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\*

\*PROGRAM: C:\MEPS\STATA\PROG\EXERCISE1.do

\*

\*DESCRIPTION: THIS PROGRAM GENERATES THE FOLLOWING ESTIMATES ON NATIONAL HEALTH CARE EXPENSES BY TYPE OF SERVICE, 2014:

\*

\* (1) PERCENTAGE DISTRIBUTION OF EXPENSES BY TYPE OF SERVICE

\* (2) PERCENTAGE OF PERSONS WITH AN EXPENSE, BY TYPE OF SERVIC

\* (3) MEAN EXPENSE PER PERSON WITH AN EXPENSE, BY TYPE OF SERVICE

\*

\* DEFINED SERVICE CATEGORIES ARE:

\* HOSPITAL INPATIENT

\* AMBULATORY SERVICE: OFFICE-BASED & HOSPITAL OUTPATIENT VISITS

\* PRESCRIBED MEDICINES

\* DENTAL VISITS

\* EMERGENCY ROOM

\* HOME HEALTH CARE (AGENCY & NON-AGENCY) AND OTHER (TOTAL EXPENDITURES - ABOVE EXPENDITURE CATEGORIES)

\*

\* NOTE: EXPENSES INCLUDE BOTH FACILITY AND PHYSICIAN EXPENSES.

\*

\*INPUT FILE: C:\MEPS\STATA\DATA\H171.dta (2014 FULL-YEAR FILE)

\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

clear

set more off

capture log close

/\*log using c:\meps\stata\prog\exercise1.log, replace

cd c:\meps\stata\data\*/

log using \\files.s-3.com\HPDA\AHRQ\Fang\bj001\exercise1.log, replace

cd \\files.s-3.com\HPDA\AHRQ\Fang\bj001

/\* read in data from 2014 consolidated data file (hc-171) \*/

use totexp14 ipdexp14 ipfexp14 obvexp14 rxexp14 opdexp14 opfexp14 dvtexp14 erdexp14 erfexp14 hhaexp14 hhnexp14 othexp14 visexp14 age14x age42x age31x varstr varpsu perwt14f using h171.dta

/\* define expenditure variables by type of service \*/

gen total=totexp14

gen hospital\_inpatient = ipdexp14 + ipfexp14

gen ambulatory = obvexp14 + opdexp14 + opfexp14 + erdexp14 + erfexp14

gen prescribed\_medicines = rxexp14

gen dental = dvtexp14

gen home\_health\_other = hhaexp14 + hhnexp14 + othexp14 + visexp14

gen diff = total-hospital\_inpatient - ambulatory - prescribed\_medicines - dental - home\_health\_other

/\* create flag (1/0) variables for persons with an expense, by type of service \*/

foreach var in total hospital\_inpatient ambulatory prescribed\_medicines dental home\_health\_other {

gen x\_`var'=(`var'>0)

}

/\* create a summary variable from end of year, 42, and 31 variables\*/

gen age=age14x if age14x>=0

replace age=age42x if age42x>=0 & missing(age)

replace age=age31x if age31x>=0 & missing(age)

gen agecat=1 if age>=0 & age<=64

replace agecat=2 if age>64

/\* qc check on new variables\*/

tab1 x\_total x\_hospital\_inpatient x\_ambulatory x\_prescribed\_medicines x\_dental x\_home\_health\_other

sum total if total>0

sum hospital\_inpatient if hospital\_inpatient>0

sum ambulatory if ambulatory>0

sum prescribed\_medicines if prescribed\_medicines>0

sum dental if dental>0

sum home\_health\_other if home\_health\_other>0

list age age14x age42x age31x in 1/20, table

tab agecat

sum age if age>64

/\* identify the survey design characteristics \*/

svyset [pweight= perwt14f], strata( varstr) psu(varpsu) vce(linearized) singleunit(missing)

// percentage distribution of expenses by type of service (stat brief #491 figure 1)

svy: ratio ( hospital\_inpatient: hospital\_inpatient/total) ///

( ambulatory: ambulatory/ total) ///

( prescribed\_medicines: prescribed\_medicines/total) ///

( dental: dental/total) ///

( home\_health\_other: home\_health\_other/total)

// percentage of persons with an expense, by type of service

svy: mean x\_total x\_hospital\_inpatient x\_ambulatory x\_prescribed\_medicines x\_dental x\_home\_health\_other

