships that exist among and between organizations.

Relationship Grid/Relationship Continuum

	Separate	Coordinated	Connected	Integrative	Consolidated
Clinical Workload	Insignificant referrals	Regular communications	High numbers of referrals	Significant number of referrals as one	Protocol-driven placement of all patients
Facilities	Distant	Some sharing where duplication exists	Projects & facilities come from master planning	Many departments share space	One facility one set of facilities
Staffing	Distinct	Support in peaks and valleys	Joint staff planning	Multiple examples of single/joint staffing	Single staffing
Business Processes	Different	Reduce barriers	Work flows understood & acted on	Transparent	Single system
Management/ Governance	No Relation	Joint planning sessions	Overlap of key functions	Overlap of key functions	One governance & management structure
IM/IT	Separate systems	Evidence of "E" exchange of info	Moving toward systems interface	Complete interoperability	One system
Logistics	Little if any exchange	Borrowing, bartering and contractual exchange	Mutual examination of best pricing and service	Selective joint contracting of major areas of procurement	One supply chain
Education & Training	Distinct	Selective exchange of methods	Frequent use of joint programs and curriculum	Most programs and curriculum are same/similar	Unified program
Research	Distinct	Selective exchange of protocols	Joint planning and review of many studies	Significant overlap of protocols and review	Unified program

While it is necessary to have clarity on the nature and degree of collaboration present within a market, an important question is, "How effective is this collaborative

relationship?" To assess the feasibility of an option, it is essential to gauge why and how the relationships, as they exist currently, will need to change.

Gold Standard/Ideal

Measuring performance at any level within a health care organization (or group of organizations) is difficult, even among health care professionals. As soon as the topic of performance assessment within a health care organization is introduced, numerous secondary questions surface, including: "What measures?" "What standards?" and "What comparisons will be used?"

A useful framework included as part of this methodology is the ideal or "gold standard" for comparison. The table below presents statements of an ideal condition within each domain without regard to the levels of collaboration that exist or don't exist which might best describe the services.

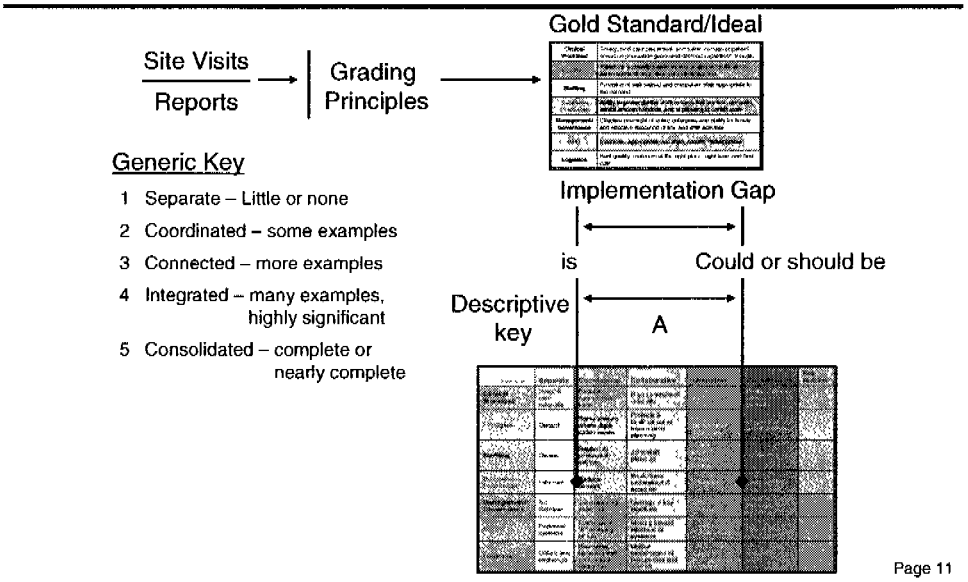
Gold Standard/Ideal

Clinical Workload	Timely, best care placement, and follow-through of patient, based on population-generated demand, regardless of origin
Facilities	Attractive, accessible facilities and equipment sufficient to serve needs of population without duplication
Staffing	Provision of well trained and competent staff appropriate to the demand
Business Processes	Ability to work in ways that are fast and accurate, exhibit smooth handoffs, and please constituents
Management/ Governance	Effective oversight of entire enterprise and ability for timely and effective execution of line and staff activities
IM/IT	Electronic, appropriate, accurate, secure, interoperable
Logistics	Best quality, materials at the right place, right time, and best cost
Education & Training	Perpetual development of highly capable professional, technical and service workforce.
Research	Continual advancement of knowledge that contributes to improved performance and effective outcomes.

The methodology includes a general assessment of the *contribution of the collaboration* to overall organizational performance–gauged against where the organization could/should be with respect to an ideal state. This component of the Assessment helps determine the degree of collaboration that best fits the needs of the affected facilities or services. This framework can help organizational leaders make informed decisions about the relatedness and organizational models that are best able to serve the beneficiaries within a specific market or sub-market and meet the needs of their organization.

A process tool for assessing the degree of collaboration within a market (between departments, facilities or clinical service/functional entity) can employ use of a scorecard. It can use both the definitions implied and presented in the relationship grid or can use a relative 1 -5 scale. An example of how the scale was used to score the relationship within the Joint Assessment Study is shown on the exhibit below. Each of these tools is subject to workshop discussions involving affected stakeholders. Both the scoring technique and content can be adapted to the particular circumstances being addressed.

Approach to Assess Nature and Degree of Collaboration



Opportunities Applied to Collaboration Framework

In addition to assessing opportunities that have a location of service orientation, there are scores of opportunities that are available to DoD and VA facilities that emerge when considering the domains of collaboration. These can include combining or integrating clinical programs, staffing, business processes, education etc. in some fashion.

These opportunities are identified through research into current practices (both nationally and locally) and through interviews with affected stakeholders within the market. "Lists of opportunities are prepared and are sorted within the respective domains of collaboration as well as being assigned to the affected facilities. Each can be prioritized so as to address a particular need or set of needs that management judges to be of particular importance.

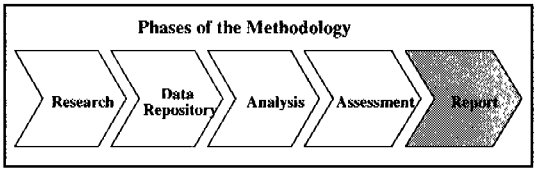
Each opportunity should be subject to further review and assessment using the empirical data contained within the data repository. Opportunities can then be acted on through

development of discreet business plans. Also, the sorting and grouping of opportunities within the collaboration framework can be assigned to a three levels of action and principle responsibility:

- **Level 1 (Opportunistic)** sharing opportunities represent activities that mostly focus on logistics, staffing, and business and system processes and/or improvement of sharing activities currently in place. Level I sharing tend to be largely transparent to patients, locally-managed, and easiest to accomplish.
- **Level II (Actionable)** sharing opportunities tend to involve movement of patients, delivery resources, or development of patient care facilities. Level II opportunities imply capital or other types of investment, and some stakeholder resistance–and are thus harder to accomplish.
- **Level III (Transformational)** sharing activities are difficult to achieve and yet have the highest potential impact on cost, quality and/or access to care. Examples of Level III sharing opportunities include: development of interoperable IM/IT systems and common medical records; single governance and management within defined market areas; unified GME and research programs. Additionally, Level III opportunities may involve major policy changes, and/or significant degrees of direction and guidance from national headquarters.

In summary, the methodology of finding and assessing promising opportunities involves multiple approaches and processes. Some of these opportunities can grow out of the analytical investigation; others will emerge through examination of organizational relationships derived principally through interviews. In any event, organizations must engage affected personnel in ordered planning processes so as to fully examine sharing opportunities from many perspectives and levels of analysis.

3.5 Report



The methodology identifies, quantifies, and highlights the most promising sharing and integration opportunities in terms of improving access and service quality and/or reducing costs. The report should document the results of the Study. For ease of readership, the report can be broken into a main report and appendices. It is also useful to develop interim internal reports, such as Market and Sub-market profiles of health care demand and utilization patterns, information on beneficiary populations, summary data related to supply and capacity, and qualitative information regarding potential sharing opportunities.

The main report should include:

1.0 Introduction

2.0 The Approach and Methodology

3.0 Findings and Recommendations from Applying the Methodology to the Study Market Area

4.0 Findings and Recommendations from the Research and Field Work

5.0 Findings and Recommendations Regarding the Methodology and Continued Analysis and Sharing Opportunities

This report should describe the market area studied from both a demand and supply perspective focusing on the utilization and capacity of the market and the imbalances between them. The results should provide a ranking of identified options based on a set of criteria established for the study.

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4.0 KEY CONSIDERATIONS IN IDENTIFYING MARKETS FOR A JOINT ASSESSMENT STUDY

In the course of implementing the Study methodology, several factors should be considered in estimating the time required to conduct each phase.

Data Request Process

It is important to consider the length of time it may take to request and access pertinent data from specific market sites. Close coordination with market site contacts is essential to obtaining requisite data. Any protracted period of time it may take to obtain data needs to be communicated with the study sponsors, as soon as possible, to secure leadership support, as necessary, when securing needed data from sites.

Qualitative Information

On First Pass site visits, the study team may spend additional time soliciting qualitative information from those at the site. During visits, facility leaders and staff typically have the opportunity to discuss their ideas for sharing and collaboration. This provides rich feedback from which to assess a current state of operations. The MTS team also found that establishing a common agreement among facility leaders and staff about what collaborate, share or integrate means aids in achieving consensus and clarity about the current environment in which a market site operates.

Extracting Data

The study team is responsible for extracting data from the data repository and analyzes different aspects of the markets at the same time. To successfully conduct this phase, the MTS team created a Decision Support Tool based on data extracted from an Oracle database (and dropped into Pivot Tables in MS Excel). During development, the MTS project team realized that this tool had enormous potential to assist the health care planners on-site and may be a useful tool to use in future studies.

Site Leaders and Stakeholders

During the MTS study, the team received feedback from site leaders that they were not yet ready to have recommendations presented and analyzed regarding sharing opportunities specific to their market site. Site leaders emphasized that they are looking for national guidance from agency leadership, along with supporting data in order to make well-informed decisions regarding changes. Enlisting the support from agency leadership in working with site leaders and stakeholders is an important key consideration in successfully reviewing and presenting recommendations to market sites.

Listed below are some additional considerations that can be applied in determining the priority and/or appropriateness of a specific market area for the application of this study methodology:

1. General

- Leadership/Stakeholder Involvement – What is the degree of "readiness" on the part of the local/market area senior leadership within both the DoD and VA to actively participate and contribute to the study?
- Prototypical Market – While all VISN markets and DoD catchment areas exhibit certain unique characteristics, the earliest study sites should represent as "typical" a market as possible in order to replicate the study on a national basis.
- Previous Studies – Has this market already been subject to DoD/VA joint venture studies, VA CARES analysis or any other previous market evaluation?

2. Proximity
   - Distance – What is the driving distance between the Federal facilities in the market? If these facilities are more than an hour's drive apart, do they tend to serve the same geographic market?
   - Types of Facilities – Does the market contain a mix of inpatient and ambulatory facilities (Federal and Non-Federal) in close proximity?
   - Proximity to Other Markets – Is the proposed market adjacent to or close by another Federal facility's catchment or market area? Is there significant overlap in these market areas? (Are patients routinely referred from one market to another for specialty services?)
3. Market Size/Geography
   - Size of Beneficiary Population – Is the proposed market of sufficient size to realize economies of scale in co-locating, consolidating or providing joint services between the DoD and VA?
   - Geographic Boundaries – Are there natural boundaries (e.g., lakes, rivers, mountains) that impact the access to care and determine patient migration patterns?
   - Medical Center – Is at least one of the Federal facilities in the market an academic medical center?
   - Type of Market – Is the proposed market mostly urban, suburban or rural in nature? Is it a mixture of market types?
   - Capacity – Does the market exhibit over-/under-capacity issues, including Non-Federal facilities (e.g., high growth markets tend to have under capacity; declining markets tend to have an over capacity of inpatient-related beds and services)?
4. Demographics
   - Mix of Beneficiaries – Does the proposed market contain sufficient numbers of military retirees, family members and others, including those who are "dual eligible" for care in both the DoD and VA?
   - Average Age of Beneficiaries – Does this market include significant eligible beneficiaries who are over the age of 65 (or who will be within a few years)?
5. Capital Investment Requirements
   - Facility Life Cycle – Do the facilities currently in the market represent newer or older inventory within the DoD and VA?
   - Capital Investments – Are any of the Federal facilities in the proposed market currently in line for major facility investments for additions/alterations or replacement?
   - Relative Costs – Is this market fairly typical of overall capital cost requirements, or are there unique issues in construction and related costs?

DoD/VA Joint Assessment Study
RESEARCH CATALOG

Categories for DoD/VA Reference material.

DD	**General DoD-related material**
VA	**General VA-related material**
SI	**DoD/VA Sharing Initiatives and JV Site Info**
LG	**Legislation, Testimony, etc.**
WA	**Puget Sound (Seattle/Tacoma, WA Area)**
HI	**Hawaii**
GC	**Gulf Coast (Coastal MS, AL, & FL panhandle)**
Web	**Web Site Index**

DoD/VA Joint Assessment Study
Research Category: DoD General/Background Information

Ref #	Title/Name	Source	Electronic Source	Year
DD-01	TMA - Acronyms and Definitions	TMA		2000
DD-02	TRICARE Online Demonstration	Capt B. Kelly, MC, USN, eBPS (TRICARE)		2002
DD-03	Overview of ARS Bridge (M2)	Wendy L Funk. Kennell and Associates	http://www.tricare.osd.mil/dataquality/DataQuality_Sep02/MHSData_SourcesTips.ppt	2002
DD-04	MTF Access (10 Apr-07 May 2002)	TRICARE Ops Ctr		2002
DD-05	PTF Briefing by Humana Military Healthcare Services, Louisville, KY, 14 AUG 02	Angela Sullivan Louis, HMHS		2002
DD-06	Navy Medicine Optimization: A Prospectus - Optimizing our Readiness Assets, Aug 2000	Bureau of Medicine & Surgery	http://bumed.med.navy.mil/med03/optimization	2000
DD-07	Military Installations Worldwide - 2003 Guide	Military Times Reference Magazine Series	none	2003
DD-08	MEPRS Data Specifications to Support MitreTek Systems - VA/DoD Joint Assessment Study	?? Mark Sandler?	??	2003
DD-09	Draft Information Paper - 30 April 2003 Re: Possible market manager supportive roles for Regional Medical Command (RMC)		e-mail from PTB on Wed 6/18/2003 12:02 PM	4/30/2003
DD-10	BRAC 95 Joint Cross-Service Group for MTFs and GME: Report to the BRAC 95 Review Group; March 31, 1994	DoD - Deputy Secretary of Defense Office	see P/TT	3/31/1994

Ref #	Title/Name	Source	Electronic Source	Year
DD-11	HA Instrument Panel October 2003	Clay Boenecke (TMA)	e-mail from DOW on Tuesday, 28 OCT 03	Oct-03
DD-12	Various DoD News Releases re: TRICARE Contractors	GovExec.com, Wall St Journal		Aug-03
DD-13	TRICARE Prime Remote description	www.tricare.osd.mil/tpr/	(see Left)	Jun-03
DD-14	Army Medical Department (AMEDD) Enrollment Capacity Plan	Gen. William Bester		Undated
DD-15	Transforming the AFMS: The Long View Strategy	Lt Gen Peach Taylor		Undated
DD-16	T-Nex Overview	COL Martha Lupo		Undated

Research Category: VA General/Background Information

Ref #	Title/Name	Source	Electronic Source	Year
VA-01	VA CARES VISN 12 Service Delivery Options Volume 1 (Draft Final Report)	Booz Allen & Hamilton		2001
VA-02	VA CARES Guidebook Phase II - Second Edition	VA		2002
VA-03	Independent Assessment of the Dept of VA Participation in CHAMPUS and TRICARE Programs	VA/Pricewaterhouse (via T. Mannle)		1997
VA-04	Program Restructuring and Inpatient Bed Change Policy - VA Directive 1000.1	VA		2001
VA-05	Toward Ideal Health & Health Information Systems	G. Christopherson, VHA	www.iom.edu/iom/iomhome.nsf/WFiles/Christopherson/$file/Christopherson.ppt	2001
VA-06	Assessment of Veterans' Health Care Needs in Northern California	VA (via T. Mannle)		1997
VA-07	VA Strategic Plan: FY 2001 - 2006	VA Office of Policy & Planning		2000
VA-08	Space & Functional and Facility Condition Assessment Database	VHA Office of Facilities Mgmt	http://vaww.vhacowebapps.cio.med.va.gov/cis/	2002
VA-09	VHA FY2002 Summary	VHA		2002
VA-10	The Medical SAS Inpatient Datasets - FY2000: A VIReC Resource Guide	VA Information Resource Center		2001
VA-11	Select Variable Frequencies from the Medical SAS Inpatient and Outpatient Datasets - FY2000: A VIReC Resource Guide	VA Information Resource Center		2001
VA-12	Dept of VA STEP (Serviceperson's Transition Examination Program) Fort Knox, 13 AUG 02	VA	check P/TT	2002

Ref #	Title/Name	Source	Electronic Source	Year
VA-13	News Release: 9 APR 02 - Quality of Veterans' Health Care Rates High Marks	VA Office Of Public Affairs Media Relations	http://www.va.gov/opa/pressrel/PressArtInternet.cfm?id=429	2002
VA-14	News Release: 1 APR 02 - VA "Scorecard" Shows Strong Performance Improvements	VA Office Of Public Affairs Media Relations	http://www.va.gov/opa/pressrel/PressArtInternet.cfm?id=423	2002
VA-15	VA Fact Sheet: Mar 2002 - Facts about the Department of Veterans Affairs	VA Office Of Public Affairs Media Relations	http://www.va.gov/OPA/fact/docs/vafacts.htm	2002
VA-16	VA Medicine: The Hidden Treasure by Ed Thorsland, 2000	Academic Medicine (Acad Med 2000 75: 222-223)	http://www.academicmedicine.org/cgi/content	2000
VA-17	Letter from A. Principi to D. Rumsfeld re: deployment HC data, 14 FEB 2003	via Doug Wilson	n/a	2003
VA-18	Federal Practitioner: 2003 Directory VA Health Care Facilities	Quadrant HealthCom, Inc.	n/a	10/18/2002
VA-19	Dept of VA Veterans Health Administration Enterprise Architecture 2001, Volume I	VHA CIO	??	11/1/2000
VA-20	"Swamped VA hurt by its own successes"	The Boston Globe, Mon 27 Jan 2003		1/27/2003
VA-21	Federal Benefits for Veterans and Dependents - 2003 Edition	Dept of VA, office of Public Affairs	http://www.va.gov/pubaff/fedben/Fedben.pdf or http://www.va.gov/opa/feature/index.htm	2003
VA-22	"VA's health services portal to launch in September", By Mary Mosquera	GCN, 7/15/03	P:\4602500A - DoD-VA Joint Assessment Study\Background Info & Research\VA Literature\HealtheVet portal release.pdf	7/15/2003
VA-23	Various VA News releases	GovExec.com, VA OPA/MR, VHA Now, GCN.com, NY Times, WSJ online		Apr-August 2003
VA-24	Selected VA Info re: VISNs 16, 20 & 21 for FY 1999	VA		1999 ?
VA-25	Dr. Roswell's Statement to Comm. on Vet Affairs (House) on the STATE of VA HC, 29 Jan 03	VA		2003
VA-26	GAO-03-1103R: Enhancing VA Health Care by Realigning Assets, 18 Aug 03 letter report to VA CARES Chairman Evertt Alvarez, Jr.	GAO		2003
VA-27	Dept of VA Strategic Plan 2003-2008, July 2003	Dept of VA, Office of Policy, Planning & Preparedness		2003

Research Category: Legislative Material

Ref #	Title/Name	Source	Electronic Source	Year Published
LG-01	Major Management Challenges and Program Risks	GAO		2001
LG-02	VA and DOD Health Care - Factors Contributing to Reduced Pharmacy Costs and Continuing Challenges	GAO		2002
LG-03	Computer-Based Patient Records - Better Planning and Oversight by VA, DoD, and HIS Would...	GAO-01-459		2001
LG-04	VA and Defense Health Care - Increased Risk of Medication Errors for Shared Projects	GAO-02-1017		2002
LG-05	Congressional Commission on Servicemembers and Veterans Transition Assistance	CBO		1999
LG-06	DoD and VA Demonstration Project	H.R. 2667		2001
LG-07	DoD-VA Health Resources Sharing (Amendment to HR 4546, as Reported Offered by Mr. Smith of NJ)			2002
LG-08	Views Paper on Letter to Chairman, Amendment to HR 4546...	unknown	check P/TT	2002
LG-09	Letter with DoD views on Amendment to HR 4546	unknown	check P/TT	2002
LG-10	June 17 ('03) Testimony re: PTF Final Report	House Committee on Veterans' Affairs website	http://veterans.house.gov/hearings/schedule108/jun03/6-17-03/witness.html	2003
LG-11	Dr. Winkenwerder's Testimony to Senate Finance Comm. Hearing on Purchasing HC in a Competitive Process on 3Apr03			2003
LG-12	Defense Health Care: Oversight of the Adequacy of TRICARE's Civilian Provider Network Has Weaknesses	GAO		2003

Research Category: Sharing Initiatives

Ref #	Title/Name	Source	Electronic Source	Year
SI-01	PTF to Improve Health Care Delivery for Our Nation's Veterans	PTF (website)	http://www.presidentshealthcare.org	2002
SI-02	DoD Healthcare Partnerships	TMA; H.J. Sears		2000
SI-03	CRFHCA - Exercise in Partnering	TRICARE Central		2001

Ref #	Title/Name	Source	Electronic Source	Year
SI-04	NQMP and DoD/VA Guideline Based Condition Management Programs	Col Geoff Rake; TMA		2002
SI-05	DoD/VA Interoperability Project	Pacific Telehealth & Technology Hui	http://www.pacifichui.org	2002
SI-06	GCPR Vision	American Medical Informatics Association (AMIA)	www.anthc.org/itforum/Powerpoint/GCPR.ppt	2000
SI-07	DoD/VA Sharing: The Corporate View	Health Affairs		2002
SI-08	PTF Interim Report - July 31, 2002	PTF (website)	http://www.presidentshealthcare.org	2002
SI-09	VHA TRICARE Revenue Process and Cost-Benefit Analysis - Sept 24, 2002	VHA CFO's Financial Assistance Office		2002
SI-10	377th Med'l Grp, Kirtland AFB, USAF – Albuquerque JV PTF Visit June 27, 2002 Notebook	via DOW		2002
SI-11	VA Southern Nevada HC System Annual Report	VA S NV HCS		2002
SI-12	VA-DoD Sharing Program: An Overview, US Army Medical Dept Activity, Ft Knox, KY 13AUG02	Dr. Modderman, Ireland ACH; Mr. Babb, Louisville VAMC	check P/TT	2002
SI-13	VA/Dept of Defense Sharing Agreement (VA FORM 10-1245c) & Supporting documents	Dept of Veterans Affairs/Madigan AMC	P/TT (pdf file)	2002
SI-14	Final Report 2003: PTF to IHCD for ONV	PTF (website)	http://www.presidentshealthcare.org	26May 03
SI-15	PTF to Improve Health Care Delivery for Our Nation's Veterans: A Brief Guide to the Final Report, May 2003	PTF (website)	http://www.presidentshealthcare.org	2003
SI-16	Dept VA & DoD Health Resources Sharing: Staff Report to the Committee on Veteran's Affairs, 25 Feb 2002	US House of Representatives, 107th Congress	http://veterans.house.gov/about/vadod/vadodsha.pdf	25-Feb-02
SI-17	VA/DoD Joint Strategic Planning Initiative, Draft 4/7/2003 (+ VA News Release)	VA-DoD Joint Executive Council		4/7/2003
SI-18	CARES-DoD Integration	TMA		2002 or 03

Research Category: Washington State (Puget Sound Market Area)

Ref #	Title/Name	Source	Electronic Source	Year
WA-01	VA State Summary: Washington	VA	http://www.va.gov/pressrel/WAss.doc	2002
WA-02	DoD/VA Sharing and Integration - A Regional Perspective	Lt Col MaryAnne Havard		2002

Ref #	Title/Name	Source	Electronic Source	Year
WA-03	Madigan Army Medical Center Brochure		..\Demonstration Sites\DS1-Seattle Area\Madigan Diagrams.pdf	2002
WA-04	SmithGroup's MFP floor plans of Madigan AMC	SmithGroup	..\Demonstration Sites\DS1-Seattle Area\SmithGroup Diagrams.pdf	2002
WA-05	Health Planning Review #1 - Madigan AMC February 2002 Master List; Totals/All Stations	SmithGroup, Innova Group		2002
WA-06	Top 10 Items Budgets Spent On	VISN 20	P/TT (pdf file)	Un-known
WA-07	VA/Dept of Defense Sharing Agreement (VA FORM 10-1245c)	Dept of Veterans Affairs	P/TT (pdf file)	2002
WA-08	Information Paper: Patient Satisfaction Reports; 29 JAN 2003	Madigan Army Medical Center	P/TT (pdf file)	2003
WA-09	Information Paper: Surgical Quality Assessment; 29 JAN 2003	Madigan Army Medical Center	P/TT (pdf file)	2003
WA-10	Information Paper: Provider Credentialing; 29 JAN 2003	Madigan Army Medical Center	P/TT (pdf file)	2003
WA-11	VA Executive Summary: VA Puget Sound HCS - Amer Lake & Seattle Divisions	VA	P/TT (pdf file)	2002
WA-12	VA Puget Sound Information Management Presentation (Information Systems Service Line)	VA Puget Sound	n/a	2002/ 2003
WA-13	VISN 20: Facilities Map	VA	see PTT	??
WA-14	VISN 20: Inpatient "SHEP" scores - FY02 compared to FY01 for Improvement	VISN 20	see PTT	2002
WA-15	PSHCS Executive Performance Summary FY2003 (Q1)	VA Puget Sound	see PTT	2003
WA-16	Plot Plans for VA Puget Sound Seattle & Amer Lake	VA Puget Sound	see PTT	1997
WA-17	VISN 20: Congressional Briefing BY Leslie Burger, Network Director, 11 July 2002	www.va.gov	http://www.visn20.med.va.gov/cb/cb2002/1	2002
WA-18	VA Seattle: West Clinic Space Committee Assignments	VA Puget Sound	see PTT	2002
WA-19	VA PSHCS: Diagnostic Services Care Line Organization Structure, Rev. Dec 2002	VA Puget Sound	see PTT	2002
WA-20	VA PSHCS: Radiology Information (Workload, Staffing & Ops, Capacity)	VA Puget Sound	see PTT	2002

Ref #	Title/Name	Source	Electronic Source	Year
WA-21	VA Puget Sound HCS: Working Together for the Health of Our Veterans (brochure)	VA Puget Sound	see PTT	??
WA-22	VA/DoD Collaboration MAMC & VA PSHCS Informatics, 21 Feb 03, LTC Williams, Mr. Zwinger	site Visit	see PTT	2003
WA-23	MAMC Business Plan example (MCHJ-CDR (40)), 11 DEC 2000	site Visit	see PTT	2000
WA-24	Madigan Army Medical Center Master Plan	SmithGroup, The Innova Group	??	2002
WA-25	NH Bremerton Packet: NHB TRICARE brochure, NHB Pharmacy Benefits Brochure; Command Overview Presentation (20 Feb 2003)	site Visit	see PTT	2002/ 03
WA-26	BMC Everett (David R. Ray Health Center) overview presentation & Business Plan	site Visit	see PTT	02/20/ 03
WA-27	Sign-In Sheets from Site Visit 1 (February 2003)	MTS, Site Visit	none	2003
WA-28	VA Valuation Study for American Lake Division	AmLake, Site Visit	none	10/18/ 2002
WA-29	Western Region Medical Command Balanced Scorecard, November 2002	site Visit		11/01/ 02
WA-30	Madigan Army Medical Center Balanced Scorecard, 8 Apr 02	site Visit	none	04/01/ 02
WA-31	MAMC Floor Plan?	site Visit	none	
WA-32	MAMC Medical Services Quality Mgmt Program - Regulation 40-20, 13AUG02	site Visit	none	2002
WA-33	MAMC Clinical Standards: List, for Thrombolytic Therapy & for Diabetes Mellitus	site Visit	none	2003
WA-34	VAMC Seattle Workloads for Radiology & Labs, and Medical Specialties Clinics Wait Times	site Visit	none	2002
WA-35	VA Puget Sound Site Data Received	site Visit	n/a	2003
WA-36	MAMC Department of Emergency Medicine	site Visit	n/a	
WA-37	VA Puget Sound HCS & DoD (NHB, NHOH, MAMC, etc.) in Puget Sound: Building Floor Plans	Dept of Veterans Affairs	none	2001- 2002
WA-38	MAMC Master Plan Brief (Team Army Meeting, 4 Sep 2002	SmithGroup		2002

Research Category: Hawaii Market Area

Ref #	Title/Name	Source	Electronic Source	Year
HI-01	VA State Summary: Hawaii	VA	http://www.va.gov/pressrel/hiss.htm	2002
HI-02	VA Structure of the Organization	VA HI	.pdf	??
HI-03	VA/DoD Clinical Investigation Exploratory Group Meeting, 3 JAN 02	TAMC/VAMROC	.pdf	2002
HI-04	Consult Request Generated by MTF Providers	TRICARE Hawaii/COL Coins?		2001
HI-05	Surgery Patients TAMC FY 2002 and FY 2003 YTD	TAMC COL P. Cardts, Chief of Surgery		2003
HI-06	Welcome to Tripler AMC brochure	site visit		2001
HI-07	copy of Honolulu WAIKIKI street map	site visit		??
HI-08	Medical Product Line Integrated Services (betw TAMC & VA), 16 Aug 02	Col D. Vincent @ TAMC		2002
HI-09	Report to Congress on DoD/VA Biomedical Research & Technology Center: Feasibility Study at TAMC	site visit		2001
HI-10	Robert W. Carey Quality Award Application by VAMROC Honolulu, submitted April 2002	site visit		2002
HI-11	VAMROC Honolulu Presentation to Mitretek Systems, Mar 2003	site visit		2003
HI-12	Report to Congress: Meeting the Pacific Telehealth Challenge	Dept of VA		2000
HI-13	Pacific Telehealth & Technology Hui: A DoD/VA Joint Venture brochure	site visit		200?
HI-14	Sign-In Sheets from HI Site Visit 1	site visit	n/a, but should be in Intvw Database	2003
HI-15	Data collected at HI Site Visits - TRICARE	site visit	none	2003

Research Category: Gulf Coast Market Area

Ref #	Title/Name	Source	Electronic Source	Year
GC-01	VA State Summary - Alabama	www.VA.gov	http://www.va.gov/pressrel/ALss.htm	2001
GC-02	VA State Summary - Florida	VA	http://www.va.gov/pressrel/flss.htm	2001
GC-03	VA State Summary - Mississippi	VA	http://www.va.gov/pressrel/msss.htm	2001
GC-04	South Central VA HealthCare Network Facts	VA	http://www.visn16.med.va.gov/facts.html	2002
GC-05	Humana MHS Internet Initiatives	Humana MHS	Should be in P/TT (Dec 02)	2002?

GC-06	Humana Military Healthcare Services Brochures packet	Humana MHS		2002
GC-07	BMC Panama City NSWC Panama City, FL	site visit	??	2002
GC-08	VHA Biloxi FY2003 IT Spending Plan, with Budgeted and Actual expenses	site visit	??	2003
GC-09	Biloxi VAMC Extended Care Services List	site visit	??	
GC-10	Biloxi VAMC IMS overview	site visit	??	
GC-11	Gulf Coast Site Visit Sign-In Sheets	site visit	none	2003
GC-12	VA&DoD Working Together for Improved Health Care: Audiology/Speech Pathology	VA GCHS, Biloxi/Gulfport	none	2003
GC-13	VGCVHSC Quality Performance Measures	site visit: Dr. Paul Allen	none	2003
GC-14	Mitretek Briefing by VA GC VHCS & DoD Health Svcs Region IV, 2JUN03	site visit	via Sharon	2003
GC-15	NH Pensacola Marketing Plan, July 2002	site visit	none	24-Sep-02
GC-16	Merging of DoD/VA Assets to Avoid Dupl., Increase Efficacy of Diabled POWs' Claims Process - Exec Summ	site visit: Capt Dr. Ambrose	none	2003?
GC-17	Keesler Medical Center Floor Plans	site visit	none	
GC-18	Keesler/81st MG Stats: Surg OR minutes, PreAdm Clinic visits, Same Day Surg Admits	site visit	none	2003
GC-19	Keesler ED Verification of Capacity and Constraints	site visit	MTS document?	2003
GC-20	"VA Committee Authorizes New Veterans' Clinic In Pensacola" & Memo from BUMED (LCDR Todd Gibson)	via Clay Boenecke @ TRICARE	hyperlink & e-mail from DOW on 6/30/03	Jun-03
GC-21	NH Pensacola Enrollment Capacity April 2003	Janice Suggs, NHP	e-mail from CTC on Tue 6/10/2003 9:44 AM	6/4/2003
GC-22	CARES Drawings 2002 - AutoCAD	SmithGroup		2002
GC-23	Draft Population & Utilization Analysis, 6th Med. Grp, MacDill AFB, FL	Sherlock Smith & Adams, The Innova Group		Mar-03

Research Category: Helpful Website References

Web Site Name or Subject	Web Site Address
Defense Link - U.S. Department of Defense	http://www.defenselink.mil
The National Committee on Vital and Health Statistics	http://www.ncvhs.hhs.gov
The Office of the Assistant Secretary of Defense (Health Affairs)	http://www.ha.osd.mil/about/default.html
TRICARE Management Activity (TMA)	http://www.tricare.osd.mil/administration/default.html
Defense Health Advisors	http://www.defensehealth.net/updatearchive/101102.htm
House Appropriations Committee	http://www.house.gov/appropriations/news.htm
VISN 20 (Northwest Network) Home Page	http://www.visn20.med.va.gov/
VISN 21 (Sierra Pacific Network) Home Page	http://www.visn21.med.va.gov/
VA: Washington State	http://www.dva.wa.gov/news.htm
PTF to Improve Health Care Delivery for Our Nation's Veterans	http://www.presidentshealthcare.org
Veterans Data and Information	http://www.va.gov/vetdata/ProgramStatics/
U.S. Congress (report search, etc.)	http://www.access.gpo.gov/congress/cong005.html
General Accounting Office	http://www.gao.gov/
The Library of Congress	http://thomas.loc.gov/
TRICARE Regions - Facility Locator	http://www.tricare.osd.mil/

APPENDIX B *Attachment 2*

Site Visit Interviewees – DoD/VA Joint Assessment Study, 2003

We spoke to almost 400 people at the site level.

