

Note on Coding Payment Sources in the NNHS 2004

The 2004 National Nursing Home Study (NNHS) asked for all sources of payment for a resident's current admission for the first and past month/billing period. For some purposes, it may be useful for analysts to have a set of mutually exclusive categories of payment sources for the first or past month/billing period. For this reason, one suggested way of combining the eight possible payment categories is outlined below (in SAS and STATA code). This scheme results in the formation of four mutually exclusive sources of payment: (1) Medicaid, (2) Medicare, (3) Out-of-Pocket and Other, and (4) Unknown. Excluding the unknowns, the distribution of residents in the 2004 NNHS across the other three categories of payment sources for the past month/billing period (Medicare, Medicaid, and Out-of-Pocket/Other) is similar to the distribution of primary payer found in other sources, for example, that found in Online Survey, Certification and Reporting (OSCAR) data for certification surveys (<http://www.medicare.gov/NHCompare/static/tabSI.asp?activeTab=3>) conducted between 1/1/04 and 3/31/05. It should be noted, however, that assignment of these categories is imprecise, and some analysts may prefer to assign their own categories depending on their research needs.

PAYMENT SOURCES FOR RESIDENT'S CURRENT ADMISSION- FIRST MONTH/ BILLING PERIOD

SAS CODE FOR RECODES IN DATA STEP

```
proc format;
value paylab 1="Medicaid" 2="Medicare" 3="Out-of-Pocket and Other" 4="Unknown";
run;

data [name temp file];
set [name of source data file];

* code payer as Medicaid if Medicaid and not Medicare;
if (mcaid1=1 or welfare1=1) and mcare1~1 then apayer=1;

* code payer as Medicare if Medicare and not Medicaid or if Medicare and Medicaid;
if mcare1=1 then apayer=2;

* code payer as Other if resident has a source other than Medicaid or Medicare but not Medicaid or Medicare;
* pocket is the largest component of this category;
if mcaid1~1 and welfare1~1 and mcare1~1 and (private1=1 or lifecar1=1 or pocket1=1 or vaffair1=1 or otsourc1=1) then apayer=3;

* rest is unknown (or 2, 8, 9 or blank on all eight sources);
if apayer=. then apayer=4;

format apayer paylab.;
label apayer = "Payment/past month/billing period";
run;
proc freq; tables apayer; weight samwt; run;
```

STATA CODE FOR COPYING INTO A STATA “DO” FILE

```
# delimit;
use “[location of source data\name of source data]”, clear;

* code payer as Medicaid if Medicaid and not Medicare;
gen apayer=1 if (mcaid1==1 | welfare1==1) & mcare1~=1;

* code payer as Medicare if Medicare and not Medicaid or if Medicare and Medicaid;
replace apayer=2 if mcare1==1;

* code payer as Other if resident has a source other than Medicaid or Medicaid but not Medicaid or
Medicare;

* pocket is the largest component of this category;
replace apayer=3 if mcaid1~=1 & welfare1~=1 & mcare1~=1 & (private1==1 | lifecar1==1 | pocket1==1
| vaffair1==1 | otsourc1==1);

* rest is unknown (or 2, 8, 9 or blank on all eight sources);
replace apayer=4 if apayer==.;

label values apayer paylab;
label variable apayer "Payment/first month/billing period";
tab apayer [weight=samwt], m;
```

PAYMENT SOURCES FOR RESIDENT’S CURRENT ADMISSION- PAST MONTH/ BILLING PERIOD

SAS CODE FOR RECODES IN DATA STEP

```
proc format;
value paylab 1="Medicaid" 2="Medicare" 3="Out-of-Pocket and Other" 4="Unknown";
run;

data [name temp file];
set [name of source data file];

* code payer as Medicaid if Medicaid and not Medicare or if Medicaid and Medicare and LOS>100;
if ((mcaid2=1 or welfare2=1) and mcare2~=1) or ((mcaid2=1 or welfare2=1) and mcare2=1 and los gt
100 and los lt 88888) then payer=1;

* code payer as Medicare if Medicare and not Medicaid or if Medicare and Medicaid and LOS<=100;
if (mcare2=1 and mcaid2~=1 and welfare2~=1) or (mcare2=1 and (mcaid2=1 or welfare2=1) and los le
100) then payer=2;

* code payer as Other if resident has a source other than Medicaid or Medicaid but not Medicaid or
Medicare;
* pocket is the largest component of this category;
if mcaid2~=1 and welfare2~=1 and mcare2~=1 and (private2=1 or lifecar2=1 or pocket2=1 or vaffair2=1
or otsourc2=1) then payer=3;

* rest is unknown (or 2, 8, 9 or blank on all eight sources);
if payer=. then payer=4;

format payer paylab.;
label payer = "Payment/past month/billing period";
run;
proc freq; tables payer; weight samwt; run;
```

STATA CODE FOR COPYING INTO A STATA "DO" FILE

```
# delimit;
use "[location of source data\name of source data]", clear;

* code payer as Medicaid if Medicaid and not Medicare or if Medicaid and Medicare and LOS>100;
gen payer=1 if ((mcaid2==1 | welfare2==1) & mcare2~=1) | ((mcaid2==1 | welfare2==1) & mcare2==1
& los>100 & los<88888);

* code payer as Medicare if Medicare and not Medicaid or if Medicare and Medicaid and LOS<=100;
replace payer=2 if (mcare2==1 & mcaid2~=1 & welfare2~=1) | (mcare2==1 & (mcaid2==1 |
welfare2==1) & los<=100);

* code payer as Other if resident has a source other than Medicaid or Medicaid but not Medicaid or
Medicare;
* pocket is the largest component of this category;
replace payer=3 if mcaid2~=1 & welfare2~=1 & mcare2~=1 & (private2==1 | lifecar2==1 | pocket2==1 |
vaffair2==1 | otsourc2==1);

* rest is unknown (or 2, 8, 9 or blank on all eight sources);
replace payer=4 if payer==.;

label define paylab 1 "Medicaid" 2 "Medicare" 3 "Out-of-Pocket and Other" 4 "Unknown";
label values payer paylab;
label variable payer "Payment/past month/billing period";
tab payer [weight=samwt], m;
```