STaTa
Statistics/Data Analysis

```
   --------------------------------------------------------------------------
         name:  <unnamed>
          log:  E:\nhats\nhats_code\NHATS data setup\logs\5_nhats_cleaning_17_Apr_2
   > 019.smcl
     log type:  text
    opened on:  17 Apr 2019, 15:37:55

1 .
2 .
3 .
4 .
5 . ***********************************************
6 .
7 . cd "${work}"
   E:\nhats\data\NHATS working data

8 . **************************************************************
9 . //get all 3 waves helper imputed hours into a single dataset
10.
11. use R1_hrs_imputed_added.dta

12.
13. local keepvars spid wave opid op_hrsmth_i numact yearnotmonth disab ///
   >  justone spouse otherrel nonrel regular oneact impute_cat opishelper_allw paid
   >  ///
   >  op_adl* op_iadl* op_nonadl* son daughter oth_fam rc_staff op_doc_help op_sn o
   > p_age

14.
15. forvalues w=2/$w{
      2. qui append using R`w'_hrs_imputed_added.dta
      3.
16. }

17.
18. tab wave opishelper_allw, missing

      Survey |    opishelper_allw
        wave |        -1          1 |     Total
   ----------+----------------------+----------
           1 |    26,500     11,597 |    38,097
           2 |    28,120      9,824 |    37,944
           3 |    27,332      8,413 |    35,745
           4 |    25,931      7,085 |    33,016
           5 |    39,861     12,424 |    52,285
           6 |    40,006     11,168 |    51,174
           7 |    39,533      9,532 |    49,065
   ----------+----------------------+----------
       Total |   227,283     70,043 |   297,326

19.
20. //  age categories
21. egen op_age=rowmax(dage)

22. label val op_age dage

23. replace op_age=. if inlist(op_age, -8, -7, -1, .)
   (144,342 real changes made, 144,342 to missing)
```

```
24.
25.
26.
27. //identify paid helpers and staff at residence (not helpers)
28. gen paid=0

29. gen rc_staff=0

30. forvalues w=1/$w {
    2.          replace paid=1 if paidh==1 & ((relat>=30 & relat<=40)| ///
  >         relat==92) & wave==`w'
    3.          foreach x of varlist hlp *hlp1 *hlp2 *hlpmst {
    4.                  replace rc_staff=1 if relat==37 & `x'==1 & wave==`w'
    5. }
    6. }
  (859 real changes made)
  (0 real changes made)
  (55 real changes made)
  (7 real changes made)
  (25 real changes made)
  (894 real changes made)
  (0 real changes made)
  (5 real changes made)
  (1 real change made)
  (25 real changes made)
  (369 real changes made)
  (0 real changes made)
  (3 real changes made)
  (0 real changes made)
  (27 real changes made)
  (406 real changes made)
  (0 real changes made)
  (2 real changes made)
  (0 real changes made)
  (31 real changes made)
  (1,221 real changes made)
  (0 real changes made)
  (4 real changes made)
  (0 real changes made)
  (30 real changes made)
  (532 real changes made)
  (0 real changes made)
  (10 real changes made)
  (3 real changes made)
  (34 real changes made)
  (1,000 real changes made)
  (0 real changes made)
  (7 real changes made)
  (0 real changes made)
  (29 real changes made)

31.
32. gen op_sn=0

33. forvalues w=1/$w {
    2.          replace op_sn=socl==1 if wave==`w'
    3. }
  (13,406 real changes made)
  (10,743 real changes made)
  (9,445 real changes made)
  (7,964 real changes made)
  (15,335 real changes made)
  (13,196 real changes made)
  (11,735 real changes made)
```

```
34. label var op_sn "OP in SP's social network"

35.
36. keep `keepvars'

37.
38. replace opishelper_allw=0 if opishelper_allw==-1
  (227,283 real changes made)

39. replace op_hrsmth_i=. if op_hrsmth_i==-1
  (227,283 real changes made, 227,283 to missing)

40. ****************************************************************
41. //identify primary helper, person with the most hours / month using imputed ho
  > urs
42. sort spid wave opid spouse

43.
44. gen primary_cg=0

45. egen max_hrs_helped=max(op_hrsmth_i) if opishelper_allw==1, by(spid wave)
  (227283 missing values generated)

46. replace primary_cg=1 if op_hrsmth_i==max_hrs_helped & opishelper_allw==1
  (37,829 real changes made)

47. tab primary_cg wave, missing
```