Contact w Title & Facility	Last Name	Site/ System	Facility
Lt CMDR Karen Verheul, Nursing Supervisor, BMC Everett	Verheul	ID	BMC Everett
Dennis C. Allison CRNA, Lead CRNA, MAMC	Allison	ID	MAMC
Dr. Anderson, SCQMC, MAMC	Anderson	ID	MAMC
Mr. Tim Baker, Primary Care Clinics, MAMC	Baker	ID	MAMC
Frances Walker Clark, Administrative Officer, Dept of Emergency Medicine, MAMC	Clark	ID	MAMC
Eli Claypoole, MAMC	Claypoole	ID	MAMC
BGEN Michael Dunn, Commander, TRICARE, Madigan AMC	Dunn	ID	MAMC
COL George J.Dydek, MAMC	Dydek	ID	MAMC
LTC George Giacoppe, Chief, Department of Medicine, MAMC	Giacoppe	ID	MAMC
LTC Mike Griffin, Chief, Patient Administration, MAMC	Griffin	ID	MAMC
Jeff Heim, Facilities, Madigan AMC	Heim	ID	MAMC
COL Nancy E. Henderson, Chief, PT, MAMC	Henderson	ID	MAMC
LTC Mark Hines, Nurse Methods Analyst, MAMC	Hines	ID	MAMC
Capt Heidi Hoffman, Admin, MAMC	Hoffman	ID	MAMC
LTC William J. Howard, OTR/L, CHT, MAMC	Howard	ID	MAMC
Eva Jacobs, IMC, MAMC	Jacobs	ID	MAMC
COL Frederic Johnstone, Surgical Clinics, MAMC	Johnstone	ID	MAMC
COL Shashi Kumar MD, Physician Director, Chief, PM&R, MAMC	Kumar	ID	MAMC
LTC Val Martin, Chief, Resource Management Division, MAMC	Martin	ID	MAMC
COL George McClure, OB/Gyn, MAMC	McClure	ID	MAMC
William M. McGrath, Chief, Information Mgmt Div, MAMC	McGrath	ID	MAMC
COL Willis McVay, MAMC	McVay	ID	MAMC
COL Bonnie S. Pearson, Director, Surgical Services, MAMC	Pearson	ID	MAMC
COL Muhammad T. Shaukat, Surgical Services, MAMC	Shaukat	ID	MAMC
Maggie Smith, Program Analyst, Madigan Army Medical Center	Smith	ID	MAMC
Billy Thomas, MAMC	Thomas	ID	MAMC
LTC Gary Wheeler, Chief, Primary Care, MAMC	Wheeler	ID	MAMC
Lt. Doug Jeffers, Loguistics, McChord AFB	Jeffers	ID	McChord AFB
LTC Barbara Jefts, Commander, McChord AFB	Jefts	ID	McChord AFB
MAJ Darrel Landreaux, Administrator, McChord AFB	Landreaux	ID	McChord AFB
COL Steve Regner, Commander, McChord AFB	Regner	ID	McChord AFB
Matt Batschi, CFO, NH Bremerton	Batschi	ID	NHB
Patrick Flaherty, CIO, NH Bremerton	Flaherty	ID	NHB
Judy Hogan, NH Bremerton	Hogan	ID	NHB
Lt. Andrew Hughes, Facilities, NH Bremerton	Hughes	ID	NHB
CAPT Christine S. Hunter, Commander, NH Bremerton	Hunter	ID	NHB
CAPT Julian Keith, Director for Clinical Services, NH Bremerton	Keith	ID	NHB
Richard S. Lopez, NHB	Lopez	ID	NHB
CDR Helen Pearlman, Clinical Nurse Specialist, Ambulatory Care, NHB	Pearlman	ID	NHB
Terry D. Roberts, Director for Healthcare Support, NH Bremerton	Roberts	ID	NHB

Contact w Title & Facility	Last Name	System	Facility
Judy Roberts, Director of Resources and Logistics, NH Bremerton	Roberts	1D	NHB
CAPT Jim Thralls, Executive Officer, NH Bremerton	Thralls	1D	NHB
CAPT Boone, Chief, Clinical Services, NH Oak Harbor	Boone	1D	NHOH
COL Mark Brisette, TRICARE Northwest	Brissette	1D	TRICARE Northwest
COL George Cargill, Lead Agent, Executive Director, TRICARE Northwest Lead Agency	Cargill	1D	TRICARE Northwest
COL Carter, Clinical Leadership, MAMC/TRICARE NW	Carter	1D	TRICARE Northwest
Jeffrey Clemons, OB/GYN, TRICARE Northwest	Clemons	1D	TRICARE Northwest
James Cohen, TRICARE Northwest Lead Agency	Cohen	1D	TRICARE Northwest
Daniel Davidson, TRICARE Northwest	Davidson	1D	TRICARE Northwest
LTC David Della-Giustina, TRICARE Northwest	Della-Giustina	1D	TRICARE Northwest
Vincent D. Eusterman, TRICARE Northwest	Eusterman	1D	TRICARE Northwest
Kelly Faucette, TRICARE Northwest	Faucette	1D	TRICARE Northwest
JoAnne Fletcher, TRICARE Northwest Lead Agency	Fletcher	1D	TRICARE Northwest
Timothy K. Guthrie, TRICARE Northwest Lead Agency	Guthrie	1D	TRICARE Northwest
Gary A. Herschberger, TRICARE Northwest Lead Agency	Herschberger	1D	TRICARE Northwest
COL Russell D. Hicks, TRICARE Northwest	Hicks	1D	TRICARE Northwest
Joann Hollandsworth TRICARE Northwest	Hollandsworth	1D	TRICARE Northwest
David Lemme, TRICARE Northwest Lead Agency	Lemme	1D	TRICARE Northwest
Dawn Light, TRICARE Northwest	Light	1D	TRICARE Northwest
Dennis Meyer, TRICARE Northwest Lead Agency	Meyer	1D	TRICARE Northwest
John (Jack) Miller, TRICARE Northwest Lead Agency	Miller	1D	TRICARE Northwest
CDR Terry Moulton, MSC, USN, TRICARE NW Lead Agency	Moulton	1D	TRICARE Northwest
Roger Sellers, TRICARE Northwest Lead Agency	Sellers	1D	TRICARE Northwest
Renee M. Swanson, TRICARE Northwest Lead Agency	Swanson	1D	TRICARE Northwest
David Tomich, TRICARE Northwest Lead Agency	Tomich	1D	TRICARE Northwest
T. Keith Vaughan, TRICARE Northwest	Vaughan	1D	TRICARE Northwest
LTC(P) David Williams, Chief of Informatics, Tricare NW, MAMC	Williams	1D	TRICARE Northwest
Paul Matthews, MD, Clinic Director, Bremerton CBOC (Seattle)	Matthews	1V	Bremerton CBOC
Sandy McCormack, RN, Nurse Manager, Bremerton CBOC	McCormack	1V	Bremerton CBOC
Maria Y. Boelter, Logistics Manager, PSHCS	Boelter	1V	VA PSHCS
Katherine "KC" Chronister, Facility Planner, VA PSHCS	Chronister	1V	VA PSHCS
Gail M. Eck, Administrative Officer, VA PSHCS	Eck	1V	VA PSHCS
Rose Franzmeier, Education & Development, VA PSHCS	Franzmeier	1V	VA PSHCS
Eileen E. Gormly, Information Security Officer, VA PSHCS	Gormly	1V	VA PSHCS
Susan Helbig, PSHCS	Helbig	1V	VA PSHCS
Kenneth J. Hudson, CFO, VA PSHCS	Hudson	1V	VA PSHCS

Contact w Title & Facility	Last Name	Site/ System	Facility
W. Paul Nichol MD, ACOS/Clinical Information Management, VA PSHCS	Nichol	1V	VA PSHCS
Sandy J. Nielsen, Deputy Director, VAPSHCS Executive Office, VAMC Seattle	Nielsen	1V	VA PSHCS
Phil Rakestraw, Director, Center for Education and Development, VA PSHCS - Seattle	Rakestraw	1V	VA PSHCS
Murray Raskind, MD, Deputy Assoc Exec Director, Mental Health, PSHCS	Raskind	1V	VA PSHCS
Don Rowberg, MD, Acting CMO, VA PSHCS	Rowberg	1V	VA PSHCS
Bill Thompson, Contracting Officer, VA Seattle - Acquisition and Material Management	Thompson	1V	VA PSHCS
Tim Williams, Director, PSHCS	Williams	1V	VA PSHCS
Glenn P. Zwinger, CIO, VA PSHCS	Zwinger	1V	VA PSHCS
LeAnn Beasley, Laboratory, VA American Lake	Beasley	1V	VAMC Am Lake
Loueen Boyle, Rehab, VA American Lake	Boyle	1V	VAMC Am Lake
Zuniega Calugas RN, Nurse manager, VAMC American Lake	Calugas	1V	VAMC Am Lake
Douglas Ching RN, Nurse Manager, VAMC Am Lake	Ching	1V	VAMC Am Lake
Dr. Everett, VA American Lake	Everett	1V	VAMC Am Lake
Sharon Falzgraf MD, Medical Director, VAMC American Lake	Falzgraf	1V	VAMC Am Lake
Tesfai Gabre-Kidan, VA American Lake	Gabre-Kidan	1V	VAMC Am Lake
Connie Hyndman, Nursing Director, VAMC American Lake	Hyndman	1V	VAMC Am Lake
Guzty Nevissi, MD, Medical Director, Rehab, VA American Lake	Nevissi	1V	VAMC Am Lake
Charles Paxson, MD, VA American Lake	Paxson	1V	VAMC Am Lake
Ann Shahan, VAMC American Lake	Shahan	1V	VAMC Am Lake
Andre Tapp MD, Medical Director, VAMC American Lake	Tapp	1V	VAMC Am Lake
Ellen Wilson, VA American Lake	Wilson	1V	VAMC Am Lake
Molly Aldassy, Primary Care Program Manager, VA Puget Sound Health Care System - Seattle VAMC	Aldassy	1V	VAMC Seattle
Bradley Anawalt MD, Emergency Dept, VAMC Seattle	Anawalt	1V	VAMC Seattle
Robert Barnes, Substance Abuse, VAMC Seattle	Barnes	1V	VAMC Seattle
Edward Boogaerts, Projects Supervisor, VA Puget Sound HCS-Seattle VAMC	Boogaerts	1V	VAMC Seattle
Leslie Brundige, VAMC Seattle	Brundige	1V	VAMC Seattle
David Brunfield RN, OR Manager, Seattle VAMC	Brunfield	1V	VAMC Seattle
Jan Buchanan, Social Worker, VAMC Seattle	Buchanan	1V	VAMC Seattle
James Caldwell MD, VAMC Seattle	Caldwell	1V	VAMC Seattle
Robin S. Cook, Quality Improvement, VAMC Seattle	Cook	1V	VAMC Seattle
Dee Daugherty RN, VAMC Seattle	Daugherty	1V	VAMC Seattle
Catherine L. Dickson, Director, Quality Management, VAMC Seattle	Dickson	1V	VAMC Seattle
DeAnn Dietrich, VAMC Seattle	Dietrich	1V	VAMC Seattle
Fred Fiscella, Director, Diagnostic Services Care Line, VAMC Seattle	Fiscella	1V	VAMC Seattle
Martin Fore, Sterile Processing Manager, VAMC Seattle	Fore	1V	VAMC Seattle
Roger French, Dir of HR, VA Seattle	French	1V	VAMC Seattle
Deanna Galbraith, Materials Mgmt, VAMC Seattle	Galbraith	1V	VAMC Seattle
Richard B. Goodman MD, Pulmonary Medicine, VAMC Seattle	Goodman	1V	VAMC Seattle
Margaret Hammond MD, Director SCI Unit, VAMC Seattle	Hammond	1V	VAMC Seattle
Mary L. Hampton, VAMC Seattle	Hampton	1V	VAMC Seattle
John Harley, MD, Imaging Director, VAMC Seattle	Harley	1V	VAMC Seattle

Contact w Title & Facility	Last Name	Strategic System	Facility
William R. Hazzard MD, VAMC Seattle	Hazzard	1V	VAMC Seattle
Susan Holme, VAMC Seattle & VAMC American Lake	Holme	1V	VAMC Seattle
Denis Johnson, Seattle VAMC	Johnson	1V	VAMC Seattle
Stephen M. Linen, VAMC Seattle	Linen	1V	VAMC Seattle
Benjamin A. Lipsky MD, Infectious Disease, VAMC Seattle	Lipsky	1V	VAMC Seattle
Frankie T. Manning, Assoc Dir Nursing Services, VAMC Seattle	Manning	1V	VAMC Seattle
Piotr Michalowski MD, Chief of Anesthesiology, VAMC Seattle	Michalowski	1V	VAMC Seattle
Roberto Nicosia, Director, Pathology and Lab Medicine, VA Seattle	Nicosia	1V	VAMC Seattle
Rod O'Gorman, Pharmacy, VAMC Seattle	O'Gorman	1V	VAMC Seattle
James Orcutt MD, VAMC Seattle	Orcutt	1V	VAMC Seattle
John Park, Manager, Health Plan Mgmt, JV Coordinator, VAMC Seattle	Park	1V	VAMC Seattle
Arthur Rodriquez MD, Director, Rehab Care, VAMC Seattle	Rodriquez	1V	VAMC Seattle
Pam Seymour, VAMC Seattle	Seymour	1V	VAMC Seattle
Michael Sobel, Surgical Services, Seattle VAMC	Sobel	1V	VAMC Seattle
Gorden Starkebaum, MD, Chief of Staff, VAPSHCS- Seattle	Starkebaum	1V	VAMC Seattle
Jeanette Thielen, Seattle VAMC	Thielen	1V	VAMC Seattle
Frank Yunker, Pharmacy Director VISN, VAMC Seattle	Yunker	1V	VAMC Seattle
Randall God, VISN 20 Lab Manager, VISN 20	God	1V	VISN 20
Leslie Burger, MD, Network Director, VISN20	Burger	1V	VISN20
Ray Sullivan, CIO, VA VISN20	Sullivan	1V	VISN20
LT Dennis Nagle, Assistant Clinic Director, Kaneohe Bay Clinic	Nagle	2D	BMC Kbay
LTJG Ed Drish, Assistant Director, BMC Makalapa - Pearl Harbor	Drish	2D	BMC Makalapa
CAPT William P. Frank, Executive Officer, BMC Makalapa (Navy)	Frank	2D	BMC Makalapa
CDR Kevin M. Moore, Clinic Director, BMC Makalapa -Pearl Harbor	Moore	2D	BMC Makalapa
LT Theresa Altman, Clinic manager, BMC Pearl Harbor	Altman	2D	BMC Pearl Harbor
CAPT Jan M. Carrio, Director for Business Strategies & Nursing Services, Naval Medical Clinics, Pearl Harbor	Carrio	2D	BMC Pearl Harbor
LTC Gregory Stewart, Medical Support Squadron Commander, Hickam AFB. 15th Medical Group	Stewart	2D	Hickam
LTC Jose L. Baez, Pacific Regional Contracting Officer (Procurement & Contracts), PRMC	Baez	2D	PRMC
Ahe-yong (Laurie) Lee, Deputy Chief, PRCO (Procurement and Contracts), PRMC	Lee	2D	PRMC
Sandra Alameida, Healthcare Administrator (Radiology), TAMC	Alameida	2D	TAMC
Kenneth B. Batts, Chief, Dept EMS, TAMC	Batts	2D	TAMC
Reginia Bradford, Asst Chief, Clinical Support D, TAMC	Bradford	2D	TAMC
COL James Breitweser, Chief, Radiology, TAMC	Breitweser	2D	TAMC
David G. Brown, Counseling Psychologist, TAMC	Brown	2D	TAMC
LTC James Camp, Lab Manager, TAMC	Camp	2D	TAMC
Leonard Cancio, Chief, Occupational Therapy, TAMC	Cancio	2D	TAMC
Lyle W. Carlson, Chief, Dept. of Psychology, TAMC	Carlson	2D	TAMC
Gary Christal, Health Care Administrator, Dept of Medicine, TAMC	Christal	2D	TAMC
Jonathon Clark, Chaplain Asst., TAMC	Clark	2D	TAMC
COL Paul Cordts MD, Chief, Department of Surgery, TAMC	Cordts	2D	TAMC
Donald E. Devaney, Provost Marshal, TAMC	Devaney	2D	TAMC
COL Donna Diamond, Surgical Services, Tripler AMC	Diamond	2D	TAMC

Contact w Title & Facility	Last Name	Site/ System	Facility
COL Carroll J. Diebold, Chief, Dept. of Psychiatry, TAMC	Diebold	2D	TAMC
Thomas F. Ditzler PhD, Director of Research Psychiatry, Tripler	Ditzler	2D	TAMC
COL Douglas Dudevoir, Director, Resources Management, TAMC	Dudevoir	2D	TAMC
Marjorie Esteron, Joint Venture Office, Tripler AMC	Esteron	2D	TAMC
Gerald Evans, Chief, Inpt Psych, TAMC	Evans	2D	TAMC
COL Suzanne S. Evans, AN, Chief, Managed Care Division, TAMC	Evans	2D	TAMC
Michael E. Faran, Chief, Child Psych, TAMC	Faran	2D	TAMC
Raymond Folen, Chief, Behavioral Medicine, TAMC	Folen	2D	TAMC
LTC Frederick J. Gargiulo, Deputy Commander for Adminstration, Chief of Staff, Tripler AMC	Gargiulo	2D	TAMC
David Gilbertson, CIO, TAMC	Gilbertson	2D	TAMC
Brad Goo, Software Engineer, Tripler AMC	Goo	2D	TAMC
Marsha Graham, Chief, Clinical Quality Svcs, TAMC	Graham	2D	TAMC
MAJ Michelle Greene, Deputy Chief, Patient Administration, TAMC	Greene	2D	TAMC
LTC William Grimes, Executive Officer, TAMC	Grimes	2D	TAMC
COL Haraguichi, Procurement, Tripler AMC	Haraguichi	2D	TAMC
Brenda J. Horner, Chief, Joint Venture Office, TAMC	Horner	2D	TAMC
Robert Jackson, Chief, Adult Psychology, TAMC	Jackson	2D	TAMC
Michelle Janosik, TAMC	Janosik	2D	TAMC
CAPT Rich Jeffries, DCCS - Dep Cdr for Clinical Services, HQ, TAMC	Jeffries	2D	TAMC
LTC Linda Jellen, Chief, Department of Social Work, TAMC	Jellen	2D	TAMC
Dennis Kilian, Chief, Environmental Health, Tripler AMC	Kilian	2D	TAMC
Marsha Latham, Director, Utilization Management, TAMC	Latham	2D	TAMC
Janice M. Lehman, Head Nurse, ED, TAMC	Lehman	2D	TAMC
Wayne Levy, Chief Psychologist, TAMC	Levy	2D	TAMC
Michael Madsen, Chief, EMS, TAMC	Madsen	2D	TAMC
Mernal Miyasato-Crawford, Coord, Medical SW Section, TAMC	Miyasato-Crawford	2D	TAMC
LTC Michael Montgomery, Chief, Patient Administration, Tripler AMC	Montgomery	2D	TAMC
Arthur Morton, Chief, Health Physics, Tripler AMC	Morton	2D	TAMC
Nazario Nestor, Chaplain, TAMC	Nestor	2D	TAMC
COL Vicki Odegaard, Assistant Chief Director of Nursing, TAMC	Odegaard	2D	TAMC
LTC(P) Christine Piper, Nursing Director, TAMC	Piper	2D	TAMC
John Robinson, Supervisor, Med. Clerk, TAMC	Robinson	2D	TAMC
Rob Robinson, Operations and Plans Officer, Tripler AMC	Robinson	2D	TAMC
Paul Sander, Chief, Clinical Support, TAMC	Sander	2D	TAMC
COL Catherine Schempp, Chief, Clinical Investigations, TAMC	Schempp	2D	TAMC
Gary Southwell, Deputy Chief, Dept of Psychology, TAMC	Southwell	2D	TAMC
COL Deborah Stetts, Chief, PT/PMRS, TAMC	Stetts	2D	TAMC
Ben Thompson, Occupational Health, TAMC	Thompson	2D	TAMC
COL Johnie Tillman, Deputy Commander for Readiness, PRMC, TAMC	Tillman	2D	TAMC
Margaret Tippy, Public Affairs Officer, Tripler AMC	Tippy	2D	TAMC
COL Toney, Health, Education & Training , TAMC	Toney	2D	TAMC
Douglas Umetsu, Chief, Neuropsy Service, TAMC	Umetsu	2D	TAMC
COL Dale Vincent MD, Chief, Dept of Medicine, TAMC	Vincent	2D	TAMC

Contact w Title & Facility	Last Name	Size/ System	Facility
James Walker, Chaplain, Chief, DMPL, TAMC	Walker	2D	TAMC
Glenn Wassermann, Chief, Preventive Medicine, TAMC	Wassermann	2D	TAMC
MGEN Joseph G. Webb, Jr., Commander, Tripler AMC	Webb	2D	TAMC
COL Jaclyn Whelen RN, Head Nurse SAC, TAMC	Whelen	2D	TAMC
Stephen Yamada, Infection Control & Epidermiology, TAMC	Yamada	2D	TAMC
Dale W. York, Health Care Administrator, TAMC	York	2D	TAMC
COL Barton, TRICARE Pacific	Barton	2D	TRICARE Pacific
COL Dennis Beaudoin, Chief, Pharmacy, Hawaii -TAMC?	Beaudoin	2D	TRICARE Pacific
CAPT Barry Cohen, Executive Director, TRICARE Pacific Lead Agency	Cohen	2D	TRICARE Pacific
Alex Felix, Safety Specialist, TRICARE Pacific	Felix	2D	TRICARE Pacific
John Martin, Deputy Director, TRICARE Pacific Lead Agency	Martin	2D	TRICARE Pacific
LTC Michael Rowbotham, Chief, TRICARE Operations, HI	Rowbotham	2D	TRICARE Pacific
Stanley Saiki Jr, Director, PTT HUI (HI)	Saiki	2D	TRICARE Pacific
Stephen Switaj, Safety Manager, TRICARE Pacific	Switaj	2D	TRICARE Pacific
COL Arthur (Art) Wallace, RN, MSN, Deputy Executive Director & Director, Clinical Operations, TRICARE Pacific Lead Agency	Wallace	2D	TRICARE Pacific
Dr. Philip Bruno, Hospitalist, VA/TAMC	Bruno	2D V	VA/TAMC
Dr. Anton Nicolescu, Hospitalist, VA/TAMC	Nicolescu	2D V	VA/TAMC
Juan Babiak, Chief, HC Administration, VAM&ROC Honolulu	Babiak	2V	VAMROC Honolulu
Gary Benson, Computer Specialist, VAMROC Honolulu	Benson	2V	VAMROC Honolulu
David Bernstein, MD, ACOS Mental Health, VAMROC Honolulu	Bernstein	2V	VAMROC Honolulu
Daniel Bouland, ACOS Primary Care/Medicine, VAMROC Honolulu	Bouland	2V	VAMROC Honolulu
H. David Burge, Director, VAMROC HI (Spark M. Matsunaga M&ROC)	Burge	2V	VAMROC Honolulu
Michael Carethers, ACOS Geriatrics, Rehab, Extended Care, VAMROC Honolulu	Carethers	2V	VAMROC Honolulu
Mary Cronin, Acting Assoc Director, Chief, IRM, VAMROC Honolulu	Cronin	2V	VAMROC Honolulu
Karen L. Dudding RN, VA Care Coordinator, Honolulu VAMROC	Dudding	2V	VAMROC Honolulu
Richard I. Frankel, ACOS Education, VAMROC Honolulu	Frankel	2V	VAMROC Honolulu
Chris Grant, VISTA Site Manager, VAMROC Honolulu	Grant	2V	VAMROC Honolulu
Jerilyn Ito, Chief, Coordinated Care, VAM&ROC Honolulu	Ito	2V	VAMROC Honolulu
Charlotte K. Kuwanoe, Social Work Executive, VAMROC Honolulu	Kuwanoe	2V	VAMROC Honolulu
Dale F. Leslie, Medical Administration Specialist, VAM&ROC Honolulu	Leslie	2V	VAMROC Honolulu
Kathleen Lysell, CPRS Manager, VAMROC Honolulu	Lysell	2V	VAMROC Honolulu
Steven E. MacBride MD, PhD, VA Chief of Staff, VAMROC HI	MacBride	2V	VAMROC Honolulu
John Mitson, DSS Site Manager, VAM&ROC Honolulu	Mitson	2V	VAMROC Honolulu
Yvonne Nakata, Acting Chief, Pharmacy Services, VAMROC Honolulu	Nakata	2V	VAMROC Honolulu
Reese Omizo, Clinical Telehealth Coordinator, VAMROC Honolulu	Omizo	2V	VAMROC Honolulu
Craig Oswald, Asst Director, Business Operations, VAM&ROC Honolulu	Oswald	2V	VAMROC Honolulu

Contact w Title & Facility	Last Name	Site/ System	Facility
Web Ross, MD, Research & Development Coordinator, VAMROC Honolulu	Ross	2V	VAMROC Honolulu
Mary Snowden, Chief, QMS, VAMROC Honolulu	Snowden	2V	VAMROC Honolulu
Gary S. VanBrocklyn, Health Systems Specialist, VAMROC Honolulu	VanBrocklyn	2V	VAMROC Honolulu
Mary Jane Yoshimua, Admin Special Assistant, VAMROC Honolulu	Yoshimua	2V	VAMROC Honolulu
CDR Gary L. Baker, Commander, Gulfport NBMC	Baker	3D	BMC Gulfport
Anthony Williams, BMCS, BMC Gulfport	Williams	3D	BMC Gulfport
Karen Blackburn, BMC Panama City	Blackburn	3D	BMC Panama City
Jose M. Negron, BMC Panama City	Negron	3D	BMC Panama City
COL Eva T. Berro, Cardiology, Eglin	Berro	3D	Eglin
Maj Dean Borsos, Emergency Department, Eglin	Borsos	3D	Eglin
LtCol Tina Broyles, nursing, Eglin	Broyles	3D	Eglin
COL James P.Counsman, Deputy Group Commander, Eglin	Counsman	3D	Eglin
Lt. Decker, Eglin	Decker	3D	Eglin
MAJ Evans, Eglin	Evans	3D	Eglin
MAJ Ferucci, Eglin	Ferucci	3D	Eglin
Paul Haase, Eglin	Haase	3D	Eglin
COL James Hansen, Cardiology, Eglin	Hansen	3D	Eglin
COL Jennings, Commander, Eglin	Jennings	3D	Eglin
Desi McMullen, Director of Quality Management, Eglin	McMullen	3D	Eglin
COL Brian D. Morr, Chief, Nursing Staff, Eglin	Morr	3D	Eglin
MAJ Kevin Purvis, Surgery Administration, Eglin	Purvis	3D	Eglin
Michael L. Chyrek, Hurlburt Field	Chyrek	3D	Hurlburt Field
Dennis C. Furcy, Hurlburt Field	Furey	3D	Hurlburt Field
Mitchell A. Garnick, Hurlburt Field	Garnick	3D	Hurlburt Field
Craig A. Keyes, Hurlburt Field	Keyes	3D	Hurlburt Field
Norma Sledge, Hurlburt Field	Sledge	3D	Hurlburt Field
Eric C. Sorenson, Hurlburt Field	Sorenson	3D	Hurlburt Field
LtCol Wanda PC Adkins, Social Services, Keesler	Adkins	3D	Keesler
Layne Bennion, Mental Health, Keesler	Bennion	3D	Keesler
Sgt Booker, Assistant Director, Keesler	Booker	3D	Keesler
Cynthia H. Bradley, Nursing, Keesler	Bradley	3D	Keesler
Lt Col Monroe A. Bradley, Group practice manager, Fam Prac, Keesler	Bradley	3D	Keesler
COL Bullock, Research & Quality, Keesler	Bullock	3D	Keesler
LtCol Susan B. Connor, executive staff, Keesler	Connor	3D	Keesler
MAJ Barbara Cupit, Nursing, Keesler	Cupit	3D	Keesler
COL Kathleen Dobbs, Chief Nurse, Keesler	Dobbs	3D	Keesler
SMSgt Robert M. Egersdorf, Social Services, Keesler	Egersdorf	3D	Keesler
Steven C. Fenzl, executive staff, Keesler	Fenzl	3D	Keesler
LtCol Diane L. Fletcher, Nursing, Keesler	Fletcher	3D	Keesler
LtCol David W. Garrison, Executive Staff, Keesler	Garrison	3D	Keesler
COL Suzanne Hansen, executive staff, Keesler	Hansen	3D	Keesler
LT Alan Hardman, Engineering & Maintenance, Keesler	Hardman	3D	Keesler
LtCol Sharon Herman, Nursing, Keesler	Herman	3D	Keesler

Contact w Title & Facility	Last Name	Site/ System	Facility
Kerry L. Hesselrode, Nursing, Keesler	Hesselrode	3D	Keesler
William Huff, executive staff, Keesler	Huff	3D	Keesler
Gabriel Intano, Genetics, Keesler	Intano	3D	Keesler
COL David M. Jenkins MD, Director Residency Training Program, Keesler	Jenkins	3D	Keesler
MAJ Andrea L. Jones, Nursing, Keesler	Jones	3D	Keesler
COL James M. Kenney MD, Chief of Surgery (retiring), Keesler	Kenney	3D	Keesler
Steve Kindsvater, Keesler	Kindsvater	3D	Keesler
Tamara S. Matter, Nursing, Keesler	Matter	3D	Keesler
Jan Pardolis, Chief of imaging, Keesler	Pardolis	3D	Keesler
LtCol Shae McComas-Peters, Executive Staff, Keesler	Peters	3D	Keesler
Kenneth D. Prince, Nursing, Keesler	Prince	3D	Keesler
John N. Quirk, Pharmacy, Keesler	Quirk	3D	Keesler
Melvin F. Richards, Pharmacy, Keesler	Richards	3D	Keesler
LtCol Jose E. Rumson, Family Practice Clinics, Keesler	Rumson	3D	Keesler
Anita Sanow, Genetics, Keesler	Sanow	3D	Keesler
MAJ Denise Sewall, Nursing, Keesler	Sewall	3D	Keesler
LtCol Martha Ann Stokes, Surgery, Keesler	Stokes	3D	Keesler
LtCol Cecelia W. Sutton, Nursing, Keesler	Sutton	3D	Keesler
Scott Talley, NCO in charge, ED, Keesler	Talley	3D	Keesler
John Wilhelm, Engineering & Maintenance, Keesler	Wilhelm	3D	Keesler
LtCol Vanessa Wise, Deputy Chief Nurse, Keesler	Wise	3D	Keesler
BGEN David G. Young III MD, Commander, 81st MG, Keesler	Young	3D	Keesler
LT Tammy K. Jansen, NATTC Corry Station	Jansen	3D	NATTC Corry Station
HMC Charles S. Lambert, (SW/FAM), NATTC Corry Station	Lambert	3D	NATTC Corry Station
CDR Ava C. Abney, Quality Management, NH Pensacola	Abney	3D	NHP
Michael Ambrose, Director POW Studies, NH Pensacola	Ambrose	3D	NHP
Tiffany Asqueri, Resource Sharing Coordinator, NHP	Asqueri	3D	NHP
CDR Toby J. Bacaner, Director Surgical Services, NH Pensacola	Bacaner	3D	NHP
CDR Eric A. Bower, Cardiologist, NHP	Bower	3D	NHP
S. Craig Broome, Emergency Department, NH Pensacola	Broome	3D	NHP
CDR Paul H. Ephron, Director Medical Services, NH Pensacola	Ephron	3D	NHP
Robert D. Ferguson, Clinical Support Services, NH Pensacola	Ferguson	3D	NHP
Cheryl Gandee, Specialty Clinic – Surgery, NH Pensacola	Gandee	3D	NHP
CAPT Jeff A. Hill, Executive Officer, NH Pensacola	Hill	3D	NHP
Teresa Hiller, Emergency Department, NH Pensacola	Hiller	3D	NHP
John Holm, Social Work/Discharge Planning, NH Pensacola	Holm	3D	NHP
Vathrice Hortwell, Chief Nurse, NH Pensacola	Hortwell	3D	NHP
Lisa E. Lessley, NH Pensacola	Lessley	3D	NHP
Dennis Lingbeek, Clinical Support Services, NH Pensacola	Lingbeek	3D	NHP
Roldvolo Lopez MD, Lab/Rad/Pharm, NH Pensacola	Lopez	3D	NHP
CDR M. Kim Lyons, Director, Healthcare Mgmt & Plans, NHP	Lyons	3D	NHP
CAPT T. R. McCoy, Director, Branch Medical Clinics, NH Pensacola	McCoy	3D	NHP
CDR Alan L. Morrison, Director Clinical Support Services, NH Pensacola	Morrison	3D	NHP

Contact w Title & Facility	Last Name	Site/ System	Facility
C. N. Olsen, PT/OT, NH Pensacola	Olsen	3D	NHP
CDR Cary A. Ostergaard, Director GME, NHP	Ostergaard	3D	NHP
Richard Robertson, PT/OT, NH Pensacola	Robertson	3D	NHP
Debra R. Soyk, Clinical Support Services, NH Pensacola	Soyk	3D	NHP
Dennis E. Stoops, Emergency Department, NH Pensacola	Stoops	3D	NHP
Greg Tarman, Urology Clinic, NH Pensacola	Tarman	3D	NHP
Doris J. Trawick, Quality Management, NH Pensacola	Trawick	3D	NHP
Dennis Wilson, Specialty Clinic – Surgery, NH Pensacola	Wilson	3D	NHP
CDR Robert S. Wright, Director, Resource Mgmt, NH Pensacola	Wright	3D	NHP
Linda L. Yearty, Credentialing, NH Pensacola	Yearty	3D	NHP
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Ronald Greenaway, Tyndall	Greenaway	3D	Tyndall
LtCol Bradley Herremans, Medical Support Squadron /CC, Tyndall	Herremans	3D	Tyndall
2d Lt Brent J. Kerr, Chief Helath Plans Mgmt/COR, Tyndall	Kerr	3D	Tyndall
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LCDR Steve Richardson, Whiting Field	Richardson	3D	Whiting Field
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Barbara Wolfe, Surgery, VAMC Biloxi	Wolfe	3V	VAMC Biloxi

Comment:

