



```
-----
      name: <unnamed>
      log:  E:\nhats\nhats_code\NHATS data setup\logs\3_nhats_cleaning_19_Apr_
> 2019.smcl
      log type: text
      opened on: 19 Apr 2019, 16:26:37
```

```
1 .
2 .
3 .
4 . cd "${work}"
   E:\nhats\data\NHATS working data

5 .
6 . *****
7 .
8 . use round_1_${w}_cleanv1.dta, clear

9 .
10. *****
11. tab wave, missing
```

Survey wave	Freq.	Percent	Cum.
1	8,245	17.26	17.26
2	7,075	14.81	32.06
3	5,799	12.14	44.20
4	4,737	9.91	54.12
5	8,334	17.44	71.56
6	7,276	15.23	86.79
7	6,312	13.21	100.00
Total	47,778	100.00	

```
12.
13. *****
14. *****
15. //self reported health status/conditions
16. *****
17. *****
18. gen srh=.
    (47,778 missing values generated)
```

```
19. forvalues w=1/$w{
    2. tab health if wave==`w', missing
    3. replace srh=health if wave==`w'
    4. }
```

R1 HC1 OVERALL HEALTH CONDITION	Freq.	Percent	Cum.
-9 Missing	168	2.04	2.04
-8 DK	6	0.07	2.11
-1 Inapplicable	468	5.68	7.79
1 EXCELLENT	938	11.38	19.16
2 VERY GOOD	2,029	24.61	43.77
3 GOOD	2,426	29.42	73.20
4 FAIR	1,607	19.49	92.69
5 POOR	603	7.31	100.00
Total	8,245	100.00	

(8,245 real changes made)

R1 HC1 OVERALL			
HEALTH			
CONDITION	Freq.	Percent	Cum.
-9 Missing	190	2.69	2.69
-8 DK	6	0.08	2.77
-1 Inapplicable	829	11.72	14.49
1 EXCELLENT	698	9.87	24.35
2 VERY GOOD	1,709	24.16	48.51
3 GOOD	2,000	28.27	76.78
4 FAIR	1,220	17.24	94.02
5 POOR	423	5.98	100.00
Total	7,075	100.00	
(7,075 real changes made)			

R1 HC1 OVERALL			
HEALTH			
CONDITION	Freq.	Percent	Cum.
-9 Missing	179	3.09	3.09
-8 DK	2	0.03	3.12
-1 Inapplicable	736	12.69	15.81
1 EXCELLENT	522	9.00	24.81
2 VERY GOOD	1,411	24.33	49.15
3 GOOD	1,658	28.59	77.74
4 FAIR	985	16.99	94.72
5 POOR	306	5.28	100.00
Total	5,799	100.00	
(5,799 real changes made)			

R1 HC1 OVERALL			
HEALTH			
CONDITION	Freq.	Percent	Cum.
-9 Missing	156	3.29	3.29
-8 DK	3	0.06	3.36
-7 RF	1	0.02	3.38
-1 Inapplicable	544	11.48	14.86
1 EXCELLENT	406	8.57	23.43
2 VERY GOOD	1,225	25.86	49.29
3 GOOD	1,379	29.11	78.40
4 FAIR	773	16.32	94.72
5 POOR	250	5.28	100.00
Total	4,737	100.00	
(4,737 real changes made)			

R1 HC1 OVERALL			
HEALTH			
CONDITION	Freq.	Percent	Cum.
-9 Missing	179	2.15	2.15
-8 DK	8	0.10	2.24
-1 Inapplicable	579	6.95	9.19
1 EXCELLENT	855	10.26	19.45
2 VERY GOOD	2,116	25.39	44.84
3 GOOD	2,593	31.11	75.95
4 FAIR	1,550	18.60	94.55
5 POOR	454	5.45	100.00
Total	8,334	100.00	
(8,334 real changes made)			

R1 HC1 OVERALL HEALTH CONDITION				
	Freq.	Percent	Cum.	
-9 Missing	177	2.43	2.43	
-8 DK	3	0.04	2.47	
-7 RF	1	0.01	2.49	
-1 Inapplicable	689	9.47	11.96	
1 EXCELLENT	688	9.46	21.41	
2 VERY GOOD	1,867	25.66	47.07	
3 GOOD	2,225	30.58	77.65	
4 FAIR	1,275	17.52	95.18	
5 POOR	351	4.82	100.00	
Total	7,276	100.00		

(7,276 real changes made)

R1 HC1 OVERALL HEALTH CONDITION				
	Freq.	Percent	Cum.	
-9 Missing	158	2.50	2.50	
-8 DK	3	0.05	2.55	
-1 Inapplicable	588	9.32	11.87	
1 EXCELLENT	550	8.71	20.58	
2 VERY GOOD	1,636	25.92	46.50	
3 GOOD	2,013	31.89	78.39	
4 FAIR	1,040	16.48	94.87	
5 POOR	324	5.13	100.00	
Total	6,312	100.00		

(6,312 real changes made)

20. replace srh=. if inlist(srh,-9,-1)
 (5,640 real changes made, 5,640 to missing)

21.

22. la var srh "Self reported health, categorical"

23. la def srh 1 "Excellent" 2 "Very good" 3 "Good" 4 "Fair" 5 "Poor"

24. la val srh srh

25. tab srh if ivw_type==1, missing

Self reported health, categorical				
	Freq.	Percent	Cum.	
-8	31	0.07	0.07	
-7	2	0.00	0.08	
Excellent	4,657	11.05	11.13	
Very good	11,993	28.46	39.59	
Good	14,294	33.92	73.51	
Fair	8,450	20.05	93.57	
Poor	2,711	6.43	100.00	
Total	42,138	100.00		

```

26.
27. gen srh_fp=1 if srh==4 | srh==5
   (36,617 missing values generated)

28. replace srh_fp=0 if inlist(srh,1,2,3)
   (30,944 real changes made)

29. replace srh_fp=-7 if srh == -7
   (2 real changes made)

30. replace srh_fp=-8 if srh == -8
   (31 real changes made)

31. la var srh_fp "Self reported health=fair/poor"

32. tab srh_fp srh, missing

```

Self reported health=fair/poor	Self reported health, categorical					Total
	-8	-7	Excellent	Very good	Good	
-8	31	0	0	0	0	31
-7	0	2	0	0	0	2
0	0	0	4,657	11,993	14,294	30,944
1	0	0	0	0	0	11,161
.	0	0	0	0	0	5,640
Total	31	2	4,657	11,993	14,294	47,778

Self reported health=fair/poor	Self reported health, categorical		.	Total
	Fair	Poor		
-8	0	0	0	31
-7	0	0	0	2
0	0	0	0	30,944
1	8,450	2,711	0	11,161
.	0	0	5,640	5,640
Total	8,450	2,711	5,640	47,778

```

33.
34. *****
35. //Self-Report Disease
36. *****
37. //Round 1 - ever told you had xx
38. //Round 2 - since the last interview, new condition?
39. /*
   > 1 heart attack
   > 2 heart disease
   > 3 high blood pressure
   > 4 arthritis
   > 5 osteoporosis
   > 6 diabetes
   > 7 lung disease
   > 8 stroke
   > 9 dementia
   > 10 cancer
   > create two sets of indicator variables for waves 2 and later
   > sr_disease_ever = 1 if ever report having the disease (only this variable in w
   > ave 1)
   > sr_disease_new = 1 if newly reported the disease this wave
   > */

```

```

40.
41. //heart attack / ami, asked both waves, for Wave 1 ask ever had, wave 2 ask in
> last year
42. //same questions for stroke, cancer
43.
44. capture program drop disease

45. program define disease
    1.     args dis num
    2.
46.     gen sr_`dis'_raw=.
        forvalues w=1/$w{
    3.         replace sr_`dis'_raw=1 if disescn`num'==1 & wave==`w'
    4.         replace sr_`dis'_raw=0 if disescn`num'==2 & wave==`w'
    5.         replace sr_`dis'_raw=-7 if disescn`num'==7 & wave==`w'
    6.         replace sr_`dis'_raw=-8 if disescn`num'==8 & wave==`w'
    7.         }
    8.     }
    9.     //create two new variables from this...
47.     gen sr_`dis'_ever=sr_`dis'_raw
    10.    replace sr_`dis'_ever=. if inrange(wave, 2, $w) & sr_`dis'_raw==0 /
> /set to missing if report no new wave
    11.    replace sr_`dis'_ever=-7 if sr_`dis'_raw == -7
    12.    replace sr_`dis'_ever=-8 if sr_`dis'_raw == -8
    13.
48.     sort spid wave
    14.     by spid (wave): carryforward sr_`dis'_ever if ivw_type==1 , replace
    15.
49.     replace sr_`dis'_ever = sr_`dis'_raw if inrange(wave,2,$w) & sr_`dis'_
> ever == . & sr_`dis'_raw != .
    16.
50.     gen sr_`dis'_new=sr_`dis'_raw if inrange(wave,2,$w)
    17.
51.     end

52.
53. //now run programs for specific disease variables
54. disease ami 1
    (47,778 missing values generated)
    (1,164 real changes made)
    (6,437 real changes made)
    (0 real changes made)
    (8 real changes made)
    (178 real changes made)
    (5,875 real changes made)
    (0 real changes made)
    (3 real changes made)
    (141 real changes made)
    (4,735 real changes made)
    (1 real change made)
    (7 real changes made)
    (114 real changes made)
    (3,917 real changes made)
    (0 real changes made)
    (6 real changes made)
    (622 real changes made)
    (6,936 real changes made)
    (0 real changes made)
    (18 real changes made)
    (160 real changes made)
    (6,243 real changes made)
    (0 real changes made)
    (7 real changes made)
    (150 real changes made)
    (5,407 real changes made)
    (0 real changes made)
    (9 real changes made)
    (5,640 missing values generated)
    (33,113 real changes made, 33,113 to missing)
    (0 real changes made)
    (0 real changes made)
    sr_ami_ever: (24599 real changes made)
    (8,514 real changes made)