			Survey wave			
primary_cg	1	2	3	4	5	Total
0	31,264	32,449	31,325	29,322	45,616	259,497
1	6,833	5,495	4,420	3,694	6,669	37,829
Total	38,097	37,944	35,745	33,016	52,285	297,326

	Survey wave		
primary_cg	6	7	Total
0	45,423	44,098	259,497
1	5,751	4,967	37,829
Total	51,174	49,065	297,326

```
48.
49. //check that each sp has 1 primary cg identified, doesn't matter!
50. egen num_primary_cg=total(primary_cg), by(spid wave)

51. tab num_primary_cg wave, missing
```

num_primar			Survey wave			
y_cg	1	2	3	4	5	Total
0	4,738	6,594	6,729	6,210	8,886	52,232
1	31,436	29,780	27,771	25,671	41,756	234,234
2	1,575	1,370	1,116	1,027	1,461	9,653
3	258	169	119	78	159	956
4	61	23	10	22	14	174
5	12	0	0	8	0	43
6	17	0	0	0	0	17
7	0	8	0	0	0	8
9	0	0	0	0	9	9
Total	38,097	37,944	35,745	33,016	52,285	297,326

```
num_primar |      Survey wave
     y_cg |          6           7 |      Total
-----------+----------------------+----------
        0 |      9,284       9,791 |     52,232
        1 |     40,198      37,622 |    234,234
        2 |      1,574       1,530 |      9,653
        3 |         93          80 |        956
        4 |         12          32 |        174
        5 |         13          10 |         43
        6 |          0           0 |         17
        7 |          0           0 |          8
        9 |          0           0 |          9
-----------+----------------------+----------
    Total |     51,174      49,065 |    297,326
```

52.
53. //assign relationship to primary helper
54. //if same number of hours for two different helpers, then assign to spouse fir
  > st
55. gen prim_helper_cat=1 if primary_cg==1 & spouse==1
  (280,849 missing values generated)

56. replace prim_helper_cat=2 if primary_cg==1 & otherrel==1 & prim_helper_cat==.
  (15,620 real changes made)

57. replace prim_helper_cat=3 if prim_helper_cat==.
  (265,229 real changes made)

58. la def helpcat 1"Spouse" 2"Other relative" 3"Other, not relative"

59. la val prim_helper_cat helpcat

60. tab prim_helper_cat wave, missing

```
                   |                    Survey wave
    prim_helper_cat |         1          2          3          4 |      Total
-------------------+----------------------------------------------+----------
            Spouse |     3,122      2,386      1,900      1,502 |     16,477
    Other relative |     2,845      2,278      1,812      1,578 |     15,620
Other, not relative |    32,130     33,280     32,033     29,936 |    265,229
-------------------+----------------------------------------------+----------
             Total |    38,097     37,944     35,745     33,016 |    297,326
```

```
                   |              Survey wave
    prim_helper_cat |         5          6          7 |      Total
-------------------+--------------------------------+----------
            Spouse |     2,991      2,449      2,127 |     16,477
    Other relative |     2,668      2,368      2,071 |     15,620
Other, not relative |    46,626     46,357     44,867 |    265,229
-------------------+--------------------------------+----------
             Total |    52,285     51,174     49,065 |    297,326
```