DoD/VA Service Line Crosswalk

as of December 18, 2003

WU Code	Work Unit Description	WU Type	System	Product Line	PL Sort Order	Clinical Service Line	Cost Category/ Service Type	Department	Department Sort Order	Dept Group	Dept Group Sort Order
402	Cardiac Surgery	OP	VA	Surgical Specialty	10	Cardio/Thoracic	Ambulatory	Surgical Specialty Clini	3	Clinic	1
413	Thoracic Surgery	OP	VA	Surgical Specialty	10	Cardio/Thoracic	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BBB	Cardio/Thoracic Surgery Clinic	OP	DOD	Surgical Specialty	10	Cardio/Thoracic	Ambulatory	Surgical Specialty Clini	3	Clinic	1
311	Pacemaker	OP	VA	Surgical Specialty	10	Cardio/Thoracic	Therapeutic	Cardiac Cath Lab	1	Diagnostic	5
211	Post Amputation Clinic	OP	VA	Surgical Specialty	10	General Surgery	Ambulatory	Surgical Specialty Clini	3	Clinic	1
291	Observation Surgery	OP	VA	Surgical Specialty	10	General Surgery	Ambulatory	Surgical Specialty Clini	3	Clinic	1
327	Invasive OR Procedure	OP	VA	Surgical Specialty	10	General Surgery	Ambulatory	Surgery OR	1	OR	4
328	Med/Surg Day Unit	OP	VA	Surgical Specialty	10	General Surgery	Ambulatory	Surgery Support	2	OR	4
401	General Surgery	OP	VA	Surgical Specialty	10	General Surgery	Ambulatory	Surgical Specialty Clini	3	Clinic	1
416	Ambulatory Surgery Evaluation (Non-MD)	OP	VA	Surgical Specialty	10	General Surgery	Ambulatory	Surgery Support	2	OR	4
418	Amputation Clinic	OP	VA	Surgical Specialty	10	General Surgery	Ambulatory	Surgical Specialty Clini	3	Clinic	1
419	Anesthesia Pre/Post-op Consultation	OP	VA	Surgical Specialty	10	General Surgery	Ambulatory	Surgery Support	2	OR	4
420	Pain Clinic	OP	VA	Surgical Specialty	10	General Surgery	Ambulatory	Surgical Specialty Clini	3	Clinic	1
424	Phone - Surgery	OP	VA	Surgical Specialty	10	General Surgery	Ambulatory	Other	3	Other	6
429	Outpatient Care in OR	OP	VA	Surgical Specialty	10	General Surgery	Ambulatory	Surgery Support	2	OR	4
435	Surgical Processing Unit	OP	VA	Surgical Specialty	10	General Surgery	Ambulatory	Surgery Support	2	OR	4
BBA	General Surgery Clinic	OP	DOD	Surgical Specialty	10	General Surgery	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BBL	Pain Management Clinic	OP	DOD	Surgical Specialty	10	General Surgery	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BBX	Surgical Clinics Cost Pool	OP	DOD	Surgical Specialty	10	General Surgery	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BBZ	Surgical Care NEC	OP	DOD	Surgical Specialty	10	General Surgery	Ambulatory	Surgical Specialty Clini	3	Clinic	1
DGA	Same Day Services	OP	DOD	Surgical Specialty	10	General Surgery	Ambulatory	Surgery Support	2	OR	4
404	Gynecology	OP	VA	Surgical Specialty	10	Gynecology	Ambulatory	Surgical Specialty Clini	3	Clinic	1
426	Women's Surgery	OP	VA	Surgical Specialty	10	Gynecology	Ambulatory	Surgical Specialty Clini	3	Clinic	1
406	Neurosurgery	OP	VA	Surgical Specialty	10	Neurosurgery	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BBC	Neurosurgery Clinic	OP	DOD	Surgical Specialty	10	Neurosurgery	Ambulatory	Surgical Specialty Clini	3	Clinic	1
407	Opthamology	OP	VA	Surgical Specialty	10	Opthamology	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BBD	Ophthalmology Clinic	OP	DOD	Surgical Specialty	10	Opthamology	Ambulatory	Surgical Specialty Clini	3	Clinic	1
405	Hand Surgery	OP	VA	Surgical Specialty	10	Orthopedic	Ambulatory	Surgical Specialty Clini	3	Clinic	1
409	Orthopedics	OP	VA	Surgical Specialty	10	Orthopedic	Ambulatory	Surgical Specialty Clini	3	Clinic	1
411	Podiatry	OP	VA	Surgical Specialty	10	Orthopedic	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BEA	Orthopedic Clinic	OP	DOD	Surgical Specialty	10	Orthopedic	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BEC	Hand Surgery Clinic	OP	DOD	Surgical Specialty	10	Orthopedic	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BEF	Podiatry Clinic	OP	DOD	Surgical Specialty	10	Orthopedic	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BEX	Orthopedic Care Cost Pool	OP	DOD	Surgical Specialty	10	Orthopedic	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BEZ	Orthopedic Care NEC	OP	DOD	Surgical Specialty	10	Orthopedic	Ambulatory	Surgical Specialty Clini	3	Clinic	1
422	Cast Clinic	OP	VA	Surgical Specialty	10	Orthopedic	Therapeutic	Surgical Specialty Clini	3	Clinic	1
BEB	Cast Clinic	OP	DOD	Surgical Specialty	10	Orthopedic	Therapeutic	Surgical Specialty Clini	3	Clinic	1
BEE	Orthotic Laboratory	OP	DOD	Surgical Specialty	10	Orthopedic	Therapeutic	Surgical Specialty Clini	3	Clinic	1
403	ENT	OP	VA	Surgical Specialty	10	Otolaryngology	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BBF	Otolaryngology Clinic	OP	DOD	Surgical Specialty	10	Otolaryngology	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BBJ	Pediatric Surgery Clinic	OP	DOD	Surgical Specialty	10	Pediatric Surgery	Ambulatory	Family Practice Clinic	1	Clinic	1
410	Plastic Surgery	OP	VA	Surgical Specialty	10	Plastic Surgery	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BBG	Plastic Surgery Clinic	OP	DOD	Surgical Specialty	10	Plastic Surgery	Ambulatory	Surgical Specialty Clini	3	Clinic	1
412	Proctology	OP	VA	Surgical Specialty	10	Proctology	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BBH	Proctology Clinic	OP	DOD	Surgical Specialty	10	Proctology	Ambulatory	Surgical Specialty Clini	3	Clinic	1
457	Transplant	OP	VA	Surgical Specialty	10	Special Surgery	Ambulatory	Surgical Specialty Clini	3	Clinic	1
414	Urology	OP	VA	Surgical Specialty	10	Urology	Ambulatory	Surgical Specialty Clini	3	Clinic	1
430	Cystocopy Room Unit	OP	VA	Surgical Specialty	10	Urology	Diagnostic	Surgical Specialty Clini	3	Clinic	1

APPENDIX B **DoD/VA Product Service Line Crosswalk** ***Attachment 3***

WU Code	Work Unit Description	WU Type	System	Product Line	PL Sort Order	Clinical Service Line	Cost Category/ Service Type	Department	Department Sort Order	Dept Group	Dept Group Sort Order
BBI	Urology Clinic	OP	DOD	Surgical Specialty	10	Urololgy	Ambulatory	Surgical Specialty Clini	3	Clinic	1
415	Vascular Surgery	OP	VA	Surgical Specialty	10	Vascular	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BBK	Peripheral Vascular Surg Clinic	OP	DOD	Surgical Specialty	10	Vascular	Ambulatory	Surgical Specialty Clini	3	Clinic	1
153	Interventional Radiograph	OP	VA	Surgical Specialty	10	Vascular	Diagnostic	Radiology - Interventioi	9	Diagnostic	5
421	Vascular Lab	OP	VA	Surgical Specialty	10	Vascular	Diagnostic	Diagnostic Other	4	Other	6
BBM	Vascular & Interventional Radiology Clinic	OP	DOD	Surgical Specialty	10	Vascular	Diagnostic	Radiology - Interventioi	9	Diagnostic	5
58	Thoracic Surgery	IP	VA	Surgery	3	Cardio/Thoracic	Inpatient	Medical Surgical IP	2	IP	3
ABB	Cardio/Thoracic Surgery	IP	DOD	Surgery	3	Cardio/Thoracic	Inpatient	Medical Surgical IP	2	IP	3
50	General Surgery	IP	VA	Surgery	3	General Surgery	Inpatient	Medical Surgical IP	2	IP	3
63	Surgical ICU	IP	VA	Surgery	3	General Surgery	Inpatient	Critical Care IP	1	IP	3
ABA	General Surgery	IP	DOD	Surgery	3	General Surgery	Inpatient	Medical Surgical IP	2	IP	3
ABC	Surgical ICU	IP	DOD	Surgery	3	General Surgery	Inpatient	Critical Care IP	1	IP	3
ABX	Surgical Care Cost Pool	IP	DOD	Surgery	3	General Surgery	Inpatient	Medical Surgical IP	2	IP	3
ABZ	Surgical Care NEC	IP	DOD	Surgery	3	General Surgery	Inpatient	Medical Surgical IP	2	IP	3
DFA	Anesthesiology	IP	DOD	Surgery	3	General Surgery	Inpatient	Surgery Support	2	OR	4
DFB	Surgical Suite	IP	DOD	Surgery	3	General Surgery	Inpatient	Surgery OR	1	OR	4
DFC	Post-Anesthesia Care Unit	IP	DOD	Surgery	3	General Surgery	Inpatient	Surgery Support	2	OR	4
DJB	Surgical ICU	IP	DOD	Surgery	3	General Surgery	Inpatient	Critical Care IP	1	IP	3
51	Gynecology	IP	VA	Surgery	3	Gynecology	Inpatient	Medical Surgical IP	3	IP	3
ACA	Gynecology	IP	DOD	Surgery	3	Gynecology	Inpatient	Medical Surgical IP	2	IP	3
52	Neurosurgery	IP	VA	Surgery	3	Neurosurgery	Inpatient	Medical Surgical IP	2	IP	3
ABD	Neurosurgery	IP	DOD	Surgery	3	Neurosurgery	Inpatient	Medical Surgical IP	2	IP	3
53	Ophthalmology	IP	VA	Surgery	3	Opthalmology	Inpatient	Medical Surgical IP	2	IP	3
ABE	Ophthalmology	IP	DOD	Surgery	3	Opthalmology	Inpatient	Medical Surgical IP	2	IP	3
60	Oral Surgery	IP	VA	Surgery	3	Oral Surgery	Inpatient	Medical Surgical IP	2	IP	3
ABF	Oral Surgery	IP	DOD	Surgery	3	Oral Surgery	Inpatient	Medical Surgical IP	2	IP	3
54	Orthopedic	IP	VA	Surgery	3	Orthopedic	Inpatient	Medical Surgical IP	2	IP	3
61	Podiatry	IP	VA	Surgery	3	Orthopedic	Inpatient	Medical Surgical IP	2	IP	3
AEA	Orthopedics	IP	DOD	Surgery	3	Orthopedic	Inpatient	Medical Surgical IP	2	IP	3
AEB	Podiatry	IP	DOD	Surgery	3	Orthopedic	Inpatient	Medical Surgical IP	2	IP	3
AEC	Hand Surgery	IP	DOD	Surgery	3	Orthopedic	Inpatient	Medical Surgical IP	2	IP	3
AEX	Orthopedic Care Cost Pool	IP	DOD	Surgery	3	Orthopedic	Inpatient	Medical Surgical IP	2	IP	3
AEZ	Orthopedic Care NEC	IP	DOD	Surgery	3	Orthopedic	Inpatient	Medical Surgical IP	2	IP	3
55	Otolaryngology	IP	VA	Surgery	3	Otolaryngology	Inpatient	Medical Surgical IP	2	IP	3
ABG	Otolaryngology	IP	DOD	Surgery	3	Otolaryngology	Inpatient	Medical Surgical IP	2	IP	3
ABH	Pediatric Surgery	IP	DOD	Surgery	3	Pediatrics	Inpatient	Medical Surgical IP	2	IP	3
56	Plastic Surgery	IP	VA	Surgery	3	Plastic Surgery	Inpatient	Medical Surgical IP	2	IP	3
ABI	Plastic Surgery	IP	DOD	Surgery	3	Plastic Surgery	Inpatient	Medical Surgical IP	2	IP	3
57	Proctology	IP	VA	Surgery	3	Proctology	Inpatient	Medical Surgical IP	2	IP	3
ABJ	Proctology	IP	DOD	Surgery	3	Proctology	Inpatient	Medical Surgical IP	2	IP	3
ABL	Organ Transplant	IP	DOD	Surgery	3	Special Surgery	Inpatient	Medical Surgical IP	2	IP	3
ABM	Burn Unit	IP	DOD	Surgery	3	Special Surgery	Inpatient	Medical Surgical IP	2	IP	3
ABP	Head and Neck Surgery	IP	DOD	Surgery	3	Special Surgery	Inpatient	Medical Surgical IP	2	IP	3
59	Urology	IP	VA	Surgery	3	Urology	Inpatient	Medical Surgical IP	2	IP	3
ABK	Urology	IP	DOD	Surgery	3	Urology	Inpatient	Medical Surgical IP	2	IP	3
62	Peripheral Vascular	IP	VA	Surgery	3	Vascular	Inpatient	Medical Surgical IP	2	IP	3
ABN	Peripheral Vascular Surgery	IP	DOD	Surgery	3	Vascular	Inpatient	Medical Surgical IP	2	IP	3
BGA	Family Practice Clinic	OP	DOD	Primary Care	6	Family Practice	Ambulatory	Family Practice Clinic	1	Clinic	1
BGX	Family Practice Cost Pool	OP	DOD	Primary Care	6	Family Practice	Ambulatory	Family Practice Clinic	1	Clinic	1
BGZ	Family Practice NEC	OP	DOD	Primary Care	6	Family Practice	Ambulatory	Family Practice Clinic	1	Clinic	1
102	Admit/Screening	OP	VA	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
103	Other Triage	OP	VA	Primary Care	6	Internal Medicine	Ambulatory	Other	3	Other	6

WU Code	Work Unit Description	WU Type	System	Product Line	PL Sort Order	Clinical Service Line	Cost Category/ Service Type	Department	Department Sort Order	Dept Group	Dept Group Sort Order
117	Nursing	OP	VA	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
122	Public Health Nursing	OP	VA	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
142	Veteran Immunizaton	OP	VA	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
147	Phone - Ancillary	OP	VA	Primary Care	6	Internal Medicine	Ambulatory	Other	3	Other	6
290	Observation Medicine	OP	VA	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
301	General Internal Medicine	OP	VA	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
309	Hypertension	OP	VA	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
323	Primary Care/Medicine	OP	VA	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
324	Phone - Medicine	OP	VA	Primary Care	6	Internal Medicine	Ambulatory	Other	3	Other	6
450	C&P Exams	OP	VA	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
710	Influenza Immunization	OP	VA	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
BAA	Internal Medicine Clinic	OP	DOD	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
BAI	Hypertension Clinic	OP	DOD	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
BHA	Primary Care Clinics	OP	DOD	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
BHB	Medical Examination Clinic	OP	DOD	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
BHF	Community Health Clinic	OP	DOD	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
BHH	Tricare Outpatient Clinics	OP	DOD	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
BHX	Cost Pool	OP	DOD	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
BHZ	Primary Medical Care Clinics NEC	OP	DOD	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
DGE	Ambulatory Nursing Services	OP	DOD	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
FBB	Preventive Medicine	OP	DOD	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
FBI	Immunizations	OP	DOD	Primary Care	6	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
BDA	Pediatrics Clinics	OP	DOD	Primary Care	6	Pediatrics	Ambulatory	Family Practice Clinic	1	Clinic	1
BDB	Adolescent Clinic	OP	DOD	Primary Care	6	Pediatrics	Ambulatory	Family Practice Clinic	1	Clinic	1
BDC	Well Baby Clinic	OP	DOD	Primary Care	6	Pediatrics	Ambulatory	Family Practice Clinic	1	Clinic	1
BDX	Pediatric Clinics Cost Pool	OP	DOD	Primary Care	6	Pediatrics	Ambulatory	Family Practice Clinic	1	Clinic	1
BDZ	Pediatric Care NEC	OP	DOD	Primary Care	6	Pediatrics	Ambulatory	Family Practice Clinic	1	Clinic	1
322	Women's Clinic	OP	VA	Primary Care	6	Women's Health	Ambulatory	Family Practice Clinic	1	Clinic	1
131	Breast Cancer Screening	OP	VA	Primary Care	6	Women's Health	Diagnostic	Diagnostic Other	4	Other	6
133	Cervical Cancer Screening	OP	VA	Primary Care	6	Women's Health	Diagnostic	Diagnostic Other	4	Other	6
134	PAP Test	OP	VA	Primary Care	6	Women's Health	Diagnostic	Diagnostic Other	4	Other	6
703	Mammogram	OP	VA	Primary Care	6	Women's Health	Diagnostic	Diagnostic Other	4	Other	6
BCD	Breast Clinic	OP	DOD	Primary Care	6	Women's Health	Diagnostic	Diagnostic Other	4	Other	6
203	Audiology	OP	VA	Outpatient Specialty	7	Audiology/Speech/Hearing	Ambulatory	Audiology Speech Clin	6	Clinic	1
204	Speech Pathology	OP	VA	Outpatient Specialty	7	Audiology/Speech/Hearing	Ambulatory	Audiology Speech Clin	6	Clinic	1
BHD	Audiology Clinic	OP	DOD	Outpatient Specialty	7	Audiology/Speech/Hearing	Ambulatory	Audiology Speech Clin	6	Clinic	1
BHE	Speech Pathology Clinic	OP	DOD	Outpatient Specialty	7	Audiology/Speech/Hearing	Ambulatory	Audiology Speech Clin	6	Clinic	1
FBN	Hearing Conservation Program	OP	DOD	Outpatient Specialty	7	Audiology/Speech/Hearing	Ambulatory	Audiology Speech Clin	6	Clinic	1
180	Dental	OP	VA	Outpatient Specialty	7	Dental	Ambulatory	Dental Clinic	5	Clinic	1
CAA	Dental Care	OP	DOD	Outpatient Specialty	7	Dental	Ambulatory	Dental Clinic	5	Clinic	1
CAX	Dental Care Cost Pool	OP	DOD	Outpatient Specialty	7	Dental	Ambulatory	Dental Clinic	5	Clinic	1
CAZ	Dental Services NEC	OP	DOD	Outpatient Specialty	7	Dental	Ambulatory	Dental Clinic	5	Clinic	1
BIA	Emergency Medical Clinic	OP	DOD	Outpatient Specialty	7	ED	Ambulatory	Emergency Departmer	1	ED	2
BIX	Emergency Medical Cost Pool	OP	DOD	Outpatient Specialty	7	ED	Ambulatory	Emergency Departmer	1	ED	2
BIZ	Emergency Medical Care NEC	OP	DOD	Outpatient Specialty	7	ED	Ambulatory	Emergency Departmer	1	ED	2
121	Residential Care - Non-Mental Health	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Other	3	Other	6
170	HBPC Physician	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Medicine Clinic	2	Clinic	1
171	HBPC RN/RNP/PA	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Other	3	Other	6
172	HBPC Nurse Extender	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Other	3	Other	6
173	HBPC Social Work	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Other	3	Other	6
174	HBPC Therapist	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Other	3	Other	6
175	HBPC Dietician	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Other	3	Other	6

WU Code	Work Unit Description	WU Type	System	Product Line	PL Sort Order	Clinical Service Line	Cost Category/ Service Type	Department	Department Sort Order	Dept Group	Dept Group Sort Order
176	HBPC Clinical Pharmacist	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Other	3	Other	6
177	HBPC Other	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Other	3	Other	6
178	HBPC Other	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Other	3	Other	6
190	Adult Day Health	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Other	3	Other	6
318	Geriatric Clinic	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Medicine Clinic	2	Clinic	1
319	Geriatric Evaluation/Management (GEM)	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Medicine Clinic	2	Clinic	1
320	Alzheimers/Dementia Clinic	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Medicine Clinic	2	Clinic	1
326	Phone - Geriatrics	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Other	3	Other	6
350	Geriatric Primary Care	OP	VA	Outpatient Specialty	7	Geriatrics	Ambulatory	Medicine Clinic	2	Clinic	1
529	Health Care Homeless Veterans/Homeles	OP	VA	Outpatient Specialty	7	Home-based/Outreach Care	Ambulatory	Other	3	Other	6
590	Community Outreach Homeless - Staff	OP	VA	Outpatient Specialty	7	Home-based/Outreach Care	Ambulatory	Other	3	Other	6
604	Home Hemodialysis Training	OP	VA	Outpatient Specialty	7	Home-based/Outreach Care	Ambulatory	Other	3	Other	6
608	Home Peritoneal Dialysis Training	OP	VA	Outpatient Specialty	7	Home-based/Outreach Care	Ambulatory	Other	3	Other	6
681	VA-paid Home/Community Health Care	OP	VA	Outpatient Specialty	7	Home-based/Outreach Care	Ambulatory	Other	3	Other	6
680	Home/Community Assessment	OP	VA	Outpatient Specialty	7	Home-based/Outreach Care	Diagnostic	Other	3	Other	6
118	Home Treatment Services	OP	VA	Outpatient Specialty	7	Home-based/Outreach Care	Therapeutic	Other	3	Other	6
602	Chronic Assisted Hemodialysis Treatment	OP	VA	Outpatient Specialty	7	Home-based/Outreach Care	Therapeutic	Other	3	Other	6
603	Limited Self Care Hemodialysis Treatmen	OP	VA	Outpatient Specialty	7	Home-based/Outreach Care	Therapeutic	Other	3	Other	6
606	Chronic Assisted Peritoneal Dialysis Treat	OP	VA	Outpatient Specialty	7	Home-based/Outreach Care	Therapeutic	Other	3	Other	6
607	Limited Self Care Periotoneal Dialysis Tre	OP	VA	Outpatient Specialty	7	Home-based/Outreach Care	Therapeutic	Other	3	Other	6
609	Home Hemodialysis Treatment	OP	VA	Outpatient Specialty	7	Home-based/Outreach Care	Therapeutic	Other	3	Other	6
610	Contract Dialysis	OP	VA	Outpatient Specialty	7	Home-based/Outreach Care	Therapeutic	Other	3	Other	6
DGB	Hemodialysis	OP	DOD	Outpatient Specialty	7	Home-based/Outreach Care	Therapeutic	Other	3	Other	6
DGD	Peritoneal Dialysis	OP	DOD	Outpatient Specialty	7	Home-based/Outreach Care	Therapeutic	Other	3	Other	6
123	Nutrition/Diet - Individual	OP	VA	Outpatient Specialty	7	Nutrition	Ambulatory	Medicine Clinic	2	Clinic	1
124	Nutrition/Diet - Group	OP	VA	Outpatient Specialty	7	Nutrition	Ambulatory	Medicine Clinic	2	Clinic	1
139	Weight Control	OP	VA	Outpatient Specialty	7	Nutrition	Ambulatory	Medicine Clinic	2	Clinic	1
708	Nutrition	OP	VA	Outpatient Specialty	7	Nutrition	Ambulatory	Medicine Clinic	2	Clinic	1
BAL	Nutrition Clinic	OP	DOD	Outpatient Specialty	7	Nutrition	Ambulatory	Medicine Clinic	2	Clinic	1
408	Optometry	OP	VA	Outpatient Specialty	7	Optometry	Ambulatory	Other	3	Other	6
BHC	Optometry Clinic	OP	DOD	Outpatient Specialty	7	Optometry	Ambulatory	Other	3	Other	6
BHI	Immediate Care Clinic	OP	DOD	Outpatient Specialty	7	Urgent Care	Ambulatory	Emergency Departmer	1	ED	2
ADB	Newborn Nursery	IP	DOD	Ob/Newborn	2	Newborn Nursery	Inpatient	Nursery	3	Other	6
ADC	Neonatal ICU	IP	DOD	Ob/Newborn	2	Newborn Nursery	Inpatient	Nursery	3	Other	6
AGH	Family Practice Newborn Nursery	IP	DOD	Ob/Newborn	2	Newborn Nursery	Inpatient	Nursery	3	Other	6
DJD	Neonatal ICU	IP	DOD	Ob/Newborn	2	Newborn Nursery	Inpatient	Critical Care IP	1	Other	6
ACB	Obstetrics	IP	DOD	Ob/Newborn	2	Obstetrics	Inpatient	OB	2	IP	3
ACX	OB/GYN Care Cost Pool	IP	DOD	Ob/Newborn	2	Obstetrics	Inpatient	OB	2	IP	3
ACZ	OB/GYN NEC	IP	DOD	Ob/Newborn	2	Obstetrics	Inpatient	OB	2	IP	3
AGC	Family Practice Obstetrics	IP	DOD	Ob/Newborn	2	Obstetrics	Inpatient	OB	2	IP	3
BAU	Genetic Clinic	OP	DOD	Ob/Gyn	8	Genetics	Diagnostic	Family Practice Clinic	1	Clinic	1
BCB	Gynecology Clinic	OP	DOD	Ob/Gyn	8	Gynecology	Ambulatory	Surgical Specialty Clini	3	Clinic	1
BCA	Family Planning Clinic	OP	DOD	Ob/Gyn	8	Obstetrics	Ambulatory	Family Practice Clinic	1	Clinic	1
BCC	Obstetrics Clinic	OP	DOD	Ob/Gyn	8	Obstetrics	Ambulatory	Family Practice Clinic	1	Clinic	1
BCX	OB/GYN Clinics Cost Pool	OP	DOD	Ob/Gyn	8	Obstetrics	Ambulatory	Family Practice Clinic	1	Clinic	1
BCZ	OB/GYN Care NEC	OP	DOD	Ob/Gyn	8	Obstetrics	Ambulatory	Family Practice Clinic	1	Clinic	1
2	Cardiology	IP	VA	Medicine	1	Cardiology	Inpatient	Medical Surgical IP	2	IP	3
16	Cardiac Step Down	IP	VA	Medicine	1	Cardiology	Inpatient	Medical Surgical IP	2	IP	3
17	Telemetry	IP	VA	Medicine	1	Cardiology	Inpatient	Medical Surgical IP	2	IP	3
AAB	Cardiology	IP	DOD	Medicine	1	Cardiology	Inpatient	Medical Surgical IP	2	IP	3
AAC	Coronary Care Unit	IP	DOD	Medicine	1	Cardiology	Inpatient	Medical Surgical IP	2	IP	3
DJC	Coronary Care Unit	IP	DOD	Medicine	1	Cardiology	Inpatient	Critical Care IP	1	IP	3

WU Code	Work Unit Description	WU Type	System	Product Line	PL Sort Order	Clinical Service Line	Cost Category/ Service Type	Department	Department Sort Order	Dept Group	Dept Group Sort Order
6	Dermatology	IP	VA	Medicine	1	Dermatology	Inpatient	Medical Surgical IP	2	IP	3
AAD	Dermatology	IP	DOD	Medicine	1	Dermatology	Inpatient	Medical Surgical IP	2	IP	3
7	Endocrinology	IP	VA	Medicine	1	Endocrinology	Inpatient	Medical Surgical IP	2	IP	3
14	Metabolic	IP	VA	Medicine	1	Endocrinology	Inpatient	Medical Surgical IP	2	IP	3
AAE	Endocrinology	IP	DOD	Medicine	1	Endocrinology	Inpatient	Medical Surgical IP	2	IP	3
AGA	Family Practice Medicine	IP	DOD	Medicine	1	Family Practice	Inpatient	Medical Surgical IP	2	IP	3
AGB	Family Practice Surgery	IP	DOD	Medicine	1	Family Practice	Inpatient	Medical Surgical IP	2	IP	3
AGD	Family Practice Pediatrics	IP	DOD	Medicine	1	Family Practice	Inpatient	Medical Surgical IP	2	IP	3
AGE	Family Practice Gynecology	IP	DOD	Medicine	1	Family Practice	Inpatient	Medical Surgical IP	2	IP	3
AGF	Family Practice Psychiatry	IP	DOD	Medicine	1	Family Practice	Inpatient	Psychiatry IP	4	IP	3
AGG	Family Practice Orthopedics	IP	DOD	Medicine	1	Family Practice	Inpatient	Medical Surgical IP	2	IP	3
AGX	Family Practice Cost Pool	IP	DOD	Medicine	1	Family Practice	Inpatient	Medical Surgical IP	2	IP	3
AGZ	Family Practice Care NEC	IP	DOD	Medicine	1	Family Practice	Inpatient	Medical Surgical IP	2	IP	3
AAF	Gastroenterology	IP	DOD	Medicine	1	Gastroenterology	Inpatient	Medical Surgical IP	2	IP	3
8	Gastroenterology	IP	VA	Medicine	1	Hematology/Oncology	Inpatient	Medical Surgical IP	2	IP	3
9	Hematology/Oncology	IP	VA	Medicine	1	Hematology/Oncology	Inpatient	Medical Surgical IP	2	IP	3
AAG	Hematology	IP	DOD	Medicine	1	Hematology/Oncology	Inpatient	Medical Surgical IP	2	IP	3
AAK	Oncology	IP	DOD	Medicine	1	Hematology/Oncology	Inpatient	Medical Surgical IP	2	IP	3
AAQ	Bone Marrow Transplant	IP	DOD	Medicine	1	Hematology/Oncology	Inpatient	Medical Surgical IP	2	IP	3
1	Allergy	IP	VA	Medicine	1	Immunology	Inpatient	Medical Surgical IP	2	IP	3
AAM	Rheumatology	IP	DOD	Medicine	1	Immunology	Inpatient	Medical Surgical IP	2	IP	3
AAO	Clinical Immunology	IP	DOD	Medicine	1	Immunology	Inpatient	Medical Surgical IP	2	IP	3
AAP	HIV III - AIDS	IP	DOD	Medicine	1	Immunology	Inpatient	Medical Surgical IP	2	IP	3
AAS	Allergy	IP	DOD	Medicine	1	Immunology	Inpatient	Medical Surgical IP	2	IP	3
AAR	Infectious Disease	IP	DOD	Medicine	1	Infectious Disease	Inpatient	Medical Surgical IP	2	IP	3
5	Gerontology	IP	VA	Medicine	1	Internal Medicine	Inpatient	Medical Surgical IP	2	IP	3
12	Medical ICU	IP	VA	Medicine	1	Internal Medicine	Inpatient	Critical Care IP	1	IP	3
15	General (Acute) Medicine	IP	VA	Medicine	1	Internal Medicine	Inpatient	Medical Surgical IP	2	IP	3
24	Medical Observation	IP	VA	Medicine	1	Internal Medicine	Inpatient	Medical Surgical IP	2	IP	3
AAA	Internal Medicine	IP	DOD	Medicine	1	Internal Medicine	Inpatient	Medical Surgical IP	2	IP	3
AAH	Medical ICU	IP	DOD	Medicine	1	Internal Medicine	Inpatient	Critical Care IP	1	IP	3
AAX	Medical Care Cost Pool	IP	DOD	Medicine	1	Internal Medicine	Inpatient	Medical Surgical IP	2	IP	3
AAZ	Medical Care NEC	IP	DOD	Medicine	1	Internal Medicine	Inpatient	Medical Surgical IP	2	IP	3
DJA	Medical ICU	IP	DOD	Medicine	1	Internal Medicine	Inpatient	Critical Care IP	1	IP	3
AAI	Nephrology	IP	DOD	Medicine	1	Nephrology	Inpatient	Medical Surgical IP	2	IP	3
10	Neurology	IP	VA	Medicine	1	Neurology	Inpatient	Medical Surgical IP	2	IP	3
11	Epilepsy Center	IP	VA	Medicine	1	Neurology	Inpatient	Medical Surgical IP	2	IP	3
18	Neurology Observation	IP	VA	Medicine	1	Neurology	Inpatient	Medical Surgical IP	2	IP	3
19	Stroke	IP	VA	Medicine	1	Neurology	Inpatient	Medical Surgical IP	2	IP	3
AAJ	Neurology	IP	DOD	Medicine	1	Neurology	Inpatient	Medical Surgical IP	2	IP	3
ADA	Pediatrics	IP	DOD	Medicine	1	Pediatrics	Inpatient	Medical Surgical IP	2	IP	3
ADD	Adolescent Pediatrics	IP	DOD	Medicine	1	Pediatrics	Inpatient	Medical Surgical IP	2	IP	3
ADE	Pediatric ICU	IP	DOD	Medicine	1	Pediatrics	Inpatient	Critical Care IP	1	IP	3
ADX	Pediatric Care Cost Pool	IP	DOD	Medicine	1	Pediatrics	Inpatient	Medical Surgical IP	2	IP	3
ADZ	Pediatric Care NEC	IP	DOD	Medicine	1	Pediatrics	Inpatient	Medical Surgical IP	2	IP	3
3	Pulmonary TB	IP	VA	Medicine	1	Pulmonary/Respiratory Disea	Inpatient	Medical Surgical IP	2	IP	3
4	Pulmonary Non-TB	IP	VA	Medicine	1	Pulmonary/Respiratory Disea	Inpatient	Medical Surgical IP	2	IP	3
AAL	Pulmo/Resp Disease	IP	DOD	Medicine	1	Pulmonary/Respiratory Disea	Inpatient	Medical Surgical IP	2	IP	3
20	Rehab Medicine	IP	VA	Medicine	1	Rehabilitation	Inpatient	Rehabilitation IP	6	IP	3
21	Blind Rehab	IP	VA	Medicine	1	Rehabilitation	Inpatient	Blind Rehabilitation	8	IP	3
22	Spinal Cord Injury	IP	VA	Medicine	1	Rehabilitation	Inpatient	SCI	7	IP	3
23	SCI Observation	IP	VA	Medicine	1	Rehabilitation	Inpatient	SCI	7	IP	3

WU Code	Work Unit Description	WU Type	System	Product Line	PL Sort Order	Clinical Service Line	Cost Category/ Service Type	Department	Department Sort Order	Dept Group	Dept Group Sort Order
36	Blind Rehab Observation	IP	VA	Medicine	1	Rehabilitation	Inpatient	Blind Rehabilitation	8	IP	3
40	Intermediate Medicine	IP	VA	Medicine	1	Rehabilitation	Inpatient	Medical Surgical IP	2	IP	3
41	Rehab Medicine Observation	IP	VA	Medicine	1	Rehabilitation	Inpatient	Rehabilitation IP	6	IP	3
AAN	Physical Medicine	IP	DOD	Medicine	1	Rehabilitation	Inpatient	Rehabilitation IP	6	IP	3
303	Cardiology	OP	VA	Medical Specialty	9	Cardiology	Ambulatory	Medicine Clinic	2	Clinic	1
BAC	Cardiology Clinic	OP	DOD	Medical Specialty	9	Cardiology	Ambulatory	Medicine Clinic	2	Clinic	1
107	EKG	OP	VA	Medical Specialty	9	Cardiology	Diagnostic	Diagnostic Other	4	Other	6
152	Angiography Catheterization	OP	VA	Medical Specialty	9	Cardiology	Diagnostic	Cardiac Cath Lab	1	Diagnostic	5
333	Cardiac Cath	OP	VA	Medical Specialty	9	Cardiology	Diagnostic	Cardiac Cath Lab	1	Diagnostic	5
334	Caridiac Stress Test	OP	VA	Medical Specialty	9	Cardiology	Diagnostic	Diagnostic Other	4	Other	6
DDA	Electrocardiography	OP	DOD	Medical Specialty	9	Cardiology	Diagnostic	Diagnostic Other	4	Other	6
DDE	Cardiac Catheterization	OP	DOD	Medical Specialty	9	Cardiology	Diagnostic	Cardiac Cath Lab	1	Diagnostic	5
304	Dermatology	OP	VA	Medical Specialty	9	Dermatology	Ambulatory	Medicine Clinic	2	Clinic	1
BAP	Dermatology Clinic	OP	DOD	Medical Specialty	9	Dermatology	Ambulatory	Medicine Clinic	2	Clinic	1
305	Endocrine/Metabolism	OP	VA	Medical Specialty	9	Endocrinology	Ambulatory	Medicine Clinic	2	Clinic	1
306	Diabetes	OP	VA	Medical Specialty	9	Endocrinology	Ambulatory	Medicine Clinic	2	Clinic	1
BAE	Diabetic Clinic	OP	DOD	Medical Specialty	9	Endocrinology	Ambulatory	Medicine Clinic	2	Clinic	1
BAF	Endocrinology Clinic	OP	DOD	Medical Specialty	9	Endocrinology	Ambulatory	Medicine Clinic	2	Clinic	1
307	Gastroenterology	OP	VA	Medical Specialty	9	Gastroenterology	Ambulatory	Medicine Clinic	2	Clinic	1
BAG	Gastroenterology Clinic	OP	DOD	Medical Specialty	9	Gastroenterology	Ambulatory	Medicine Clinic	2	Clinic	1
321	GI Endoscopy	OP	VA	Medical Specialty	9	Gastroenterology	Diagnostic	GI Lab	2	Diagnostic	5
308	Hematology	OP	VA	Medical Specialty	9	Hematology/Oncology	Ambulatory	Medicine Clinic	2	Clinic	1
316	Oncology/Tumor	OP	VA	Medical Specialty	9	Hematology/Oncology	Ambulatory	Medicine Clinic	2	Clinic	1
BAH	Hematology Clinic	OP	DOD	Medical Specialty	9	Hematology/Oncology	Ambulatory	Medicine Clinic	2	Clinic	1
BAM	Oncology Clinic	OP	DOD	Medical Specialty	9	Hematology/Oncology	Ambulatory	Medicine Clinic	2	Clinic	1
BAT	Bone Marrow Transplant Clinic	OP	DOD	Medical Specialty	9	Hematology/Oncology	Ambulatory	Medicine Clinic	2	Clinic	1
144	Radionuclide Therapy	OP	VA	Medical Specialty	9	Hematology/Oncology	Therapeutic	Radiology - NM	8	Diagnostic	5
149	Radiation Therapy Treatment	OP	VA	Medical Specialty	9	Hematology/Oncology	Therapeutic	Radiation Therapy	4	Diagnostic	5
317	Coumadin Clinic	OP	VA	Medical Specialty	9	Hematology/Oncology	Therapeutic	Hematology Oncology	3	Diagnostic	5
330	Chemo Unit - Medicine	OP	VA	Medical Specialty	9	Hematology/Oncology	Therapeutic	Hematology Oncology	3	Diagnostic	5
431	Chemo Unit - Surgery	OP	VA	Medical Specialty	9	Hematology/Oncology	Therapeutic	Hematology Oncology	3	Diagnostic	5
BAS	Radiation Therapy Clinic	OP	DOD	Medical Specialty	9	Hematology/Oncology	Therapeutic	Radiation Therapy	4	Diagnostic	5
302	Allergy Immunology	OP	VA	Medical Specialty	9	Immunology	Ambulatory	Medicine Clinic	2	Clinic	1
314	Rheumatology/Arthritis	OP	VA	Medical Specialty	9	Immunology	Ambulatory	Medicine Clinic	2	Clinic	1
BAB	Allergy Clinic	OP	DOD	Medical Specialty	9	Immunology	Ambulatory	Medicine Clinic	2	Clinic	1
BAO	Rheumatology Clinic	OP	DOD	Medical Specialty	9	Immunology	Ambulatory	Medicine Clinic	2	Clinic	1
BAQ	Infectious Disease Clinic	OP	DOD	Medical Specialty	9	Immunology	Ambulatory	Medicine Clinic	2	Clinic	1
310	Infectious Disease	OP	VA	Medical Specialty	9	Infectious Disease	Ambulatory	Medicine Clinic	2	Clinic	1
BAX	Medical Clinics Cost Pool	OP	DOD	Medical Specialty	9	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
BAZ	Medical Care NEC	OP	DOD	Medical Specialty	9	Internal Medicine	Ambulatory	Medicine Clinic	2	Clinic	1
313	Renal/Nephrology	OP	VA	Medical Specialty	9	Nephrology	Ambulatory	Medicine Clinic	2	Clinic	1
BAJ	Nephrology Clinic	OP	DOD	Medical Specialty	9	Nephrology	Ambulatory	Medicine Clinic	2	Clinic	1
BAK	Neurology Clinic	OP	DOD	Medical Specialty	9	Neurology	Ambulatory	Medicine Clinic	2	Clinic	1
293	Observation Neurology	OP	VA	Medical Specialty	9	Neurology	Ambulatory	Medicine Clinic	2	Clinic	1
315	Neurology	OP	VA	Medical Specialty	9	Neurology	Ambulatory	Medicine Clinic	2	Clinic	1
325	Phone - Neurology	OP	VA	Medical Specialty	9	Neurology	Ambulatory	Other	3	Other	6
106	EEG	OP	VA	Medical Specialty	9	Neurology	Diagnostic	Diagnostic Other	4	Other	6
126	Evoked Potential	OP	VA	Medical Specialty	9	Neurology	Diagnostic	Diagnostic Other	4	Other	6
127	Topographical Brain Mapping	OP	VA	Medical Specialty	9	Neurology	Diagnostic	Diagnostic Other	4	Other	6
128	Prolonged Video - EEG Monitoring	OP	VA	Medical Specialty	9	Neurology	Diagnostic	Diagnostic Other	4	Other	6
212	EMG	OP	VA	Medical Specialty	9	Neurology	Diagnostic	Diagnostic Other	4	Other	6
DDB	[illegible]ctroencephalography	OP	DOD	Medical Specialty	9	[illegible]eurology	Diagnostic	Diagnostic Other	4	Other	6