```

(13,249 missing values generated)

55. disease stroke 8

(47,778 missing values generated)
(892 real changes made)
(6,709 real changes made)
(0 real changes made)
(8 real changes made)
(178 real changes made)
(5,871 real changes made)
(0 real changes made)
(7 real changes made)
(151 real changes made)
(4,727 real changes made)
(1 real change made)
(5 real changes made)
(133 real changes made)
(3,897 real changes made)
(0 real changes made)
(7 real changes made)
(476 real changes made)
(7,083 real changes made)
(0 real changes made)
(17 real changes made)
(165 real changes made)
(6,233 real changes made)
(0 real changes made)
(12 real changes made)
(158 real changes made)
(5,404 real changes made)
(0 real changes made)
(4 real changes made)
(5,640 missing values generated)
(33,215 real changes made, 33,215 to missing)
(0 real changes made)
(0 real changes made)
sr_stroke_ever: (24243 real changes made)
(8,972 real changes made)
(13,249 missing values generated)

56. disease cancer 10

(47,778 missing values generated)
(1,953 real changes made)
(5,653 real changes made)
(1 real change made)
(2 real changes made)
(355 real changes made)
(5,694 real changes made)
(0 real changes made)
(7 real changes made)
(275 real changes made)
(4,602 real changes made)
(1 real change made)
(6 real changes made)
(240 real changes made)
(3,792 real changes made)
(0 real changes made)
(5 real changes made)
(1,183 real changes made)
(6,386 real changes made)
(1 real change made)
(6 real changes made)
(375 real changes made)
(6,031 real changes made)
(0 real changes made)
(4 real changes made)
(369 real changes made)
(5,190 real changes made)
(0 real changes made)
(7 real changes made)
(5,640 missing values generated)
(31,695 real changes made, 31,695 to missing)

```
(0 real changes made)
(0 real changes made)
sr_cancer_ever: (24273 real changes made)
(7,422 real changes made)
(13,249 missing values generated)
```

```
57.
58. la var sr_ami_raw "Self report Heart Attack, Raw"
59. la var sr_ami_ever "Ever Self report Heart Attack"
60. la var sr_ami_new "Self report Heart Attack since prev year"
61. la var sr_stroke_raw "Self report Stroke, Raw"
62. la var sr_stroke_ever "Ever Self report Stroke"
63. la var sr_stroke_new "Self report Stroke since prev year"
64. la var sr_cancer_raw "Self report Cancer, Raw"
65. la var sr_cancer_ever "Ever Self report Cancer"
66. la var sr_cancer_new "Self report Cancer since prev year"
67.
68. notes sr_ami_raw: disescn1
69. notes sr_ami_raw: Had a heart attack or myocardial infarction (self-report).
70. notes sr_stroke_raw: disescn8
71. notes sr_stroke_raw: Had a stroke (self-report).
72. notes sr_cancer_raw: disescn10
73. notes sr_cancer_raw: Had cancer (self-report).
74.
75. notes sr_ami_ever: sr_ami_raw
76. notes sr_ami_ever: If ever had a heart attack or myocardial infarction (self-r
  > eport).
77. notes sr_stroke_ever: sr_stroke_raw
78. notes sr_stroke_ever: If ever had a stroke (self-report).
79. notes sr_cancer_ever: sr_cancer_raw
80. notes sr_cancer_ever: If ever had cancer (self-report).
81.
82. notes sr_ami_new: sr_ami_raw
83. notes sr_ami_new: If heart attack or myocardial infarction within last year (s
  > elf-report).
84. notes sr_stroke_new: sr_stroke_raw
```

```

85. notes sr_stroke_new: If stroke within last year (self-report).
86. notes sr_cancer_new: sr_cancer_raw
87. notes sr_cancer_new: If cancer found within last year (self-report).
88.
89. //same question pattern, different variable name though, for hip fracture
90. gen sr_hip_raw=.
    (47,778 missing values generated)
91. forvalues w=1/$w{
    2.         replace sr_hip_raw=1 if brokebon1==1 & wave=='w'
    3.         replace sr_hip_raw=0 if brokebon1==2 & wave=='w'
    4.         replace sr_hip_raw = -7 if brokebon1==-7 & wave=='w'
    5.         replace sr_hip_raw = -8 if brokebon1==-8 & wave=='w'
    6. }
    (379 real changes made)
    (7,226 real changes made)
    (0 real changes made)
    (4 real changes made)
    (78 real changes made)
    (5,976 real changes made)
    (0 real changes made)
    (2 real changes made)
    (86 real changes made)
    (4,795 real changes made)
    (1 real change made)
    (2 real changes made)
    (57 real changes made)
    (3,979 real changes made)
    (0 real changes made)
    (1 real change made)
    (223 real changes made)
    (7,350 real changes made)
    (0 real changes made)
    (3 real changes made)
    (87 real changes made)
    (6,320 real changes made)
    (0 real changes made)
    (3 real changes made)
    (67 real changes made)
    (5,499 real changes made)
    (0 real changes made)
    (0 real changes made)
92. //create two new variables from this...
93. gen sr_hip_ever=sr_hip_raw
    (5,640 missing values generated)
94. replace sr_hip_ever=. if (inrange(wave,2,$w)) & sr_hip_raw==0 //set to missing
    > if report no new wave
    (33,919 real changes made, 33,919 to missing)
95.
96. sort spid wave
97. by spid (wave): carryforward sr_hip_ever if ivw_type==1 , replace
    sr_hip_ever: (24362 real changes made)

```



```

98.
99. replace sr_hip_ever = sr_hip_raw if inrange(wave,2,$w) & sr_hip_ever == . & sr
    > _hip_raw != .
    (9,557 real changes made)

100
101 gen sr_hip_new=sr_hip_raw if inrange(wave,2,$w)
    (13,249 missing values generated)

102 la var sr_hip_raw "Self report Hip Fracture, Raw"
103 la var sr_hip_ever "Ever Self report Hip Fracture (since age 50)"
104 la var sr_hip_new "Self report Hip Fracture since prev year"

105
106 notes sr_hip_raw: brokebon1
107 notes sr_hip_raw: Had broken or fractured hip (self-report).
108 notes sr_hip_ever: sr_hip_raw
109 notes sr_hip_ever: Had ever broken or fractured hip (self-report).
110 notes sr_hip_new: sr_hip_raw
111 notes sr_hip_new: Had hip fracture since prev interview (self-report).

112
113 foreach x in sr_ami_raw sr_stroke_raw sr_cancer_raw sr_ami_ever sr_stroke_ever
    > ///
    > sr_ami_new sr_stroke_new sr_cancer_new sr_cancer_ever sr_hip_raw sr_hip_ever s
    > r_hip_new{
        2. notes `x': Located in NHATS Setup, under Part 4.
        3. notes `x': Updated: 04/15/19-MH
        4. }

114
115 foreach dis in ami stroke cancer hip{
        2. tab sr_`dis'_raw wave if ivw_type==1, missing
        3. tab sr_`dis'_ever wave if ivw_type==1, missing
        4. tab sr_`dis'_new wave if ivw_type==1, missing
        5. }

```

Self report Heart Attack, Raw	Survey wave					Total
	1	2	3	4	5	
-8	8	3	7	6	18	58
-7	0	0	1	0	0	1
0	6,437	5,875	4,735	3,917	6,936	39,550
1	1,164	178	141	114	622	2,529
Total	7,609	6,056	4,884	4,037	7,576	42,138

Self report Heart Attack, Raw	Survey wave		Total
	6	7	
-8	7	9	58
-7	0	0	1
0	6,243	5,407	39,550
1	160	150	2,529
Total	6,410	5,566	42,138

Ever Self report Heart Attack	Survey wave					Total
	1	2	3	4	5	
-8	8	8	12	10	27	120
-7	0	0	1	1	1	3
0	6,437	5,040	4,025	3,289	6,343	35,023
1	1,164	1,008	846	737	1,205	6,992
Total	7,609	6,056	4,884	4,037	7,576	42,138

Ever Self report Heart Attack	Survey wave		Total
	6	7	
-8	27	28	120
-7	0	0	3
0	5,311	4,578	35,023
1	1,072	960	6,992
Total	6,410	5,566	42,138

Self report Heart Attack since prev year	Survey wave					Total
	1	2	3	4	5	
-8	0	3	7	6	18	50
-7	0	0	1	0	0	1
0	0	5,875	4,735	3,917	6,936	33,113
1	0	178	141	114	622	1,365
.	7,609	0	0	0	0	7,609
Total	7,609	6,056	4,884	4,037	7,576	42,138