// mean expense per person with an expense, by type of service

svy, subpop(x\_total): mean total

svy, subpop(x\_hospital\_inpatient): mean hospital\_inpatient

svy, subpop(x\_ambulatory): mean ambulatory

svy, subpop(x\_prescribed\_medicines): mean prescribed\_medicines

svy, subpop(x\_dental): mean dental

svy, subpop(x\_home\_health\_other): mean home\_health\_other

// mean expense per person with an expense, by type of service and age category

svy, subpop(x\_total): mean total, over(agecat)

svy, subpop(x\_hospital\_inpatient): mean hospital\_inpatient, over(agecat)

svy, subpop(x\_ambulatory): mean ambulatory, over(agecat)

svy, subpop(x\_prescribed\_medicines): mean prescribed\_medicines, over(agecat)

svy, subpop(x\_dental): mean dental, over(agecat)

svy, subpop(x\_home\_health\_other): mean home\_health\_other, over(agecat)

log close

exit, clear

-----------------------------------------------------------------------------------------------------

name: <unnamed>

log: \\files.s-3.com\HPDA\AHRQ\Fang\bj001\exercise1.log

log type: text

opened on: 22 Feb 2017, 14:18:17

. cd \\files.s-3.com\HPDA\AHRQ\Fang\bj001

\\files.s-3.com\HPDA\AHRQ\Fang\bj001

.

.

. /\* read in data from 2014 consolidated data file (hc-171) \*/

. use totexp14 ipdexp14 ipfexp14 obvexp14 rxexp14 opdexp14 opfexp14 dvtexp14 erdexp14 erfexp14 hhaexp

> 14 hhnexp14 othexp14 visexp14 age14x age42x age31x varstr varpsu perwt14f using h171.dta

.

. /\* define expenditure variables by type of service \*/

. gen total=totexp14

. gen hospital\_inpatient = ipdexp14 + ipfexp14

. gen ambulatory = obvexp14 + opdexp14 + opfexp14 + erdexp14 + erfexp14

. gen prescribed\_medicines = rxexp14

. gen dental = dvtexp14

. gen home\_health\_other = hhaexp14 + hhnexp14 + othexp14 + visexp14

. gen diff = total-hospital\_inpatient - ambulatory - prescribed\_medicines - dental

> - home\_health\_other

.

. /\* create flag (1/0) variables for persons with an expense, by type of service \*/

. foreach var in total hospital\_inpatient ambulatory prescribed\_medicines dental home\_health\_other {

2. gen x\_`var'=(`var'>0)

3. }

.

. /\* create a summary variable from end of year, 42, and 31 variables\*/

. gen age=age14x if age14x>=0

(209 missing values generated)

. replace age=age42x if age42x>=0 & missing(age)

(136 real changes made)

. replace age=age31x if age31x>=0 & missing(age)

(73 real changes made)

.

. gen agecat=1 if age>=0 & age<=64

(4,105 missing values generated)

. replace agecat=2 if age>64

(4,105 real changes made)

.

. /\* qc check on new variables\*/

. tab1 x\_total x\_hospital\_inpatient x\_ambulatory x\_prescribed\_medicines x\_dental x\_home\_health\_o

> ther

-> tabulation of x\_total

x\_total | Freq. Percent Cum.

------------+-----------------------------------

0 | 7,225 20.72 20.72

1 | 27,650 79.28 100.00

------------+-----------------------------------

Total | 34,875 100.00

-> tabulation of x\_hospital\_inpatient

x\_hospital\_ |

inpatient | Freq. Percent Cum.

------------+-----------------------------------

0 | 32,682 93.71 93.71

1 | 2,193 6.29 100.00

------------+-----------------------------------

Total | 34,875 100.00

-> tabulation of x\_ambulatory

x\_ambulator |

y | Freq. Percent Cum.

------------+-----------------------------------

0 | 10,531 30.20 30.20

1 | 24,344 69.80 100.00

------------+-----------------------------------

Total | 34,875 100.00

-> tabulation of x\_prescribed\_medicines

x\_prescribe |

d\_medicines | Freq. Percent Cum.

------------+-----------------------------------

0 | 15,948 45.73 45.73

1 | 18,927 54.27 100.00

------------+-----------------------------------

Total | 34,875 100.00

-> tabulation of x\_dental

x\_dental | Freq. Percent Cum.