WU Code	Work Unit Description	WU Type	System	Product Line	PL Sort Order	Clinical Service Line	Cost Category/ Service Type	Department	Department Sort Order	Dept Group	Dept Group Sort Order
DDC	Electroneuromyography	OP	DOD	Medical Specialty	9	Neurology	Diagnostic	Diagnostic Other	4	Other	6
312	Pulmonary/Chest	OP	VA	Medical Specialty	9	Pulmonary/Respiratory Diseas	Ambulatory	Medicine Clinic	2	Clinic	1
BAN	Pulmonary Disease Clinic	OP	DOD	Medical Specialty	9	Pulmonary/Respiratory Diseas	Ambulatory	Medicine Clinic	2	Clinic	1
104	Pulmonary Function	OP	VA	Medical Specialty	9	Pulmonary/Respiratory Diseas	Diagnostic	Diagnostic Other	4	Other	6
DDD	Pulmonary Function	OP	DOD	Medical Specialty	9	Pulmonary/Respiratory Diseas	Diagnostic	Diagnostic Other	4	Other	6
116	Respiratory Therapy	OP	VA	Medical Specialty	9	Pulmonary/Respiratory Diseas	Therapeutic	Medicine Clinic	2	Other	1
DHA	Inhalation/Respiratory Therapy	OP	DOD	Medical Specialty	9	Pulmonary/Respiratory Diseas	Therapeutic	Diagnostic Other	4	Other	6
148	Other - Diagnostic (per HERC)	OP	VA	Medical Specialty	9	Rehabilitation	Ambulatory	Other	3	Other	6
201	Physical Medicine & Rehabilitaion Service	OP	VA	Medical Specialty	9	Rehabilitation	Ambulatory	Medicine Clinic	2	Clinic	1
210	SCI	OP	VA	Medical Specialty	9	Rehabilitation	Ambulatory	SCI	7	IP	3
215	SCI Home Program	OP	VA	Medical Specialty	9	Rehabilitation	Ambulatory	SCI	7	IP	3
216	Phone - Rehab Support	OP	VA	Medical Specialty	9	Rehabilitation	Ambulatory	Other	3	Other	6
217	BROS-Blind Rehab Spec	OP	VA	Medical Specialty	9	Rehabilitation	Ambulatory	Blind Rehabilitation	8	IP	3
218	CAT Blind Rehab	OP	VA	Medical Specialty	9	Rehabilitation	Ambulatory	Blind Rehabilitation	8	IP	3
295	Observation SCI	OP	VA	Medical Specialty	9	Rehabilitation	Ambulatory	SCI	7	IP	3
296	Observation Rehab	OP	VA	Medical Specialty	9	Rehabilitation	Ambulatory	Medicine Clinic	2	Clinic	1
423	Prosthetics Services	OP	VA	Medical Specialty	9	Rehabilitation	Ambulatory	Medicine Clinic	2	Clinic	1
425	Other - Prosthetics/Orthotics	OP	VA	Medical Specialty	9	Rehabilitation	Ambulatory	Medicine Clinic	2	Clinic	1
BAR	Physical Medicine Clinic	OP	DOD	Medical Specialty	9	Rehabilitation	Ambulatory	Medicine Clinic	2	Clinic	1
BLX	Rehabilitative Ambulatory Services Cost F	OP	DOD	Medical Specialty	9	Rehabilitation	Ambulatory	Medicine Clinic	2	Clinic	1
BLZ	Rehabilitative Ambulatory Services	OP	DOD	Medical Specialty	9	Rehabilitation	Ambulatory	Medicine Clinic	2	Clinic	1
209	Visual Impairment Services Team (VIST)	OP	VA	Medical Specialty	9	Rehabilitation	Diagnostic	Blind Rehabilitation	8	IP	3
205	Physical Therapy	OP	VA	Medical Specialty	9	Rehabilitation	Therapeutic	PT OT Clinic	7	Clinic	1
206	Occupational Therapy	OP	VA	Medical Specialty	9	Rehabilitation	Therapeutic	PT OT Clinic	7	Clinic	1
207	PM&RS Incentive Therapy	OP	VA	Medical Specialty	9	Rehabilitation	Therapeutic	PT OT Clinic	7	Clinic	1
208	PM&RS Compensated Work Therapy	OP	VA	Medical Specialty	9	Rehabilitation	Therapeutic	PT OT Clinic	7	Clinic	1
213	PM&RS Vocational Assistance	OP	VA	Medical Specialty	9	Rehabilitation	Therapeutic	PT OT Clinic	7	Clinic	1
214	Kinesiotherapy	OP	VA	Medical Specialty	9	Rehabilitation	Therapeutic	PT OT Clinic	7	Clinic	1
417	Prosthetics/Orthotics	OP	VA	Medical Specialty	9	Rehabilitation	Therapeutic	Medicine Clinic	2	Clinic	1
BHG	Occupational Health Clinic	OP	DOD	Medical Specialty	9	Rehabilitation	Therapeutic	PT OT Clinic	7	Clinic	1
BLA	Physical Therapy Clinic	OP	DOD	Medical Specialty	9	Rehabilitation	Therapeutic	PT OT Clinic	7	Clinic	1
BLB	Occupation Therapy Clinic	OP	DOD	Medical Specialty	9	Rehabilitation	Therapeutic	PT OT Clinic	7	Clinic	1
657	Assisted Living VA Staff	IP	VA	Extended Care	5	Assisted Living	Ambulatory	Other	3	Other	6
670	Assisted Living VA-paid	IP	VA	Extended Care	5	Assisted Living	Ambulatory	Other	3	Other	6
652	State Domiciliary Home Days	IP	VA	Extended Care	5	Domiciliary	Ambulatory	Other	3	Other	6
730	Physician Extender in Domiciliary - Gener	IP	VA	Extended Care	5	Domiciliary	Ambulatory	Other	3	Other	6
730	Physician Extender in Domiciliary - Gener	IP	VA	Extended Care	5	Domiciliary	Ambulatory	Other	3	Other	6
85	Domiciliary	IP	VA	Extended Care	5	Domiciliary	Inpatient	Other	3	Other	6
650	Contract Nursing Home Days	IP	VA	Extended Care	5	Nursing Home	Ambulatory	Other	3	Other	6
651	State Nursing Home Days	IP	VA	Extended Care	5	Nursing Home	Ambulatory	Other	3	Other	6
80	Nursing Home Care Unit (NHCU)	IP	VA	Extended Care	5	Nursing Home	Inpatient	Other	3	Other	6
80	Nursing Home Care Unit (NHCU)	IP	VA	Extended Care	5	Nursing Home	Inpatient	Other	3	Other	6
81	Geriatric Evaluation and Management (GE	IP	VA	Extended Care	5	Nursing Home	Inpatient	Other	3	Other	6
83	Respite Care	IP	VA	Extended Care	5	Respite Care	Inpatient	Other	3	Other	6
BJA	Flight Medicine Clinic	OP	DOD	Distinctive Programs	11	Flight Medicine	Ambulatory	Distinctive Programs	8	Clinic	1
BJX	Flight Medicine Cost Pool	OP	DOD	Distinctive Programs	11	Flight Medicine	Ambulatory	Distinctive Programs	8	Clinic	1
BJZ	Flight Medicine NEC	OP	DOD	Distinctive Programs	11	Flight Medicine	Ambulatory	Distinctive Programs	8	Clinic	1
BKA	Underseas Medicine Clinic	OP	DOD	Distinctive Programs	11	Underseas Medicine	Ambulatory	Distinctive Programs	8	Clinic	1
BKX	Underseas Medicine Clinic Cost Pool	OP	DOD	Distinctive Programs	11	Underseas Medicine	Ambulatory	Distinctive Programs	8	Clinic	1
BKZ	Underseas Medicine NEC	OP	DOD	Distinctive Programs	11	Underseas Medicine	Ambulatory	Distinctive Programs	8	Clinic	1
125	Social Work Service	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
165	Bereavement Counseling	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Other	3	Other	6

APPENDIX B DoD/VA Product Service Line Crosswalk ***Attachment 3***

WU Code	Work Unit Description	WU Type	System	Product Line	PL Sort Order	Clinical Service Line	Cost Category/ Service Type	Department	Department Sort Order	Dept Group	Dept Group Sort Order
166	Chaplain Individual	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Other	3	Other	6
167	Chaplain Group	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Other	3	Other	6
168	Chaplain Collateral	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Other	3	Other	6
292	Observation Psychiatry	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
501	Homeless Mentally Ill Outreach	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Other	3	Other	6
502	Mental Health - Individual	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
503	Mental Health Residential Care - Individua	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Other	3	Other	6
509	Psychiatry - Individual	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
510	Psychology - Individual	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
511	Neurobehavioral - Individual	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
512	Psychiatry - Consultation	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
516	PTSD - Group	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
522	HUD-VASH	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Other	3	Other	6
524	Active Duty Sex Trauma	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
527	Phone - General Psych	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Other	3	Other	6
528	Phone - Homeless Mentally Ill (per HERC	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Other	3	Other	6
530	Other - HUD/VASH	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Other	3	Other	6
531	Mental Health Primary Care Team - Grou	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
540	PTSD Clinical Team	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
541	PTSD Clinic	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
542	Other - PTSD	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Other	3	Other	6
550	Mental Hygiene - Group	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
557	Psychiatry - Group	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
558	Psychology - Group	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
561	PCT PTSD - Group	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
562	PTSD - Individual	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
563	Mental Health Primary Care Team - Indivi	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
565	Mental Health Medical Care Only - Group	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
566	Mental Health Risk Reduction Education -	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
576	Psychogeria Clinic - Individual	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
577	Psychogeria Clinic - Group	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
589	Non-active Duty Sex Trauma	OP	VA	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
BFA	Psychiatric Clinic	OP	DOD	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
BFB	Psychology Clinic	OP	DOD	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
BFC	Child Guidance Clinic	OP	DOD	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
BFD	Mental Health Clinic	OP	DOD	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
BFE	Social Work Clinic	OP	DOD	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
BFX	Psychiatric and Mental Health Cost Pool	OP	DOD	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
BFZ	Psychiatric Clinics NEC	OP	DOD	Behavioral Health	12	Mental Health	Ambulatory	Mental Health Clinic	4	Clinic	1
538	Psychological Testing	OP	VA	Behavioral Health	12	Mental Health	Diagnostic	Mental Health Clinic	4	Clinic	1
25	Psych Residential Rehab Treatment	IP	VA	Behavioral Health	4	Mental Health	Inpatient	PRRTP IP	5	IP	3
26	PTSD Residential Rehab Program	IP	VA	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3
33	GEM Psychiatry	IP	VA	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3
70	Acute Psych	IP	VA	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3
71	Long-term Psych	IP	VA	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3
76	Psych Medically Infirm	IP	VA	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3
77	Pysch Residential Rehab	IP	VA	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3
79	Special Inpatient PTSD Unit	IP	VA	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3
89	Star I, II, & III Programs	IP	VA	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3
91	Evaluation/Brief Treatment/PTSD	IP	VA	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3
92	Pyschiatry - General Intermediate	IP	VA	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3
93	High Intensity General Psych - Inpatient	IP	VA	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3

WU Code	Work Unit Description	WU Type	System	Product Line	PL Sort Order	Clinical Service Line	Cost Category/ Service Type	Department	Department Sort Order	Dept Group	Dept Group Sort Order
94	Psychiatric Observation	IP	VA	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3
AFA	Psychiatrics	IP	DOD	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3
AFX	Psychiatric Care Cost Pool	IP	DOD	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3
AFZ	Psychiatric Care NEC	IP	DOD	Behavioral Health	4	Mental Health	Inpatient	Psychiatry IP	4	IP	3
202	Recreational Therapy Services	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
504	Community Clinic - Individual	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Mental Health Clinic	4	Clinic	1
505	Day Treatment - Individual	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Mental Health Clinic	4	Clinic	1
506	Day Hospital - Individual	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Mental Health Clinic	4	Clinic	1
515	Compensated Work Therapy/ILH - Individ	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Mental Health Clinic	4	Clinic	1
520	LT Enhanced Group	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
521	LT Enhanced Individual	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Mental Health Clinic	4	Clinic	1
525	Women's Stress Treatment	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Mental Health Clinic	4	Clinic	1
532	Psycho/Social Rehab - Individual	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Mental Health Clinic	4	Clinic	1
533	Mental Health Invasive Bio-medical Care	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Mental Health Clinic	4	Clinic	1
535	Mental Health Vocational Assistance	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
546	Other - MHICM	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
551	Community Clinic - Group	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
552	Mental Health Int (MHICM)(Community Di	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
553	Day Treatment - Group	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
554	Day Hospital - Group	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
559	Psycho/Social Rehab - Group	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
571	Readjustment Counseling - Individual	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Mental Health Clinic	4	Clinic	1
572	Readjustment Counseling - Group	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
573	Mental Health Incentive Therapy - Group	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
574	Mental Health CWT - Group	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
575	Mental Health Vocational Assistance - Gr	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
578	Psychogeria Day Program	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
580	PTSD Day Hospital	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
581	PTSD Day Treatment	OP	VA	Behavioral Health	12	Mental Health	Therapeutic	Other	3	Other	6
507	Drug Dependence - Individual	OP	VA	Behavioral Health	12	Substance Abuse	Ambulatory	Mental Health Clinic	4	Clinic	1
513	Substance Abuse - Individual	OP	VA	Behavioral Health	12	Substance Abuse	Ambulatory	Mental Health Clinic	4	Clinic	1
514	Substance Abuse - Home Visit	OP	VA	Behavioral Health	12	Substance Abuse	Ambulatory	Other	3	Other	6
545	Other - Substance Abuse	OP	VA	Behavioral Health	12	Substance Abuse	Ambulatory	Other	3	Other	6
555	Drug Dependence - Group	OP	VA	Behavioral Health	12	Substance Abuse	Ambulatory	Mental Health Clinic	4	Clinic	1
560	Substance Abuse - Group	OP	VA	Behavioral Health	12	Substance Abuse	Ambulatory	Mental Health Clinic	4	Clinic	1
BFF	Substance Abuse Rehab Clinic	OP	DOD	Behavioral Health	12	Substance Abuse	Ambulatory	Mental Health Clinic	4	Clinic	1
706	Alcohol Screen	OP	VA	Behavioral Health	12	Substance Abuse	Diagnostic	Mental Health Clinic	4	Clinic	1
ASI	Addiction Severity Index	OP	VA	Behavioral Health	12	Substance Abuse	Diagnostic	Diagnostic Other	4	Other	6
ASI	Addiction Severity Index	OP	VA	Behavioral Health	12	Substance Abuse	Diagnostic	Diagnostic Other	4	Other	6
27	Substance Abuse Residential Rehab	IP	VA	Behavioral Health	4	Substance Abuse	Inpatient	Psychiatry IP	4	IP	3
72	Alcohol Dependence - High Intensity	IP	VA	Behavioral Health	4	Substance Abuse	Inpatient	Psychiatry IP	4	IP	3
73	Drug Dependency - High Intensity	IP	VA	Behavioral Health	4	Substance Abuse	Inpatient	Psychiatry IP	4	IP	3
74	Substance Abuse - High Intensity	IP	VA	Behavioral Health	4	Substance Abuse	Inpatient	Psychiatry IP	4	IP	3
84	Psychiatric Substance Abuse (Intermedia	IP	VA	Behavioral Health	4	Substance Abuse	Inpatient	Psychiatry IP	4	IP	3
86	Domiciliary	IP	VA	Behavioral Health	4	Substance Abuse	Inpatient	Psychiatry IP	4	IP	3
90	Substance Abuse Star I, II, & III Programs	IP	VA	Behavioral Health	4	Substance Abuse	Inpatient	Psychiatry IP	4	IP	3
AFB	Substance Abuse Rehab	IP	DOD	Behavioral Health	4	Substance Abuse	Inpatient	Psychiatry IP	4	IP	3
508	Alcohol Treatment - Individual	OP	VA	Behavioral Health	12	Substance Abuse	Therapeutic	Mental Health Clinic	4	Clinic	1
517	CWT/Substance Abuse	OP	VA	Behavioral Health	12	Substance Abuse	Therapeutic	Other	3	Other	6
518	CWT/ILH Substance Abuse	OP	VA	Behavioral Health	12	Substance Abuse	Therapeutic	Other	3	Other	6
523	Opioid Substitution	OP	VA	Behavioral Health	12	Substance Abuse	Therapeutic	Other	3	Other	6
547	Intensive Substance Abuse Treatment	OP	VA	Behavioral Health	12	Substance Abuse	Therapeutic	Mental Health Clinic	4	Clinic	1

WU Code	Work Unit Description	WU Type	System	Product Line	PL Sort Order	Clinical Service Line	Cost Category/ Service Type	Department	Department Sort Order	Dept Group	Dept Group Sort Order
556	Alcohol Treatment - Group	OP	VA	Behavioral Health	12	Substance Abuse	Therapeutic	Other	3	Other	6
105	X-Ray	OP	VA	Ancillary Services	13	Imaging	Diagnostic	Diagnostic Other	4	Other	6
109	Nuclear Medicine	OP	VA	Ancillary Services	13	Imaging	Diagnostic	Radiology - NM	8	Diagnostic	5
115	Ultrasound	OP	VA	Ancillary Services	13	Imaging	Diagnostic	Diagnostic Other	4	Other	6
146	PET	OP	VA	Ancillary Services	13	Imaging	Diagnostic	Radiology - PET	7	Diagnostic	5
150	Computer Tomography	OP	VA	Ancillary Services	13	Imaging	Diagnostic	Radiology - CT	5	Diagnostic	5
151	Magnetic Resonance Imaging (MRI)	OP	VA	Ancillary Services	13	Imaging	Diagnostic	Radiology - MRI	6	Diagnostic	5
DCA	Diagnostic Radiology	OP	DOD	Ancillary Services	13	Imaging	Diagnostic	Diagnostic Other	4	Other	6
DCX	Diagnostic Radiology Cost Pool	OP	DOD	Ancillary Services	13	Imaging	Diagnostic	Diagnostic Other	4	Other	6
DIA	Nuclear Medicine	OP	DOD	Ancillary Services	13	Imaging	Diagnostic	Radiology - NM	8	Diagnostic	5
108	Laboratory	OP	VA	Ancillary Services	13	Lab	Diagnostic	Diagnostic Other	4	Other	6
DBA	Clinical Pathology	OP	DOD	Ancillary Services	13	Pathology	Diagnostic	Diagnostic Other	4	Other	6
DBB	Anatomical Pathology	OP	DOD	Ancillary Services	13	Pathology	Diagnostic	Diagnostic Other	4	Other	6
DBX	Pathology Cost Pool	OP	DOD	Ancillary Services	13	Pathology	Diagnostic	Diagnostic Other	4	Other	6
160	Clinical Pharmacy	OP	VA	Ancillary Services	13	Pharmacy	Therapeutic	Pharmacy	1	Other	6
DAA	Pharmacy	OP	DOD	Ancillary Services	13	Pharmacy	Therapeutic	Pharmacy	1	Other	6

Attachment 4: Capacity Conversion Factors

This is a list of "Capacity Conversion Factors" that might be used to translate supply into capacity. These are high level planning factors for "first pass analysis" to determine whether excess or under capacity might exist. These should not be considered benchmarks for operations/productivity. Note that the FTE standard in the physician clinics are based on a physician who spends 100% of time in clinic (i.e. visits per hour x 168 hours per month)

This is a compilation of factors found from commercial, DoD and VA sources. All of these factors should be evaluated, researched, and confirmed by the DoD and VA before use. Commercial factor is usually MTS experience unless otherwise noted. Min and Max are suggested bounds--they are not researched figures.

Dept. Type	Department Name	Factor Type	Factor Name	Translation Factor Descriptons	Commercial Factor	DoD Factor	VA Factor	Min	Max	Comments
Clinic	Dental Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	2157	260 DWV				MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. DoD: DWV is like an RVU and based on billable amounts. There is no simple "visits per provider." Also, DWV is different for general and specialists.
Clinic	Family Practice Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	4746	3312, 5646	3300	3000	6529	MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. Sources: VA CARES 1 (VISN 12) Study in 2000 BA&H target; DOD: TriCare MHS Standard Metric Set Mar 2002 ~13.3 RVU Adj visit per 8 hr day, assume 45 week year per MHS optimization study (use 51 weeks for FTE in our study). Note that an AMEDD document http://www.tricare.osd.mil/ocmo/download/2002Innovations/8, suggests 5646 visits per FTE; and Levy, RA "MHS Optimization and Recapturing Workload from Champus CNA 2002" says 4745. Commercial is MGMA mean for primary care. 90th percentile is 6529. AAFP states avg of 90.7 visits per week x 51 weeks = 4626. Providers: MD, NP (.5 MD equivalent) and PA (.5 MD equivalent) See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Cardiology Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	5000					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. This is a blend of invasive/non-invasive. See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Dermatology Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	6572					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Endocrinology Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	3553					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Gastroenterology Clini	Capacity	FTE Std	annual visits per 100% in clinic FTE	4294					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Hematology Oncology	Capacity	FTE Std	annual visits per 100% in clinic FTE	4800					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Geriatrics Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	4037					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Internal Medicine Clin	Capacity	FTE Std	annual visits per 100% in clinic FTE	4111					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Nephrology Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	4082					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors

Dept. Type	Department Name	Factor Type	Factor Name	Translation Factor Descriptons	Commercial Factor	DoD Factor	VA Factor	Min	Max	Comments
Clinic	General Surgery Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	3501					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Cardio/Thoracic Surge	Capacity	FTE Std	annual visits per 100% in clinic FTE	1632					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Gynecology Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	6525					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. (For GYN only-- not OB/GYN). See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Opthalmology Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	6548					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Orthopedic Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	6249					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. (General Ortho). See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Plastic Surgery Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	3702					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Urology Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	5893					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Vascular Surgery Clini	Capacity	FTE Std	annual visits per 100% in clinic FTE	2640					MGMA median visits per provider, converted into 100% in clinic at 168 hours per month. See attachment "Development of Visit/Hour Benchmarks by Specialty" for suggestions for DoD & VA factors
Clinic	Mental Health Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	2650			1575	2650	Sources: Commercial: MGMA General Psychiaty. 168 hours per month x hourly visits. VA CARES 1 (VISN 12) Study in 2000, Mental Health. Combo of MD, psychologists and social workers .
Clinic	PT OT Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE	6046					15 minute units; FTE is 2016 hours and 75% clinical; = 6046 15 min units per PT or OT FTE per year
Clinic	Dental Clinic	Capacity	Room Std	exam rooms per provider	2	2				Source: Dentcomm (for general dentists)
Clinic	Family Practice Clinic	Capacity	Room Std	exam rooms per provider	3	2	2	2	4	VA space planning guidelines; MHS optimization model
Clinic	Medicine & Medical Specialties Clinic	Capacity	Room Std	exam rooms per provider	2	2	2	2	4	VA space planning guidelines; MHS optimization model
Clinic	Surgery & Surgical Sp	Capacity	Room Std	exam rooms per provider	3	2	2	2	4	VA space planning guidelines; MHS optimization model
Clinic	Medicine & Medical Specialties	Capacity	SQFT Std	DGSF per provider	1200			900	1500	No standards for VA/DoD found--used midpoint of range typically found in commercial new construction
Clinic	Surgery & Surgical Specialties	Capacity	SQFT Std	DGSF per provider	1200			900	1500	No standards for VA/DoD found--used midpoint of range typically found in commercial new construction
Diagnostic and Treatment	Radiology - CT	Capacity	Machine Std	procedures per year per machine	10000	10000	6480	5000	10000	VA space planning guidebook (7810), DOD Jan 2002 DoD Space Planning for Health Facilities. Annual procedure capacity depends greatly on hours of operation and case mix. Commercial assumes 30 min case length, 120 hr per week, 85% utilization
Diagnostic and Treatment	Radiology - Interventional	Capacity	Machine Std	procedures per year per machine	1500			1000	2000	Commercial assumes 1 hour case length, 40 hrs week, 75% utilization
Diagnostic and Treatment	Radiology - MRI	Capacity	Machine Std	procedures per year per machine	8000	4992	6480	5000	1000	VA space planning guidebook (7810), DOD Jan 2002 DoD Space Planning for Health Facilities. Annual procedure capacity depends greatly on hours of operation and case mix.

Dept. Type	Department Name	Factor Type	Factor Name	Translation Factor Descriptons	Commercial Factor	DoD Factor	VA Factor	Min	Max	Comments
Diagnostic and Treatment	Radiology - NM	Capacity	Machine Std	procedures per year per machine	4700			4000	5500	Commercial assumes .75hour case length, 80 hrs per week, 85% utilization
Diagnostic and Treatment	Radiology - PET	Capacity	Machine Std	procedures per year per machine	1700			1500	2500	Commercial assumes 1 hr case length, 40 hours per week, 85% utilization
Diagnostic and Treatment	Cardiac Cath Lab	Capacity	SQFT Std	DGSF per lab	3000			2400	3300	Commercial: MTS experience new construction. Includes prep/recovery/support space
Diagnostic and Treatment	GI Lab	Capacity	SQFT Std	DGSF per lab	2000			1700	2300	Commercial: MTS experience new construction. Includes prep/recovery/support space
Diagnostic and Treatment	Hematology Oncology	Capacity	SQFT Std	DGSF per chair	550					Commercial: MTS experience new construction. Includes exam & support space
Diagnostic and Treatment	Radiation Therapy	Capacity	SQFT Std	DGSF per linac	9000					Commercial: MTS experience new construction
Diagnostic and Treatment	Radiology - CT	Capacity	SQFT Std	DGSF per room	1800					Commercial: Metis; HLM
Diagnostic and Treatment	Radiology - Interventional	Capacity	SQFT Std	DGSF per room	2500					Commercial: MTS experience new construction. Includes prep/recovery/support space
Diagnostic and Treatment	Radiology - MRI	Capacity	SQFT Std	DGSF per room	2200					Commercial: Metis; HLM. Includes support sapce
Diagnostic and Treatment	Radiology - NM	Capacity	SQFT Std	DGSF per room	1100					Commercial: HLM. Includes support space
Diagnostic and Treatment	Radiology - PET	Capacity	SQFT Std	DGSF per room	2200					Commercial: HLM. Includes support space
ED	Emergency Department	Capacity	FTE Std	visits per year per provider	4800			3000	5500	2.5 patient per hour x 1920 hours per year
ED	Emergency Department	Capacity	Space Std	visits per year per station	1400			1000	1900	Commercial: ACEP.
ED	Emergency Department	Capacity	SQFT Std	DGSF per station	800			600	950	ACEP, includes small allowance for imaging
IP	Critical Care IP	Capacity	Bed Std	yearly occupancy rate per bed	0.65			0.6	0.85	Commercial: MTS experience. Consider .85, though since in practice most CC units are 85% or more occupied
IP	Medical Surgical IP	Capacity	Bed Std	yearly occupancy rate per bed	0.85	0.85	0.85	0.75	0.9	Commercial: MTS experience, DOD January Space Planning for Health Facilities, VA Space Planning Guidebook (7810) and CARES
IP	OB	Capacity	Bed Std	yearly occupancy rate per bed	0.65	0.7		0.6	0.8	Commercial: MTS experience; DoD 2002 Space Planning for Health Facilities
IP	Psychiatry IP	Capacity	Bed Std	yearly occupancy rate per bed	0.85		0.85	0.75	0.9	Commercial: MTS experience; VA Space Planning Guidebook (7810 and CARES)
IP	Critical Care IP	Capacity	FTE Std	BDOC per year per LPNRN		168		84	168	1 LPNRN = 252 shifts per year, each BDOC requires 3 shifts. 1:1 nursing = 252/3 (84). 1:2 per AF Long View

Dept. Type	Department Name	Factor Type	Factor Name	Translation Factor Descriptons	Commercial Factor	DoD Factor	VA Factor	Min	Max	Comments
IP	Medical Surgical IP	Capacity	FTE Std	BDOC per year per LPNRN	420	336		320	560	1 LPNRN = 252 shifts per year, each BDOC requires 3 shifts, 1:1 nursing = 252/3 = 84. x 5 patients per nurse = 420. x 4patient = 336. 1:4 for AF Long View. 1:5 is more common-- thus applied to VA
IP	OB	Capacity	FTE Std	BDOC per year per LPNRN		252		168	252	1 LPNRN = 252 shifts per year, each BDOC requires 3 shifts, 1:1 nursing = 252/3 = 84. x 5 patients per nurse = 420. x 4patient = 336. 1:3 in family and post partum per AF Long View
IP	Psychiatry IP	Capacity	FTE Std	BDOC per year per LPNRN		504			588	1 LPNRN = 252 shifts per year, each BDOC requires 3 shifts, 1:1 nursing = 252/3 = 84. x 5 patients per nurse = 420. x 4patient = 336 1:6 per AF Long View; Applied same standard to VA
IP	Blind Rehabilitation	Capacity	SQFT Std	DGSF per bed	N/A	N/A	1049			VA CARES spacedriver 2001
IP	Critical Care IP	Capacity	SQFT Std	DGSF per bed	700		557	550	800	Commercial: MTS experience new construction. All private rooms. VA CARES spacedriver 2001
IP	Medical Surgical IP	Capacity	SQFT Std	DGSF per bed	550		465	450	750	Assumes mix of private/semi private. Commercial: WW experience new construction.; VA CARES spacedriver 2001
IP	OB	Capacity	SQFT Std	DGSF per bed	650		N/A	600	800	Commercial: MTS experience new construction. Assumes all private rooms (post partum)
IP	PRRTP IP	Capacity	SQFT Std	DGSF per bed		N/A	393			VA Only VA CARES spacedriver 2001
IP	Psychiatry IP	Capacity	SQFT Std	DGSF per bed	625		540	500	750	Assumes mix of private/semi private. MTS experience new construction
IP	Rehabilitation IP	Capacity	SQFT Std	DGSF per bed	600		465	500	750	Assumes mix of private/semi private. Commercial: MTS experience new construction; VA CARES space driver 2001
IP	SCI	Capacity	SQFT Std	DGSF per bed	N/A	N/A	1016			VA CARES spacedriver 2001
OR	OB OR	Capacity	OR Std	births per year per room		125		100	125	DoD Planning for Health Faciltiies
OR	Surgery OR	Capacity	OR Std	cases per year per OR	1100			800	1500	Commercial: MTS experience, large range depending on case mix
OR	Surgery Support	Capacity	OR Std	cases per year per room station	300			250	450	Commercial: 1200 cases per OR/4 prep & recovery per room = 300 cases per station
OR	Surgery OR	Capacity	SQFT Std	DGSF per OR	3000			2400	3700	Commercial: MTS experience new construction: includes all prep, recovery, admin support

Below are areas where no factor could yet be found, but DoD and VA might consider developing.

Clinic	Audiology Speech Clinic	Capacity	FTE Std	annual visits per 100% in clinic FTE						
Clinic	Distinctive Programs	Capacity	FTE Std	annual visits per 100% in clinic FTE						
Clinic	Audiology Speech Clinic	Capacity	Room Std	exam rooms per provider						
Clinic	Mental Health Clinic	Capacity	Room Std	exam rooms per provider						
Clinic	Audiology Speech Clinic	Capacity	SQFT Std	DGSF per provider						
Clinic	Dental Clinic	Capacity	SQFT Std	DGSF per provider						
IP	Blind Rehabilitation	Capacity	Bed Std	yearly occupancy rate per bed						
IP	PRRTP IP	Capacity	Bed Std	yearly occupancy rate per bed						
IP	Rehabilitation IP	Capacity	Bed Std	yearly occupancy rate per bed						
IP	SCI	Capacity	Bed Std	yearly occupancy rate per bed						
IP	Blind Rehabilitation	Capacity	FTE Std	BDOC per year per LPNRN						
IP	Rehabilitation IP	Capacity	FTE Std	BDOC per year per LPNRN						

Dept. Type	Department Name	Factor Type	Factor Name	Translation Factor Descriptons	Commercial Factor	DoD Factor	VA Factor	Min	Max	Comments
IP	SCI	Capacity	FTE Std	BDOC per year per LPNRN						
OR	OB OR	Capacity	FTE Std	cases per year per surgeon						
OR	Surgery OR	Capacity	FTE Std	cases per year per surgeon						
OR	Surgery Support	Capacity	FTE Std	cases per year per LPNRN						
OR	OB OR	Capacity	SQFT Std	DGSF per room						
OR	Surgery Support	Capacity	SQFT Std	DGSF per room						
IP	PRRTP IP	Capacity	FTE Std	BDOC per year per LPNRN						

Estimating Capacity/Workload Volumes from DoD /VA data

These are Demand Conversion Factors used to convert claims level ancillary volume into encounter-level workload. Ancillaries occur in both the inpatient and outpatient setting, and at the claims level, are counted at too granular a level for measurement against capacity. If future studies wish to analyze ancillaries, it is necessary to convert ancillaries into encounter level workload prior to comparing against capacity. DoD/VA should consider these a draft and a starting point for ancillary planning.

		Data Source	
		DoD	VA
1. Surgical Cases			
a. Inpatient	Count IP events with surgical DRGs, should be 1 DRG per event Surgical DRGs attached.	SIDR HCSR(I)	PTF
b. Outpatient	Count OP visits to the the following WUs (Count duplicates of Facility-SSN-Date-WU as 1 visit) (Count 327 and 328 with same Facility-SSN-Date as 1 visit)	SADR HCSR(NI)	OPC
	DoD: DGA; VA: 328, 327		
2. Cardiac Cath/EP			
a. Inpatient	Count IP events (discharges) with cath DRGs, should be 1 DRG per event Cath DRGs =see tab E of Cath DRG's		
b Outpatient	Count OP visits to the the following WUs (Count duplicates of Facility-SSN-Date-WU as 1 visit)	SADR HCSR(NI)	OPC
	DoD: DDE; VA: 333		
3.Radiation Therapy-Treatment			
a. Outpatient & inpatient	Count OP visits to the the following WUs (Count dups of Facility-SSN-Date-WU as 1 visit)	SADR HCSR(NI)	OPC
	DoD: BAS; VA: 144, 149		
5. Imaging			
a. inpatient	Count IP events (discharges) containing at least one of the ICD9 procedure codes	SIDR HCSR (I)	PTF
b. Outpatient	Count OP visits containing at least one of the CPT codes in Tab D	SADR HCSR(NI)	OPC

To determine levels of inpatient care, use the following:

1. IP Critical Care	Count the IP events (discharges) and BDOC in the following WUs	SIDR HCSR(I)	PTF
	DoD: AAH, ABC; VA: 12, 63		
2. IP Tertiary Care	Count the IP events (discharges) and BDOC for events with DRGs with a caseweight >= 2.0, from the list on attached document	SIDR HCSR (I)	PTF

DoD/VA Joint Assessment Study

Site Data Survey Instrument

Thank you very much for your assistance with this Study. In addition to volume and cost data we have obtained via national databases, we are seeking "local" data to inform our analysis.