Self report Heart Attack since prev year	Survey wave		Total
	6	7	
-8	7	9	50
-7	0	0	1
0	6,243	5,407	33,113
1	160	150	1,365
.	0	0	7,609
Total	6,410	5,566	42,138

Self report Stroke, Raw	Survey wave					Total
	1	2	3	4	5	
-8	8	7	5	7	17	60
-7	0	0	1	0	0	1
0	6,709	5,871	4,727	3,897	7,083	39,924
1	892	178	151	133	476	2,153
Total	7,609	6,056	4,884	4,037	7,576	42,138

Self report Stroke, Raw	Survey wave		Total
	6	7	
-8	12	4	60
-7	0	0	1
0	6,233	5,404	39,924
1	165	158	2,153
Total	6,410	5,566	42,138

Ever Self report Stroke	Survey wave					Total
	1	2	3	4	5	
-8	8	13	12	14	24	122
-7	0	0	1	1	1	3
0	6,709	5,262	4,186	3,423	6,633	36,555
1	892	781	685	599	918	5,458
Total	7,609	6,056	4,884	4,037	7,576	42,138

Ever Self report Stroke	Survey wave		Total
	6	7	
-8	27	24	122
-7	0	0	3
0	5,554	4,788	36,555
1	829	754	5,458
Total	6,410	5,566	42,138

Self report Stroke since prev year	Survey wave					Total
	1	2	3	4	5	
-8	0	7	5	7	17	52
-7	0	0	1	0	0	1
0	0	5,871	4,727	3,897	7,083	33,215
1	0	178	151	133	476	1,261
.	7,609	0	0	0	0	7,609
Total	7,609	6,056	4,884	4,037	7,576	42,138

Self report Stroke since prev year	Survey wave		Total
	6	7	
-8	12	4	52
-7	0	0	1
0	6,233	5,404	33,215
1	165	158	1,261
.	0	0	7,609
Total	6,410	5,566	42,138

Self report Cancer, Raw	Survey wave					Total
	1	2	3	4	5	
-8	2	7	6	5	6	37
-7	1	0	1	0	1	3
0	5,653	5,694	4,602	3,792	6,386	37,348
1	1,953	355	275	240	1,183	4,750
Total	7,609	6,056	4,884	4,037	7,576	42,138

Self report Cancer, Raw	Survey wave		Total
	6	7	
-8	4	7	37
-7	0	0	3
0	6,031	5,190	37,348
1	375	369	4,750
Total	6,410	5,566	42,138

Ever Self report Cancer	Survey wave					Total
	1	2	3	4	5	
-8	2	8	11	13	16	85
-7	1	1	2	2	2	10
0	5,653	4,357	3,430	2,746	5,407	29,831
1	1,953	1,690	1,441	1,276	2,151	12,212
Total	7,609	6,056	4,884	4,037	7,576	42,138

Ever Self report Cancer	Survey wave		Total
	6	7	
-8	17	18	85
-7	1	1	10
0	4,478	3,760	29,831
1	1,914	1,787	12,212
Total	6,410	5,566	42,138

Self report Cancer since prev year	Survey wave					Total
	1	2	3	4	5	
-8	0	7	6	5	6	35
-7	0	0	1	0	1	2
0	0	5,694	4,602	3,792	6,386	31,695
1	0	355	275	240	1,183	2,797
.	7,609	0	0	0	0	7,609
Total	7,609	6,056	4,884	4,037	7,576	42,138

Self report Cancer since prev year	Survey wave		
	6	7	Total
-8	4	7	35
-7	0	0	2
0	6,031	5,190	31,695
1	375	369	2,797
.	0	0	7,609
Total	6,410	5,566	42,138

Self report Hip Fracture, Raw	Survey wave					
	1	2	3	4	5	Total
-8	4	2	2	1	3	15
-7	0	0	1	0	0	1
0	7,226	5,976	4,795	3,979	7,350	41,145
1	379	78	86	57	223	977
Total	7,609	6,056	4,884	4,037	7,576	42,138

Self report Hip Fracture, Raw	Survey wave		
	6	7	Total
-8	3	0	15
-7	0	0	1
0	6,320	5,499	41,145
1	87	67	977
Total	6,410	5,566	42,138

Ever Self report Hip Fracture (since age 50)	Survey wave					
	1	2	3	4	5	Total
-8	4	5	6	3	6	34
-7	0	0	1	1	1	3
0	7,226	5,706	4,556	3,751	7,134	39,564
1	379	345	321	282	435	2,537
Total	7,609	6,056	4,884	4,037	7,576	42,138

Ever Self report Hip Fracture (since age 50)	Survey wave		
	6	7	Total
-8	7	3	34
-7	0	0	3
0	5,993	5,198	39,564
1	410	365	2,537
Total	6,410	5,566	42,138

Self report Hip Fracture since prev year	Survey wave					
	1	2	3	4	5	Total
-8	0	2	2	1	3	11
-7	0	0	1	0	0	1
0	0	5,976	4,795	3,979	7,350	33,919
1	0	78	86	57	223	598
.	7,609	0	0	0	0	7,609
Total	7,609	6,056	4,884	4,037	7,576	42,138

Self			
report Hip			
Fracture			
since prev		Survey wave	
year		6	7
-----+-----			Total
-8	3	0	11
-7	0	0	1
0	6,320	5,499	33,919
1	87	67	598
.	0	0	7,609
-----+-----			
Total	6,410	5,566	42,138

```

116
117 *****
118 //Many diseases asked 1st wave, then only if report no, asked again 2nd wave
119 //wave 2,3=7 if report yes in wave 1
120 //use a program over several diseases since pattern is the same
121
122 la def sr_prev_rept 0 "No" 1 "Yes" 7 "Previously reported"

123
124 capture program drop prev_report

125 program define prev_report
1.      args dis num
2.
126      gen sr_`dis'_raw=.
3.          forvalues w=1/$w{
4.              replace sr_`dis'_raw=1 if disescn`num'==1 & wave==`
> w'
5.              replace sr_`dis'_raw=0 if disescn`num'==2 & wave==`
> w'
6.              replace sr_`dis'_raw=7 if disescn`num'==7 & wave==`
> w'
7.              replace sr_`dis'_raw=-7 if disescn`num'==7 & wave=
> =`w'
8.              replace sr_`dis'_raw=-8 if disescn`num'==8 & wave=
> =`w'
9.          }
10.
127      la val sr_`dis'_raw sr_prev_rept
11.      tab sr_`dis'_raw wave if ivw_type==1, missing
12.

```

```

128      gen sr`dis'_ever = 1 if inlist(sr`dis'_raw,1,7) //if prev or curr re
> port yes
13.      replace sr`dis'_ever = 0 if sr`dis'_raw==0
14.      replace sr`dis'_ever = -7 if sr`dis'_raw==7
15.      replace sr`dis'_ever = -8 if sr`dis'_raw==8
16.      tab sr`dis'_ever sr`dis'_raw, missing
17.      tab sr`dis'_ever wave if ivw_type==1, missing
18.
129      gen sr`dis'_new=sr`dis'_raw if inrange(wave,2,$w)
19.      replace sr`dis'_new=0 if sr`dis'_raw==7
20.      tab sr`dis'_new if inrange(wave,2,$w) & ivw_type==1, missing
21.
130      end

```

```

131
132 //now run programs for specific disease variables

```

```

133 prev_report heart_dis 2
(47,778 missing values generated)
(1,411 real changes made)
(6,182 real changes made)
(0 real changes made)
(0 real changes made)
(16 real changes made)
(187 real changes made)
(4,757 real changes made)
(1,107 real changes made)
(0 real changes made)
(5 real changes made)
(138 real changes made)
(3,749 real changes made)
(990 real changes made)
(1 real change made)
(6 real changes made)
(94 real changes made)
(3,022 real changes made)
(917 real changes made)
(0 real changes made)
(4 real changes made)
(724 real changes made)
(5,963 real changes made)
(868 real changes made)
(0 real changes made)
(21 real changes made)
(160 real changes made)
(4,932 real changes made)
(1,303 real changes made)
(0 real changes made)
(15 real changes made)
(130 real changes made)
(4,240 real changes made)
(1,186 real changes made)
(0 real changes made)
(10 real changes made)

```

sr_heart_dis_raw	Survey wave				Total
	1	2	3	4	
-8	16	5	6	4	77
-7	0	0	1	0	1
No	6,182	4,757	3,749	3,022	32,845
Yes	1,411	187	138	94	2,844
Previously reported	0	1,107	990	917	6,371
Total	7,609	6,056	4,884	4,037	42,138

sr_heart_dis_raw	Survey wave			Total
	5	6	7	
-8	21	15	10	77
-7	0	0	0	1
No	5,963	4,932	4,240	32,845
Yes	724	160	130	2,844
Previously reported	868	1,303	1,186	6,371
Total	7,576	6,410	5,566	42,138

(38,563 missing values generated)

(32,845 real changes made)

(1 real change made)