61.
62. //get categorical relationship
63. gen op_relationship_cat=6

64. local i=1

```
65. foreach x in spouse daughter son oth_fam paid {
    2.          replace op_relationship_cat=`i' if `x'==1
    3.          local i=`i'+1
    4. }
  (20,932 real changes made)
  (70,229 real changes made)
  (68,581 real changes made)
  (62,715 real changes made)
  (5,281 real changes made)

66. label define op_relationship_cat 1 "Spouse/Partner" 2 "Daughter (incl. step-/-
  > in-law)" ///
  > 3 "Son (incl. step-/-in-law)" 4 "Other family" 5 "Paid CG" 6 "Unpaid non-famil
  > y CG"

67. label values op_relationship_cat op_relationship_cat

68.
69. //get total number hours/month help received and number of helpers per spid/wa
  > ve
70. egen tot_hrsmonth_help_i=total(op_hrsmth_i), by(spid wave)

71. egen n_helpers=count(op_hrsmth_i), by(spid wave)

72. gen tot_hrswk_help_i=tot_hrsmonth_help_i/(52/12)

73. //family caregivers
74. gen op_family=op_relationship_cat<=4 if opishelper==1
  (227,283 missing values generated)

75. label var op_family "OP is family helper"

76. egen n_family_helpers=total(op_family),by(spid wave)

77. label var n_family_helpers "Number family helpers"

78. gen ind_family_helper=n_family_helpers>0

79. label var ind_family_helper "Indicatory any family helpers"

80. //paid caregivers
81. egen n_paid_helpers=total(paid), by(spid wave)

82. gen ind_paid_helper=n_paid_helpers>0

83. label var n_paid_helpers "Number paid helpers"

84. label var ind_paid_helper "Indicator any paid helpers"

85. egen ind_rc_staff=max(rc_staff), by(spid wave)

86. label var ind_rc_staff "Indicator Facility Staff in OP file"

87. gen num_helpers_cat=0

88. replace num_helpers_cat=1 if n_helpers>0 & n_helpers<.
  (245,094 real changes made)

89. replace num_helpers_cat=2 if n_helpers>3 & n_helpers<.
  (32,590 real changes made)
```

```
90. replace num_helpers_cat=3 if n_helpers>=7 & n_helpers<.
   (2,745 real changes made)

91. label define num_helpers_cat 0 "No helpers" 1 "1-3 helpers" 2 "4-6 helpers" //
   > /
   > 3 "7+ helpers"

92. label values num_helpers_cat num_helpers_cat

93.
94. gen phrs=op_hrsmth_i if paid==1
   (292,045 missing values generated)

95. egen tot_hrsmonth_paid_i=total(phrs), by(spid wave)

96. gen tot_hrswk_paid_i=tot_hrsmonth_paid_i/(52/12)

97. label var tot_hrsmonth_paid_i "Hours/month help recived, paid helpers, imputed
   > "

98. label var tot_hrswk_paid_i "Hours/week help received, paid helpers, imputed"

99. gen op_hrswk_i=op_hrsmth_i/(52/12)
   (227,283 missing values generated)

100 label var op_hrswk_i "OP hours/week help SP"

101
102 la var tot_hrsmonth_help_i "Hours / month help received, all helpers, imputed"

103 sum tot_hrsmonth_help_i, detail
```

```
        Hours / month help received, all helpers, imputed
    -------------------------------------------------------------
          Percentiles      Smallest
     1%            0               0
     5%            0               0
    10%            0               0        Obs            297,326
    25%            4               0        Sum of Wgt.    297,326

    50%         27.5                        Mean          93.41678
                             Largest        Std. Dev.     185.5261
    75%           90         2661.06
    90%       242.48         2661.06        Variance      34419.93
    95%          480         2661.06        Skewness      3.869629
    99%     834.1727         2661.06        Kurtosis      23.51947
```

```
104 la var tot_hrswk_help_i "Hours / week help received, all helpers, imputed"

105
106 la var n_helpers "Number helpers reported by SP"

107 tab n_helpers wave, missing
```

Number helpers reported by SP	\	Survey wave				\	Total
		1	2	3	4	5	
0	|	4,738	6,594	6,729	6,210	8,886 |	52,232
1	|	15,424	13,403	11,036	10,098	17,418 |	97,790
2	|	9,665	9,295	9,107	8,489	13,100 |	74,830
3	|	4,659	4,930	4,928	4,405	6,895 |	39,884
4	|	2,044	2,071	2,131	2,165	3,400 |	18,128
5	|	892	1,026	1,091	977	1,462 |	8,559
6	|	356	372	466	342	470 |	3,158
7	|	203	97	148	121	335 |	1,492
8	|	73	64	44	64	125 |	568
9	|	20	59	65	41	126 |	412
10	|	10	22	0	48	40 |	120
11	|	0	11	0	41	16 |	85
12	|	13	0	0	0	12 |	37

```
        13 |          0          0          0         15          0 |         31
  ----------+-------------------------------------------------------+----------
     Total |     38,097     37,944     35,745     33,016     52,285 |    297,326


     Number |
    helpers |
   reported |       Survey wave
      by SP |          6          7 |      Total
  ----------+-----------------------+----------
         0 |      9,284      9,791 |     52,232
         1 |     15,620     14,791 |     97,790
         2 |     12,869     12,305 |     74,830
         3 |      7,244      6,823 |     39,884
         4 |      3,310      3,007 |     18,128
         5 |      1,694      1,417 |      8,559
         6 |        620        532 |      3,158
         7 |        375        213 |      1,492
         8 |         87        111 |        568
         9 |         71         30 |        412
        10 |          0          0 |        120
        11 |          0         17 |         85
        12 |          0         12 |         37
        13 |          0         16 |         31
  ----------+-----------------------+----------
     Total |     51,174     49,065 |    297,326
```