Please provide the following information in as simple a way as possible for you. Standard reports and outputs are sufficient; please do not spend a lot of time creating unique reports for us. For example, if we ask for *annual* volume, but you have a routine report that has *monthly* volume, provide us the monthly report and note the time period. Not all requests will be applicable to your site. Please provide the information in electronic format such as MS Excel, Word, CAD, etc. If you do not have data electronically, please provide a hard copy.

Please send or e-mail the information by DATE, to:

PERSON
Mitretek Systems Inc.
3150 Fairview Park Drive South
Falls Church, VA 22042-4519
PERSON@mitretek.org

If you have any questions about this request, please call Kathleen Gallagher at 703-610-1930

POC for Data	General Site Information
_____	1) Organization charts
_____	2) Recent strategic plans, facility master plans, business plans or other planning documents for the activities at your site
_____	3) Reports describing and/or measuring any sharing programs you have with other entities, including any financial summaries
_____	4) Patient satisfaction reports or survey results
	Facility
_____	1) 8.5 x 11 or 11x17 floor plans and site plans (CAD files are okay)
_____	2) Building inventory—list of buildings, their age, major function and tenants
_____	3) List of department gross square feet (DGSF) by department; List of building gross square feet (BGSF) by building
_____	4) Facility Condition Index; amount of deferred maintenance; plant replacement value by building (most recent report, if possible)
_____	Capacity and Workload (see following example) See attached sheets for data needed. Use the attached format or give us the same data in your format if that is easier.

DoD/VA Joint Assessment Study

POC for Data	Other
	Please describe briefly the current or planned activities for your organization in the following areas, with particular references to joint sharing between the DoD and the VA:
_____	1) Telehealth
_____	2) Computerized Patient Records
_____	3) Provider Credentialing
_____	4) Surgical Quality Assessment
_____	5) Rehab Services
_____	6) Administrative Services
_____	7) Clinical Centers of Excellence
_____	8) Pharmacy
_____	9) Billing

DoD/VA Joint Assessment Study

Capacity and Workload

Note: add extra lines in table to fill in data in appropriate areas

1. Inpatient Beds.
   - Avail Beds - Bed space constructed for delivery of inpatient care and the space meets the standards applied by common hospital accreditation bodies. It does not include transient patient beds, bassinet, and incubators. Beds are not necessarily set up but could be configured without renovation costs
   - Staffed Beds– Bed space constructed for delivery of inpatient care and the space meets the standards applied by common hospital accreditation bodies. It does not include transient patient beds, bassinet, incubators. Beds are set up and staffed
   - Avg Occupancy Rate (optional data from site) – based on staffed beds

Grouping	Description	Unit Type	Floor/ Area	Available Bed	Staffed Beds	Avg Occ Rate
Critical Care IP	All ICU s including Pedi; excluding NICU					
Psychiatry IP						
Rehabilitation IP	All rehabilitation except blind rehab, PRRTP, and SCI if in separate spaces					
Obstetrics	List either LDR and Post-partum **OR** LDRP					
Medical Surgical IP	All inpatients Including telemetry, family practice, pediatrics, dental, gyn; excluding Critical Care, Psyche, OB and Rehab					
Other specialty Units	Blind Rehabilitation, PRRTP, SCI					

2. Operating Rooms- All OR s Inpatient and Outpatient regardless of specialty; separate out C-Section rooms (OB OR); excludes cysto and endo which are included under procedure rooms elsewhere. Please indicate If Ambulatory ORs are in a separate location, otherwise indicate total only. Please provide Volumes for FY 02 for Surgery.

Group	Major	Minor (not in main OR)	Annual FY 2002 Volume	Avg Case Length (in minutes)
Surgery OR – IP				

Surgery OR – OP				
Surgery OR – Total Only				
OB OR				

3. Surgery Support- Includes PACU, Med/Surg Day Unit/ Pre-Procedure evaluation , Pre-procedure processing, Anesthesia Evaluation

Grouping	Unit Type	Available Spaces	Comments
Surgery Support			

4. Emergency Department- Includes Urgent care or fast-track. Please provide Volumes for FY 02

Grouping	Unit Type	Spaces	Procedure Rooms	Visits	% Admits	Comments
Emergency Department						

5. Clinic Spaces- exam rooms, procedure rooms, average hours per week of operations, and backlog in days.

Grouping	Description	Exam Rooms	Procedure Rooms	Hrs Per Week	Backlog (in week days)	Comments
Physician Practice Clinic	Includes All Specialties in Clinics NOT within a Hospital, including primary Care (e.g. CBOC and BMC)					
Medicine Clinic	Includes Internal medicine, Primary Care, allergy, immunology, cardiology, community heath clinic dermatology, endocrinology, gastroenterology, hematology, oncology, infectious disease, nephrology, neurology, nutrition, physical medicine, pulmonary, rehab exam, rheumatology					

Surgical Specialty Clinic	Includes general, plastic, cardio-thoracic, ophthalmology, otolaryngology, dental, urology, pain, ortho, podiatry, neurosurgery, vascular; procedure rooms include cysto room					
Family Practice Clinic	Includes OB, GYN, pediatrics, adolescents, women's health					
Mental Health Clinic	Includes individual treatment rooms					
Dental Clinic						
Audiology Speech Clinic	Put the number of booths in procedure rooms					
PT OT Clinic						
Distinctive Programs	Includes Flight Medicine, Underseas Medicine					

6. Lab/Diagnostic Units - Please include annual volumes for FY 02, hours per week of operations, and backlog in days.

Grouping	Description	Rooms or Units	Recovery Spaces	Annual FY 2002 volume	Hrs Per Week	Backlog (in week days)
GI Lab	If separate					
Hematology Oncology Clinic	If separate. Put number of infusion bays in procedure rooms					
Cardiac Cath Lab						
Radiology - Interventional						
Radiation Therapy	Linear Accelerator					
Radiology - CT						
Radiology - MRI						
Radiology - PET						

Radiology - NM	Nuclear Medicine					

7. Pharmacy Unit (if separate) - Please include annual volumes for FY 02, and hours per week of operations.

Pharmacy:	Initial Rx filled or Doses dispensed	Refills	Hrs per Week
Outpatient Pick-up			
Mail order			
Inpatient			

EXAMPLE - FYI ONLY

Capacity and Workload

Note: add extra lines in table to fill in data in appropriate areas

1. Inpatient Beds.
   - Avail Beds - Bed space constructed for delivery of inpatient care and the space meets the standards applied by common hospital accreditation bodies. It does not include transient patient beds, bassinet, and incubators. Beds are not necessarily set up but could be configured without renovation costs
   - Staffed Beds– Bed space constructed for delivery of inpatient care and the space meets the standards applied by common hospital accreditation bodies. It does not include transient patient beds, bassinet, incubators. Beds are set up and staffed
   - Avg Occupancy Rate (optional data from site) – based on staffed beds

Grouping	Description	Unit Type	Floor/ Area	Available Bed	Staffed Beds	Avg Occ Rate
Critical Care IP	All ICUs including Pedi; excluding NICU	Surgical ICU	4 North	10	8	80
Critical Care IP		Coronary Care	3 North	8	8	60
Critical Care IP		Med/Pedi ICU	2 North	10	10	70
Psychiatry IP		Gen-Psych	5 North	34	24	85
Psychiatry IP		Geriatric Psych	5 South	30	30	85
Rehabilitation IP	All rehabilitation except blind rehab, PRRTP, and SCI if in separate spaces	Rehab/Hospice	1 North	34	24	90
Obstetrics	List either LDR and Post-partum **OR** LDRP	LDR	4 East	6	6	50
Obstetrics		Post Partum	3 East	22	22	50
Medical Surgical IP	All inpatients Including telemetry, family practice, pediatrics, dental, gyn; excluding Critical Care, Psyche, OB and Rehab	Ortho/Neuro	4 West	30	30	85
Medical Surgical IP		Gyn	5 East	30	24	80
Medical Surgical IP		Telemetry	2 East	24	20	80

Medical Surgical IP		Med/Surg/Pedi	2 West	30	30	80
Other specialty Units		SCI	1 South	20	20	80

2. Operating Rooms- All OR s Inpatient and Outpatient regardless of specialty; separate out C-Section rooms (OB OR); excludes cysto and endo which are included under procedure rooms elsewhere. Please indicate If Ambulatory ORs are in a separate location, otherwise indicate total only. Please provide Volumes for FY 02 for Surgery.

Group	Major	Minor (not in main OR)	Annual FY 2002 Volume	Avg Case Length (in minutes)
Surgery OR – IP	12	0	5000	60
Surgery OR – OP	3	1	1500	45
Surgery OR – Total Only				
OB OR	2	0	1000	60

3. Surgery Support- Includes PACU, Med/Surg Day Unit/ Pre-Procedure evaluation , Pre-procedure processing, Anesthesia Evaluation

Grouping	Unit Type	Available Spaces	Comments
Surgery Support	PACU	20	
Surgery Support	Pre-Test	1	department

4. Emergency Department- Includes Urgent care or fast-track. Please provide Volumes for FY 02

Grouping	Unit Type	Spaces	Procedure Rooms	Visits	% Admits	Comments
Emergency Department	Main ED	12		15000	20	
Emergency Department	Fast Track	2		3000	60	

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Clinic Spaces- exam rooms, procedure rooms, average hours per week of operations, and backlog in days.

Grouping	Description	Exam Rooms	Procedure Rooms	Hrs Per Week	Backlog (in week days)	Comments
Physician Practice Clinic	Includes All Specialties in Clinics NOT within a Hospital, including primary Care (e.g. CBOC and BMC)					
Medicine Clinic	Includes Internal medicine, Primary Care, allergy, immunology, cardiology, community heath clinic dermatology, endocrinology, gastroenterology, hematology, oncology, infectious disease, nephrology, neurology, nutrition, physical medicine, pulmonary, rehab exam, rheumatology	60	5	50	20	
Surgical Specialty Clinic	Includes general, plastic, cardio-thoracic, ophthalmology, otolaryngology, dental, urology, pain, ortho, podiatry, neurosurgery, vascular; procedure rooms include cysto room	60	5	40	30	3 are cysto rooms
Family Practice Clinic	Includes OB, GYN, pediatrics, adolescents, women's health	60	5	50	45	
Mental Health Clinic	Includes individual treatment rooms	60	5	40	45	
Dental Clinic		60		40	45	
Audiology Speech Clinic	Put the number of booths in procedure rooms	1	5	40	45	
PT OT Clinic		1		40	45	

Distinctive Programs	Includes Flight Medicine, Underseas Medicine			40	45	

5. Lab/Diagnostic Units - Please include annual volumes for FY 02, hours per week of operations, and backlog in days.

Grouping	Description	Rooms or Units	Recovery Spaces	Annual FY 2002 volume	Hrs Per Week	Backlog (in week days)
GI Lab	If separate	1	1	2000	30	15
Hematology Oncology Clinic	If separate. Put number of infusion bays in procedure rooms					
Cardiac Cath Lab		2		2500	40	5
Radiology - Interventional						
Radiation Therapy	Linear Accelerator					
Radiology - CT		1		8000	45	10
Radiology - MRI		2		9000	45	10
Radiology - PET						
Radiology - NM	Nuclear Medicine					

6. Pharmacy Unit (if separate) - Please include annual volumes for FY 02, and hours per week of operations.

Pharmacy:	Initial Rx filled or Doses dispensed	Refills	Hrs per Week
Outpatient Pick-up			
Mail order			
Inpatient			

Technical Documentation for Decision Support Tool

Attachment 7 to Appendix B - Study Methodology

Overview of this Attachment

The decision support tool was developed to assist the analysis of data from the DoD and the VA in a common format. The tool brings together data from several DoD and VA data sources into a common database in order to facilitate the development of queries and summary results.

Subsections:

1. **Datasets**
   - **1.1.** DoD Datasets
   - **1.2.** VA Datasets

2. **Global Pivot Table Fields**
   - **2.1.** Age Cohort
   - **2.2.** Beneficiary Group
   - **2.3.** System
   - **2.4.** Market
   - **2.5.** FacMarket
   - **2.6.** Provider Market

3. **Pivot Table Output Series**
   - **3.1.** Series 1. Eligible
   - **3.2.** Series 2. Enrollees
   - **3.3.** Series 3. Users
   - **3.4.** Series 4. Direct Care Services
   - **3.5.** Series 5. Indirect Care Services (and Costs)
   - **3.6.** Series 6. Staffing
   - **3.7.** Series 7. DoD Direct Care Costs

4. **Data Specifications**
   - **4.1.** DoD Datasets
   - **4.2.** VA Datasets

5. **Market Facility IDs and Beneficiary ZIP Codes**

1. Datasets

The following two tables outline the datasets collected from the DoD and VA. Typically each dataset represented one year's worth of data. Where applicable, the set has been identified as either Direct or Indirect based on the type of care the dataset represents. Direct care is defined as care received from a DoD or VA facility. Indirect care is defined as care received from a facility that is not operated by the DoD or VA. The specific fields and parameters of the datasets are outlined in Section 5.

1.1 DOD Datasets

Data Source	End Date	Record Count	Cost Class
HCSRI	9/30/2000	40311	Indirect
HCSRI	9/30/2002	32159	Indirect
HCSRNI	9/30/2000	5232676	Indirect
HCSRNI	9/30/2002	4133184	Indirect
LENR	4/30/2002	1390770	-
MCFAS	9/30/2002	1121937	-
MEPRS	9/30/2002	28344	-
MEPRS	9/30/2000	59884	-
PITE	9/30/2000	762787	-
PITE	10/31/2001	700418	-
PITE	12/31/2001	777702	-
PITE	2/28/2002	777213	-
PITE	9/30/2002	765038	-
PITE	8/31/2002	768812	-
PITE	7/31/2002	771696	-
PITE	6/30/2002	770725	-
PITE	5/31/2002	769809	-
PITE	4/30/2002	771664	-
PITE	3/31/2002	773242	-
PITE	1/31/2002	779203	-
PITE	11/30/2001	773911	-
SADR	9/30/2000	7381798	Direct
SADR	9/30/2002	3892319	Direct
SIDR	9/30/2000	86003	Direct
SIDR	9/30/2002	43402	Direct
WWR	9/30/2000	302537	-
WWR	9/30/2002	153316	-

1.2 VA Datasets

The following table lists the datasets received from the VA data sources. The Dual User datasets were generated by the VA based a special query.

Data Source	End Date	Record Count	Cost Class
Inpatient Fee	9/30/2000	4593	Indirect
Inpatient Fee	9/30/2002	5867	Indirect
OPC Events	9/30/2000	1947688	Direct

OPC Events	9/30/2002	1979355	Direct
OPC Visits	9/30/2000	1224044	Direct
OPC Visits	9/30/2002	1373357	Direct
Outpatient Fee	9/30/2000	157729	Indirect
Outpatient Fee	9/30/2002	192965	Indirect
PTF Main	9/30/2000	16600	Direct
PTF Main	9/30/2002	15819	Direct
PTF Procedures	9/30/2000	24668	Direct
PTF Procedures	9/30/2002	22378	Direct
PTF Surgery	9/30/2000	3669	Direct
PTF Surgery	9/30/2002	3217	Direct
PTF XM	9/30/2000	2481	Direct
PTF XM	9/30/2002	1904	Direct
VA Enrollment	9/30/2002	211145	-
VETPOP	9/30/2002	155445	-
Dual User	9/30/2000	1396543	-
Dual User	9/30/2002	1396543	-

2. General Pivot Table Information

Many of the fields used the pivot tables appear in several of the pivot tables. The following section defines global fields.

2.1 Global Fields

2.1.1 Age Cohort (called age_range)

Ages were grouped in the following brackets:

- 0-17
- 18-44
- 45-64
- 65+

2.1.2 Beneficiary Group (called bcpg_common)

Beneficiary Category for DoD and Priority Group for VA

VA Priority Group Mappings

Priority Group	Beneficiary Group
1, 1a	1
2	2
3	3
4	4
5	5
6	6
7a	7
7c	8

DOD Beneficiary Categories

BENCAT	Beneficiary Group
4,ACD, GRD, A11,A12,A13,A14,A15,A22,A23,C11,C12,F11,F12, F14,F15,F22,F23,M11,M12,M13,M22,N11,N12,N13,N14,N22,P11,R74	AD
1,A41,A45,C41,C45,C48,F41,F45,F48,M41,M45,N41,N45,N48,P41	ADFM
2,RET,A31,A32,A33,B31,C31,C32,F31,F32,F33,M31,M33,N31,N32,N3 3, P31,P32,P33	RET
K61	VET
RETFM,3,DR,DS,A43,A47,C43,C47,F43,F47,M43,M47,M48,N43,N47, P43	RETFM
OTH,A21,A24,A25,A26,A27,A28,A29,C22,C29,F21,F25,F27,F28,F29, K53,K57,K62,K64,K65,K68,K69,K71,K72,K73,K74,K75,K79,K82,K83, K84, K91,K92,K99,M25,M27,M29,M32,N25,N27,N28,N29,R72,R73,R75,999	OTHER

2.1.3 System

System represents the branch the respective data is from either DoD or VA.

2.1.4 Market (including In-Migration)

The Market field defines the origin of the users of the system. A user can be either from the given market or defined as 'In-Migration' which means he/she is from an area outside the given market. See Figure C.1 below. There is also a corresponding field called Submarket which further refines the Market.

2.1.5 Facmarket (including Out-Migration)

The Facility Market field defines the location of the treating facility. A facility can be either in the given market or defined as 'Out-Migration' which means the facility is outside the given market. See Figure C.1 below. There is also a corresponding field called Facsubmarket which further refines the Facmarket.

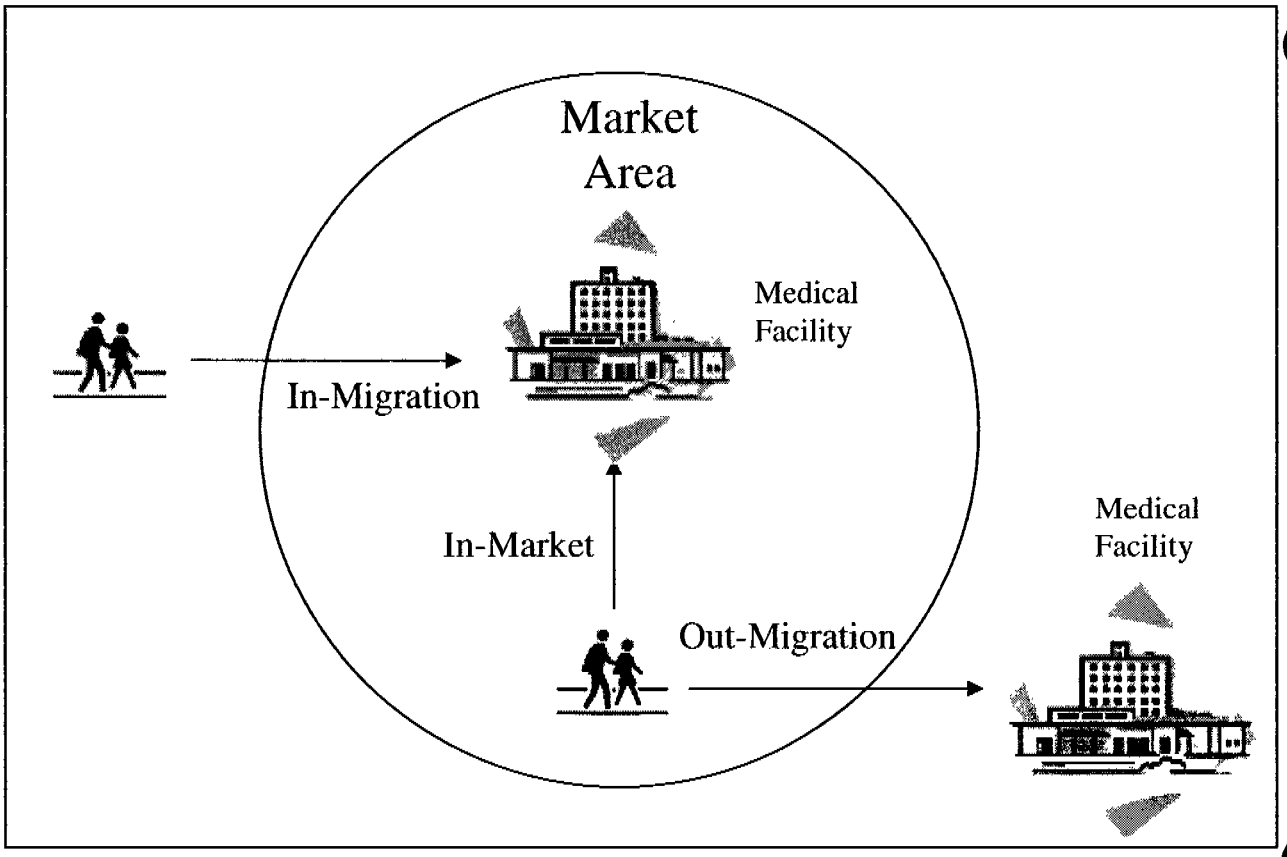

Figure C.1 - Market Definition Diagram

2.1.6 Provider Market (for Indirect Care)

The provider market field defines the location of the provider giving care in the indirect care subsystem. This field is analogous to the Facmarket.

3. Specific Pivot Table Information

3.1 Series 1 – Eligibles

This series describes the eligible population. The data is grouped by location, gender, age cohort, beneficiary group, gender, origin, and corresponding market information. The query & fields used to produce these results are described below.

Assumptions:
PITE data from September 2000 and 2002 was used as a sample for determining the eligibles for DOD.

Filters: None

Pivot Table Fields and Definitions:

Pivot Table Field	Database Field	Transformation	Column Mappings		System
			Original Dataset	Original Field Name	
COUNTY	marketarea.county	Mapped ZIP code or fips to associated county	PITE VetPop	RES_LOC_PR_ZIP_CD FIPS	DoD VA
ST	marketarea.state	Mapped ZIP code or fips to state	PITE VetPop	RES_LOC_PR_ZIP_CD FIPS	DoD VA
SYSTEM	dataset.branch	Either DOD or VA	N/A	N/A	N/A
FIPS	marketarea.fips	Fips code or Mapped ZIP code to fips code	PITE VetPop	RES_LOC_PR_ZIP_CD FIPS	DoD VA
GENDER	personinfo.gender	No transformation	PITE VetPop	PN_SEX_CD GENDER	DoD VA
AGE_RANGE	personinfo.age_range	Age ranges calculated based on the age field	PITE VetPop	D_AGE_GROUP_CD AGEGR4	DoD VA
BCPG_COMMON	personinfo.bcpg_common	DOD beneficiary categories and VA priority groups	PITE VetPop	PG_CD N/A	DoD VA
ELIGIBLE	computed	Unique count of patients	PITE VetPop	SPN_PN_ID & LEG_DDS_CD POPULATION	DoD VA
SUBMARKET	marketarea.submarket	Mapped ZIP code or fips to defined submarket areas	PITE VetPop	RES_LOC_PR_ZIP_CD FIPS	DoD VA

Pivot Table Field	Database Field	Transformation	Column Mappings		System
			Original Dataset	Original Field Name	
MARKET	marketarea.market	Mapped ZIP code or fips to defined market areas	PITE VetPop	RES_LOC_PR_ZIP_CD FIPS	DoD VA

SQL:

The following PL/SQL was used to generate population data for series 1.

```
begin

/*POPULATION*/
/*runtime: 5 minutes */
delete from series1;

insert into series1
select getFY(tmp_pite.datasetid, dataset.period_end),
marketarea.county,
dataset.branch,
tmp_pite.age_range,
tmp_pite.bcpg_common,
marketarea.market,
tmp_pite.PN_SEX_CD,
count(distinct tmp_pite.SPN_PN_ID||tmp_pite.leg_dds_cd),
marketarea.fips,
marketarea.state,
marketarea.submarket
from dataset, marketarea, tmp_pite
where dataset.datasetid in (3,59) /* PITE: sept 00 and sept 02*/
and tmp_pite.datasetid = dataset.datasetid
and tmp_pite.RES_LOC_PR_ZIP_CD = marketarea.zip
group by getFY(tmp_pite.datasetid, dataset.period_end),
marketarea.county,
dataset.branch,
tmp_pite.age_range,
tmp_pite.bcpg_common,
marketarea.market,
tmp_pite.PN_SEX_CD,
marketarea.fips,
marketarea.state,
marketarea.submarket;
commit;

/*Append VA population data*/
insert into series1
select to_char(population.sample_date, 'YYYY'),
marketarea.county,
'VA' as service,
recode_agegrp(population.age_group),
'' as pg,
marketarea.market,
```

```
population.gender,
round(sum(DISTINCT population.population)),
population.fips,
marketarea.state,
marketarea.submarket
from tmp_va_population population, marketarea
where (sample_date = to_date('09/30/2000', 'mm/dd/yyyy') or sample_date =
to_date('09/30/2002', 'mm/dd/yyyy'))
and population.fips = marketarea.fips
group by to_char(population.sample_date, 'YYYY'),
recode_agegrp(population.age_group),
marketarea.market,
marketarea.county,
population.gender,
population.fips,
marketarea.state,
marketarea.submarket;

commit;

end;
```

3.2 Series 2 - Enrollees

This series describes the enrolled population. The data is grouped by location, gender, age cohort, beneficiary group, gender, facility service area, and corresponding market information. The query & fields used to produce these results are described below.

Assumptions:
Only September 2000 and 2002 records from the LENR dataset was used. Since LENR does not maintain a ZIP code for the sponsor, a ZIP code was derived by matching the sponsor ssn to the corresponding monthly PITE dataset.

Filters: September 2000 and 2002 data for DoD. And FY02 data only for VA.

Pivot Table Fields and Definitions

Pivot Table Field	Database Field	Transformation	Column Mappings		System
			Original Dataset	Original Field Name	
COUNTY	marketarea.county	Mapped ZIP code or fips to associated county	PITE VA ENR	RES_LOC_PR_ZIP_CD ZIP	DoD VA
SYSTEM	dataset.branch	Either DOD or VA	N/A	N/A	N/A
ST	marketarea.state	Mapped ZIP code or fips to state	PITE VA ENR	RES_LOC_PR_ZIP_CD ZIP	DoD VA
AGE_RANGE	personinfo.age_range	Age ranges calculated based on the age field	LENR VA ENR	DOBNEW AGE	DoD VA
BCPG_COMMON	personinfo.bcpg_common	DOD beneficiary categories and VA priority groups	LENR VA ENR	COMBEN ENR_PRIORITY	DoD VA
GENDER	personinfo.gender	No transformation	LENR VA ENR	SEX GENDER	DoD VA
FIPS	marketarea.fips	Fips code Mapped to ZIP code	PITE VA ENR	RES_LOC_PR_ZIP_CD ZIP	DoD VA
FY	dataset.period_end	Calculated fiscal year based on dataset date	N/A	N/A	N/A
MARKET	marketarea.market	Mapped ZIP code to defined market areas	PITE VA ENR	RES_LOC_PR_ZIP_CD ZIP	DoD VA
ENROLLED	computed	Sum of unique patients or enrolled	LENR VA ENR	SPONSSN & DDS ENROLLED	DoD VA

Pivot Table Field	Database Field	Transformation	Column Mappings		System
			Original Dataset	Original Field Name	
FACILTY	facility.facilitynumber	The DMIS or Station number	LENR N/A	ENR N/A	DoD VA
ORIGIN	N/A	Not used	N/A	N/A	N/A
FACNAME	facility.facilityname	Long name of facility	LENR N/A	ENR N/A	DoD VA
SUBMARKET	marketarea.submarket	Mapped ZIP code defined submarket areas	PITE VA ENR	RES_LOC_PR_ZIP_CD ZIP	DoD VA
FACMARKET	marketarea.market	Mapped facility ZIP code to defined market areas	LENR N/A	ENR N/A	DoD VA
FACSUBMARKET	marketarea.submarket	Mapped facility ZIP code to defined market areas	LENR N/A	ENR N/A	DoD VA

SQL:

The following PL/SQL was used to generate data for series 2.

```
Begin

/* this will create the entire Series2 data set*/
procedure Update_Zips
/*update the ZIP in the new records from data in the associated month of PITE data*/
 is
  minZIP varchar2(5);

  CURSOR CV_ENR IS
  /* Only query on sponsor ssn in pite: COLLINS*/
  /* this query tries to find the single record in pite that matches the tmp_enrolled data*/
    select fy, cm, sponssn, MIN(RES_LOC_PR_ZIP_CD) keep (dense_rank first order by
dataset.period_end desc) as MINZIP
    from tmp_pite pite, dataset, tmp_enrolled
    where pite.SPN_PN_ID = tmp_enrolled.SPONSSN
    and pite.datasetid = dataset.datasetid
    and pite.RES_LOC_PR_ZIP_CD is not null
    group by fy,cm,sponssn;

  ENR_record            CV_ENR%ROWTYPE;

begin
  FOR ENR_record IN CV_ENR LOOP
    /*update the ZIP in the new records from data in the associated month of PITE data*/

    UPDATE TMP_ENROLLED SET ZIP = ENR_RECORD.MINZIP
    where fy = enr_record.fy
    and cm = enr_record.cm
    and sponssn = enr_record.sponssn;
```

```
                EXIT WHEN CV_ENR%NOTFOUND;
        End LOOP;
commit;
end;

procedure create_enrolled_entry
(period_end in varchar2, enr_num in varchar2, v_PITEdatasetid in number)

/*This routine is used to normalize the data in the lenr table;
to convert the enr(1..36) & acv(1..36) pairs to individual records
1 represents 1/2000 and 36 represents 12/2002 */

/*parameters:
period_end: the end of the month for a given fycm
enr_num: 1 to 36 aligned with the field names in tmp_lenr*/

/*sample call create_enrolled_entry('12/31/2000', '1')
runtime: less than 2 minutes per call*/

is

sqlcmd   varchar2(400);
v_FY     varchar2(4);
v_CM     varchar2(2);

begin

v_CM := substr(period_end,1,2);
v_FY := substr(period_end,7,4);

/*Build the insert stmt based on the parameters, etc.
the age is calculated based on the period_end value, and the bcpg_common is calc
based on the bencat value in the tmp_lenr
*/

/*this unused query will only catch people with an ENR MTF*/
sqlcmd := 'insert /*+append*/ into tmp_enrolled (sex, sponssn, dds, service, fy, CM, mtf, acv, age,
bcpg_common) '||
'select rtrim(sex), sponssn, dds, "DOD" as service, ''' || v_FY || ''' as FY, ''' || v_CM || ''' as mth, ' ||
'ENR' || enr_num ||', ACV' || enr_num || ', '||
'round((to_date('''|| period_end ||''', "mm/dd/yyyy") - to_date(dobnew, "yyyymmdd"))/365) as age,
'||
'rtrim(substr("ADFM ,RET  ,RETFM,AD   ", to_number(comben)*6-5,5)) as bencat ' ||
'from tmp_lenr where enr' || enr_num || ' is not null';

/*this query will catch everyone in the table*/
sqlcmd := 'insert /*+append*/ into tmp_enrolled (sex, sponssn, dds, service, fy, CM, mtf, acv, age,
bcpg_common) '||
'select rtrim(sex), sponssn, dds, "DOD" as service, ''' || v_FY || ''' as FY, ''' || v_CM || ''' as mth, ' ||
'ENR' || enr_num ||', ACV' || enr_num || ', '||
'round((to_date('''|| period_end ||''', "mm/dd/yyyy") - to_date(dobnew, "yyyymmdd"))/365) as age,
'||
'rtrim(substr("ADFM ,RET  ,RETFM,AD   ", to_number(comben)*6-5,5)) as bencat ' ||
'from tmp_lenr';

execute immediate sqlcmd;
```

```
commit;

END; /*create enrolled entry*/

/* MAIN PROCEDURE */
begin

delete from tmp_enrolled;

/*part 1 : populate the tmp_enrolled table with base data
  runtime: 3 minutes per call*/

/*FY00 Data */
/*
create_enrolled_entry('01/30/2000', '1', 3);
create_enrolled_entry('02/28/2000', '2', 3);
create_enrolled_entry('03/31/2000', '3', 3);
create_enrolled_entry('04/30/2000', '4', 3);
create_enrolled_entry('05/31/2000', '5', 3);
create_enrolled_entry('06/30/2000', '6', 3);
create_enrolled_entry('07/31/2000', '7', 3);
create_enrolled_entry('08/31/2000', '8', 3);
*/
create_enrolled_entry('09/30/2000', '9', 3); /*Only run the september data*/
/*
create_enrolled_entry('10/31/2000', '10', 3);
create_enrolled_entry('11/30/2000', '11', 3);
create_enrolled_entry('12/31/2000', '12', 3);
*/
/* FY2002 Data */
/*pite dataset 12 matches 1/30/2002 lenr data)*/
/*
create_enrolled_entry('01/30/2002', '25', 12);
create_enrolled_entry('02/28/2002', '26', 13);
create_enrolled_entry('03/31/2002', '27', 14);
create_enrolled_entry('04/30/2002', '28', 15);
create_enrolled_entry('05/31/2002', '29', 55);
create_enrolled_entry('06/30/2002', '30', 56);
create_enrolled_entry('07/31/2002', '31', 57);
create_enrolled_entry('08/31/2002', '32', 58);
*/
create_enrolled_entry('09/30/2002', '33', 59); /*Only run the september data*/
/*
create_enrolled_entry('10/31/2002', '34', 9);
create_enrolled_entry('11/30/2002', '35', 10);
create_enrolled_entry('12/31/2002', '36', 11);
*/
/*UPDATE the extra fields*/

/*Fill in the zips with info from PITE*/
Update_Zips;

/*compute the age ranges*/
update tmp_enrolled set age_range = '0-17' where age < 18;
commit;
```

```
update tmp_enrolled set age_range = '18-44' where age >= 18 and age < 45;
commit;

update tmp_enrolled set age_range = '45-64' where age >= 45 and age < 65;
commit;

update tmp_enrolled set age_range = '65+' where age >= 65;
commit;

/*populate the Series2 table*/
create_series2_part2();
end;

as

begin

delete from series2;

/*only run on sept data*/

insert into series2
select
tmp_enrolled.FY,
nvl(marketarea.county, 'In Migration'),
tmp_enrolled.service as system,
tmp_enrolled.age_range,
tmp_enrolled.bcpg_common,
nvl(marketarea.market, 'In Migration'),
tmp_enrolled.sex,
nvl(tmp_enrolled.mtf, 'None'),
count(DISTINCT tmp_enrolled.sponssn||dds) as enrolled, /*count unique people*/
nvl(marketarea.fips, 'In'),
nvl(marketarea.state, 'In'),
nvl(marketarea.submarket, 'In Migration'),
nvl(facility.facilityname, 'None'),
case when nvl(mtf,'0') = '0' then 'None' else nvl(facmarketarea.market, 'Out Migration') end as
facmarket,
case when nvl(mtf,'0') = '0' then 'None' else nvl(facmarketarea.submarket, 'Out Migration') end as
facsubmarket,
null as origin
from tmp_enrolled, marketarea, facility, marketarea facmarketarea
where cm='09'
and tmp_enrolled.ZIP     = marketarea.zip(+)
and tmp_enrolled.mtf     = facility.facilitynumber(+)
and facility.ZIP         = facmarketarea.zip(+)
group by
tmp_enrolled.FY,
marketarea.county,
tmp_enrolled.service,
tmp_enrolled.age_range,
tmp_enrolled.bcpg_common,
marketarea.market,
tmp_enrolled.sex,
tmp_enrolled.mtf,
marketarea.fips,
```

```
marketarea.state,
marketarea.submarket,
facility.facilityname,
facmarketarea.market,
facmarketarea.submarket
having not (marketarea.market = 'In Migration'
and facmarketarea.market = 'Out Migration');

commit;

 /*append VA data
  Runtime: quick */

insert /*+append*/ into series2
select '2002' as FY,
marketarea.county,
'VA' as system,
tmp_va_enrolled.age_range,
recode_pg(tmp_va_enrolled.pg),
location.market,
tmp_va_enrolled.gender,
'None' as mtf,
sum(tmp_va_enrolled.enrolled),
marketarea.fips,
marketarea.state,
marketarea.submarket,
'None' as facname,
'None' as facmarket,
'None' as facsubmarket,
'In-Market' as origin
from tmp_va_enrolled, location, marketarea
where tmp_va_enrolled.ZIP = marketarea.zip
and marketarea.locationid = location.locationid
group by
marketarea.county,
tmp_va_enrolled.age_range,
recode_pg(tmp_va_enrolled.pg),
location.market,
tmp_va_enrolled.gender,
marketarea.fips,
marketarea.state,
marketarea.submarket;

commit;

end;
```

3.3 Series 3 – Market Users and Facility Users

This series quantifies the market users and facility users for the DoD and VA. The data is grouped by location, gender, age cohort, beneficiary group, gender, origin, treating facility, and corresponding market information. The query & fields used to produce these results are described below.