(77 real changes made)

sr_heart_d is_ever	sr_heart_dis_raw				Total
	-8	-7	No	Yes	
-8	77	0	0	0	77
-7	0	1	0	0	1
0	0	0	32,845	0	32,845
1	0	0	0	2,844	6,371
.	0	0	0	0	5,640
Total	77	1	32,845	2,844	47,778

sr_heart_d is_ever	sr_heart_d is_raw		Total
	.		
-8	0	77	
-7	0	1	
0	0	32,845	
1	0	9,215	
.	5,640	5,640	
Total	5,640	47,778	

sr_heart_d is_ever	Survey wave					Total
	1	2	3	4	5	
-8	16	5	6	4	21	77
-7	0	0	1	0	0	1
0	6,182	4,757	3,749	3,022	5,963	32,845
1	1,411	1,294	1,128	1,011	1,592	9,215
Total	7,609	6,056	4,884	4,037	7,576	42,138

sr_heart_d is_ever	Survey wave		Total
	6	7	
-8	15	10	77
-7	0	0	1
0	4,932	4,240	32,845
1	1,463	1,316	9,215
Total	6,410	5,566	42,138

(13,249 missing values generated)

(6,371 real changes made)

sr_heart_di s_new	Freq.	Percent	Cum.
-8	61	0.18	0.18
-7	1	0.00	0.18
0	33,034	95.67	95.85
1	1,433	4.15	100.00
Total	34,529	100.00	

134 prev_report htn 3

(47,778 missing values generated)

(5,108 real changes made)

(2,491 real changes made)

(0 real changes made)

(0 real changes made)

(10 real changes made)

(146 real changes made)

(1,840 real changes made)

(4,066 real changes made)

(0 real changes made)

(4 real changes made)

(124 real changes made)

(1,359 real changes made)

(3,394 real changes made)

(0 real changes made)

(7 real changes made)

(76 real changes made)

(1,042 real changes made)

(2,916 real changes made)

(0 real changes made)

(3 real changes made)

(2,674 real changes made)

(2,221 real changes made)

(2,671 real changes made)

(0 real changes made)

(10 real changes made)

(111 real changes made)

(1,786 real changes made)

(4,510 real changes made)

(0 real changes made)

(3 real changes made)

(92 real changes made)

(1,481 real changes made)

(3,987 real changes made)

(0 real changes made)

(6 real changes made)

sr_htn_raw	Survey wave				Total
	1	2	3	4	
-8	10	4	7	3	43
No	2,491	1,840	1,359	1,042	12,220
Yes	5,108	146	124	76	8,331
Previously reported	0	4,066	3,394	2,916	21,544
Total	7,609	6,056	4,884	4,037	42,138

sr_htn_raw	Survey wave			Total
	5	6	7	
-8	10	3	6	43
No	2,221	1,786	1,481	12,220
Yes	2,674	111	92	8,331
Previously reported	2,671	4,510	3,987	21,544
Total	7,576	6,410	5,566	42,138

(17,903 missing values generated)
 (12,220 real changes made)
 (0 real changes made)
 (43 real changes made)

sr_htn_eve r	-8	No	sr_htn_raw Yes	Previousl	.	Total
-8	43	0	0	0	0	43
0	0	12,220	0	0	0	12,220
1	0	0	8,331	21,544	0	29,875
.	0	0	0	0	5,640	5,640
Total	43	12,220	8,331	21,544	5,640	47,778

sr_htn_eve r	1	2	3	4	5	Total
-8	10	4	7	3	10	43
0	2,491	1,840	1,359	1,042	2,221	12,220
1	5,108	4,212	3,518	2,992	5,345	29,875
Total	7,609	6,056	4,884	4,037	7,576	42,138

sr_htn_eve r	6	7	Total
-8	3	6	43
0	1,786	1,481	12,220
1	4,621	4,079	29,875
Total	6,410	5,566	42,138

(13,249 missing values generated)
 (21,544 real changes made)

sr_htn_new	Freq.	Percent	Cum.
-8	33	0.10	0.10
0	31,273	90.57	90.67
1	3,223	9.33	100.00
Total	34,529	100.00	

135 prev_report ra 4

(47,778 missing values generated)
 (4,248 real changes made)
 (3,345 real changes made)
 (0 real changes made)
 (1 real change made)
 (15 real changes made)
 (277 real changes made)
 (2,399 real changes made)
 (3,378 real changes made)
 (0 real changes made)
 (2 real changes made)
 (190 real changes made)
 (1,753 real changes made)
 (2,934 real changes made)
 (0 real changes made)
 (7 real changes made)
 (127 real changes made)
 (1,344 real changes made)
 (2,563 real changes made)
 (0 real changes made)
 (3 real changes made)
 (2,268 real changes made)
 (2,896 real changes made)
 (2,402 real changes made)
 (0 real changes made)

(10 real changes made)
 (283 real changes made)
 (2,153 real changes made)
 (3,972 real changes made)
 (0 real changes made)
 (2 real changes made)
 (158 real changes made)
 (1,726 real changes made)
 (3,677 real changes made)
 (0 real changes made)
 (5 real changes made)

sr_ra_raw	Survey wave				Total
	1	2	3	4	
-8	15	2	7	3	44
-7	1	0	0	0	1
No	3,345	2,399	1,753	1,344	15,616
Yes	4,248	277	190	127	7,551
Previously reported	0	3,378	2,934	2,563	18,926
Total	7,609	6,056	4,884	4,037	42,138

sr_ra_raw	Survey wave			Total
	5	6	7	
-8	10	2	5	44
-7	0	0	0	1
No	2,896	2,153	1,726	15,616
Yes	2,268	283	158	7,551
Previously reported	2,402	3,972	3,677	18,926
Total	7,576	6,410	5,566	42,138

(21,301 missing values generated)
 (15,616 real changes made)
 (1 real change made)
 (44 real changes made)

sr_ra_ever	sr_ra_raw				Previously	Total
	-8	-7	No	Yes		
-8	44	0	0	0	0	44
-7	0	1	0	0	0	1
0	0	0	15,616	0	0	15,616
1	0	0	0	7,551	18,926	26,477
.	0	0	0	0	0	5,640
Total	44	1	15,616	7,551	18,926	47,778

sr_ra_ever	sr_ra_raw		Total
	.		
-8	0		44
-7	0		1
0	0		15,616
1	0		26,477
.	5,640		5,640
Total	5,640		47,778

sr_ra_ever	Survey wave					Total
	1	2	3	4	5	
-8	15	2	7	3	10	44
-7	1	0	0	0	0	1
0	3,345	2,399	1,753	1,344	2,896	15,616
1	4,248	3,655	3,124	2,690	4,670	26,477
Total	7,609	6,056	4,884	4,037	7,576	42,138

sr_ra_ever	Survey wave		Total
	6	7	
-8	2	5	44
-7	0	0	1
0	2,153	1,726	15,616
1	4,255	3,835	26,477
Total	6,410	5,566	42,138

(13,249 missing values generated)

(18,926 real changes made)

sr_ra_new	Freq.	Percent	Cum.
-8	29	0.08	0.08
0	31,197	90.35	90.43
1	3,303	9.57	100.00
Total	34,529	100.00	

136 prev_report osteoprs 5

(47,778 missing values generated)

(1,559 real changes made)

(6,023 real changes made)

(0 real changes made)

(0 real changes made)

(27 real changes made)

(172 real changes made)

(4,628 real changes made)

(1,242 real changes made)

(0 real changes made)

(14 real changes made)

(158 real changes made)

(3,558 real changes made)

(1,155 real changes made)

(1 real change made)

(12 real changes made)

(100 real changes made)

(2,835 real changes made)

(1,086 real changes made)

(0 real changes made)

(16 real changes made)

(803 real changes made)

(5,672 real changes made)

(1,064 real changes made)

(0 real changes made)

(37 real changes made)

(209 real changes made)

(4,603 real changes made)

(1,584 real changes made)

(0 real changes made)

(14 real changes made)

(164 real changes made)

(3,842 real changes made)

(1,549 real changes made)

(0 real changes made)

(11 real changes made)

sr_osteopr	s_raw	Survey wave				Total
		1	2	3	4	
-8		27	14	12	16	131
-7		0	0	1	0	1
No		6,023	4,628	3,558	2,835	31,161
Yes		1,559	172	158	100	3,165
Previously reported		0	1,242	1,155	1,086	7,680
Total		7,609	6,056	4,884	4,037	42,138

sr_osteopr	s_raw	Survey wave			Total
		5	6	7	
-8		37	14	11	131
-7		0	0	0	1
No		5,672	4,603	3,842	31,161
Yes		803	209	164	3,165
Previously reported		1,064	1,584	1,549	7,680
Total		7,576	6,410	5,566	42,138

(36,933 missing values generated)

(31,161 real changes made)

(1 real change made)

(131 real changes made)

sr_osteopr	s_ever	sr_osteopr				Total
		-8	-7	No	Yes	
-8		131	0	0	0	131
-7		0	1	0	0	1
0		0	0	31,161	0	31,161
1		0	0	0	3,165	10,845
.		0	0	0	0	5,640
Total		131	1	31,161	3,165	47,778

sr_osteopr	s_ever	sr_osteopr		Total
		s_raw	.	
-8		0	131	131
-7		0	1	1
0		0	31,161	31,161
1		0	10,845	10,845
.		5,640	5,640	5,640
Total		5,640	47,778	47,778

sr_osteopr	s_ever	Survey wave					Total
		1	2	3	4	5	
-8		27	14	12	16	37	131
-7		0	0	1	0	0	1
0		6,023	4,628	3,558	2,835	5,672	31,161
1		1,559	1,414	1,313	1,186	1,867	10,845
Total		7,609	6,056	4,884	4,037	7,576	42,138

sr_osteopr s_ever	Survey wave		Total
	6	7	
-8	14	11	131
-7	0	0	1
0	4,603	3,842	31,161
1	1,793	1,713	10,845
Total	6,410	5,566	42,138