------------+-----------------------------------

0 | 22,831 65.47 65.47

1 | 12,044 34.53 100.00

------------+-----------------------------------

Total | 34,875 100.00

-> tabulation of x\_home\_health\_other

x\_home\_heal |

th\_other | Freq. Percent Cum.

------------+-----------------------------------

0 | 28,936 82.97 82.97

1 | 5,939 17.03 100.00

------------+-----------------------------------

Total | 34,875 100.00

. sum total if total>0

Variable | Obs Mean Std. Dev. Min Max

-------------+---------------------------------------------------------

total | 27,650 4938.678 14269.34 1 491858

. sum hospital\_inpatient if hospital\_inpatient>0

Variable | Obs Mean Std. Dev. Min Max

-------------+---------------------------------------------------------

hospital\_i~t | 2,193 17536.95 27716.47 3 414748

. sum ambulatory if ambulatory>0

Variable | Obs Mean Std. Dev. Min Max

-------------+---------------------------------------------------------

ambulatory | 24,344 2069.085 6894.936 1 488881

. sum prescribed\_medicines if prescribed\_medicines>0

Variable | Obs Mean Std. Dev. Min Max

-------------+---------------------------------------------------------

prescribed~s | 18,927 1608.024 5659.345 1 269756

. sum dental if dental>0

Variable | Obs Mean Std. Dev. Min Max

-------------+---------------------------------------------------------

dental | 12,044 654.5071 1349.928 3 38432

. sum home\_health\_other if home\_health\_other>0

Variable | Obs Mean Std. Dev. Min Max

-------------+---------------------------------------------------------

home\_healt~r | 5,939 1584.149 6493.048 4 172462

.

. list age age14x age42x age31x in 1/20, table

+--------------------------------+

| age age14x age42x age31x |

|--------------------------------|

1. | 36 36 36 35 |

2. | 36 36 36 36 |

3. | 15 15 14 14 |

4. | 8 8 8 7 |

5. | 85 85 85 85 |

|--------------------------------|

6. | 34 34 33 33 |

7. | 32 32 31 31 |

8. | 15 15 14 14 |

9. | 11 11 10 10 |

10. | 9 9 8 8 |

|--------------------------------|

11. | 4 4 4 3 |

12. | 8 8 8 7 |

13. | 20 -1 20 19 |

14. | 79 79 78 78 |

15. | 47 47 46 46 |

|--------------------------------|

16. | 35 35 35 34 |

17. | 36 36 36 36 |

18. | 11 11 11 10 |

19. | 7 7 7 7 |

20. | 26 26 25 25 |

+--------------------------------+

.

. tab agecat

agecat | Freq. Percent Cum.

------------+-----------------------------------

1 | 30,770 88.23 88.23

2 | 4,105 11.77 100.00

------------+-----------------------------------

Total | 34,875 100.00

. sum age if age>64

Variable | Obs Mean Std. Dev. Min Max

-------------+---------------------------------------------------------

age | 4,105 73.80682 6.66308 65 85

.

. /\* identify the survey design characteristics \*/

. svyset [pweight= perwt14f], strata( varstr) psu(varpsu) vce(linearized) singleunit(missing)

pweight: perwt14f

VCE: linearized

Single unit: missing

Strata 1: varstr

SU 1: varpsu

FPC 1: <zero>

.

. // percentage distribution of expenses by type of service (stat brief #491 figure 1)

. svy: ratio ( hospital\_inpatient: hospital\_inpatient/total) ///

> ( ambulatory: ambulatory/ total) ///

> ( prescribed\_medicines: prescribed\_medicines/total) ///

> ( dental: dental/total) ///

> ( home\_health\_other: home\_health\_other/total)

(running ratio on estimation sample)

Survey: Ratio estimation

Number of strata = 165 Number of obs = 34,875

Number of PSUs = 366 Population size = 318,440,423

Design df = 201

hospital\_i~t: hospital\_inpatient/total

ambulatory: ambulatory/total

prescribed~s: prescribed\_medicines/total

dental: dental/total

home\_healt~r: home\_health\_other/total

----------------------------------------------------------------------

| Linearized

| Ratio Std. Err. [95% Conf. Interval]

---------------------+------------------------------------------------

hospital\_inpatient | .254729 .0117416 .2315764 .2778816

ambulatory | .3850812 .0092253 .3668904 .4032719

prescribed\_medicines | .2335445 .0095548 .2147041 .2523849

dental | .0612787 .0021079 .0571223 .0654352

home\_health\_other | .0653674 .0056807 .054166 .0765687

----------------------------------------------------------------------

.

