APPENDIX H

SUDA AN CODE FOR VARIANCE ESTIMATION

```
*************************************************************
*  program:   SUDTEST.SAS
*  purpose:   to demonstrate SAS callable SUDAAN
*  input: j:\8687\data1999\cfinal\hcs99c_4.sd2
*************************************************************
*;
options ps=79 ls=132;
libname in 'j:\8687\data1999\cfinal';
libname library  'j:\8887\data1999\cfinal\fmtlib';


***SORT FILE BY STRATUM****;
PROC SORT DATA=IN.HCS99C_4 (keep=SUPREGP C99013 h99061 WRWT99 stratum);
BY STRATUM;
RUN;


*************************************************************
Can estimate means or proportions
*************************************************************;
title 'Output file from SUDAAN for estimating means';
title2 'Average rating of the specialist (Q13) by Super region';
title3 'Proportion of beneficiaries who have seen specialists (Q11) by Super
Region';

PROC DESCRIPT DATA=IN.HCS99C_4 DESIGN=STRWR NOPRINT;
 WEIGHT   WRWT99;        ******  sampling/FINAL SURVEY WEIGHT     ********;
 NEST STRATUM / missunit;
 VAR  C99013 C99011;     ******  VARIABLES TO BE ESTIMATED**;
 TABLES XREGION;
 SUBGROUP SUPREGP;
 LEVELS 3;
 OUTPUT MEAN SEMEAN deffmean/ TABLECELL=DEFAULT FILENAME=mnsDAT;
 ***SEMEAN=standard error and deffmean=design effect**;
RUN;

proc print data=mnsdat;
run;
```