(13,249 missing values generated)

(7,680 real changes made)

sr_osteopr _new	Freq.	Percent	Cum.
-8	104	0.30	0.30
-7	1	0.00	0.30
0	32,818	95.04	95.35
1	1,606	4.65	100.00
Total	34,529	100.00	

137 prev report diabetes 6

(47,778 missing values generated)

(1,925 real changes made)

(5,681 real changes made)

(0 real changes made)

(1 real change made)

(2 real changes made)

(88 real changes made)

(4,444 real changes made)

(1,522 real changes made)

(0 real changes made)

(2 real changes made)

(54 real changes made)

(3,543 real changes made)

(1,283 real changes made)

(1 real change made)

(3 real changes made)

(44 real changes made)

(2,888 real changes made)

(1,102 real changes made)

(0 real changes made)

(3 real changes made)

(1,099 real changes made)

(5,431 real changes made)

(1,037 real changes made)

(0 real changes made)

(9 real changes made)

(86 real changes made)

(4,541 real changes made)

(1,783 real changes made)

(0 real changes made)

(0 real changes made)

(59 real changes made)

(3,907 real changes made)

(1,597 real changes made)

(0 real changes made)

(3 real changes made)

sr_diabetes_raw	Survey wave				Total
	1	2	3	4	
-8	2	2	3	3	22
-7	1	0	1	0	2
No	5,681	4,444	3,543	2,888	30,435
Yes	1,925	88	54	44	3,355
Previously reported	0	1,522	1,283	1,102	8,324
Total	7,609	6,056	4,884	4,037	42,138

sr_diabetes_raw	Survey wave			Total
	5	6	7	
-8	9	0	3	22
-7	0	0	0	2
No	5,431	4,541	3,907	30,435
Yes	1,099	86	59	3,355
Previously reported	1,037	1,783	1,597	8,324
Total	7,576	6,410	5,566	42,138

(36,099 missing values generated)

(30,435 real changes made)

(2 real changes made)

(22 real changes made)

sr_diabete s_ever	sr_diabetes_raw				Total
	-8	-7	No	Yes	
-8	22	0	0	0	22
-7	0	2	0	0	2
0	0	0	30,435	0	30,435
1	0	0	0	3,355	8,324
.	0	0	0	0	5,640
Total	22	2	30,435	3,355	47,778

sr_diabete s_ever	sr_diabete s_raw		Total
	.		
-8	0		22
-7	0		2
0	0		30,435
1	0		11,679
.	5,640		5,640
Total	5,640		47,778

sr_diabete s_ever	Survey wave					Total
	1	2	3	4	5	
-8	2	2	3	3	9	22
-7	1	0	1	0	0	2
0	5,681	4,444	3,543	2,888	5,431	30,435
1	1,925	1,610	1,337	1,146	2,136	11,679
Total	7,609	6,056	4,884	4,037	7,576	42,138

sr_diabete s_ever	Survey wave		Total
	6	7	
-8	0	3	22
-7	0	0	2
0	4,541	3,907	30,435
1	1,869	1,656	11,679
Total	6,410	5,566	42,138

(13,249 missing values generated)

(8,324 real changes made)

sr_diabetes _new	Freq.	Percent	Cum.
-8	20	0.06	0.06
-7	1	0.00	0.06
0	33,078	95.80	95.86
1	1,430	4.14	100.00
Total	34,529	100.00	

138 prev_report lung_dis 7
 (47,778 missing values generated)
 (1,154 real changes made)
 (6,450 real changes made)
 (0 real changes made)
 (0 real changes made)
 (5 real changes made)
 (135 real changes made)
 (5,033 real changes made)
 (884 real changes made)
 (0 real changes made)
 (4 real changes made)
 (106 real changes made)
 (3,979 real changes made)
 (795 real changes made)
 (1 real change made)
 (3 real changes made)
 (75 real changes made)
 (3,223 real changes made)
 (736 real changes made)
 (0 real changes made)
 (3 real changes made)
 (679 real changes made)
 (6,181 real changes made)
 (710 real changes made)
 (0 real changes made)
 (6 real changes made)
 (111 real changes made)
 (5,126 real changes made)
 (1,170 real changes made)
 (0 real changes made)
 (3 real changes made)
 (102 real changes made)
 (4,375 real changes made)
 (1,083 real changes made)
 (0 real changes made)
 (6 real changes made)

sr_lung_dis_raw	Survey wave				Total
	1	2	3	4	
-8	5	4	3	3	30
-7	0	0	1	0	1
No	6,450	5,033	3,979	3,223	34,367
Yes	1,154	135	106	75	2,362
Previously reported	0	884	795	736	5,378
Total	7,609	6,056	4,884	4,037	42,138

sr_lung_dis_raw	Survey wave			Total
	5	6	7	
-8	6	3	6	30
-7	0	0	0	1
No	6,181	5,126	4,375	34,367
Yes	679	111	102	2,362
Previously reported	710	1,170	1,083	5,378
Total	7,576	6,410	5,566	42,138

(40,038 missing values generated)
 (34,367 real changes made)
 (1 real change made)
 (30 real changes made)

sr_lung_di	sr_lung_dis_raw				Previous		Total
s_ever	-8	-7	No	Yes	1		
-8	30	0	0	0	0		30
-7	0	1	0	0	0		1
0	0	0	34,367	0	0		34,367
1	0	0	0	2,362	5,378		7,740
.	0	0	0	0	0		5,640
Total	30	1	34,367	2,362	5,378		47,778

sr_lung_di	sr_lung_di	Total	
s_ever	s_raw	.	
-8	0		30
-7	0		1
0	0		34,367
1	0		7,740
.	5,640		5,640
Total	5,640		47,778

sr_lung_di	Survey wave					Total
s_ever	1	2	3	4	5	
-8	5	4	3	3	6	30
-7	0	0	1	0	0	1
0	6,450	5,033	3,979	3,223	6,181	34,367
1	1,154	1,019	901	811	1,389	7,740
Total	7,609	6,056	4,884	4,037	7,576	42,138

sr_lung_di	Survey wave		Total
s_ever	6	7	
-8	3	6	30
-7	0	0	1
0	5,126	4,375	34,367
1	1,281	1,185	7,740
Total	6,410	5,566	42,138

(13,249 missing values generated)
 (5,378 real changes made)

sr_lung_dis	Freq.	Percent	Cum.
_new			
-8	25	0.07	0.07
-7	1	0.00	0.08
0	33,295	96.43	96.50
1	1,208	3.50	100.00
Total	34,529	100.00	

139 prev_report_dementia 9
 (47,778 missing values generated)
 (457 real changes made)
 (7,146 real changes made)
 (0 real changes made)
 (0 real changes made)
 (6 real changes made)
 (136 real changes made)
 (5,611 real changes made)
 (305 real changes made)
 (0 real changes made)
 (4 real changes made)
 (126 real changes made)
 (4,455 real changes made)
 (297 real changes made)
 (1 real change made)
 (5 real changes made)
 (95 real changes made)
 (3,658 real changes made)
 (283 real changes made)
 (0 real changes made)
 (1 real change made)
 (288 real changes made)
 (6,994 real changes made)
 (283 real changes made)
 (1 real change made)
 (10 real changes made)
 (147 real changes made)
 (5,865 real changes made)
 (393 real changes made)
 (0 real changes made)
 (5 real changes made)
 (122 real changes made)
 (5,058 real changes made)
 (384 real changes made)
 (0 real changes made)
 (2 real changes made)

sr_dementia_raw	Survey wave				Total
	1	2	3	4	
-8	6	4	5	1	33
-7	0	0	1	0	2
No	7,146	5,611	4,455	3,658	38,787
Yes	457	136	126	95	1,371
Previously reported	0	305	297	283	1,945
Total	7,609	6,056	4,884	4,037	42,138

sr_dementia_raw	Survey wave			Total
	5	6	7	
-8	10	5	2	33
-7	1	0	0	2
No	6,994	5,865	5,058	38,787
Yes	288	147	122	1,371
Previously reported	283	393	384	1,945
Total	7,576	6,410	5,566	42,138

(44,462 missing values generated)
 (38,787 real changes made)
 (2 real changes made)
 (33 real changes made)

sr_dementi a_ever	-8	-7	sr_dementia_raw No	Yes	Previous	1	Total
-8	33	0	0	0	0	0	33
-7	0	2	0	0	0	0	2
0	0	0	38,787	0	0	0	38,787
1	0	0	0	1,371	1,945	0	3,316
.	0	0	0	0	0	0	5,640
Total	33	2	38,787	1,371	1,945	0	47,778

sr_dementi a_ever	sr_dementi a_raw	.	Total
-8	0	0	33
-7	0	0	2
0	0	0	38,787
1	0	0	3,316
.	5,640	5,640	5,640
Total	5,640	5,640	47,778

sr_dementi a_ever	1	2	3	4	5	Total
-8	6	4	5	1	10	33
-7	0	0	1	0	1	2
0	7,146	5,611	4,455	3,658	6,994	38,787
1	457	441	423	378	571	3,316
Total	7,609	6,056	4,884	4,037	7,576	42,138

sr_dementi a_ever	6	7	Total
-8	5	2	33
-7	0	0	2
0	5,865	5,058	38,787
1	540	506	3,316
Total	6,410	5,566	42,138