108 la var prim_helper_cat "Primary helper relationship, missing if no helper"

109 tab prim_helper_cat wave, missing

```
 Primary helper |
   relationship, |
   missing if no |                  Survey wave
          helper |          1          2          3          4 |      Total
 ----------------+-------------------------------------------------------+----------
          Spouse |      3,122      2,386      1,900      1,502 |     16,477
  Other relative |      2,845      2,278      1,812      1,578 |     15,620
Other, not relative |   32,130     33,280     32,033     29,936 |    265,229
 ----------------+-------------------------------------------------------+----------
           Total |     38,097     37,944     35,745     33,016 |    297,326


 Primary helper |
   relationship, |
   missing if no |            Survey wave
          helper |          5          6          7 |      Total
 ----------------+--------------------------------------+----------
          Spouse |      2,991      2,449      2,127 |     16,477
  Other relative |      2,668      2,368      2,071 |     15,620
Other, not relative |   46,626     46,357     44,867 |    265,229
 ----------------+--------------------------------------+----------
           Total |     52,285     51,174     49,065 |    297,326
```

110
111 la var tot_hrsmonth_help_i "Hours / month help received, all helpers, imputed"

112 sum tot_hrsmonth_help_i, detail

```
       Hours / month help received, all helpers, imputed
  -------------------------------------------------------------
        Percentiles      Smallest
   1%            0             0
   5%            0             0
  10%            0             0       Obs             297,326
  25%            4             0       Sum of Wgt.     297,326
```

```
   50%         27.5                      Mean            93.41678
                              Largest    Std. Dev.       185.5261
   75%           90           2661.06
   90%        242.48          2661.06    Variance        34419.93
   95%          480           2661.06    Skewness        3.869629
   99%       834.1727         2661.06    Kurtosis        23.51947
```

113 la var tot_hrswk_help_i "Hours / week help received, all helpers, imputed"

114
115 la var n_helpers "Number helpers reported by SP"