. // percentage of persons with an expense, by type of service

. svy: mean x\_total x\_hospital\_inpatient x\_ambulatory x\_prescribed\_medicines x\_dental x\_home\_health\_

> other

(running mean on estimation sample)

Survey: Mean estimation

Number of strata = 165 Number of obs = 34,875

Number of PSUs = 366 Population size = 318,440,423

Design df = 201

------------------------------------------------------------------------

| Linearized

| Mean Std. Err. [95% Conf. Interval]

-----------------------+------------------------------------------------

x\_total | .8512277 .0035374 .8442524 .8582029

x\_hospital\_inpatient | .0657779 .0021471 .0615441 .0700117

x\_ambulatory | .7590857 .0043806 .7504479 .7677235

x\_prescribed\_medicines | .6135182 .0049526 .6037524 .6232839

x\_dental | .4143585 .0059531 .4026199 .426097

x\_home\_health\_other | .2040905 .0042286 .1957524 .2124287

------------------------------------------------------------------------

.

. // mean expense per person with an expense, by type of service

. svy, subpop(x\_total): mean total

(running mean on estimation sample)

Survey: Mean estimation

Number of strata = 165 Number of obs = 34,875

Number of PSUs = 366 Population size = 318,440,423

Subpop. no. obs = 26,665

Subpop. size = 271,065,295

Design df = 201

--------------------------------------------------------------

| Linearized

| Mean Std. Err. [95% Conf. Interval]

-------------+------------------------------------------------

total | 5531.379 137.9266 5259.41 5803.347

--------------------------------------------------------------

. svy, subpop(x\_hospital\_inpatient): mean hospital\_inpatient

(running mean on estimation sample)

Survey: Mean estimation

Number of strata = 165 Number of obs = 34,875

Number of PSUs = 366 Population size = 318,440,423

Subpop. no. obs = 2,081

Subpop. size = 20,946,346.5

Design df = 201

--------------------------------------------------------------------

| Linearized

| Mean Std. Err. [95% Conf. Interval]

-------------------+------------------------------------------------

hospital\_inpatient | 18233.81 857.9769 16542.02 19925.6

--------------------------------------------------------------------

. svy, subpop(x\_ambulatory): mean ambulatory

(running mean on estimation sample)

Survey: Mean estimation

Number of strata = 165 Number of obs = 34,875

Number of PSUs = 366 Population size = 318,440,423

Subpop. no. obs = 23,536

Subpop. size = 241,723,564

Design df = 201

--------------------------------------------------------------

| Linearized

| Mean Std. Err. [95% Conf. Interval]

-------------+------------------------------------------------

ambulatory | 2388.585 62.53984 2265.266 2511.903

--------------------------------------------------------------

. svy, subpop(x\_prescribed\_medicines): mean prescribed\_medicines

(running mean on estimation sample)

Survey: Mean estimation

Number of strata = 165 Number of obs = 34,875

Number of PSUs = 366 Population size = 318,440,423

Subpop. no. obs = 18,311

Subpop. size = 195,368,984

Design df = 201

----------------------------------------------------------------------

| Linearized

| Mean Std. Err. [95% Conf. Interval]

---------------------+------------------------------------------------

prescribed\_medicines | 1792.344 83.78614 1627.131 1957.556

----------------------------------------------------------------------

. svy, subpop(x\_dental): mean dental

(running mean on estimation sample)

Survey: Mean estimation

Number of strata = 165 Number of obs = 34,875

Number of PSUs = 366 Population size = 318,440,423

Subpop. no. obs = 11,775

Subpop. size = 131,948,483

Design df = 201

--------------------------------------------------------------

| Linearized

| Mean Std. Err. [95% Conf. Interval]

-------------+------------------------------------------------

dental | 696.3259 15.4452 665.8705 726.7813

--------------------------------------------------------------

. svy, subpop(x\_home\_health\_other): mean home\_health\_other

(running mean on estimation sample)

Survey: Mean estimation

Number of strata = 165 Number of obs = 34,875

Number of PSUs = 366 Population size = 318,440,423

Subpop. no. obs = 5,761

Subpop. size = 64,990,677

Design df = 201

-------------------------------------------------------------------

| Linearized

| Mean Std. Err. [95% Conf. Interval]

------------------+------------------------------------------------

home\_health\_other | 1508.055 139.4998 1232.984 1783.126

-------------------------------------------------------------------

.