Assumptions:
The Origin field listed below is used to select either the Market are Facility Users data. One of these values must be selected in order for the results to be valid. The Subsystem field is used to select either the Direct or Indirect results of the Market Users dataset. A value of Both indicates users that use both systems. The System field as an extra value of 'Dual Users' which is used to select the subset of users who use both the DoD and VA facilities.

Filters:
Telephone consults are excluded from the DOD data. Duplicate daily services for a patient are excluded from the VA data.

Pivot Table Fields and Definitions

Pivot Table Field	Database Field	Transformation	Visit Type	Column Mappings		System
				Original Dataset	Original Field Name	
COUNTY	marketarea.county	Mapped ZIP code to associated county	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	PATZIP PATZIP ZIP ZIP	DoD DoD VA VA
ST	marketarea.state	Mapped ZIP code to state	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	PATZIP PATZIP ZIP ZIP	DoD DoD VA VA
SYSTEM	dataset.branch	Either DOD or VA	N/A	N/A	N/A	N/A
FIPS	marketarea.fips	Mapped ZIP code to fips code	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	PATZIP PATZIP ZIP ZIP	DoD DoD VA VA
GENDER	personinfo.gender	No transformation	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	DMISSEX PATSEX SEX SEX	DoD DoD VA VA
AGE_RANGE	personinfo.age_range	Age ranges calculated based on the age field	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	RECAGE PATAGE AGE AGE	DoD DoD VA VA

Pivot Table Field	Database Field	Transformation	Visit Type	Column Mappings		System
				Original Dataset	Original Field Name	
BCPG_COMMON	personinfo.bcpg_common	DOD beneficiary categories and VA priority groups	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	BENFCAT1 COMBEN N/A N/A	DoD DoD VA VA
USERS	computed	Unique count of patients for the productline and serviceline	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	SPONSSN &FMP SPONSSN &FMP SCRSSN SCRSSN	DoD DoD VA VA
FACILTY	facility.facilitynumber	The DMIS or Station number	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	MTF DMISID STA6A STA5A	DoD DoD VA VA
FACNAME	facility.facilityname	Long name of facility	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	MTF DMISID STA6A STA5A	DoD DoD VA VA
ORIGIN	computed	Market Users or Facility Users	N/A	N/A	N/A	N/A
SUBMARKET	marketarea.submarket	Mapped ZIP codes to defined submarket areas	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	PATZIP PATZIP ZIP ZIP	DoD DoD VA VA
FACMARKET	marketarea.market	Mapped facility ZIP code to defined market areas	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	MTF DMISID STA6A STA5A	DoD DoD VA VA
FACSUBMARKET	marketarea.submarket	Mapped facility ZIP code to defined market areas	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	MTF DMISID STA6A STA5A	DoD DoD VA VA

SQL:

The following PL/SQL was used to generate Market User data for series 3A-3D.

```
begin
delete from series3;

/*this does not include the users from the indirect/purchased care datasets: hcsr and va fee files*/
 /*runtime: 2 hrs*/

 /*Calculate the number of unique users from each marketarea*/
 /*Market Users for series 3A-3D*/
 insert /*+append*/ into series3
```

```
select
getFY(dataset.datasetid, event.end_date) as FY,
marketarea.county,
marketarea.state,
dataset.branch as system,
marketarea.fips as fips,
marketarea.market,
personinfo.gender,
personinfo.age_range,
personinfo.bcpg_common,
count(distinct personinfo.patientid) as users,
null as facnumber,
null as facname,
'Market Users' as origin,
marketarea.submarket,
null as facmarket,
null as facsubmarket
from dataset,marketarea,personinfo,event
where dataset.groupnum = 1
and nvl(event.appt_status, 'null') <> '6' /*ingore telcons id DOD data*/
and personinfo.ZIP          = marketarea.zip
and personinfo.datasetid    = dataset.datasetid
and personinfo.personinfoid = event.personinfoid
group by
  getFY(dataset.datasetid, event.end_date),
  marketarea.county,
  marketarea.state,
  marketarea.fips,
  marketarea.market,
  personinfo.gender,
  personinfo.age_range,
  personinfo.bcpg_common,
  dataset.branch,
  marketarea.submarket;

commit;

/*Count unique Dual Users by marketarea*/
insert /*+append*/ into series3
SELECT
getfy(dataset.datasetid,dataset.period_end) as FY,
marketarea.county,
marketarea.state,
'Dual Users' as system,
marketarea.fips,
marketarea.MARKET,
null as gender,
null as age,
null as bcpg,
count(distinct patientid) as users,
null as facilitynum,
null as facname,
'Market Users' as origin,
marketarea.submarket,
null as facmarket,
null as facsubmarket
```

```
FROM dataset, marketarea, personinfo, event
WHERE personinfo.dualuser = 1
and nvl(event.appt_status, 'null') <> '6'
and dataset.branch       = 'DOD'
and dataset.datasetid    = personinfo.datasetid
and personinfo.ZIP       = marketarea.zip
and event.personinfoid   = personinfo.personinfoid
GROUP BY
getfy(dataset.datasetid,dataset.period_end),
marketarea.county,
marketarea.state,
marketarea.fips,
marketarea.market,
marketarea.submarket;
commit;

/*************************************************************/
/* Calculate unique users by facility*/

insert /*+append*/ into series3
select
getFY(dataset.datasetid, event.end_date) as FY,
nvl(marketarea.county, 'In Migration'),
nvl(marketarea.state, 'In'),
dataset.branch as system,
nvl(marketarea.fips, 'In') as fips,
nvl(marketarea.market, 'In Migration'),
personinfo.gender,
personinfo.age_range,
personinfo.bcpg_common,
count(distinct personinfo.patientid) as users,
nvl(facility.facilitynumber, 'None'),
nvl(facility.facilityname, 'None'),
'Fac Users' as origin,
nvl(marketarea.submarket,'In Migration'),
nvl(facmarketarea.market,'Out Migration') as facmarket,
nvl(facmarketarea.submarket, 'Out Migration') as facsubmarket
from dataset,marketarea,personinfo,event,facility, marketarea facmarketarea
where dataset.groupnum = 1
and nvl(event.appt_status, 'null') <> '6'
and personinfo.ZIP         = marketarea.zip(+)
and personinfo.datasetid   = dataset.datasetid
and personinfo.personinfoid = event.personinfoid
and event.facilityid       = facility.facilityid
and facility.ZIP           = facmarketarea.zip(+)
group by
  getFY(dataset.datasetid, event.end_date),
  marketarea.county,
  marketarea.state,
  marketarea.fips,
  personinfo.gender,
  personinfo.age_range,
  personinfo.bcpg_common,
  dataset.branch,
  facility.facilitynumber,
  facility.facilityname,
```

```
  marketarea.market,
  marketarea.submarket,
  facmarketarea.market,
  facmarketarea.submarket;
   commit;
end;
```

3.4 Series 4 – Direct Care Services

This series provides a summary of services provided by both the DoD & VA facilities. The data is grouped by facility, branch, product and service line, and corresponding market information. The query & fields used to produce these results are described below.

Assumptions:
The Volume field indicates either the number of discharges for inpatient care or the number of visits for outpatient care.

Filters:

Telephone consults are excluded from the DOD data. Duplicate daily services for a patient are excluded from the VA data.

Pivot Table Fields and Definitions

Pivot Table Field	Database Field	Transformation	Visit Type	Column Mappings		System
				Original Dataset	Original Field Name	
BCPG_COMMON	personinfo.bcpg_common	DOD beneficiary categories and VA priority groups	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	BENFCAT1 COMBEN N/A N/A	DoD DoD VA VA
BDOC	computed	Total bed days of care. This value is zero for outpatient records	IP IP	SIDR PTF (MAIN, XM)	DMISDAYS DISDAY - ADMITDAY	DoD VA
COUNTY	marketarea.county	Mapped ZIP code to associated county	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	PATZIP PATZIP ZIP ZIP	DoD DoD VA VA
DEPTGRP	department.deptgroup	High Level Groups for Departments	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	CLNADM MEPRSCD BEDSECN CL	DoD DoD VA VA
DEPTGRPORDER	department.group_order	Numerical sort order for Departments	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	CLNADM MEPRSCD BEDSECN CL	DoD DoD VA VA
DEPTNAME	department.name	Mapped bed sections and MPRS3 codes	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	CLNADM MEPRSCD BEDSECN CL	DoD DoD VA VA

Pivot Table Field	Database Field	Transformation	Visit Type	Column Mappings		System
				Original Dataset	Original Field Name	
DEPTORDER	department.dept_order	Numerical sort order for Departments	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	CLNADM MEPRSCD BEDSECN CL	DoD DoD VA VA
FACILTY	facility.facilitynumber	The DMIS or Station number	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	MTF DMISID STA6A STA5A	DoD DoD VA VA
FACMARKET	marketarea.market	Mapped facility ZIP code to defined market areas	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	MTF DMISID STA6A STA5A	DoD DoD VA VA
FACNAME	facility.facilityname	Long name of facility	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	MTF DMISID STA6A STA5A	DoD DoD VA VA
FACSUBMARKET	marketarea.submarket	Mapped facility ZIP code to defined market areas	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	MTF DMISID STA6A STA5A	DoD DoD VA VA
FIPS	marketarea.fips	Mapped ZIP code to fips code	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	PATZIP PATZIP ZIP ZIP	DoD DoD VA VA
FY	event.end_date	Calculated fiscal year based on discharge date	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	DISPDATE ENCDATE DISDAY VIZDATE	DoD DoD VA VA
MARKET	marketarea.market	Mapped ZIP codes to defined market areas	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	PATZIP PATZIP ZIP ZIP	DoD DoD VA VA
PRODUCTLINE	productline.name	Mapped bed sections and MPRS3 codes	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	CLNADM MEPRSCD BEDSECN CL	DoD DoD VA VA
SERVICELINE	productline.serviceline	Mapped bed sections and MPRS3 codes	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	CLNADM MEPRSCD BEDSECN CL	DoD DoD VA VA
SERVICETYPE	productline.service_type	Mapped bed sections and MPRS3 codes	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	CLNADM MEPRSCD BEDSECN CL	DoD DoD VA VA

Pivot Table Field	Database Field	Transformation	Visit Type	Column Mappings		System
				Original Dataset	Original Field Name	
ST	marketarea.state	Mapped ZIP code to state	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	PATZIP PATZIP ZIP ZIP	DoD DoD VA VA
SUBMARKET	marketarea.submarket	Mapped ZIP codes to defined submarket areas	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	PATZIP PATZIP ZIP ZIP	DoD DoD VA VA
SYSTEM	dataset.branch	Either DOD or VA	N/A	N/A	N/A	N/A
USERS	computed	Unique count of patients for the productline and serviceline	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	SPONSSN&F MP SPONSSN&F MP SCRSSN SCRSSN	DoD DoD VA VA
VOLUME	computed	Count of unique discharges or procedures	N/A	N/A	N/A	N/A
WORKUNITTYPE	workunit.typecode	Mapped bed sections and MPRS3 codes	IP OP IP OP	SIDR SADR PTF (MAIN, XM) OPC (EVENTS)	CLNADM MEPRSCD BEDSECN CL	DoD DoD VA VA

SQL:

The following PL/SQL was used to generate the data in the Series 4 pivot table.

```
begin

/*Runtime: x hrs */
/*this does it all, in-market, in-migration, and out migration*/


delete from series4;
commit;

insert /*+append*/ into series4
select getFY(dataset.datasetid, event.end_date) as FY,
nvl(marketarea.county, 'In Migration'),
dataset.branch,
nvl(marketarea.market, 'In Migration'),
nvl(facility.facilitynumber, 'None'),
count(event.eventid) as volume,
sum(event.bed_days_total) as bdoc,
productline.service_type,
productline.name,
productline.serviceline,
nvl(marketarea.fips, 'In'),
nvl(marketarea.state, 'In'),
```

```
count(distinct personinfo.patientid) as users,
department.name,
department.deptgroup,
department.dept_order,
department.group_order,
nvl(facility.facilityname, 'None'),
null as origin,
nvl(marketarea.submarket, 'In Migration'),
nvl(facmarketarea.market, 'Out Migration') as facmarket,
nvl(facmarketarea.submarket, 'Out Migration') as facsubmarket,
workunit.typecode,
bcpg_common
from personinfo, event, dataset, marketarea, marketarea facmarketarea, facility,
workunit, productline, department
where personinfo.personinfoid = event.personinfoid
and dataset.costclass = 'Direct'
and nvl(event.appt_status, 'null') <> '6'
and event.countable        = 1
and event.datasetid    = dataset.datasetid
and personinfo.ZIP         = marketarea.zip(+)
and event.facilityid       = facility.facilityid
/*and facility.locationid    = facmarketarea.locationid(+)*/
and facility.ZIP           = facmarketarea.zip(+)
and substr(workunit.workunit_code,1,3) = substr(event.workunit_code,1,3)  /*get 3rd level meprs
code*/
and workunit.productlineid  = productline.productlineid
and department.departmentid = workunit.departmentid
group by
getFY(dataset.datasetid, event.end_date),
marketarea.county,
dataset.branch,
marketarea.market,
facility.facilitynumber,
productline.service_type,
productline.name,
productline.serviceline,
marketarea.fips,
marketarea.state,
department.name,
department.deptgroup,
department.dept_order,
department.group_order,
facility.facilityname,
marketarea.submarket,
facmarketarea.market,
facmarketarea.submarket,
workunit.typecode,
bcpg_common
having not
(marketarea.market = 'In Migration' and
 facmarketarea.submarket = 'Out Migration');

commit;

end;
```

3.5 Series 5 – Indirect Care Services and Costs

This series provides a summary of the indirect care and associated costs for the users in the market.

Assumptions:
In order to generate data for VA, ZIP code, gender, and DOB data was derived by retrieving the associated fields in the OPC Event file based on the patient ssn.

Filters: Only Contract Hospital visits where extracted from the VA datasets. For the DoD datasets, inpatient claims were excluded from the outpatient dataset (HCSR-NI) and only the primary procedure was counted in the results.

Pivot Table Fields and Definitions

Pivot Table Field	Database Field	Transformation	Visit Type	Column Mappings		System
				Original Dataset	Original Field Name	
FY	event.end_date	Calculated fiscal year based on discharge date	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	ENDDOC ENDDATE TREATDO VIZDATE	DOD DOD VA VA
ADMTYPE (IP only)	N/A	No Transformation	IP	HCSRI	ADMTYPE	DOD
POS (OP only)	N/A	No Transformation	OP OP	HCSRNI OPC FEE	SVCPLACE PLSR_DESC	DOD VA
GENDER	personinfo.gender	No Transformation	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	PATSEX GENDER N/A – SEX from OPC MAIN N/A – SEX from OPC MAIN	DOD DOD VA VA
BCPG	personinfo.bcpg_common	DOD beneficiary categories and VA priority groups	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	BENCAT BENCAT N/A – PG from enrollment	DOD DOD VA VA
AGE_RANGE	personinfo.age_range	Age ranges calculated based on the age field	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	PATAGE PATAGE N/A – DOB from enrollment/OPC MAIN N/A – DOB from enrollment/OPC MAIN	DOD DOD VA VA

Pivot Table Field	Database Field	Transformation	Visit Type	Column Mappings		System
				Original Dataset	Original Field Name	
USERS	computed	Unique count of patients	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	SPONSSN & DEPSUFX SPONSSN & DDS SCRSSN SCRSSN	DOD DOD VA VA
VOLUME	computed	Count of unique discharges or procedures	N/A	N/A	N/A	N/A
BDOC	event.bed_days_total	Total bed days of care. This value is zero for outpatient records	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	N/A TOTBED TREATDO & TREATDTF N/A	DOD DOD VA VA
BILLAMT	computed	The amount billed to the system	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	TAMT_BILL BILLAMT PAMTCL N/A	DOD DOD VA VA
GOVTAMT	computed	The amount paid for the service	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	AMT_GOVT GOVTAMT AMOUNT AMOUNT	DOD DOD VA VA
FACILITY	facility.facilitynumber	The Authorizing DMIS or Station number	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	MTF_CODE_AC MTFAUTH STA STA	DOD DOD VA VA
FACILITYNAME	facility.facilityname	Long name of facility	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	MTF_CODE_AC MTFAUTH STA STA	DOD DOD VA VA
ST	marketarea.state	The state of the user	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	PROV_STATE PROVSTATE N/A	DOD DOD VA VA
MARKET	marketarea.market	Mapped ZIP codes to defined market areas	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	PROV_ZIP PROVZIP ZIP ZIP	DOD DOD VA VA
SUBMARKET	marketarea.submarket	Mapped ZIP codes to defined submarket areas	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	PROV_ZIP PROVZIP ZIP ZIP	DOD DOD VA VA
INDIRECT_PL	productline.name	Mapped drg, provider specialty, or icd9 codes to product lines	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	PROV_SPEC DRG_NUM PDRG DXL	DOD DOD VA VA
INDIRECT_SL	productline.serviceline	Mapped drg, provider specialty, or icd9 codes to service lines	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	PROV_SPEC DRG_NUM PDRG DXL	DOD DOD VA VA

Pivot Table Field	Database Field	Transformation	Visit Type	Column Mappings		System
				Original Dataset	Original Field Name	
INDIRECT_ SERVICETYPE	productline.service_type	Mapped drg, provider specialty, or icd9 codes to service types	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	PROV_SPEC DRG_NUM PDRG DXL	DOD DOD VA VA
FACMARKET	marketarea.market	Mapped facility ZIP code to defined market areas	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	PROV_ZIP PROVZIP ZIP ZIP	DOD DOD VA VA
FACSUBMARKET	marketarea.submarket	Mapped facility ZIP code to defined market areas	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	PROV_ZIP PROVZIP ZIP ZIP	DOD DOD VA VA
PROVMARKET	marketarea.market	Mapped facility ZIP code to defined market areas	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	PROV_ZIP PROVZIP ZIP ZIP	DOD DOD VA VA
PROVSUBMARKET	marketarea.submarket	Mapped facility ZIP code to defined market areas	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	PROV_ZIP PROVZIP ZIP ZIP	DOD DOD VA VA
MTFCATCH	facility.facilitynumber	The catchment facility id for the given care	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	MTFCODE MTFCATCH STA3N STA3N	DOD DOD VA VA
MTFCATCHNAME	facility.facilityname	The catchment facility name for the given care	OP IP IP OP	HCSRNI HCSRI PTF FEE OPC FEE	MTFCODE MTFCATCH STA3N STA3N	DOD DOD VA VA
SYSTEM	dataset.branch	Either DOD or VA	N/A	N/A	N/A	N/A

SQL:

The following PL/SQL was used to generate the data in the Series 5 pivot tables.

```
begin

/*calculate the purchased care for va and dod based on va fee files and dod hcsr i*/

/*calculate the VA summary*/


 delete from tmp_ptf_fee2;

 insert into
 tmp_ptf_fee2 (
 scrssn, treatdto, treatdtf, pamtcl, amount, sta3n, zip, pdrg, sta6a)
 select
 scrssn, treatdto, treatdtf, pamtcl, amount, sta3n, zip, pdrg, sta6a
```

```
from tmp_ptf_fee
where paycat='C' /*CONTRACT HOSPITAL*/
and getfy(0, to_date(treatdto, 'yyyy-mm-dd')) in ('2000', '2002');

commit;

/*fill in missing fields*/

/*Priority Group FROM ENROLLMENT*/
update tmp_ptf_fee2 set (bcpg) =
(select pg from tmp_va_pg where scrssn = tmp_ptf_fee2.scrssn);

/*get GENDER, DOB, ZIP from OPC*/
update tmp_ptf_fee2 set (gender, dob, patzip) =
(select min(sex), min(dob), min(zip) from tmp_opc_events where scrssn = tmp_ptf_fee2.scrssn);

/*get more PATZIPs*/
update tmp_ptf_fee2 set (patzip) =
(select ZIP from tmp_va_enrollment where scrssn = tmp_ptf_fee2.scrssn)
where patZIP is null;

/*get more DOB*/
update tmp_ptf_fee2 set (dob) =
(select dob from tmp_va_enrollment where scrssn = tmp_ptf_fee2.scrssn)
where dob is null;

/*Calculate AGE*/
update tmp_ptf_fee2
set age=round((TO_DATE(treatdtf, 'yyyy-mm-dd') - to_date(dob,'yyyy-mm-dd'))/365,0);

COMMIT;

/*VA Data*/

delete from series5_IP;

insert into series5_ip
 select getfy(0, to_date(treatdto, 'yyyy-mm-dd')) as FY,
 gender as gender,
 bcpg as bcpg_common,
 get_age_range(age) as age_range,
 null as admtype,
 null as catcare,
 count(distinct scrssn) as users,
 count(*) as volume,
 sum(to_date(treatdto, 'yyyy-mm-dd')-to_date(treatdtf, 'yyyy-mm-dd')) as bdoc,
 sum(distinct pamtcl),
 sum(distinct amount),
 null as enroll_code,
 nvl(sta6a, 'No MTF') as facility,
 facility.facilityname,
 tmp_ptf_fee.ZIP as provzip,
 null as provst,
 nvl(marketarea.market, 'In Migration'),
 nvl(marketarea.submarket, 'In Migration'),
 pl.indirect_pl,
```

```
pl.indirect_sl,
pl.indirect_service_type,
nvl(facmarket.market, 'Out Migration'),
nvl(facmarket.submarket, 'Out Migration'),
nvl(provmarket.market, 'Out Migration'),
nvl(provmarket.submarket, 'Out Migration'),
null catchfac,
null as catchname,
'VA' as system
from tmp_ptf_fee2 tmp_ptf_fee, marketarea provmarket,
productline_drg PL, marketarea, facility, marketarea facmarket
where tmp_ptf_fee.pdrg    = PL.drg(+)
and tmp_ptf_fee.sta3n     = facility.facilitynumber(+)
and tmp_ptf_fee.ZIP       = provmarket.zip(+) /*catch out migration */
and tmp_ptf_fee.patZIP    = marketarea.zip(+)
and facility.ZIP          = facmarket.zip(+)
group by
getfy(0, to_date(treatdto, 'yyyy-mm-dd')),
gender,
bcpg,
get_age_range(age),
sta6a,
facility.facilityname,
tmp_ptf_fee.zip,
nvl(marketarea.market, 'In Migration'),
nvl(marketarea.submarket, 'In Migration'),
pl.indirect_pl,
pl.indirect_sl,
pl.indirect_service_type,
nvl(facmarket.market, 'Out Migration'),
nvl(facmarket.submarket, 'Out Migration'),
nvl(provmarket.market, 'Out Migration'),
nvl(provmarket.submarket, 'Out Migration');

commit;

/*DOD data*/

/*fix for fy00 data: if drg, then set adm_cnt_code=1 : Collins*/

/*update tmp_hcsr_i set adm_cnt_code=1 where dataset=19*/

insert into series5_ip
select getfy(0, enddate) as FY,
 gender,
 substr('ADFM,RT  ,RTFM,AD  ',to_number(bencat)*5-4,4) as bcpg,
 substr(get_age_range(patage),1,5) as age_range,
 admtype,
 recode_catcare(carecat),
 count(distinct sponssn||dds) as users,
 sum(adm_cnt_code) as volume,
 sum(totbed) as bdoc,
 sum(billamt),
 sum(govtamt),
 enroll_code,
 nvl(mtfauth, 'No MTF') as facility,
```

```
facility.facilityname,
provzip,
provst,
nvl(marketarea.market, 'In Migration'), /*this would capture in migration with an outjoin on patzip*/
nvl(marketarea.submarket, 'In Migration'),
pl.indirect_pl,
pl.indirect_sl,
pl.indirect_service_type,
nvl(facmarket.market, 'Out Migration'),
nvl(facmarket.submarket, 'Out Migration'),
nvl(provmarket.market, 'Out Migration'),
nvl(provmarket.submarket, 'Out Migration'),
nvl(mtf, 'No MTF'),
catchfac.facilityname as catchname,
'DOD' as system
from
tmp_hcsr_i hcsri,marketarea provmarket,
productline_drg PL, marketarea, facility, marketarea facmarket, facility catchfac
where hcsri.drg_num = PL.drg(+)
and hcsri.patZIP    = marketarea.zip(+)
and provZIP         = provmarket.zip(+)
and hcsri.mtfauth   = facility.facilitynumber(+)
and hcsri.mtf       = catchfac.facilitynumber(+)
and facility.ZIP    = facmarket.zip(+)
group by
getfy(0, enddate),
gender,
get_age_range(patage),
 substr('ADFM,RT  ,RTFM,AD  ',to_number(bencat)*5-4,4),
admtype,
recode_catcare(carecat),
enroll_code,
nvl(mtfauth, 'No MTF'),
facility.facilityname,
provzip,
provst,
nvl(marketarea.market, 'In Migration'),
nvl(marketarea.submarket, 'In Migration'),
pl.indirect_pl,
pl.indirect_sl,
pl.indirect_service_type,
nvl(facmarket.market, 'Out Migration'),
nvl(facmarket.submarket, 'Out Migration'),
nvl(provmarket.market, 'Out Migration'),
nvl(provmarket.submarket, 'Out Migration'),
nvl(mtf, 'No MTF'),
catchfac.facilityname
having not (nvl(provmarket.market, 'Out Migration') = 'Out Migration' and
nvl(marketarea.market, 'In Migration') = 'In Migration');

commit;

end;

as
begin
```

```
/*calculate the purchased care for va and dod based on va fee files and dod hcsr ni*/

 delete from tmp_opc_fee2;

 commit;

 /*copy the needed records and fields to another temp table*/
 insert into tmp_opc_fee2 (scrssn, treatdt, amount, sta3n, sta6a, zip, cpt1, dx1, fpov_desc,
hcfatype_desc, plser_desc, paycat_desc, homecnty)
 select scrssn, treatdt, amount, sta3n, sta6a, zip, cpt1, dx1, fpov_desc, hcfatype_desc,
plser_desc, paycat_desc, homecnty
 from tmp_opc_fee where getfy(0, to_date(treatdt, 'yyyy-mm-dd')) ='2002';

 commit;

 /*fill in missing fields*/

 /*Priority Group FROM ENROLLMENT*/
 update tmp_opc_fee2 set (bcpg) =
 (select pg from tmp_va_pg where scrssn = tmp_opc_fee2.scrssn);

 /*get GENDER, DOB, ZIP from OPC*/
 update tmp_opc_fee2 set (gender, dob, patzip) =
 (select min(sex), min(dob), min(zip) from tmp_opc_events where scrssn =
tmp_opc_fee2.scrssn);

 /*get more PATZIPs*/
 update tmp_opc_fee2 set (patzip) =
 (select ZIP from tmp_va_enrollment where scrssn = tmp_opc_fee2.scrssn)
 where patZIP is null;

 /*get more DOB*/
 update tmp_opc_fee2 set (dob) =
 (select dob from tmp_va_enrollment where scrssn = tmp_opc_fee2.scrssn)
 where dob is null;

 /*Calculate AGE*/
 update tmp_opc_fee2
 set age=round((TO_DATE(treatdt, 'yyyy-mm-dd') - to_date(dob,'yyyy-mm-dd'))/365,0);

 /*FINISHED building the new tmp_opc_fee table*/
 COMMIT;

delete from series5_OP where system='VA';

insert into series5_OP
select getfy(0, to_date(treatdt, 'yyyy-mm-dd')) as FY,
 gender as gender,
 bcpg as bcpg_common,
 get_age_range(age) as age_range,
 null as enroll_code,
 null as catcare,
 count(distinct scrssn) as users,
 count(*) as volume,
 null as bdoc,
```

```
null as billamount,
sum(distinct amount) as payamt,
substr(plser_desc,1,5) as POS,
/*nvl(sta3n, 'No MTF') as auth_facility,*/
nvl(sta6a, 'No MTF') as auth_facility,
facility.facilityname,
fee.ZIP as provzip,
null as provst,
nvl(marketarea.market, 'In Migration'),
nvl(marketarea.submarket, 'In Migration'),
icd9.productline as indirect_pl,
icd9.medcatname as indirect_sl,
'Outpatient' as servicetype,
nvl(facmarket.market, 'Out Migration'),
nvl(facmarket.submarket, 'Out Migration'),
nvl(provmarket.market, 'Out Migration'),
nvl(provmarket.submarket, 'Out Migration'),
null catchfac,
null as catchname,
'VA' as system
from tmp_opc_fee2 fee, marketarea provmarket,
icd9, marketarea, facility, marketarea facmarket
where fee.dx1     = icd9.code(+)
and fee.sta3n     = facility.facilitynumber(+)
and fee.ZIP       = provmarket.zip(+) /*catch out migration */
and fee.patZIP    = marketarea.zip(+)
and facility.ZIP  = facmarket.zip(+)
group by
getfy(0, to_date(treatdt, 'yyyy-mm-dd')),
gender,
bcpg,
get_age_range(age),
substr(plser_desc,1,5),
/*sta3n,*/
sta6a,
MEDCATNAME,
icd9.productline,
facility.facilityname,
fee.zip,
marketarea.market,
marketarea.submarket,
facmarket.market,
facmarket.submarket,
provmarket.market,
provmarket.submarket;

commit;

/*DOD HCSRNI CLAIMS*/
insert /*+append* / into series5_OP
select getfy(0, enddoc) as FY,
patsex,
substr('ADFM,RT  ,RTFM,AD  ',to_number(bencat)*5-4,4) as bcpg,
substr(get_age_range(patage),1,5) as age_range,
enroll_code,
null, /*recode_catcare(catcare),* /
```

```
count(distinct sponssn||depsufx) as users,
sum(numvisits) as volume,
null as bdoc,
sum(tamt_bill),
sum(amt_govt),
recode_svcplace(svcplace) as POS,
nvl(mtf_code_ac, 'No MTF') as mtfauth,
facility.facilityname as mtf_code_ac_fac_name,
NULL /*substr(prov_zip,1,5)* / as provzip,
prov_state,
nvl(marketarea.market, 'In Migration'), /*this would capture in migration with an outer join on
patzip* /
nvl(marketarea.submarket, 'In Migration'),
pl.name,
pl.serviceline,
pl.service_type,
null as facmarket,
null as facsubmarket,
nvl(provmarket.market, 'Out Migration'),
nvl(provmarket.submarket, 'Out Migration'),
nvl(mtfcode, 'No MTF') as mtfenr,
catchfac.facilityname as catchname,
'DOD'
from tmp_hcsrn_proc proc,tmp_hcsr_ni hcsrn,
marketarea provmarket, productline_prov, marketarea, facility, productline PL,
marketarea facmarket, facility catchfac
where proc.datasetid = 52 /*fy02* /
and hcsrn.datasetid = 52 /*fy02* /
and proc.procflag  = '1'
and proc.svctypeA  <> 'I' /*nature of service: exclude inpatient* /
and getfy(0, enddoc) = '2002' /*2000 removed: CC* /
/*and marketarea.market = 'Gulf Coast'* /
and substr(hcsrn.patzip,1,5) = marketarea.zip
and hcsrn.hcsr_num  = proc.hcsr_num
and hcsrn.prov_spec  = productline_prov.prov_spec_cd(+)
and productline_prov.productlineid = PL.productlineid(+)
and substr(prov_zip,1,5) = provmarket.zip(+)
and hcsrn.mtf_code_ac= facility.facilitynumber(+)
and hcsrn.mtfcode   = catchfac.facilitynumber(+)
and facility.ZIP    = facmarket.zip(+)
group by
getfy(0, enddoc),
patsex,
get_age_range(patage),
substr('ADFM,RT  ,RTFM,AD  ',to_number(bencat)*5-4,4),
enroll_code,
recode_catcare(catcare),
recode_svcplace(svcplace),
mtf_code_ac,
facility.facilityname,
prov_state,
marketarea.market,
marketarea.submarket,
pl.name,
pl.serviceline,
pl.service_type,
```

```
 provmarket.market,
 provmarket.submarket,
 mtfcode,
 catchfac.facilityname;

  commit;
end;
```

Series 6 – Staffing

This series summaries the staffing data from the DoD MEPRS datasets. The staffing levels are by facility, product line and service line.