(13,249 missing values generated)
(1,945 real changes made)

sr_dementia _new	Freq.	Percent	Cum.
-8	27	0.08	0.08
-7	2	0.01	0.08
0	33,586	97.27	97.35
1	914	2.65	100.00
Total	34,529	100.00	

```

141 la var sr_heart_dis_ever "Self report Heart Disease"
142 la var sr_heart_dis_new "Self report Heart Disease since prev year"
143 la var sr_htn_ever "Self report high blood pressure"
144 la var sr_htn_new "Self report high blood pressure since prev year"
145 la var sr_ra_ever "Self report arthritis"
146 la var sr_ra_new "Self report arthritis since prev year"
147 la var sr_osteoprs_ever "Self report osteoporosis"
148 la var sr_osteoprs_new "Self report osteoporosis since prev year"
149 la var sr_diabetes_ever "Self report diabetes"
150 la var sr_diabetes_new "Self report diabetes since prev year"
151 la var sr_lung_dis_ever "Self report Lung Disease"
152 la var sr_lung_dis_new "Self report Lung Disease since prev year"
153 la var sr_dementia_ever "Self report Dementia"
154 la var sr_dementia_new "Self report Dementia since prev year"
155
156
157 notes sr_heart_dis_raw: disescn2
158 notes sr_heart_dis_raw: Had any heart disease including angina or CHF (self-re
  > port)
159 notes sr_heart_dis_ever: sr_heart_dis_raw
160 notes sr_heart_dis_ever: Had heart disease ever (self-report)
161 notes sr_heart_dis_new: sr_heart_dis_raw
162 notes sr_heart_dis_new: Had heart disease since prev interview (self-report).
163
164 notes sr_htn_raw: disescn3
165 notes sr_htn_raw: Had High blood pressure (self-report)
166 notes sr_htn_ever: sr_htn_raw
167 notes sr_htn_ever: Had High blood pressure ever (self-report)
168 notes sr_htn_new: sr_htn_raw
169 notes sr_htn_new: Had High blood pressure since prev interview (self-report).
170
171 notes sr_ra_raw: disescn4
172 notes sr_ra_raw: Had arthritis (including osteo or rheumatoid) (self-report)

```

173 notes sr_ra_ever: sr_ra_raw
174 notes sr_ra_ever: Had arthritis ever (self-report)
175 notes sr_ra_new: sr_ra_raw
176 notes sr_ra_new: Had arthritis since prev interview (self-report).
177
178 notes sr_osteoprs_raw: disescn5
179 notes sr_osteoprs_raw: Had osteoporosis (self-report)
180 notes sr_osteoprs_ever: sr_osteoprs_raw
181 notes sr_osteoprs_ever: Had osteoporosis ever (self-report)
182 notes sr_osteoprs_new: sr_osteoprs_raw
183 notes sr_osteoprs_new: Had osteoporosis since prev interview (self-report).
184
185 notes sr_diabetes_raw: disescn6
186 notes sr_diabetes_raw: Had arthritis (including osteo or rheumatoid) (self-rep
> ort)
187 notes sr_diabetes_ever: sr_diabetes_raw
188 notes sr_diabetes_ever: Had diabetes ever (self-report)
189 notes sr_diabetes_new: sr_diabetes_raw
190 notes sr_diabetes_new: Had diabetes since prev interview (self-report).
191
192 notes sr_lung_dis_raw: disescn7
193 notes sr_lung_dis_raw: Had any lung disease, such as emphysema, asthma, or chr
> onic bronchitis (self-report)
194 notes sr_lung_dis_ever: sr_lung_dis_raw
195 notes sr_lung_dis_ever: Had lung disease ever (self-report)
196 notes sr_lung_dis_new: sr_lung_dis_raw
197 notes sr_lung_dis_new: Had lung disease since prev interview (self-report).
198
199 notes sr_dementia_raw: disescn9
200 notes sr_dementia_raw: Had dementia or Alzheimer's disease (self-report)
201 notes sr_dementia_ever: sr_dementia_raw
202 notes sr_dementia_ever: Had dementia ever (self-report)
203 notes sr_dementia_new: sr_dementia_raw

```

204 notes sr_dementia_new: Had dementia since prev interview (self-report).

205
206 foreach x in sr_heart_dis_raw sr_heart_dis_ever sr_heart_dis_new sr_htn_raw sr
> _htn_ever ///
> sr_htn_new sr_ra_raw sr_ra_ever sr_ra_new sr_osteoprs_raw sr_osteoprs_ever sr_
> osteoprs_new ///
> sr_diabetes_raw sr_diabetes_ever sr_diabetes_new sr_lung_dis_raw sr_lung_dis_e
> ver ///
> sr_lung_dis_new sr_dementia_raw sr_dementia_ever sr_dementia_new{
2.
207 notes `x': Located in NHATS Setup, under Part 4.
3. notes `x': Updated: 04/15/19-MH
4. }

208
209 *****
210 //Depression & Anxiety
211 //Over the last month how often have you:
212 //responses are 1=not at all, 2=several days, 3=more than half days, 4=nearly
> every day
213 *****
214 gen sr_depr_pqq1=.
(47,778 missing values generated)

215 gen sr_depr_pqq2=.
(47,778 missing values generated)

216 gen sr_anx_gad1=.
(47,778 missing values generated)

217 gen sr_anx_gad2=.
(47,778 missing values generated)

218
219 forvalues w=1/$w{
2. //set up new variables for individual wave variables
220 foreach q in 1 2 3 4 {
3. gen temp_hc`w'deprsan`q'=. if inlist(depresan`q',-9,-8,-7,-1) & wav
> e==`w'
4. replace temp_hc`w'deprsan`q'=depresan`q'-1 if inlist(depresan`q',1,
> 2,3,4) & wave==`w'
5. replace temp_hc`w'deprsan`q'=0 if inlist(depresan`q',-8,-7) & wave=
> =`w'
6. }
7. //now create clean depression, anxiety variables
221 replace sr_depr_pqq1=temp_hc`w'deprsan1 if wave==`w' //little interest
> or pleasure in doing things
8. replace sr_depr_pqq2=temp_hc`w'deprsan2 if wave==`w' //felt down/de
> pressed/hopeless
9. replace sr_anx_gad1=temp_hc`w'deprsan3 if wave==`w' //felt nervous
> or anxious
10. replace sr_anx_gad2=temp_hc`w'deprsan4 if wave==`w' //unable to sto
> p worrying
11.
222
223 foreach q in 1 2 3 4 {
12. drop temp_hc`w'deprsan`q'
13. }
14.

```

```
224 }
(47,778 missing values generated)
(7,564 real changes made)
(45 real changes made)
(47,778 missing values generated)
(7,579 real changes made)
(30 real changes made)
(47,778 missing values generated)
(7,579 real changes made)
(30 real changes made)
(47,778 missing values generated)
(7,580 real changes made)
(29 real changes made)
(7,609 real changes made)
(7,609 real changes made)
(7,609 real changes made)
(7,609 real changes made)
(47,778 missing values generated)
(6,010 real changes made)
(46 real changes made)
(47,778 missing values generated)
(6,031 real changes made)
(25 real changes made)
(47,778 missing values generated)
(6,034 real changes made)
(22 real changes made)
(47,778 missing values generated)
(6,018 real changes made)
(38 real changes made)
(6,056 real changes made)
(6,056 real changes made)
(6,056 real changes made)
(6,056 real changes made)
(47,778 missing values generated)
(4,844 real changes made)
(40 real changes made)
(47,778 missing values generated)
(4,854 real changes made)
(30 real changes made)
(47,778 missing values generated)
(4,853 real changes made)
(31 real changes made)
(47,778 missing values generated)
(4,842 real changes made)
(42 real changes made)
(4,884 real changes made)
(4,884 real changes made)
(4,884 real changes made)
(4,884 real changes made)
(47,778 missing values generated)
(3,998 real changes made)
(39 real changes made)
(47,778 missing values generated)
(4,010 real changes made)
(27 real changes made)
(47,778 missing values generated)
(4,015 real changes made)
(22 real changes made)
(47,778 missing values generated)
(4,008 real changes made)
(29 real changes made)
(4,037 real changes made)
(4,037 real changes made)
(4,037 real changes made)
(4,037 real changes made)
(47,778 missing values generated)
(7,520 real changes made)
(56 real changes made)
(47,778 missing values generated)
(7,534 real changes made)
(42 real changes made)
(47,778 missing values generated)
```

```

(7,540 real changes made)
(36 real changes made)
(47,778 missing values generated)
(7,517 real changes made)
(59 real changes made)
(7,576 real changes made)
(7,576 real changes made)
(7,576 real changes made)
(7,576 real changes made)
(47,778 missing values generated)
(6,365 real changes made)
(45 real changes made)
(47,778 missing values generated)
(6,379 real changes made)
(31 real changes made)
(47,778 missing values generated)
(6,376 real changes made)
(34 real changes made)
(47,778 missing values generated)
(6,368 real changes made)
(42 real changes made)
(6,410 real changes made)
(6,410 real changes made)
(6,410 real changes made)
(6,410 real changes made)
(47,778 missing values generated)
(5,538 real changes made)
(28 real changes made)
(47,778 missing values generated)
(5,531 real changes made)
(35 real changes made)
(47,778 missing values generated)
(5,540 real changes made)
(26 real changes made)
(47,778 missing values generated)
(5,535 real changes made)
(31 real changes made)
(5,566 real changes made)
(5,566 real changes made)
(5,566 real changes made)
(5,566 real changes made)