. // mean expense per person with an expense, by type of service and age category

. svy, subpop(x\_total): mean total, over(agecat)

(running mean on estimation sample)

Survey: Mean estimation

Number of strata = 165 Number of obs = 34,875

Number of PSUs = 366 Population size = 318,440,423

Subpop. no. obs = 26,665

Subpop. size = 271,065,295

Design df = 201

1: agecat = 1

2: agecat = 2

--------------------------------------------------------------

| Linearized

Over | Mean Std. Err. [95% Conf. Interval]

-------------+------------------------------------------------

total |

1 | 4429.921 149.9609 4134.223 4725.62

2 | 10890 302.6142 10293.29 11486.7

--------------------------------------------------------------

. svy, subpop(x\_hospital\_inpatient): mean hospital\_inpatient, over(agecat)

(running mean on estimation sample)

Survey: Mean estimation

Number of strata = 165 Number of obs = 34,875

Number of PSUs = 366 Population size = 318,440,423

Subpop. no. obs = 2,081

Subpop. size = 20,946,346.5

Design df = 201

1: agecat = 1

2: agecat = 2

--------------------------------------------------------------------

| Linearized

Over | Mean Std. Err. [95% Conf. Interval]

-------------------+------------------------------------------------

hospital\_inpatient |

1 | 17663.08 1263.521 15171.63 20154.54

2 | 19191.14 1131.91 16959.2 21423.08

--------------------------------------------------------------------

. svy, subpop(x\_ambulatory): mean ambulatory, over(agecat)

(running mean on estimation sample)

Survey: Mean estimation

Number of strata = 165 Number of obs = 34,875

Number of PSUs = 366 Population size = 318,440,423

Subpop. no. obs = 23,536

Subpop. size = 241,723,564

Design df = 201

1: agecat = 1

2: agecat = 2

--------------------------------------------------------------

| Linearized

Over | Mean Std. Err. [95% Conf. Interval]

-------------+------------------------------------------------

ambulatory |

1 | 2055.61 66.80712 1923.877 2187.343

2 | 3859.418 168.7558 3526.659 4192.177

--------------------------------------------------------------

. svy, subpop(x\_prescribed\_medicines): mean prescribed\_medicines, over(agecat)

(running mean on estimation sample)

Survey: Mean estimation

Number of strata = 165 Number of obs = 34,875

Number of PSUs = 366 Population size = 318,440,423

Subpop. no. obs = 18,311

Subpop. size = 195,368,984

Design df = 201

1: agecat = 1

2: agecat = 2

----------------------------------------------------------------------

| Linearized

Over | Mean Std. Err. [95% Conf. Interval]

---------------------+------------------------------------------------

prescribed\_medicines |

1 | 1560.906 106.3327 1351.236 1770.577

2 | 2602.126 100.7413 2403.48 2800.771

----------------------------------------------------------------------

. svy, subpop(x\_dental): mean dental, over(agecat)

(running mean on estimation sample)

Survey: Mean estimation

Number of strata = 165 Number of obs = 34,875

Number of PSUs = 366 Population size = 318,440,423

Subpop. no. obs = 11,775

Subpop. size = 131,948,483

Design df = 201

1: agecat = 1

2: agecat = 2

--------------------------------------------------------------

| Linearized

Over | Mean Std. Err. [95% Conf. Interval]

-------------+------------------------------------------------

dental |

1 | 657.05 17.34416 622.8501 691.2498

2 | 892.5962 44.61207 804.6285 980.5639

--------------------------------------------------------------

. svy, subpop(x\_home\_health\_other): mean home\_health\_other, over(agecat)

(running mean on estimation sample)

Survey: Mean estimation

Number of strata = 165 Number of obs = 34,875

Number of PSUs = 366 Population size = 318,440,423

Subpop. no. obs = 5,761

Subpop. size = 64,990,677

Design df = 201

1: agecat = 1

2: agecat = 2

-------------------------------------------------------------------

| Linearized

Over | Mean Std. Err. [95% Conf. Interval]

------------------+------------------------------------------------

home\_health\_other |

1 | 1025.308 161.522 706.8131 1343.803

2 | 2923.966 209.7328 2510.407 3337.524

-------------------------------------------------------------------

.

. log close

name: <unnamed>

log: \\files.s-3.com\HPDA\AHRQ\Fang\bj001\exercise1.log

log type: text

closed on: 22 Feb 2017, 14:19:49

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