116 tab n_helpers wave, missing

```
 Number |
 helpers |
 reported |                        Survey wave
   by SP |       1         2         3         4         5 |      Total
----------+-------------------------------------------------+----------
       0 |   4,738     6,594     6,729     6,210     8,886 |    52,232
       1 |  15,424    13,403    11,036    10,098    17,418 |    97,790
       2 |   9,665     9,295     9,107     8,489    13,100 |    74,830
       3 |   4,659     4,930     4,928     4,405     6,895 |    39,884
       4 |   2,044     2,071     2,131     2,165     3,400 |    18,128
       5 |     892     1,026     1,091       977     1,462 |     8,559
       6 |     356       372       466       342       470 |     3,158
       7 |     203        97       148       121       335 |     1,492
       8 |      73        64        44        64       125 |       568
       9 |      20        59        65        41       126 |       412
      10 |      10        22         0        48        40 |       120
      11 |       0        11         0        41        16 |        85
      12 |      13         0         0         0        12 |        37
      13 |       0         0         0        15         0 |        31
----------+-------------------------------------------------+----------
   Total |  38,097    37,944    35,745    33,016    52,285 |   297,326


 Number |
 helpers |
 reported |    Survey wave
   by SP |       6         7 |      Total
----------+--------------------+----------
       0 |   9,284     9,791 |    52,232
       1 |  15,620    14,791 |    97,790
       2 |  12,869    12,305 |    74,830
       3 |   7,244     6,823 |    39,884
       4 |   3,310     3,007 |    18,128
       5 |   1,694     1,417 |     8,559
       6 |     620       532 |     3,158
       7 |     375       213 |     1,492
       8 |      87       111 |       568
       9 |      71        30 |       412
      10 |       0         0 |       120
      11 |       0        17 |        85
      12 |       0        12 |        37
      13 |       0        16 |        31
----------+--------------------+----------
   Total |  51,174    49,065 |   297,326
```

```
117 la var prim_helper_cat "Primary helper relationship, missing if no helper"

118 tab prim_helper_cat wave, missing
```

```
      Primary helper |
        relationship, |
       missing if no |                  Survey wave
             helper |        1          2          3          4 |     Total
-------------------+--------------------------------------------+----------
             Spouse |    3,122      2,386      1,900      1,502 |    16,477
      Other relative |    2,845      2,278      1,812      1,578 |    15,620
 Other, not relative |   32,130     33,280     32,033     29,936 |   265,229
-------------------+--------------------------------------------+----------
              Total |   38,097     37,944     35,745     33,016 |   297,326
```

```
      Primary helper |
        relationship, |
       missing if no |           Survey wave
             helper |        5          6          7 |     Total
-------------------+--------------------------------+----------
             Spouse |    2,991      2,449      2,127 |    16,477
      Other relative |    2,668      2,368      2,071 |    15,620
 Other, not relative |   46,626     46,357     44,867 |   265,229
-------------------+--------------------------------+----------
              Total |   52,285     51,174     49,065 |   297,326
```

```
119
120
121 //number in social network
122 by spid wave, sort: egen n_sn=total(op_sn)

123 replace n_sn=0 if missing(n_sn)
  (0 real changes made)

124 label var n_sn "Number in social network"

125
126 //save as op file before dropping down to one obs per spid
127 saveold "E:/nhats/data/NHATS cleaned/op_round_1_${w}.dta", replace version(12)
  (saving in Stata 12 format, which can be read by Stata 11 or 12)
  file E:/nhats/data/NHATS cleaned/op_round_1_7.dta saved

128
129 //keep the entry for the primary caregiver only, this will then be the
130 //information merged into the SP dataset
131 keep if primary_cg==1
  (259,497 observations deleted)

132
133 //sort and keep only first primary cg, again preference given if spouse
134 gsort spid wave -spouse otherrel opid

135 duplicates drop spid wave, force

  Duplicates in terms of spid wave

  (1,662 observations deleted)
```

```
136
137 //now one obs per sp - wave
138
139 sum tot_hrsmonth_help_i, detail
```

```
          Hours / month help received, all helpers, imputed
      -------------------------------------------------------------
           Percentiles      Smallest
   1%            0                0
   5%            2                0
  10%            4                0        Obs              36,167
  25%     12.67796                0        Sum of Wgt.      36,167

  50%     36.17251                         Mean            108.6939
                             Largest       Std. Dev.       192.8727