```

```

225
226 la def depr_anx 0"Not at all" 1"Several days" 2"More than half the days" ///
    > 3"Nearly every day"

227 la val sr_depr_pqq1 sr_depr_pqq2 sr_anx_gad1 sr_anx_gad2 depr_anx

228 la var sr_depr_pqq1 "How often little interest in doing things?"

229 la var sr_depr_pqq2 "How often felt down, depressed, hopeless?"

230 la var sr_anx_gad1 "How often felt nervous or anxious?"

231 la var sr_anx_gad2 "How often unable to stop worrying?"

232
233 foreach v in sr_depr_pqq1 sr_depr_pqq2 sr_anx_gad1 sr_anx_gad2{
    2.      tab `v' wave if ivw_type==1,missing
    3. }

```

How often little interest in doing things?	Survey wave				Total
	1	2	3	4	
Not at all	4,843	3,847	3,091	2,540	26,678
Several days	1,561	1,327	1,093	900	9,238
More than half the da	556	446	329	304	3,092
Nearly every day	649	436	371	293	3,130
Total	7,609	6,056	4,884	4,037	42,138

How often little interest in doing things?	Survey wave			Total
	5	6	7	
Not at all	4,819	4,058	3,480	26,678
Several days	1,637	1,432	1,288	9,238
More than half the da	565	481	411	3,092
Nearly every day	555	439	387	3,130
Total	7,576	6,410	5,566	42,138

How often felt down, depressed, hopeless?	Survey wave				
	1	2	3	4	Total
Not at all	5,336	4,301	3,479	2,868	30,212
Several days	1,589	1,258	999	873	8,588
More than half the da	353	282	199	160	1,799
Nearly every day	331	215	207	136	1,539
Total	7,609	6,056	4,884	4,037	42,138

How often felt down, depressed, hopeless?	Survey wave			Total
	5	6	7	
Not at all	5,489	4,644	4,095	30,212
Several days	1,529	1,276	1,064	8,588
More than half the da	298	279	228	1,799
Nearly every day	260	211	179	1,539
Total	7,576	6,410	5,566	42,138

How often felt nervous or anxious?	Survey wave				
	1	2	3	4	Total
Not at all	4,840	3,962	3,139	2,631	27,544
Several days	2,011	1,574	1,332	1,085	10,988
More than half the da	382	265	199	156	1,859
Nearly every day	376	255	214	165	1,747
Total	7,609	6,056	4,884	4,037	42,138

How often felt nervous or anxious?	Survey wave			Total
	5	6	7	
Not at all	5,008	4,256	3,708	27,544
Several days	1,946	1,630	1,410	10,988
More than half the da	328	286	243	1,859
Nearly every day	294	238	205	1,747
Total	7,576	6,410	5,566	42,138

How often unable to stop worrying?	Survey wave				Total
	1	2	3	4	
Not at all	5,456	4,420	3,635	2,950	30,805
Several days	1,283	1,015	773	716	7,169
More than half the da	357	256	195	144	1,763
Nearly every day	513	365	281	227	2,401
Total	7,609	6,056	4,884	4,037	42,138

How often unable to stop worrying?	Survey wave			Total
	5	6	7	
Not at all	5,517	4,699	4,128	30,805
Several days	1,336	1,134	912	7,169
More than half the da	325	247	239	1,763
Nearly every day	398	330	287	2,401
Total	7,576	6,410	5,566	42,138

234

235 //combined phq-2 score for depression, cutoff 3+=depressed

236 gen sr_phq2_score=sr_depr_pqq1+sr_depr_pqq2
(5,640 missing values generated)237 gen sr_phq2_depressed=1 if sr_phq2_score>=3 & sr_phq2_score~=.
(41,758 missing values generated)238 replace sr_phq2_depressed=0 if sr_phq2_score<3 & sr_phq2_score~=.
(36,118 real changes made)

239 la var sr_phq2_score "PHQ-2 combined score 0-6 scale"

240 la var sr_phq2_depressed "Depressed per PHQ-2, score=3+"

241 tab sr_phq2_score sr_phq2_depressed if ivw_type==1, missing

PHQ-2 combined score 0-6 scale	Depressed per PHQ-2, score=3+ 0		1	Total
0	23,002	0	23,002	
1	7,476	0	7,476	
2	5,640	0	5,640	
3	0	3,234	3,234	
4	0	1,491	1,491	
5	0	577	577	
6	0	718	718	
Total	36,118	6,020	42,138	

242

243 //combined gad-2 score for anxiety, cutoff 3+=anxiety

244 gen sr_gad2_score=sr_anx_gad1+sr_anx_gad2
(5,640 missing values generated)245 gen sr_gad2_anxiety=1 if sr_gad2_score>=3 & sr_gad2_score~=.
(42,862 missing values generated)246 replace sr_gad2_anxiety=0 if sr_gad2_score<3 & sr_gad2_score~=.
(37,222 real changes made)

247 la var sr_gad2_score "GAD-2 combined score 0-6 scale"

248 la var sr_gad2_anxiety "Anxiety per GAD-2, score=3+"

249 tab sr_gad2_score sr_gad2_anxiety if ivw_type==1, missing

GAD-2 combined score 0-6 scale	Anxiety per GAD-2, score=3+		Total
	0	1	
0	24,018	0	24,018
1	8,356	0	8,356
2	4,848	0	4,848
3	0	2,088	2,088
4	0	1,451	1,451
5	0	537	537
6	0	840	840
Total	37,222	4,916	42,138

250 tab sr_gad2_anxiety wave, missing

Anxiety per GAD-2, score=3+	Survey wave					Total
	1	2	3	4	5	
0	6,581	5,308	4,320	3,593	6,728	37,222
1	1,028	748	564	444	848	4,916
.	636	1,019	915	700	758	5,640
Total	8,245	7,075	5,799	4,737	8,334	47,778

Anxiety per GAD-2, score=3+	Survey wave		Total
	6	7	
0	5,721	4,971	37,222
1	689	595	4,916
.	866	746	5,640
Total	7,276	6,312	47,778

251

252 notes sr_depr_pqq1: deprsan1

253 notes sr_depr_pqq1: Last month had little interest/pleasure in doing things.

254 notes sr_depr_pqq2: deprsan2

255 notes sr_depr_pqq2: Last month felt down/depressed/hopeless.

256 notes sr_anx_gad1: deprsan3

257 notes sr_anx_gad1: Last month felt nervous/anxious/on edge.

258 notes sr_anx_gad2: deprsan4

259 notes sr_anx_gad2: Last month how often been unable to stop/control worrying.

260

261 notes sr_phq2_score: deprsan1 deprsan2

```

262 notes sr_phq2_score: sr_depr_pqq1 plus sr_depr_pqq2, measuring depression
263 notes sr_phq2_depressed: deprsan1 deprsan2
264 notes sr_phq2_depressed: sr_phq2_score >=3, depression indicator
265
266 notes sr_gad2_score: sr_anx_gad1 sr_anx_gad2
267 notes sr_gad2_score: sr_anx_gad1 plus sr_anx_gad2, measuring anxiety
268 notes sr_gad2_anxiety: sr_anx_gad1 sr_anx_gad2
269 notes sr_gad2_anxiety: sr_gad2_score >=3, anxiety indicator
270
271 foreach x in sr_depr_pqq1 sr_depr_pqq2 sr_anx_gad1 sr_anx_gad2 sr_phq2_score /
> //
> sr_phq2_depressed sr_gad2_score sr_gad2_anxiety{
2. notes `x': Located in NHATS Setup, under Part 4.
3. notes `x': Updated: 04/15/19-MH
4. }
272
273 *****
274 //Dementia, based on NHATS technical paper no. 5, expanded for 3 waves
275 //separate variables for proxy vs self interviews
276 *****
277 tab proxy_ivw ivw_type, missing

Interview |               ivw_type
via proxy | Alive, SP   Died, pro   SP interv |      Total
-----+-----
0 |      39,211         0         0 |    39,211
1 |      2,927      2,671         0 |    5,598
. |          0         0      2,969 |    2,969
-----+-----
Total |    42,138      2,671      2,969 |   47,778