Assumptions:

Filters:

Pivot Table Fields and Definitions

Pivot Table Field	Database Field	Transformation	Column Mappings		System
			Original Dataset	Original Field Name	
COUNTY	marketarea.county	Mapped ZIP code to associated county	MEPRS	repdmis	DoD VA
FY	dataset.period_end	Calculated fiscal year based on dataset date	N/A	N/A	DoD VA
SYSTEM	dataset.branch	Either DOD or VA	N/A	N/A	N/A
WORKUNIT	workunit.workunit_code	Bed sections or MEPR4 codes	MEPRS	MEPR4	DoD VA
PRODUCTLINE	productline.name	Mapped bed sections and MEPR4 codes	MEPRS	MEPR4	DoD VA
SERVICELINE	productline.serviceline	Mapped bed sections and MEPR4 codes	MEPRS	MEPR4	DoD VA
SERVICETYPE	productline.service_type	Mapped bed sections and MEPR4 codes	MEPRS	MEPR4	DoD VA
PL_ORDER	productline.productline_order	Mapped bed sections and MEPR4 codes	MEPRS	MEPR4	DoD VA
FACILTY	facility.facilitynumber	The DMIS or Station number	MEPRS	repdmis	DoD VA
FACNAME	facility.facilityname	Long name of facility	MEPRS	repdmis	DoD VA
FACMARKET	marketarea.market	Mapped facility ZIP code to defined market areas	MEPRS	repdmis	DoD VA

Pivot Table Field	Database Field	Transformation	Column Mappings		System
			Original Dataset	Original Field Name	
FACSUBMARKET	marketarea.submarket	Mapped facility ZIP code to defined market areas	MEPRS	repdmis	DoD VA
DEPTNAME	department.name	Mapped workunitcode to department	MEPRS	MEPR4	DoD VA
DEPTGRP	department.deptgroup	Mapped workunitcode to department	MEPRS	MEPR4	DoD VA
DEPTGRPORDER	department.group_order	Mapped workunitcode to department	MEPRS	MEPR4	DoD VA
DEPTORDER	department.dept_order	Mapped workunitcode to department	MEPRS	MEPR4	DoD VA
STAFFCAT	Computed	Based on category in MEPRS	MEPRS	CLN_AVAI, PRO_AVAI, PAR_AVAI, RN_AVAI SKILL_CODE & SKILL_TYPE	DoD VA
AVG	Computed	Average of non-zero values	MEPRS	See above fields	DoD VA
MIN	Computed	Minimum of non-zero values	MEPRS	See above fields	DoD VA
MAX	Computed	Maximum of non-zero values	MEPRS	See above fields	DoD VA
AMSURG	Computed	Based on MEPR4 code	MEPRS	See above fields	DoD VA

The following PL/SQL was used to generate the data in the Series 6 pivot tables.

```
begin
delete from tmp_staffing_raw_2;
/*DOD STAFFING*/
/*all fte*/
```

```
/*
 INSERT INTO TMP_STAFFING_RAW_2  (fy, dmisid, mepr4, staffcat, avg, min, max, amsurg)
  SELECT fy, repdmis, mepr4, 'FTE', avg(AVAILFTE), min(AVAILFTE), max(AVAILFTE),
  (case when substr(mepr4,4,1) = '5' then 'Y' else 'N' END)
  FROM tmp_meprs
  where availfte <> 0
  group by fy, repdmis, mepr4;
*/

/*clins*/
 INSERT INTO TMP_STAFFING_RAW_2 (fy, dmisid, mepr4, staffcat, avg, min, max, amsurg)
  SELECT fy,repdmis,mepr4, 'Clin', avg(CLN_AVAI), min(cln_avai), max(cln_avai),
    (case when substr(mepr4,4,1) = '5' then 'Y' else 'N' END)
  FROM tmp_meprs
  where cln_avai <> 0
  group by fy,repdmis, mepr4;

/*prof*/

 INSERT INTO TMP_STAFFING_RAW_2 (fy, dmisid, mepr4, staffcat, avg, min, max, amsurg)
  SELECT fy,repdmis,mepr4, 'Prof', avg(pro_AVAI), min(pro_avai), max(pro_avai),
 (case when substr(mepr4,4,1) = '5' then 'Y' else 'N' END)
  FROM tmp_meprs
  where pro_avai <> 0
  group by fy,repdmis, mepr4;

/*para-prof*/

 INSERT INTO TMP_STAFFING_RAW_2 (fy, dmisid, mepr4, staffcat, avg, min, max, amsurg)
  SELECT fy,repdmis,mepr4, 'Para-Prof', avg(par_AVAI), min(par_avai), max(par_avai),
  (case when substr(mepr4,4,1) = '5' then 'Y' else 'N' END)
  FROM tmp_meprs
  where par_avai <> 0
  group by fy,repdmis, mepr4;

/*rn*/

 INSERT INTO TMP_STAFFING_RAW_2 (fy, dmisid, mepr4, staffcat, avg, min, max, amsurg)
  SELECT fy,repdmis,mepr4, 'RN', avg(rn_AVAI), min(rn_avai), max(rn_avai),
  (case when substr(mepr4,4,1) = '5' then 'Y' else 'N' END)
  FROM tmp_meprs
  where rn_avai <> 0
  group by fy,repdmis, mepr4;

delete from series_staffing;

insert into series_staffing
select fy, dmisid, substr(mepr4,1,3),
facility.facilityname,
location.market,
marketarea.submarket,
marketarea.county,
productline.name,
productline.productline_order,
productline.serviceline,
productline.service_type,
```

```
department.name,
department.deptgroup,
department.dept_order,
department.group_order,
staffcat,
sum(staff.avg), sum(staff.min), sum(staff.max),
amsurg,
'DOD'
from tmp_staffing_raw_2 staff, facility, location, marketarea, workunit, productline, department
where staff.dmisid = facility.facilitynumber
and facility.ZIP = marketarea.zip
and marketarea.locationid = location.locationid
and substr(staff.mepr4,1,3) = substr(workunit.workunit_code,1,3)
and workunit.productlineid = productline.productlineid
and department.departmentid = workunit.departmentid
group by fy, dmisid, substr(mepr4,1,3),
facility.facilityname,
location.market,
marketarea.submarket,
marketarea.county,
productline.name,
productline.productline_order,
productline.serviceline,
productline.service_type,
department.name,
department.deptgroup,
department.dept_order,
department.group_order,
staffcat,
amsurg;

/*Add VA Staffing*/

insert into series_staffing
select
getfy(0, record_date),
staff.facility_code,
staff.workunit_code,
facility.facilityname,
marketarea.market,
marketarea.submarket,
marketarea.county,
productline.name,
productline.productline_order,
productline.serviceline,
productline.service_type,
department.name,
department.deptgroup,
department.dept_order,
department.group_order,
(case when skill_type_code||skill_type_suf in ('3R', '4L') then 'RN' else
(case when skill_type_code||skill_type_suf in ('4A', '4Z') then 'Para-Prof' else
(case when skill_type_code = 1 then 'Clin' else
(case when skill_type_code = 2 then 'Prof' else 'Other' end) end) end) end),
sum(avail_fte), 0, 0,
'N',
```

```
'VA'
from tmp_staffing staff, facility, marketarea, workunit, productline, department
where (skill_type_code in (1,2) or skill_type_code||skill_type_suf in ('3R', '4L', '4Z'))
and facility.branch = 'VA'
and staff.facility_code = facility.facilitynumber
and facility.ZIP = marketarea.zip
and staff.workunit_code = workunit.workunit_code
and workunit.productlineid = productline.productlineid
and department.departmentid = workunit.departmentid
group by
getfy(0, record_date),
staff.facility_code,
staff.workunit_code,
facility.facilityname,
marketarea.market,
marketarea.submarket,
marketarea.county,
productline.name,
productline.productline_order,
productline.serviceline,
productline.service_type,
department.name,
department.deptgroup,
department.dept_order,
department.group_order,
(case when skill_type_code||skill_type_suf in ('3R', '4L') then 'RN' else
(case when skill_type_code||skill_type_suf in ('4A', '4Z') then 'Para-Prof' else
(case when skill_type_code = 1 then 'Clin' else
(case when skill_type_code = 2 then 'Prof' else 'Other' end) end) end) end);

commit;

end;
```

Series 7 – DOD Direct Care Costs

This series provides direct care cost information for the SIDR and SADR datasets. The data is grouped by facility, fiscal year, and corresponding market information. The price, *fullcost* and *vcost* are the key items in this dataset. The query and fields used to produce these results are described below.

Assumptions:

Filters: Telephone consults are excluded from the data

Pivot Table Fields and Definitions

Pivot Table Field	Database Field	Transformation	Visit Type	Column Mappings		System
				Original Dataset	Original Field Name	
COUNTY	marketarea.county	Mapped ZIP code to associated county	IP OP	SIDR SADR	PATZIP PATZIP	DoD DoD
FY	event.end_date	Calculated fiscal year based on discharge date	IP OP	SIDR SADR	DISPDATE ENCDATE	DoD DoD
SYSTEM	dataset.branch	Either DOD or VA	N/A	N/A	N/A	N/A
WORKUNIT	workunit.workunit_code	Bed sections or MEPR4 codes	IP OP	SIDR SADR	CLNADM MEPRSCD	DoD DoD
PRODUCTLINE	productline.name	Mapped bed sections and MEPR4 codes	IP OP	SIDR SADR	CLNADM MEPRSCD	DoD DoD
SERVICELINE	productline.serviceline	Mapped bed sections and MEPR4 codes	IP OP	SIDR SADR	CLNADM MEPRSCD	DoD DoD
SERVICETYPE	productline.service_type	Mapped bed sections and MEPR4 codes	IP OP	SIDR SADR	CLNADM MEPRSCD	DoD DoD
BDOC	event.bed_days_total	Total bed days of care. This value is zero for outpatient records	IP OP	SIDR SADR	DMISDAYS N/A	DoD DoD
FACILTY	facility.facilitynumber	The DMIS or Station number	IP OP	SIDR SADR	MTF DMISID	DoD DoD
FACNAME	facility.facilityname	Long name of facility	IP OP	SIDR SADR	MTF DMISID	DoD DoD
FACMARKET	marketarea.market	Mapped facility ZIP code to defined market areas	IP OP	SIDR SADR	PATZIP PATZIP	DoD DoD
FACSUBMARKET	marketarea.submarket	Mapped facility ZIP code to defined market areas	IP OP	SIDR SADR	PATZIP PATZIP	DoD DoD

Pivot Table Field	Database Field	Transformation	Visit Type	Column Mappings		System
				Original Dataset	Original Field Name	
DEPTNAME	department.name	Mapped workunitcode to department	IP OP	SIDR SADR	CLNADM MEPRSCD	DoD DoD
DEPTGRP	department.deptgroup	Mapped workunitcode to department	IP OP	SIDR SADR	CLNADM MEPRSCD	DoD DoD
DEPTGRPORDER	department.group_order	Mapped workunitcode to department	IP OP	SIDR SADR	CLNADM MEPRSCD	DoD DoD
DEPTORDER	department.dept_order	Mapped workunitcode to department	IP OP	SIDR SADR	CLNADM MEPRSCD	DoD DoD
USERS	computed	Unique count of patients	IP OP	SIDR SADR	SPONSSN & FMP SPONSSN & FMP	DoD DoD
VOLUME	computed	Count of unique discharges or procedures	N/A	N/A	N/A	N/A
PRICE	computed	N/A	IP OP	SIDR SADR	PRICE PRICE	DoD DoD
FULLCOST	computed	N/A	IP OP	SIDR SADR	FULLCOST FCOST	DoD DoD
VCOST	computed	N/A	IP OP	SIDR SADR	INCCOST COST	DoD DoD
WU_DESC	workunit.description	Long name of the workunit	IP OP	SIDR SADR	CLNADM MEPRSCD	DoD DoD

SQL:

The following PL/SQL was used to generate the data in the Series 7 pivot tables.

```
begin

delete from series7;
insert /*+append*/ into series7
select getFY(0, DISPDATE) as FY,
'DOD',
nvl(facility.facilitynumber, 'None'),
count(*) as volume,
sum(DMISDAYS) as bdoc,
productline.service_type,
productline.name,
productline.serviceline,
count(distinct SPONSSN||FMP) as users,
department.name,
department.deptgroup,
department.dept_order,
```

```
department.group_order,
nvl(facility.facilityname, 'None'),
nvl(facmarketarea.market, 'Out Migration') as facmarket,
nvl(facmarketarea.submarket, 'Out Migration') as facsubmarket,
workunit.typecode,
sum(price),
sum(fullcost),
sum(inccost),
nvl(marketarea.market, 'In Migration'),
nvl(marketarea.submarket, 'In Migration'),
nvl(marketarea.county, 'In Migration'),
workunit.workunit_code,
workunit.description
from tmp_sidr, marketarea facmarketarea, facility, workunit, productline, department, marketarea
where mtf               = facility.facilitynumber(+) /*capture out migration*/
and facility.ZIP        = facmarketarea.zip(+)
AND SUBSTR(CLNADM,1,3)     = SUBSTR(WORKUNIT_CODE,1,3)
and workunit.productlineid  = productline.productlineid
and workunit.departmentid   = department.departmentid
and patZIP              = marketarea.zip(+)
group by
getFY(0,DISPDATE),
nvl(facility.facilitynumber, 'None'),
productline.service_type,
productline.name,
productline.serviceline,
department.name,
department.deptgroup,
department.dept_order,
department.group_order,
facility.facilityname,
facmarketarea.market,
facmarketarea.submarket,
workunit.typecode,
marketarea.market,
marketarea.submarket,
marketarea.county,
workunit.workunit_code,
workunit.description
having not
(marketarea.market = 'In Migration' and
 facmarketarea.submarket = 'Out Migration');

commit;

insert /*+append*/ into series7
select getFY(0, to_date(ENCDATE,'YYYYMMDD')) as FY,
'DOD',
nvl(facility.facilitynumber, 'None'),
count(*) as volume,
NULL as bdoc,
productline.service_type,
productline.name,
productline.serviceline,
count(distinct SPONSSN||FMP) as users,
department.name,
```

```
department.deptgroup,
department.dept_order,
department.group_order,
nvl(facility.facilityname, 'None'),
nvl(facmarketarea.market, 'Out Migration') as facmarket,
nvl(facmarketarea.submarket, 'Out Migration') as facsubmarket,
workunit.typecode,
sum(price),
sum(fcost) as fullcost,
sum(cost) as vcost,
nvl(marketarea.market, 'In Migration'),
nvl(marketarea.submarket, 'In Migration'),
nvl(marketarea.county, 'In Migration'),
workunit.workunit_code,
workunit.description
from tmp_sadr, marketarea facmarketarea, facility, workunit, productline, department, marketarea
where nvl(apptstat, '0') <> '6'
and DMISID              = facility.facilitynumber(+)
and facility.ZIP        = facmarketarea.zip(+) /*outer join needed for out migration*/
AND SUBSTR(MEPRSCD,1,3)    = SUBSTR(WORKUNIT_CODE,1,3)
and workunit.productlineid  = productline.productlineid
and workunit.departmentid   = department.departmentid
and substr(patzip,1,5)     = marketarea.zip(+)
group by
getFY(0,to_date(ENCDATE,'YYYYMMDD')),
nvl(facility.facilitynumber, 'None'),
productline.service_type,
productline.name,
productline.serviceline,
department.name,
department.deptgroup,
department.dept_order,
department.group_order,
facility.facilityname,
facmarketarea.market,
facmarketarea.submarket,
workunit.typecode,
marketarea.market,
marketarea.submarket,
marketarea.county,
workunit.workunit_code,
workunit.description
having not
(marketarea.market = 'In Migration' and
 facmarketarea.submarket = 'Out Migration');

commit;

end;
```

4. Data Request Specifications

The following tables outline the definitions of the datasets and fields that were requested from the DoD and VA to facilitate this analysis. Each dataset identifies the timeframe and major filters applied before the data was extracted. The field names and data types are also listed.

4.1 DoD Datasets

SIDR (DoD)

Timeframe of Data:	Disposition Date in FY 2000, 2002
Format:	Delimited (!) format, variable length
	Read data fields in the order stated below
Filters:	Patient residence ZIP code in reference list;
	OR catchment area ID Code in reference list;
	OR PRISM Area ID Code in reference list;
	OR Treatment MTF in reference list

Field	Type	SAS Name
2nd Clinical Service	$4	CLN2
3rd Clinical Service	$4	CLN3
Admission Date	YYYYMMDD	ADMDATE
Admission Source	$1	ADMSRC
Admitting Clinical Service	$4	CLNADM
Age at Disposition		RECAGE
Baseline Relative Weighted Product	7.4	BASERWP
Bed Days 2nd Clinical Service		CLN2DAYS
Bed Days 3rd Clinical Service		CLN3DAYS
Bed Days Admitting Service		CLN1DAYS
Bed Days Civilian Hospital		BEDCIV
Bed Days Dispositioning Service		CLN4DAYS
Bed Days in ICU		ICUDAYS
Bed Days Other Federal Facilities		BEDOTHER
Bed Days, excl Bassinet Days		BDAYS1
Common Beneficiary Category	$1	COMBENF
Patient Category Code	$3	BENFCAT1
Relative Weighted Product	8.4	TOTRWP
Catchment Area ID	$4	CATCH
DEERS Alternate Care Value	$1	ACV
DEERS Enrollment DMISID	$4	DEERSENR
Diagnosis Related Group	$3	DRG
Disposition Date (SAS Date)	yyyymmdd	DISPDATE
Disposition Type	$2	DISPTYPE
Dispositioning Clinical Service	$4	CLNDISP
DMIS Patient Age Group	$1	DMISAGE
DMIS Patient Sex (F/M)	$1	DMISSEX
Price		PRICE
Ethnic Classification	$1	ETHNIC
Family Member Prefix	$2	FMP

Full Cost		FULLCOST
Initial Admission Date	yyyymmdd	INITADM
Jth ICD9 Diagnosis Code	$5	DX*J*
Jth ICD9 Procedure Code	$4	PROC*J*
Major Diagnostic Category	$2	MDC
Marital Status	$1	MARITAL
Medical/Surgical Indicator	$1	MSFLAG
Medical Treatment Facility	$4	MTF
Medicare Eligibility Status	$1	MEDELIG
Medicare Eligibility Flag	$1	MEDFLAG
MTF of Initial Admission	$4	MTFINIT
MTF Transferred/Moved From	$4	MTFFROM
MTF Transferred/Moved To	$4	MTFTO
Outlier Relative Weighted Product		OUTRWP
Outlier Status Flag	$1	OUTCAT
Patient Health Service Region	$2	PATREGN
Patient Residence ZIP Code	$5	PATZIP
Patient SSN	$9	PATSSN
Patient Date of Birth (SAS Date)	yyyymmdd	BIRTDATE
Preventable Admission Indicator	$1	PRVADM
Primary HCP Specialty Code	$3	HCPSPEC
PRISM	$4	PRISM
Race	$1	RACE
Recoded Beneficiary Category	$3	RECBENF
Sponsor Branch of Service	$1	DSPONSVC
Sponsor Pay Grade	$2	PAYGRADE
Sponsor SSN	$9	SPONSSN
Third Party Collection Amount		TPCAMT
Total Bed Days, Reported by Facility		DMISDAYS
Trauma Indicator	$1	TRAUMA
Variable Cost		INCCOST
PCM ID Type	$1	PCMTYPE
Primary Care Manager ID (NED)	$19	NEDPCM
Primary Care Manager (OLD)	$10	PCM
Raw DRG	$3	RAWDRG

SADR (DoD)

Timeframe of Data:	Encounter Date in FY 2000, 2002
Format:	Delimited (!) format, variable length Read data fields in the order stated below
Filters:	Patient residence ZIP code in reference list; OR catchment area ID Code in reference list; OR PRISM Area ID Code in reference list; OR Treatment MTF in reference list

Field	Type	SAS Name	Transformation
Patient Age	$3	PATAGE	
Alternate Care Value	$1	ACV	
APG – 1st Procedure	$3	APG3	
APG – 2nd Procedure	$3	APG4	
APG – 3rd Procedure	$3	APG5	
APG – 4th Procedure	$3	APG6	
APG – E&M	$3	APG1	
APG - Medical	$3	APG2	
APV Flag	$1	APV	
Beneficiary Category	$3	BENCAT	
Beneficiary Category (common)	$1	COMBEN	
Clinic ZIP Code	$5	CLINZIP	First 5 characters of ZIP code
CPT Code – E&M	$5	CPT	First 5 characters of CPT code
CPT Code – Proc #1	$5	CPT1	First 5 characters of CPT code
CPT Code – Proc #2	$5	CPT2	First 5 characters of CPT code
CPT Code – Proc #3	$5	CPT3	First 5 characters of CPT code
CPT Code – Proc #4	$5	CPT4	First 5 characters of CPT code
Disposition Code	$1	DISPCODE	
E&M APG Full Cost		FCOST1	
E&M APG Variable Cost		COST1	
Price		PRICE	
Encounter Date	yyyymmdd	ENCDATE	
Encounter Date (raw)	yyyymmdd	ENCDATE1	
Enrollment DMIS ID	$4	ENRDMIS	
Enrollment DMIS ID (raw)	$4	ENRDMIS1	
Ethnic Group	$1	ETHNICGR	
Family Member Prefix	$2	FMP	
Full Cost		FCOST	
Gender	$1	PATSEX	
ICD-9-CM, Diagnosis 1	$5	ICD1	First 5 characters of code
ICD-9-CM, Diagnosis 2	$5	ICD2	First 5 characters of code
ICD-9-CM, Diagnosis 3	$5	ICD3	First 5 characters of code
ICD-9-CM, Diagnosis 4	$5	ICD4	First 5 characters of code
Inpatient flag	$1	INPAPPT	
Marital Status	$1	MARITAL	
Medical APG Full Cost		FCOST2	
Medical APG Variable Cost		COST2	
Medicare Eligibility Status	$1	MEDELIG	
Medicare Eligibility Flag	$1	MEDFLAG	
MEPRS Code	$4	MEPRSCD	
Patient Catchment Area	$4	CATCH	
Patient Category	$3	PATCAT	First 3 characters
Patient Date of Birth	yyyymmdd	PATDOB	yyyymmdd

Patient Hospital Status	$1	HOSPSTAT	
Patient ZIP code	$9	PATZIP	
PRISM area	$4	PRISM	
Procedure 1 APG Full Cost		FCOST3	
Procedure 1 APG Variable Cost		COST3	
Procedure 2 APG Full Cost		FCOST4	
Procedure 2 APG Variable Cost		COST4	
Procedure 3 APG Full Cost		FCOST5	
Procedure 3 APG Variable Cost		COST5	
Procedure 4 APG Full Cost		FCOST6	
Procedure 4 APG Variable Cost		COST6	
Provider Class	$5	PROVCLAS	
Provider Specialty	$3	PROVSPEC	
Race	$1	PATRACE	
Raw Same Day Surg	$1	AMBSURG	
Same day surgery	$1	SDS	
Sponsor Rank/paygrade	$3	RANKPAY	
Recoded Sponsor Service	$1	RSPONSVC	
Sponsor SSN	$9	SPONSSN	
SSN of patient	$9	PATSSN	
Third Party Collection Rate		TPC	
Total APG Weight		APGWGT	
Treatment DMIS ID	$4	DMISID	
Variable Cost		COST	
Appointment ID Number (Seq)	$10	APPTIDNO	
Appointment Prefix	$1	APPTPFIX	
Appointment Status Type	$1	APPTSTAT	
Countable Visit		COUNTVIS	
PCM ID (NED)	$18	PCMIDNED	
PCM ID Type (NED)	$1	PCMTYPE	
PCM Identifier (pre-NED)	$10	PCMID	
PCM Location	$2	PCMLOC	
Provider Specialty (cleaned)	$3	SPC	
Provider Type	$3	PROVTYPE	
Provider Weighted RVUs	8	PWRVU	
Raw RVU (total)	8	RRVU	
Raw RVU 1	8	RRVU1	
Raw RVU 2	8	RRVU2	
Raw RVU 3	8	RRVU3	
Raw RVU 4	8	RRVU4	
Raw RVU E&M	8	RRVUE	

HCSR-I (DoD)

Timeframe of Data:	End Date of Care in FY 2000, 2002
Format:	Delimited (!) format, variable length Read data fields in the order stated below (field positions are not valid)
Filters:	Claim not cancelled or denied (type of submission code not in (C, D, E)) Patient residence ZIP code in reference list OR catchment area ID Code in reference list; OR enrollment MTF in reference list

Field	Type	Field Pos	Transformation
HCSR Number	$21	90	
Program Indicator Code	$1	111	
Sponsor SSN	$9	128	
Sponsor Pay Grade	$2	137	
Sponsor Branch of Service	$1	139	
Sponsor Status	$1	140	
Patient Relationship	$1	141	
Patient SSN	$9	169	
Patient DOB	YYYYMMDD	178	yyyymmdd
DEERS Dependent Suffix Code	$2	186	
Patient Sex	$1	188	
Patient Zip/Country Code	$9	189	
Derived Major Diagnostic Code	$2	214	
MTF Code Authorized Care	$4	218	
Total Amount Billed	SN9,2	225	
Total Amount Allowed	SN9,2	234	
Amount Paid by OHI	SN9,2	243	
Amount Allowed by OHI	SN9,2	252	
Amount Third Party Liability	SN9,2	261	
Patient Coinsurance Amount	SN8,2	279	
Patient Copayment Amount	SN8,2	287	
Amount Paid by Govt Contractor	SN9,2	295	
ICD Edition ID Number	$1	322	
Special Processing Code 1	$2	324	
Special Processing Code 2	$2	326	
Special Processing Code 3	$2	328	
Provider State/Country Code	$2	333	
Provider Care ZIP Code	$9	348	
Principle Diagnosis Code	$5	358	
Secondary Diagnosis Code 1	$5	364	
Secondary Diagnosis Code 2	$5	370	
Secondary Diagnosis Code 3	$5	376	
Secondary Diagnosis Code 4	$5	382	
Secondary Diagnosis Code 5	$5	388	
Secondary Diagnosis Code 6	$5	394	
Secondary Diagnosis Code 7	$5	400	
Secondary Diagnosis Code 8	$5	406	

MTF Code	$4	427	Input variable is 3 characters. Add 0 to the beginning of the value to transform into 4 character field
MTF Branch of Service	$1	430	
Patient Age	N3	435	
Hospital Department Number	$2	457	
Beneficiary Category	$1	465	
Type of Institution Code	$2	470	
Admission Date	yyyymmdd	472	
Type of Admission Code	$1	482	
Source of Admission Code	$1	483	
Discharge Status Code	$2	484	
Begin Date of Care	yyyymmdd	486	
End Date of Care	yyyymmdd	494	
Total Bed Days	SN3	503	
Admission Diagnosis Code	$5	509	First 5 characters
Principle OP-NS Procedure Code	$4	515	First 4 characters
Secondary OP-NS Procedure Code 1	$4	520	First 4 characters
Secondary OP-NS Procedure Code 2	$4	525	First 4 characters
Secondary OP-NS Procedure Code 3	$4	530	First 4 characters
Secondary OP-NS Procedure Code 4	$4	535	First 4 characters
Secondary OP-NS Procedure Code 5	$4	540	First 4 characters
Category of Care	$2	553	
Relative Weighted Product (RWPs)	SN7.4	564	
Preventable Admission	$1	571	
Enrollment Code	$2	198	
Major Diagnostic Category Code	$2	212	
Provider Contract Affiliation Code	$1	332	
Provider Tax ID	$9	335	
Multiple Provider Indicator	$4	344	
Claim Count Code		450	
Benefit Claim Count Code		451	
DRG Number	$3	545	
Admission Count Code		552	

HCSR-NI (DoD)

Timeframe of Data:	End Date of Care in FY 2000, 2002
Format:	Delimited (!) format, variable length Read data fields in the order stated below (field positions are not valid)
Filters:	Claim not cancelled or denied (type of submission code not in (C, D, E)) Patient residence ZIP code in reference list OR catchment area ID Code in reference list; OR enrollment MTF in reference list

Field	Type	Field Pos	Transformation
Program Indicator Code	$1	111	
Sponsor SSN	$9	128	
Sponsor Pay Grade	$2	137	
Sponsor Branch of Service	$1	139	
Sponsor Status	$1	140	
Patient Relationship	$1	141	
Patient SSN	$9	$169	
Patient DOB	yyyymmdd	178	
DEERS Dependent Suffix Code	$2	186	
Patient Sex	$1	188	
Patient Zip/Country Code	$9	189	
Derived Major Diagnostic Code	$2	214	
MTF Code Authorized Care	$4	218	
Total Amount Billed	SN9.2	225	
Total Amount Allowed	SN9.2	234	
Amount Paid by OHI	SN9.2	243	
Amount Allowed by OHI	SN9.2	252	
Amount Third Party Liability	SN9.2	261	
Patient Coinsurance Amount	SN8.2	279	
Patient Copayment Amount	SN8.2	287	
Amount Paid by Govt Contractor	SN9.2	295	
ICD Edition ID Number	$1	322	
Special Processing Code 1	$2	324	
Special Processing Code 2	$2	326	
Special Processing Code 3	$2	328	
Provider State/Country Code	$2	333	
Provider Care ZIP Code	$9	348	
Principle Diagnosis Code	$5	358	First 5 digits
Secondary Diagnosis Code 1	$5	364	First 5 digits
Secondary Diagnosis Code 2	$5	370	First 5 digits
Secondary Diagnosis Code 3	$5	376	First 5 digits
Secondary Diagnosis Code 4	$5	382	First 5 digits
MTF Code	$4	427	Left pad with a "0"
MTF Branch of Service	$1	430	
Patient Age	3	435	
Hospital Department Number	$2	457	
Beneficiary Category	$1	465	
Provider Major Specialty Code	$2	475	
Procedure Text ID	$1	487	
Enrollment Code	$2	198	
Provider Contract Affiliation Code	$1	332	
Provider Tax ID	$9	335	

Multiple Provider Indicator	$4	344	
Claim Count Code		450	
Benefit Claim Count Code		451	
Care Information Occurrence Count		584	
HCSRs can contain up to 25 occurrences of the following segment of fields. Output each segment in the order they appear in the input statement. E.g. the segment for the first line item will contain procedure code, services, charges, allowed, begin and end date, place of service, type of service 1 and 2, visits, primary procedure flag and category of care. Following the output for the first line item, will be the same variables written in the same order, but as contained in the segment for the 2nd line item; etc; etc.			
Procedure Code (25 Occurrences)	$5	586+	
Number of Services	SN2	591+	
Total Charges by Procedure Code	SN9.2	593+	
Amount Allowed by Procedure Code	SN9.2	602+	
Care Begin Date	yyyymmdd	613+	
Care End Date	yyyymmdd	621+	
Place of Service	$2	629+	
Type of Service 1	$1	631+	
Type of Service 2	$1	632+	
CPT-4 Modifier 1	$2	637+	
CPT-4 Modifier 2	$2	639+	
Number of Visits	SN3	645+	
Primary Procedure Flag	$1	648+	
Category of Care	$2	649+	
Occurrence Count		641	

WWR (DoD)

Timeframe of Data: Reported Month in FY 2000, 2002
Format: Delimited (!) format, variable length
Read data fields in the order stated below
Filters: Treatment MTF in reference list

Field	Type	SAS Name	Transformation
DMISID	$4	DMISID	None
MEPRS Parent ID	$4	PARENT	None
3rd level MEPRS Code	$3	CLNSPLTY	None
Beneficiary Category	$3	BENCAT	None
Workload Category	$3	CAT	None
Workload Amount	N	WORKAMT	None
Calendar Year	$4	CY	None
Calendar Month	$2	CM	None
Sponsor Service	$1	SPONSVC	None
Patient Category	$3	PATCAT	None
MTF Service	$1	WWRSVC	None
4th level MEPRS Code	$4	MEPRS4	None

PITE (DoD)

Timeframe of Data:	Oct 00 – Sep 02
Format:	Delimited (!) format, variable length Read data fields in the order stated below (field positions are not valid)
Filters:	Primary Record flag=1 and MHS Eligibility=1 Patient residence ZIP code in reference list (D_ZIP_CD); OR catchment area ID Code in reference list (D_CATCH_AREA_CD); OR PRISM Area ID Code in reference list(D_PRISM_CD)

Field	Type	Position	Transformation
SPN_PN_ID	$9	9	
SPN_PN_ID_TYP_CD	$1	18	
SPN_DUP_ID	$1	19	
MLT_MBR_ID	$1	20	
PN_TYP_CD	$1	23	
PN_ID	$1	24	
PN_ID_TYP_CD	$1	33	
PN_BRTH_DT	yyyymmdd	34	
MRTL_STAT_CD	$1	42	
PN_SEX_CD	$1	43	
RACE_CD	$1	44	
ETHNC_NAT_ORIG_CD	$1	45	
PN_DTH_DT	yyyymmdd	46	
PN_DTH_CD	$1	54	
JSM_CD	$1	63	
MDC_A_BRSN_CD	$1	64	
MDC_A_EFF_DT	yyyymmdd	65	
MDC_A_EXP_DT	yyyymmdd	73	
MDC_B_BRSN_CD	$1	81	
MDC_B_EFF_DT	yyyymmdd	82	
MDC_B_EXP_DT	yyyymmdd	90	
LEG_DDS_CD	$2	130	
SVC_CD	$1	133	
RET_TYP_CD	$1	134	
PAY_PLN_CD	$5	135	
PG_CD	$2	140	
DOD_OCC_CD	$4	142	
MBR_CAT_CD	$1	180	
MBR_DSPN_CD	$1	181	
DC_CD	$1	182	
DC_BELIG_DT	yyyymmdd	183	
DC_EELIG_DT	yyyymmdd	191	
CHC_CD	$1	199	
CHC_BELIG_DT	yyyymmdd	200	
CHC_EELIG_DT	yyyymmdd	208	
ULOC_PR_ZIP_CD	$5	229	
PN_LST_NM	$26	254	
PN_1ST_NM	$20	280	
PN_CDNCY_NM	$4	300	
JSM_PN_ID	$9	305	
RANK_CD	$6	333	
RES_LOC_PR_ZIP_CD	$5	347	

RACE_ETHNC_CD	$1	373	
D_CATCH_AREA_CD	$4	385	
D_ELG_CD	$1	389	
D_DEP_QY	$2	390	
D_AGE_GROUP_CD	$1	392	
R_BEN_CAT_CD	$3	396	
D_PRISM_CD	$4	399	
D_MHS_POP_SECTOR_CD	$1	404	
D_REGION_CD	$2	405	
D_SPON_BR_SVC_CD	$1	412	
MBR_REL_CD	$1	414	

MEPRS (DoD)

Timeframe of Data:	Reported Month in FY 2000, 2002
Format:	Delimited (!) format, variable length Read data fields in the order stated below
Filters:	Treatment MTF in reference list

Field	Type	SAS Name
Treatment DMIS ID (Reporting DMIS ID)	$4	REPDMIS
Parent DMIS ID	$4	DMISID
Fiscal Year	$4	FY
4th-Level MEPRS Code (Treatment Clinic Service)	$4	MEPR4
Direct Expenses		DIRECT
Ancillary Expenses (Expenses From D)		ANCIL
Support Expenses (Expenses From E)		SUPPORT
Purification Expenses (Expenses From Cost Pools)		POOL
MTF Total Expense		MTFEXP
Cost Center Expense		CCEXP
Dispositions		DISP
Bed_days		OBD
Outpatient Visits		OPV
Inpatient Visits		IPV
Total Visits		TOTV
Prescriptions (Weighted)		DAA_WP
Workcenter Type	$1	WKC_TYPE
Calendar Year	$4	CY
Assigned Total FTEs		ASSIGFTE
Purified Available Total FTEs		AVAILFTE
Assigned Admin FTEs		ADM_ASSI
Purified Available Admin FTEs		ADM_AVAI
Assigned Clinician FTEs		CLN_ASSI
Purified Available Clinician FTEs		CLN_AVAI
Assigned Prof FTEs		PRO_ASSI
Purified Available Prof FTEs		PRO_AVAI
Assigned Para-Prof FTEs		PAR_ASSI
Purified Available Para-Prof FTEs		PAR_AVAI
Assigned RN FTEs		RN_ASSI
Purified Available RN FTEs		RN_AVAI
DBA Clinical Pathology Weighted Procedures		DBA_WP
DBB Anatomic Pathology Weighted Procedures		DBB_WP
DBC Blood Bank Weighted Procedures		DBC_WP
DCA Diagnostic Radiology Weighted Procedures		DCA_WP
DCB Therapeutic Radiology Weighted Procedures		DCB_WP
DDA Electrocardiography Weighted Procedures		DDA_WP
DDB Electroencephalography Weighted Procedures		DDB_WP

DDC Electroneuromyography Weighted Procedures		DDC_WP
DDD Pulmonary Function Weighted Procedures		DDD_WP
DDE Cardiac Catererization Weighted Procedures		DDE_WP
DEA Central Sterile Supply Weighted Procedures (Hours)		DEA_WP
DFA Anesthesiology Weighted Procedures (Minutes)		DFA_WP
DFB Surgical Suite Weighted Procedures (Minutes)		DFB_WP
DFC Recovery Room Weighted Procedures (Minutes)		DFC_WP
DGA Same Day Surgery Weighted Procedures (Minutes)		DGA_WP
DGB Hemodialysis Weighted Procedures (Minutes)		DGB_WP
DGC Hyperbaric Medicine Weighted Procedures (Minutes)		DGC_WP
DGD Perotoneal Dialysis Weighted Procedures (Minutes)		DGD_WP
DHA Inhalation/Resp Therapy Weighted Procedures		DHA_WP
DIA Nuclear Medicine Weighted Procedures		DIA_WP
DJXA Cost Pools Weighted Procedures (Hours)		DJX_WP
DJA Medical ICU Weighted Procedures (Hours)		DJA_WP
DJB Surgical ICU Weighted Procedures (Hours)		DJB_WP
DJC Coronary ICU Weighted Procedures (Hours)		DJC_WP
DJD Neonatal ICU Weighted Procedures (Hours)		DJD_WP
DJE Pediatrics ICU Weighted Procedures (Hours)		DJE_WP
DAA - Pharmacy Stepdown Expenses		DAA_STEP
DAX - Cost Pools Stepdown Expenses		DAX_STEP
DAZ - Pharmacy Not Elsewhere Clsfd Stepdown Expenses		DAZ_STEP
DBA - Clinical Pathology Stepdown Expenses		DBA_STEP
DBB - Anatomical Pathology Stepdown Expenses		DBB_STEP
DBC - Blood Bank Stepdown Expenses		DBC_STEP
DBD - Cytogenetic Lab Stepdown Expenses		DBD_STEP
DBE - Molecular Genetic Lab Stepdown Expenses		DBE_STEP
DBF - Biochemical Genetics Lab Stepdown Expenses		DBF_STEP
DBX - Cost Pools Stepdown Expenses		DBX_STEP
DBZ - Pathology Not Elsewhere Clsfd Stepdown Expenses		DBZ_STEP
DCA - Diagnostic Radiology Stepdown Expenses		DCA_STEP
DCX - Cost Pools Stepdown Expenses		DCX_STEP
DCZ - Radiology Not Elsewhere Clsfd Stepdown Expenses		DCZ_STEP
DDA - Electrocardiography Stepdown Expenses		DDA_STEP
DDB - Electroencephalography Stepdown Expenses		DDB_STEP
DDC - Electroneuromyography Stepdown Expenses		DDC_STEP
DDD - Pulmonary Function Stepdown Expenses		DDD_STEP
DDE - Cardiac Catheterization Stepdown Expenses		DDE_STEP
DDX - Cost Pools Stepdown Expenses		DDX_STEP
DDZ - Spec Proc Svcs Not Elsewhere Clsfd Stepdown Expenses		DDZ_STEP
DEA - Central Sterile Supply Stepdown Expenses		DEA_STEP
DEB - Central Materiel Service Stepdown Expenses		DEB_STEP
DEX - Cost Pools Stepdown Expenses		DEX_STEP
DEZ - Central Spl/Mat Svc Not Elsewhere C Stepdown Expenses		DEZ_STEP