  75%       103.92          2290.57
  90%          273           2537          Variance        37199.88
  95%       621.97         2581.12         Skewness        3.511812
  99%          836         2661.06         Kurtosis        19.63268
```

```
140 tab n_helpers wave, missing
```

```
   Number |
   helpers |
  reported |                        Survey wave
     by SP |        1         2         3         4         5 |     Total
-----------+-------------------------------------------------------+----------
         1 |    3,356     2,526     1,856     1,529     2,982 |    16,670
         2 |    1,817     1,528     1,326     1,115     1,931 |    10,927
         3 |      764       733       627       516       889 |     5,104
         4 |      302       266       245       227       379 |     2,062
         5 |      123       113       116        94       146 |       876
         6 |       39        38        47        33        44 |       301
         7 |       22        10        15        10        27 |       130
         8 |        8         5         4         5        10 |        46
         9 |        2         5         5         3         9 |        32
        10 |        1         2         0         3         3 |         9
        11 |        0         1         0         2         1 |         5
        12 |        1         0         0         0         1 |         3
        13 |        0         0         0         1         0 |         2
-----------+-------------------------------------------------------+----------
     Total |    6,435     5,227     4,241     3,538     6,422 |    36,167
```

```
   Number |
   helpers |
  reported |     Survey wave
     by SP |        6         7 |     Total
-----------+--------------------+----------
         1 |    2,374     2,047 |    16,670
         2 |    1,718     1,492 |    10,927
         3 |      841       734 |     5,104
         4 |      347       296 |     2,062
         5 |      161       123 |       876
         6 |       55        45 |       301
         7 |       30        16 |       130
         8 |        6         8 |        46
         9 |        6         2 |        32
        10 |        0         0 |         9
        11 |        0         1 |         5
        12 |        0         1 |         3
        13 |        0         1 |         2
-----------+--------------------+----------
     Total |    5,538     4,766 |    36,167
```

```
141 tab prim_helper_cat wave, missing

     Primary helper |
      relationship, |
      missing if no |              Survey wave
             helper |        1          2          3          4 |     Total
    -------------------+--------------------------------------------+----------
             Spouse |    3,122      2,386      1,900      1,502 |    16,477
      Other relative |    2,498      2,049      1,649      1,449 |    14,195
  Other, not relative |      815        792        692        587 |     5,495
    -------------------+--------------------------------------------+----------
              Total |    6,435      5,227      4,241      3,538 |    36,167


     Primary helper |
      relationship, |
      missing if no |              Survey wave
             helper |        5          6          7 |     Total
    -------------------+---------------------------------+----------
             Spouse |    2,991      2,449      2,127 |    16,477
      Other relative |    2,468      2,185      1,897 |    14,195
  Other, not relative |      963        904        742 |     5,495
    -------------------+---------------------------------+----------
              Total |    6,422      5,538      4,766 |    36,167


142 ************************************************************
143 //merge this helper data with the main SP dataset
144 save helper_by_sp.dta, replace
  file helper_by_sp.dta saved

145
146 use round_1_${w}_cleanv3, clear

147
148 merge 1:1 spid wave using helper_by_sp.dta, keepusing(opid n_helpers n_fam ind
  > _fam ///
  > tot_hrsmonth_* prim_helper_cat ind_pa n_pai tot_hrswk* num_helpers_cat ind_rc
  > _*)

     Result                          # of obs.
     -----------------------------------------
     not matched                       11,611
         from master                   11,611  (_merge==1)
         from using                         0  (_merge==2)

     matched                           36,167  (_merge==3)
     -----------------------------------------

149
150 drop _merge

151
152 foreach x in n_helpers ind_pa n_paid num_helpers_cat{
  2. replace `x'=0 if `x'==.
  3. }
  (11,611 real changes made)
  (11,611 real changes made)
  (11,611 real changes made)
  (11,611 real changes made)
```

```
153
154 gen ind_no_helpers=.
   (47,778 missing values generated)

155 replace ind_no_helpers=1 if n_helpers==0
   (11,611 real changes made)

156 replace ind_no_helpers=0 if n_helpers>0
   (36,167 real changes made)

157 la var ind_no_helpers "Indicator no Helpers reported"

158 tab ind_no_helpers wave, missing
```