DFA - Anesthesiology Stepdown Expenses		DFA_STEP
DFB - Surgical Suite Stepdown Expenses		DFB_STEP
DFC - Post Anesthesia Care Unit Stepdown Expenses		DFC_STEP
DFX - Cost Pools Stepdown Expenses		DFX_STEP
DFZ - Surgical Svcs Not Elsewhere Clsfd Stepdown Expenses		DFZ_STEP
DGA - Same Day Surg/Ambulatory Proc Visit Stepdown Expenses		DGA_STEP
DGB - Hemodialysis Stepdown Expenses		DGB_STEP
DGD - Peritoneal Dialysis Stepdown Expenses		DGD_STEP
DGE - Ambulatory Nursing Service Stepdown Expenses		DGE_STEP
DGX - Cost Pools Stepdown Expenses		DGX_STEP
DGZ - Same Day Svc Not Elsewhere Clsfd Stepdown Expenses		DGZ_STEP
DHA - Inhalation/Respiratory Therapy Stepdown Expenses		DHA_STEP
DHX - Cost Pools Stepdown Expenses		DHX_STEP
DHZ - Rehab Svcs Not Elsewhere Clsfd Stepdown Expenses		DHZ_STEP
DIA - Nuclear Medicine Clinic Stepdown Expenses		DIA_STEP
DIX - Cost Pools Stepdown Expenses		DIX_STEP
DIZ - Nuclear Med Not Elsewhere Clsfd Stepdown Expenses		DIZ_STEP
DJA - Medical Intensive Care Unit Stepdown Expenses		DJA_STEP
DJB - Surgical Intensive Care Unit Stepdown Expenses		DJB_STEP
DJC - Coronary Intensive Care Unit Stepdown Expenses		DJC_STEP
DJD - Neonatal Intensive Care Unit Stepdown Expenses		DJD_STEP
DJE - Pediatric Intensive Care Unit Stepdown Expenses		DJE_STEP
DJX - Cost Pools Stepdown Expenses		DJX_STEP
DJZ - ICU Not Elsewhere Clsfd Stepdown Expenses		DJZ_STEP
Salaries - Admin/Clerical		ADM_SAL
Salaries – Clinician		CLIN_SAL
Salaries - DC Professional		DCP_SAL
Salaries - DC Para-Professional		DCPP_SAL
Salaries – RNs		RN_SAL
D/R Indicator – Direct Post-Purification Expenses		REIMB_D
D/R Indicator – Reimbursable Post-Purification Expenses		REIMB_R
D/R Indicator – Resource Sharing Post-Purification Expenses		REIMB_S
MILPAY Total Expenses		MILPAY
CIVPAY Total Expenses		CIVPAY
O&M Total Expenses		O_M
PEC 0XXXX Post-Purification Direct Expenses		PE_0XXXX
PEC 12000 Post-Purification Direct Expenses		PE_12000
PEC 12011 Post-Purification Direct Expenses		PE_12011
PEC 13000 Post-Purification Direct Expenses		PE_13000
PEC 19200 Post-Purification Direct Expenses		PE_19200
PEC 1XXXX Post-Purification Direct Expenses		PE_1XXXX
PEC 2XXXX Post-Purification Direct Expenses		PE_2XXXX
PEC 34751 Post-Purification Direct Expenses		PE_34751
PEC 3XXXX Post-Purification Direct Expenses		PE_3XXXX

PEC 41010 Post-Purification Direct Expenses		PE_41010
PEC 41298 Post-Purification Direct Expenses		PE_41298
PEC 43892 Post-Purification Direct Expenses		PE_43892
PEC 44700 Post-Purification Direct Expenses		PE_44700
PEC 4XXXX Post-Purification Direct Expenses		PE_4XXXX
PEC 5XXXX Post-Purification Direct Expenses		PE_5XXXX
PEC 65898 Post-Purification Direct Expenses		PE_65898
PEC 6XXXX Post-Purification Direct Expenses		PE_6XXXX
PEC 7XXXX Post-Purification Direct Expenses		PE_7XXXX
PEC 81720 Post-Purification Direct Expenses		PE_81720
PEC 86721 Post-Purification Direct Expenses		PE_86721
PEC 86722 Post-Purification Direct Expenses		PE_86722
PEC 86761 Post-Purification Direct Expenses		PE_86761
PEC 87700 Post-Purification Direct Expenses		PE_87700
PEC 87705 Post-Purification Direct Expenses		PE_87705
PEC 87712 Post-Purification Direct Expenses		PE_87712
PEC 87713 Post-Purification Direct Expenses		PE_87713
PEC 87714 Post-Purification Direct Expenses		PE_87714
PEC 87715 Post-Purification Direct Expenses		PE_87715
PEC 87720 Post-Purification Direct Expenses		PE_87720
PEC 87721 Post-Purification Direct Expenses		PE_87721
PEC 87723 Post-Purification Direct Expenses		PE_87723
PEC 87724 Post-Purification Direct Expenses		PE_87724
PEC 87725 Post-Purification Direct Expenses		PE_87725
PEC 87726 Post-Purification Direct Expenses		PE_87726
PEC 87753 Post-Purification Direct Expenses		PE_87753
PEC 87754 Post-Purification Direct Expenses		PE_87754
PEC 87756 Post-Purification Direct Expenses		PE_87756
PEC 87760 Post-Purification Direct Expenses		PE_87760
PEC 87776 Post-Purification Direct Expenses		PE_87776
PEC 87778 Post-Purification Direct Expenses		PE_87778
PEC 87779 Post-Purification Direct Expenses		PE_87779
PEC 87785 Post-Purification Direct Expenses		PE_87785
PEC 87789 Post-Purification Direct Expenses		PE_87789
PEC 87790 Post-Purification Direct Expenses		PE_87790
PEC 87795 Post-Purification Direct Expenses		PE_87795
PEC 87796 Post-Purification Direct Expenses		PE_87796
PEC 87798 Post-Purification Direct Expenses		PE_87798
PEC 87900 Post-Purification Direct Expenses		PE_87900
PEC 87915 Post-Purification Direct Expenses		PE_87915
PEC 87976 Post-Purification Direct Expenses		PE_87976
PEC 87978 Post-Purification Direct Expenses		PE_87978
PEC 87979 Post-Purification Direct Expenses		PE_87979
PEC 87995 Post-Purification Direct Expenses		PE_87995

PEC 87996 Post-Purification Direct Expenses		PE_87996
PEC 8XXXX Post-Purification Direct Expenses		PE_8XXXX
PEC 9XXXX Post-Purification Direct Expenses		PE_9XXXX
SEEC 11.10 Post-Purification Direct Expenses		SEEC1110
SEEC 11.16 Post-Purification Direct Expenses		SEEC1116
SEEC 11.50 Post-Purification Direct Expenses		SEEC1150
SEEC 11.70 Post-Purification Direct Expenses		SEEC1170
SEEC 11.71 Post-Purification Direct Expenses		SEEC1171
SEEC 11.72 Post-Purification Direct Expenses		SEEC1172
SEEC 11.74 Post-Purification Direct Expenses		SEEC1174
SEEC 12.10 Post-Purification Direct Expenses		SEEC1210
SEEC 12.20 Post-Purification Direct Expenses		SEEC1220
SEEC 13.00 Post-Purification Direct Expenses		SEEC1300
SEEC 21.00 Post-Purification Direct Expenses		SEEC2100
SEEC 21.15 Post-Purification Direct Expenses		SEEC2115
SEEC 22.00 Post-Purification Direct Expenses		SEEC2200
SEEC 23.05 Post-Purification Direct Expenses		SEEC2305
SEEC 23.10 Post-Purification Direct Expenses		SEEC2310
SEEC 23.15 Post-Purification Direct Expenses		SEEC2315
SEEC 24.00 Post-Purification Direct Expenses		SEEC2400
SEEC 25.05 Post-Purification Direct Expenses		SEEC2505
SEEC 25.10 Post-Purification Direct Expenses		SEEC2510
SEEC 25.15 Post-Purification Direct Expenses		SEEC2515
SEEC 25.20 Post-Purification Direct Expenses		SEEC2520
SEEC 25.25 Post-Purification Direct Expenses		SEEC2525
SEEC 25.30 Post-Purification Direct Expenses		SEEC2530
SEEC 25.36 Post-Purification Direct Expenses		SEEC2536
SEEC 25.40 Post-Purification Direct Expenses		SEEC2540
SEEC 25.45 Post-Purification Direct Expenses		SEEC2545
SEEC 25.50 Post-Purification Direct Expenses		SEEC2550
SEEC 25.55 Post-Purification Direct Expenses		SEEC2555
SEEC 25.62 Post-Purification Direct Expenses		SEEC2562
SEEC 25.63 Post-Purification Direct Expenses		SEEC2563
SEEC 25.65 Post-Purification Direct Expenses		SEEC2565
SEEC 25.70 Post-Purification Direct Expenses		SEEC2570
SEEC 25.75 Post-Purification Direct Expenses		SEEC2575
SEEC 26.05 Post-Purification Direct Expenses		SEEC2605
SEEC 26.10 Post-Purification Direct Expenses		SEEC2610
SEEC 26.15 Post-Purification Direct Expenses		SEEC2615
SEEC 26.20 Post-Purification Direct Expenses		SEEC2620
SEEC 26.25 Post-Purification Direct Expenses		SEEC2625
SEEC 31.10 Post-Purification Direct Expenses		SEEC3110
SEEC 31.15 Post-Purification Direct Expenses		SEEC3115
SEEC 31.20 Post-Purification Direct Expenses		SEEC3120

SEEC 31.30 Post-Purification Direct Expenses		SEEC3130
SEEC 32.00 Post-Purification Direct Expenses		SEEC3200
SEEC 32.10 Post-Purification Direct Expenses		SEEC3210
SEEC 41.00 Post-Purification Direct Expenses		SEEC4100
SEEC 41.05 Post-Purification Direct Expenses		SEEC4105
SEEC 41.10 Post-Purification Direct Expenses		SEEC4110
SEEC 41.15 Post-Purification Direct Expenses		SEEC4115
SEEC 42.00 Post-Purification Direct Expenses		SEEC4200
SEEC 43.00 Post-Purification Direct Expenses		SEEC4300
SEEC 44.00 Post-Purification Direct Expenses		SEEC4400

LENR (DoD)

Timeframe of Data: FY2000, FY2002
Format: Delimited (!) format, variable length
Filters: Enrollment MTF in reference list

Field	Type	SAS Name	Transformation
DEERS Dependent Suffix	$2	DDS	None
Enrollment Region	$2	REG	None
Sponsor Branch of Service, Aggregated	$1	SVC	None
Beneficiary Gender	$1	SEX	None
Equivalent Lives Beneficiary Group	$6	BCAT	None
Sponsor Social Security Number	$9	SPONSSN	None
Date of Birth	$8	DOBNEW	None
Ben Cat Common	$1	COMBEN	None
Ben Cat Common $_{fycm}$	$1	BEN_{fycm}	None
ACV_{fycm}	$1	ACV_{fycm}	None

4.2 VA Data Files

The following are the datasets received from the VA for analysis.

OPC Events (VA)

Field	Type
AGE	CHARACTER(3)
ORNG_IND	CHARACTER(5)
ORNG_IND_DESC	CHARACTER(50)
ORNG_LOC	CHARACTER(5)
ORNG_LOC_DESC	CHARACTER(50)
AG8R	CHARACTER(2)
AG8R_DESC	CHARACTER(8)
APPTYP	CHARACTER(3)
APPTYP_DESC	CHARACTER(50)
CL	CHARACTER(8)
CL_DESC	CHARACTER(50)
CLC	CHARACTER(16)
CLC_DESC	CHARACTER(50)
CPT1	CHARACTER(5)
CPT2	CHARACTER(5)
CPT3	CHARACTER(5)
CPT4	CHARACTER(5)
CPT5	CHARACTER(5)
CPT6	CHARACTER(5)
CPT7	CHARACTER(5)
CPT8	CHARACTER(5)
CPT9	CHARACTER(5)
CPT10	CHARACTER(5)
CPT11	CHARACTER(5)
CPT12	CHARACTER(5)
CPT13	CHARACTER(5)
CPT14	CHARACTER(5)
CPT15	CHARACTER(5)
DOB	CHARACTER(12)
DXF2	CHARACTER(5)
DXF3	CHARACTER(5)
DXF4	CHARACTER(5)
DXF5	CHARACTER(5)
DXF6	CHARACTER(5)
DXF7	CHARACTER(5)
DXF8	CHARACTER(5)
DXF9	CHARACTER(5)
DXF10	CHARACTER(5)
DXLSF	CHARACTER(5)
ELIG	CHARACTER(5)
ELIG_DESC	CHARACTER(50)
ENV	CHARACTER(8)
HOMECNTYSTATE	CHARACTER(10)
HOMECNTY_DESC	CHARACTER(50)
HOMEPPSA	CHARACTER(3)
HOMEPSA_DESC	CHARACTER(50)
HOMEVISN	CHARACTER(2)
HOMLESS_CODE	CHARACTER(2)
HOMLESS_DESC	CHARACTER(16)
HOMSTATE	CHARACTER(2)
HOMSTATE_NAME	CHARACTER(50)
LOCVIZ	CHARACTER(1)
LOCVIZ_DESC	CHARACTER(50)
MARITAL	CHARACTER(1)
MARITAL_DESC	CHARACTER(24)
MEANS	CHARACTER(4)
MEANS_DESC	CHARACTER(16)

MULTI	CHARACTER(1)
MULTI_DESC	CHARACTER(10)
NCODES	NUMBER(2)
NDIAG	NUMBER(2)
NPROV	NUMBER(2)
NPROVID	NUMBER(2)
ORNG	CHARACTER(5)
ORNG_DESC	CHARACTER(24)
POV	CHARACTER(1)
POV_DESC	CHARACTER(12)
PROV1	CHARACTER(8)
PROV1_DESC	CHARACTER(50)
PROV2	CHARACTER(8)
PROV2_DESC	CHARACTER(50)
PROV3	CHARACTER(8)
PROV3_DESC	CHARACTER(50)
PROV4	CHARACTER(8)
PROV4_DESC	CHARACTER(50)
PROV5	CHARACTER(8)
PROV5_DESC	CHARACTER(50)
PROV6	CHARACTER(8)
PROV6_DESC	CHARACTER(50)
PROV7	CHARACTER(8)
PROV7_DESC	CHARACTER(50)
PROV8	CHARACTER(8)
PROV8_DESC	CHARACTER(50)
PROV9	CHARACTER(8)
PROV9_DESC	CHARACTER(50)
PROV10	CHARACTER(8)
PROV10_DESC	CHARACTER(50)
PROVID1	CHARACTER(24)
PROVID2	CHARACTER(24)
PROVID3	CHARACTER(24)
PROVID4	CHARACTER(24)
PROVID5	CHARACTER(24)
PROVID6	CHARACTER(24)
PROVID7	CHARACTER(24)
PROVID8	CHARACTER(24)
PROVID9	CHARACTER(24)
PROVID10	CHARACTER(24)
PSEUDO	CHARACTER(12)
PSEUDO_YN	CHARACTER(1)
RACE	CHARACTER(2)
RACE_DESC	CHARACTER(50)
RAD	CHARACTER(3)
RAD_DESC	CHARACTER(50)
SCCI	CHARACTER(3)
SCCI_DESC	CHARACTER(50)
SCRSSN	CHARACTER(12)
SEX	CHARACTER(1)
SEX_DESC	CHARACTER(10)
STA5A	CHARACTER(6)
STA5A_NAME	CHARACTER(32)
SVCPCT	CHARACTER(3)
VISN	CHARACTER(2)
VIZDATE	CHARACTER(24)
ZIP	CHARACTER(5)

OPC Fee (VA)

Field	Type
ACTCODE	CHARACTER(1)
ACTCODE_DESC	CHARACTER(24)
AMOUNT	NUMBER(8)
CANCODE	CHARACTER(1)
CANCODE_DESC	CHARACTER(24)
CANDAT	CHARACTER(10)
CAMRSN	CHARACTER(1)
CAMRSN_DESC	CHARACTER(24)
CHKDAT	CHARACTER(10)
CLMDATE	CHARACTER(10)
CNTY	CHARACTER(8)
CPTI	CHARACTER(5)
DHCP	CHARACTER(64)
DISAMT	NUMBER(8)
DX1	CHARACTER(6)
EFTNO	CHARACTER(8)
FMSTNO	CHARACTER(11)
FPOV	CHARACTER(2)
FPOV_DESC	CHARACTER(24)
HCFATYPE	CHARACTER(2)
HCFATYPE_DESC	CHARACTER(24)
HOMECNTY	CHARACTER(6)
HOMECNTY_DESC	CHARACTER(24)
HOMEPSA	CHARACTER(8)
HOMSTATE	CHARACTER(2)
INTAMT	NUMBER(16)
INTIND	CHARACTER(1)
INTIND_DESC	CHARACTER(24)
INVDATE	CHARACTER(10)
INVNUM	CHARACTER(9)
JULDAY	CHARACTER(3)
LINENO	CHARACTER(3)
OBNUM	CHARACTER(6)
PATTYPE	CHARACTER(2)
PATTYPE_DESC	CHARACTER(24)
PAYCAT	CHARACTER(1)
PAYCAT_DESC	CHARACTER(24)
PAYTYPE	CHARACTER(1)
PAYTYPE_DESC	CHARACTER(24)
PLSER	CHARACTER(2)
PLSER_DESC	CHARACTER(24)
PROCDTE	CHARACTER(10)
RELNO	CHARACTER(4)
SCRSSN	CHARACTER(11)
SSNSUF	CHARACTER(1)

STATE	CHARACTER(2)
STA3N	CHARACTER(3)
STA3N_DESC	CHARACTER(32)
STA6A	CHARACTER(6)
SUSCODE	CHARACTER(1)
SUSCODE_DESC	CHARACTER(24)
TRANSDAT	CHARACTER(10)
TREATDT	CHARACTER(10)
TRETYPEYP	CHARACTER(1)
TRETYPEYP_DESC	CHARACTER(24)
TYPE	CHARACTER(1)
TYPE_DESC	CHARACTER(24)
VATYPE	CHARACTER(2)
VENDID	CHARACTER(9)
VENSUF	CHARACTER(4)
VEN13N	CHARACTER(13)
VINVDATE	CHARACTER(10)
ZIP	CHARACTER(5)

PTF Main (VA)

Field	Type
ABO	NUMBER
ADMITDAY	CHARACTER(24)
AGE	NUMBER
AGOCARE	CHARACTER(1)
AGOCARE_DESC	CHARACTER(3)
AGE15Y	NUMBER
AGE15Y_DESC	CHARACTER(10)
AGE8R	NUMBER
AGE8R_DESC	CHARACTER(10)
AOR	NUMBER
AOR_DESC	CHARACTER(20)
BORNDAY	CHARACTER(24)
BOS	NUMBER
BOS_DESC	CHARACTER(20)
CP	NUMBER
CP_DESC	CHARACTER(20)
BEDSECN	NUMBER
BEDSECN_DESC	CHARACTER(50)
DISDAY	CHARACTER(24)
DISTO	NUMBER
DISTO_DESC	CHARACTER(50)
DISTYPE	NUMBER
DISTYPE_DESC	CHARACTER(20)
DOD	CHARACTER(10)
DRG	NUMBER
DRG_DESC	CHARACTER(50)
DXF2	CHARACTER(6)
DXF3	CHARACTER(6)
DXF4	CHARACTER(6)
DXF5	CHARACTER(6)
DXF6	CHARACTER(6)
DXF7	CHARACTER(6)
DXF8	CHARACTER(6)
DXF9	CHARACTER(6)
DXF10	CHARACTER(6)
DXLSF	CHARACTER(6)
DXLSF32	NUMBER
DXLSF32_DESC	CHARACTER(50)
DXLSF120	CHARACTER(2)
DXLSF120_DESC	CHARACTER(50)
DXPRIME	CHARACTER(6)
ENVCARE	CHARACTER(1)
ENVCARE_DESC	CHARACTER(50)
FYDIS	NUMBER
HOMECNTY	NUMBER
HOMECNTY_DESC	CHARACTER(50)
HOMEPSA	NUMBER
HOMEPSA_DESC	CHARACTER(50)
HOMEVISN	NUMBER
HOMSTATE	NUMBER
HOMSTATE_DESC	CHARACTER(50)
INCOME	NUMBER
IRDCARE	CHARACTER(1)
IRDCARE_DESC	CHARACTER(20)
LS	NUMBER
LSR	NUMBER
LSR_DESC	CHARACTER(50)
MDC	NUMBER
MDC_DESC	CHARACTER(50)
MEANS	CHARACTER(2)
MEANS_DESC	CHARACTER(20)
MS	CHARACTER(1)

MS_DESC	CHARACTER(20)
NBS	NUMBER
NDXM	NUMBER
NCODES	NUMBER
NSURG	NUMBER
NXFER	NUMBER
OPT	NUMBER
OPT_DESC	CHARACTER(10)
PASS	NUMBER
PLCDR	NUMBER
PLDISCH	NUMBER
PLDISCH_DESC	CHARACTER(50)
POW	NUMBER
POW_DESC	CHARACTER(20)
PSEUD	CHARACTER(1)
PSRCD	NUMBER
PSRCD_DESC	CHARACTER(50)
PSX	CHARACTER(1)
PSX_DESC	CHARACTER(50)
RACE	NUMBER
RACE_DESC	CHARACTER(50)
RAD	NUMBER
RAD_DESC	CHARACTER(50)
SCI	CHARACTER(1)
SCI_DESC	CHARACTER(50)
SCPER	NUMBER
SCRSSN	CHARACTER(10)
SEX	CHARACTER(1)
SEX_DESC	CHARACTER(20)
SOURCE	CHARACTER(2)
SOURCE_DESC	CHARACTER(50)
SRTKEY	NUMBER
STAFROM	CHARACTER(6)
STAFROM_DESC	CHARACTER(50)
STA6A	CHARACTER(6)
STA6A_NAME	CHARACTER(50)
TOSTA6A	CHARACTER(6)
TOSTA6A_NAME	CHARACTER(50)
UPDATDAY	CHARACTER(10)
VAAUS	NUMBER
VAAUS_DESC	CHARACTER(50)
VISN	NUMBER
ZIP	CHARACTER(5)

PTF Procedure (VA)

Field	Type
ADMITDAY	CHARACTER(24)
BEDSECN	NUMBER(4)
BEDSECN_DESC	CHARACTER(50)
DIALTYP	NUMBER(2)
DIALTYP_DESC	CHARACTER(20)
DISDAY	CHARACTER(24)
DISTYPE	NUMBER(2)
DISTYPE_DESC	CHARACTER(20)
DXLSF	CHARACTER(6)
DXLSF32	NUMBER(2)
DXLSF32_DESC	CHARACTER(50)
DXLSF120	CHARACTER(2)
DXLSF120_DESC	CHARACTER(50)
DXPRIME	CHARACTER(6)
NCODES	NUMBER(2)
NPROC	NUMBER(2)
NTREAT	NUMBER(2)
PROCDAY	CHARACTER(24)
PROCDE1	CHARACTER(5)
PROCDE2	CHARACTER(5)
PROCDE3	CHARACTER(5)
PROCDE4	CHARACTER(5)
PROCDE5	CHARACTER(5)
PSEQ	NUMBER(2)
SCRSSN	CHARACTER(10)
SRTKEY	CHARACTER(10)
STA6A	CHARACTER(6)
STA6A_DESC	CHARACTER(50)
VISN	NUMBER(2)

PTF Surgery (VA)

Field	Type
ADMITDAY	CHARACTER(24)
ANESTEK	CHARACTER(1)
ANESTEK_DESC	CHARACTER(50)
DISDAY	CHARACTER(24)
DISTYPE	NUMBER
DISTYPE_DESC	CHARACTER(20)
DXLSF	CHARACTER(6)
DXLSF32	NUMBER
DXLSF32_DESC	CHARACTER(50)
DXLSF120	CHARACTER(2)
DXLSF120_DESC	CHARACTER(50)
DXPRIME	CHARACTER(6)
NSURG	NUMBER
NVASURG	NUMBER
NVASURG_DESC	CHARACTER(50)
SCRSSN	CHARACTER(10)
SGR1	NUMBER
SGR1_DESC	CHARACTER(50)
SGSQ	NUMBER
SRTKEY	NUMBER
SSTA6A	CHARACTER(6)
SSTA6A_DESC	CHARACTER(50)
SURGDAY	CHARACTER(24)
SURGNAST	NUMBER
SURGNAST_DESC	CHARACTER(50)
SURGNCAT	CHARACTER(1)
SURGNCAT_DESC	CHARACTER(20)
SURGSPEC	NUMBER
SURGSPEC_DESC	CHARACTER(50)

SURG9CD1	CHARACTER(5)
SURG9CD2	CHARACTER(5)
SURG9CD3	CHARACTER(5)
SURG9CD4	CHARACTER(5)
SURG9CD5	CHARACTER(5)
TSTAT	NUMBER
TSTAT_DESC	CHARACTER(50)
VISN	NUMBER
SURG9CD1	CHARACTER(5)

PTF Fee (VA)

Field	Type
ACTCODE	CHARACTER(1)
ACTCODE_DESC	CHARACTER(24)
AMOUNT	NUMBER(8)
CANCODE	CHARACTER(1)
CANCODE_DESC	CHARACTER(24)
CANDAT	CHARACTER(10)
CAMRSN	CHARACTER(1)
CAMRSN_DESC	CHARACTER(24)
CHKDAT	CHARACTER(10)
CLMDATE	CHARACTER(10)
CNTY	CHARACTER(8)
CPT1	CHARACTER(5)
DHCP	CHARACTER(23)
DISAMT	NUMBER(8)
DX2	CHARACTER(6)
DX3	CHARACTER(6)
DX4	CHARACTER(6)
DX5	CHARACTER(6)
DXLSF	CHARACTER(6)
EFTNO	CHARACTER(8)
FMSTNO	CHARACTER(11)
FPOV	CHARACTER(2)
FPOV_DESC	CHARACTER(24)
HOMECNTY	CHARACTER(6)
HOMECNTY_DESC	CHARACTER(24)
HOMEPSA	CHARACTER(8)
HOMSTATE	CHARACTER(2)
INTAMT	NUMBER(8)
INTIND	CHARACTER(1)
INTIND_DESC	CHARACTER(24)
INVDATE	CHARACTER(10)
INVNUM	CHARACTER(9)
JULDAY	CHARACTER(3)
LINENO	CHARACTER(3)
MDCAREID	CHARACTER(6)
OBNUM	CHARACTER(6)
PAMT	NUMBER(8)
PAMTCL	NUMBER(8)
PATTYPE	CHARACTER(2)
PATTYPE_DESC	CHARACTER(24)
PAYCAT	CHARACTER(1)
PAYCAT_DESC	CHARACTER(24)
PAYTYPE	CHARACTER(1)
PAYTYPE_DESC	CHARACTER(24)
PDRG	CHARACTER(4)
PROCDTE	CHARACTER(10)
RELNO	CHARACTER(4)
SCRSSN	CHARACTER(11)
SSNSUF	CHARACTER(1)
STATE	CHARACTER(2)
STA3N	CHARACTER(3)
STA3N_DESC	CHARACTER(24)
STA6A	CHARACTER(6)
SURG9CD1	CHARACTER(6)
SURG9CD2	CHARACTER(6)
SURG9CD3	CHARACTER(6)
SURG9CD4	CHARACTER(6)
SURG9CD5	CHARACTER(6)
SUSCODE	CHARACTER(1)
SUSCODE_DESC	CHARACTER(24)
TRANSDAT	CHARACTER(10)
TREATDTF	CHARACTER(10)

TREATDTO	CHARACTER(10)
TYPE	CHARACTER(1)
TYPE_DESC	CHARACTER(24)
VENDID	CHARACTER(9)
VENSUF	CHARACTER(4)
VEN13N	CHARACTER(13)
VINVDATE	CHARACTER(10)
ZIP	CHARACTER(5)

VetPop (VA)

Field	Type
STATE	NUMBER
COUNTY	CHARACTER(25)
FIPS_CODE	NUMBER(38)
AGE_GROUP	CHARACTER(5)
GENDER	CHARACTER(1)
SAMPLE_DATE	DATE
VISN	NUMBER
POPULATION	NUMBER
FIPS	CHARACTER(5)

4.3 Reference Lists – Market Facility IDs and ZIP Codes

Gulf Coast – Facilities

Facility Number
0038
0042
0043
0073
0260
0261
0262
0265
0316
0490
0513
0654
0655
1387
1565
1706
1716
1777
520
520A0
520BZ
520GA
520GB
7029
7139
7251
7258
7273

Gulf Coast – ZIP Codes

ZIP Code
32401
32402
32403
32404
32405
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32407
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Hawaii – Facilities

Facility Number
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1921
1987
459
459GA
459GB
459GC
459GD
7256

Hawaii – ZIP Codes

ZIP Code
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Puget Sound – Facilities

Facility Number
0125
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0127
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0397
0398
0453
0489
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1649
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Puget Sound – ZIP Codes

ZIP Code
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4.4 DoD Provider Specialties

Provider Specialty Code	Provider Specialty	Productline	Serviceline
1	PRIMARY CARE	Primary Care	Family Practice
2	GENERAL SURGERY	Surgical Specialty	General Surgery
3	ALLERGY	Medical Specialty	Immunology
4	ENT	Surgical Specialty	Otolaryngology
5	PAIN MANAGEMENT	Surgical Specialty	General Surgery
6	CARDIOLOGY	Medical Specialty	Cardiology
7	DERMATOLOGY	Medical Specialty	Dermatology
8	FAMILY PRACTICE	Primary Care	Family Practice
10	GASTROENTEROLOGY	Medical Specialty	Gastroenterology
11	INTERNAL MEDICINE	Primary Care	Internal Medicine
13	NEUROLOGY	Medical Specialty	Neurology
14	NEUROSURGERY	Surgical Specialty	Neurosurgery
16	OBSTETRICS/GYNECOLOGY	Ob/Gyn	Gynecology
18	OPHTHALMOLOGY	Surgical Specialty	Opthalmology
19	DENTISTRY/ORAL SURGERY	Outpatient Specialty	Dental
20	ORTHOPEDICS/PODIATRY/HAND SURGERY	Surgical Specialty	Orthopedics
22	PATHOLOGY	Ancillary Services	Pathology
24	PLASTIC SURGERY	Surgical Specialty	Plastic Surgery
25	PT/OT/REHAB	Medical Specialty	Rehabilitation
26	MENTAL HEALTH	Behavioral Health	Mental Health
28	PROCTOLOGY	Surgical Specialty	Proctology
29	PULMONARY DISEASE	Medical Specialty	Pulmonary/Respiratory Disease
30	RADIOLOGY	Ancillary Services	Imaging
33	C/T SURGERY	Surgical Specialty	Cardio/Thoracic
34	UROLOGY	Surgical Specialty	Urology
35	PT/OT/REHAB	Medical Specialty	Rehabilitation
36	NUCLEAR MEDICINE	Ancillary Services	Imaging
37	PEDIATRICS	Primary Care	Pediatrics
38	GERIATRICS	Outpatient Specialty	Geriatrics
39	NEPHROLOGY	Medical Specialty	Nephrology
40	NEONATOLOGY	Primary Care	Pediatrics
42	ANCILLIARY/CLINICAL SUPPORT	Outpatient Specialty	Home-based/Outreach Care
43	ANCILLIARY/CLINICAL SUPPORT	Outpatient Specialty	Home-based/Outreach Care
44	PT/OT/REHAB	Medical Specialty	Rehabilitation
45	OTHER PRIMARY CARE	Outpatient Specialty	Audiology/Speech/Hearing
47	ENDOCRINOLOGY	Medical Specialty	Endocrinology
48	ORTHOPEDICS/PODIATRY/HAND SURGERY	Surgical Specialty	Orthopedics
49	OTHER/MISC	Other	Other
50	PROCTOLOGY	Surgical Specialty	Proctology
51	ANCILLIARY/CLINICAL SUPPORT	Other	Other
57	ORTHOPEDICS/PODIATRY/HAND SURGERY	Surgical Specialty	Orthopedics
59	ANCILLIARY/CLINICAL SUPPORT	Other	Other
60	OTHER PRIMARY CARE	Outpatient Specialty	Home-based/Outreach Care

61	OTHER PRIMARY CARE	Outpatient Specialty	Home-based/Outreach Care
62	MENTAL HEALTH	Behavioral Health	Mental Health
64	OTHER PRIMARY CARE	Outpatient Specialty	Audiology/Speech/Hearing
65	PT/OT/REHAB	Medical Specialty	Rehabilitation
69	ANCILLIARY/CLINICAL SUPPORT	Ancillary Services	Lab
70	OTHER/MISC	Other	Other
80	PAIN MANAGEMENT	Surgical Specialty	General Surgery
81	OTHER/MISC	Outpatient Specialty	Nutrition
82	OTHER PRIMARY CARE	Other	Other
83	ANCILLIARY/CLINICAL SUPPORT	Ancillary Services	P/C Non-MD Services
84	ANCILLIARY/CLINICAL SUPPORT	Ancillary Services	P/C Non-MD Services
85	MENTAL HEALTH	Behavioral Health	Mental Health
86	OTHER/MISC	Other	Other
88	ANCILLIARY/CLINICAL SUPPORT	Ancillary Services	Pharmacy
90	PRIMARY CARE	Ancillary Services	P/C Non-MD Services
91	MENTAL HEALTH	Behavioral Health	Mental Health
92	OBSTETRICS/GYNECOLOGY	Ob/Gyn	Obstetrics
93	MENTAL HEALTH	Behavioral Health	Mental Health
94	MENTAL HEALTH	Behavioral Health	Mental Health
95	MENTAL HEALTH	Behavioral Health	Mental Health
96	MENTAL HEALTH	Behavioral Health	Mental Health
97	MENTAL HEALTH	Behavioral Health	Mental Health
98	OTHER PRIMARY CARE	Outpatient Specialty	Optometry
99	ANCILLIARY/CLINICAL SUPPORT	Other	Other
BC	OBSTETRICS/GYNECOLOGY	Ob/Gyn	Obstetrics
HA	ANCILLIARY/CLINICAL SUPPORT	Outpatient Specialty	Home-based/Outreach Care
HB	OBSTETRICS/GYNECOLOGY	Ob/Gyn	Obstetrics
HH	ANCILLIARY/CLINICAL SUPPORT	Outpatient Specialty	Home-based/Outreach Care
TS	ANCILLIARY/CLINICAL SUPPORT	Other	Other

4.5 DRG Codes

Please refer to the file, *lookup_codes.xls*

4.6 ICD9 Codes

Please refer to the file, *lookup_codes.xls*