Indicator no Helpers reported	Survey wave 1	2	3	4	5	Total
0	6,435	5,227	4,241	3,538	6,422	36,167
1	1,810	1,848	1,558	1,199	1,912	11,611
Total	8,245	7,075	5,799	4,737	8,334	47,778

Indicator no Helpers reported	Survey wave 6	7	Total
0	5,538	4,766	36,167
1	1,738	1,546	11,611
Total	7,276	6,312	47,778

```
159
160 la var tot_hrsmonth_help_i "Hours / month help received, all helpers, imputed"

161 sum tot_hrsmonth_help_i, detail
```

```
        Hours / month help received, all helpers, imputed
    -------------------------------------------------------------
         Percentiles      Smallest
  1%            0               0
  5%            2               0
 10%            4               0          Obs              36,167
 25%     12.67796               0          Sum of Wgt.      36,167

 50%     36.17251                          Mean           108.6939
                          Largest          Std. Dev.      192.8727
 75%       103.92         2290.57
 90%          273            2537          Variance       37199.88
 95%       621.97         2581.12          Skewness       3.511812
 99%          836         2661.06          Kurtosis       19.63268
```

```
162 la var tot_hrswk_help_i "Hours / week help received, all helpers, imputed"

163
164 la var n_helpers "Number helpers reported by SP"

165 tab n_helpers wave, missing
```

```
   Number |
  helpers |
 reported |                    Survey wave
    by SP |       1          2          3          4          5 |     Total
----------+-------------------------------------------------------+----------
        0 |     1,810      1,848      1,558      1,199      1,912 |    11,611
        1 |     3,356      2,526      1,856      1,529      2,982 |    16,670
        2 |     1,817      1,528      1,326      1,115      1,931 |    10,927
        3 |       764        733        627        516        889 |     5,104
        4 |       302        266        245        227        379 |     2,062
        5 |       123        113        116         94        146 |       876
        6 |        39         38         47         33         44 |       301
        7 |        22         10         15         10         27 |       130
        8 |         8          5          4          5         10 |        46
        9 |         2          5          5          3          9 |        32
       10 |         1          2          0          3          3 |         9
       11 |         0          1          0          2          1 |         5
       12 |         1          0          0          0          1 |         3
       13 |         0          0          0          1          0 |         2
----------+-------------------------------------------------------+----------
    Total |     8,245      7,075      5,799      4,737      8,334 |    47,778
```

```
   Number |
  helpers |
 reported |     Survey wave
    by SP |       6          7 |     Total
----------+--------------------+----------
        0 |     1,738      1,546 |    11,611
        1 |     2,374      2,047 |    16,670
        2 |     1,718      1,492 |    10,927
        3 |       841        734 |     5,104
        4 |       347        296 |     2,062
        5 |       161        123 |       876
        6 |        55         45 |       301
        7 |        30         16 |       130
        8 |         6          8 |        46
        9 |         6          2 |        32
       10 |         0          0 |         9
       11 |         0          1 |         5
       12 |         0          1 |         3
       13 |         0          1 |         2
----------+--------------------+----------
    Total |     7,276      6,312 |    47,778
```

166 la var prim_helper_cat "Primary helper relationship, missing if no helper"

167 tab prim_helper_cat wave, missing

```
    Primary helper |
      relationship, |
      missing if no |               Survey wave
             helper |       1          2          3          4 |     Total
-------------------+-----------------------------------------+----------
            Spouse |     3,122      2,386      1,900      1,502 |    16,477
    Other relative |     2,498      2,049      1,649      1,449 |    14,195
Other, not relative |      815        792        692        587 |     5,495
                 . |     1,810      1,848      1,558      1,199 |    11,611
-------------------+-----------------------------------------+----------
             Total |     8,245      7,075      5,799      4,737 |    47,778
```

```
        Primary helper |
         relationship, |
         missing if no |              Survey wave
                helper |         5          6          7 |      Total
  ---------------------+-------------------------------+----------
                Spouse |     2,991      2,449      2,127 |     16,477
        Other relative |     2,468      2,185      1,897 |     14,195
    Other, not relative|       963        904        742 |      5,495
                     . |     1,912      1,738      1,546 |     11,611
  ---------------------+-------------------------------+----------
                 Total |     8,334      7,276      6,312 |     47,778


168
169 rename opid prim_helper_opid

170 destring prim_helper_opid, replace
  prim_helper_opid: all characters numeric; replaced as byte
  (11611 missing values generated)

171 la var prim_helper_opid "Primary helper OPID"

172
173 ****************************************************************
174 //save the dataset with helper information added
175
176 save round_1_${w}_clean_helper_added.dta, replace
  file round_1_7_clean_helper_added.dta saved

177
178 saveold round_1_${w}_clean_helper_added_old.dta, replace
  (saving in Stata 13 format)
  (FYI, saveold has options version(12) and version(11) that write files in
       older Stata formats)
    note: variable label "R2 F SS DEAF PRIOR OR CURRENT ROUND " contains unicode
         and thus may not display well in Stata 13.
  file round_1_7_clean_helper_added_old.dta saved

179
180 ****************************************************************
181 log close
        name:  <unnamed>
         log:  E:\nhats\nhats_code\NHATS data setup\logs\5_nhats_cleaning_17_Apr_2
  > 019.smcl
    log type:  text
   closed on:  17 Apr 2019, 15:38:13
  --------------------------------------------------------------------------------
```