```

```

278
279 //Initialize 3 category dementia variable
280 //probable dementia, possible dementia, no dementia
281 //probable = diagnosis reported or 2+ ad8 questions (proxy) or <1.5 SD below m
> ean
282 gen dem_3_cat=-1 if ivw_type!=1 //set to na if not SP interview
(42,138 missing values generated)

283 replace dem_3_cat=1 if sr_dementia_ever==1 //if reported directly
(3,316 real changes made)

284
285 //for proxy interviews, use ad8 score
286 forvalues i = 1/8{
2. gen pr_ad8_`i'=-1 //initialize to n/a
3. replace pr_ad8_`i'=. if proxy_ivw==1 & dem_3_cat==. //set missing if proxy
> ivw w/o direct report dementia
4. forvalues w=1/$w{
5. replace pr_ad8_`i'=1 if inlist(chgthink`i',1,3) & wave==`w' & dem_3
> _cat==. & proxy_ivw==1 //yes or dementia reported
6. replace pr_ad8_`i'=0 if inlist(chgthink`i',2,-8) & wave==`w' & dem_
> 3_cat==. & proxy_ivw==1 //no or don't know
7. }
8. tab pr_ad8_`i' wave, missing
9. tab pr_ad8_`i' wave if proxy_ivw==1, missing
10. }
(1,207 real changes made, 1,207 to missing)
(108 real changes made)
(206 real changes made)
(73 real changes made)
(148 real changes made)
(50 real changes made)

```

(101 real changes made)
 (42 real changes made)
 (63 real changes made)
 (62 real changes made)
 (111 real changes made)
 (50 real changes made)
 (89 real changes made)
 (28 real changes made)
 (47 real changes made)

pr_ad8_1	Survey wave					Total
	1	2	3	4	5	
-1	7,931	6,851	5,644	4,625	8,157	46,571
0	206	148	101	63	111	765
1	108	73	50	42	62	413
.	0	3	4	7	4	29
Total	8,245	7,075	5,799	4,737	8,334	47,778

pr_ad8_1	Survey wave		Total
	6	7	
-1	7,132	6,231	46,571
0	89	47	765
1	50	28	413
.	5	6	29
Total	7,276	6,312	47,778

pr_ad8_1	Survey wave					Total
	1	2	3	4	5	
-1	269	740	742	610	602	4,391
0	206	148	101	63	111	765
1	108	73	50	42	62	413
.	0	3	4	7	4	29
Total	583	964	897	722	779	5,598

pr_ad8_1	Survey wave		Total
	6	7	
-1	750	678	4,391
0	89	47	765
1	50	28	413
.	5	6	29
Total	894	759	5,598

(1,207 real changes made, 1,207 to missing)
 (124 real changes made)
 (190 real changes made)
 (86 real changes made)
 (135 real changes made)
 (62 real changes made)
 (89 real changes made)
 (44 real changes made)
 (61 real changes made)
 (73 real changes made)
 (99 real changes made)
 (67 real changes made)
 (72 real changes made)
 (31 real changes made)
 (44 real changes made)

pr_ad8_2	Survey wave					Total
	1	2	3	4	5	
-1	7,931	6,851	5,644	4,625	8,157	46,571
0	190	135	89	61	99	690
1	124	86	62	44	73	487
.	0	3	4	7	5	30
Total	8,245	7,075	5,799	4,737	8,334	47,778

pr_ad8_2	Survey wave		Total
	6	7	
-1	7,132	6,231	46,571
0	72	44	690
1	67	31	487
.	5	6	30
Total	7,276	6,312	47,778

pr_ad8_2	Survey wave					Total
	1	2	3	4	5	
-1	269	740	742	610	602	4,391
0	190	135	89	61	99	690
1	124	86	62	44	73	487
.	0	3	4	7	5	30
Total	583	964	897	722	779	5,598

pr_ad8_2	Survey wave		Total
	6	7	
-1	750	678	4,391
0	72	44	690
1	67	31	487
.	5	6	30
Total	894	759	5,598

(1,207 real changes made, 1,207 to missing)

(133 real changes made)

(181 real changes made)

(88 real changes made)

(133 real changes made)

(62 real changes made)

(89 real changes made)

(46 real changes made)

(59 real changes made)

(74 real changes made)

(98 real changes made)

(54 real changes made)

(85 real changes made)

(30 real changes made)

(45 real changes made)

pr_ad8_3	Survey wave					Total
	1	2	3	4	5	
-1	7,931	6,851	5,644	4,625	8,157	46,571
0	181	133	89	59	98	690
1	133	88	62	46	74	487
.	0	3	4	7	5	30
Total	8,245	7,075	5,799	4,737	8,334	47,778

pr_ad8_3	Survey wave		Total
	6	7	
-1	7,132	6,231	46,571
0	85	45	690
1	54	30	487
.	5	6	30
Total	7,276	6,312	47,778

pr_ad8_3	Survey wave					Total
	1	2	3	4	5	
-1	269	740	742	610	602	4,391
0	181	133	89	59	98	690
1	133	88	62	46	74	487
.	0	3	4	7	5	30
Total	583	964	897	722	779	5,598

pr_ad8_3	Survey wave		Total
	6	7	
-1	750	678	4,391
0	85	45	690
1	54	30	487
.	5	6	30
Total	894	759	5,598

(1,207 real changes made, 1,207 to missing)

(97 real changes made)

(217 real changes made)

(81 real changes made)

(140 real changes made)

(59 real changes made)

(92 real changes made)

(44 real changes made)

(61 real changes made)

(72 real changes made)

(100 real changes made)

(50 real changes made)

(89 real changes made)

(24 real changes made)

(51 real changes made)

pr_ad8_4	Survey wave					Total
	1	2	3	4	5	
-1	7,931	6,851	5,644	4,625	8,157	46,571
0	217	140	92	61	100	750
1	97	81	59	44	72	427
.	0	3	4	7	5	30
Total	8,245	7,075	5,799	4,737	8,334	47,778

pr_ad8_4	Survey wave		Total
	6	7	
-1	7,132	6,231	46,571
0	89	51	750
1	50	24	427
.	5	6	30
Total	7,276	6,312	47,778

pr_ad8_4	Survey wave					Total
	1	2	3	4	5	
-1	269	740	742	610	602	4,391
0	217	140	92	61	100	750
1	97	81	59	44	72	427
.	0	3	4	7	5	30
Total	583	964	897	722	779	5,598

pr_ad8_4	Survey wave		Total
	6	7	
-1	750	678	4,391
0	89	51	750
1	50	24	427
.	5	6	30
Total	894	759	5,598

(1,207 real changes made, 1,207 to missing)

(104 real changes made)

(210 real changes made)

(83 real changes made)

(138 real changes made)

(43 real changes made)

(108 real changes made)

(37 real changes made)

(68 real changes made)

(64 real changes made)

(108 real changes made)

(51 real changes made)

(88 real changes made)

(28 real changes made)

(47 real changes made)

pr_ad8_5	Survey wave					Total
	1	2	3	4	5	
-1	7,931	6,851	5,644	4,625	8,157	46,571
0	210	138	108	68	108	767
1	104	83	43	37	64	410
.	0	3	4	7	5	30
Total	8,245	7,075	5,799	4,737	8,334	47,778

pr_ad8_5	Survey wave		Total
	6	7	
-1	7,132	6,231	46,571
0	88	47	767
1	51	28	410
.	5	6	30
Total	7,276	6,312	47,778

pr_ad8_5	Survey wave					Total
	1	2	3	4	5	
-1	269	740	742	610	602	4,391
0	210	138	108	68	108	767
1	104	83	43	37	64	410
.	0	3	4	7	5	30
Total	583	964	897	722	779	5,598

pr_ad8_5	Survey wave		Total
	6	7	
-1	750	678	4,391
0	88	47	767
1	51	28	410
.	5	6	30
Total	894	759	5,598

(1,207 real changes made, 1,207 to missing)

(98 real changes made)

(215 real changes made)

(68 real changes made)

(153 real changes made)

(44 real changes made)

(107 real changes made)

(35 real changes made)

(70 real changes made)

(61 real changes made)

(112 real changes made)

(41 real changes made)

(98 real changes made)

(25 real changes made)

(50 real changes made)

pr_ad8_6	Survey wave					Total
	1	2	3	4	5	
-1	7,931	6,851	5,644	4,625	8,157	46,571
0	215	153	107	70	112	805
1	98	68	44	35	61	372
.	1	3	4	7	4	30
Total	8,245	7,075	5,799	4,737	8,334	47,778

pr_ad8_6	Survey wave		Total
	6	7	
-1	7,132	6,231	46,571
0	98	50	805
1	41	25	372
.	5	6	30
Total	7,276	6,312	47,778

pr_ad8_6	Survey wave					Total
	1	2	3	4	5	
-1	269	740	742	610	602	4,391
0	215	153	107	70	112	805
1	98	68	44	35	61	372
.	1	3	4	7	4	30
Total	583	964	897	722	779	5,598

pr_ad8_6	Survey wave		Total
	6	7	
-1	750	678	4,391
0	98	50	805
1	41	25	372
.	5	6	30
Total	894	759	5,598

(1,207 real changes made, 1,207 to missing)
 (66 real changes made)
 (248 real changes made)
 (49 real changes made)
 (171 real changes made)
 (24 real changes made)
 (127 real changes made)
 (24 real changes made)
 (80 real changes made)
 (29 real changes made)
 (143 real changes made)
 (19 real changes made)
 (120 real changes made)
 (13 real changes made)
 (62 real changes made)

pr_ad8_7	Survey wave					Total
	1	2	3	4	5	
-1	7,931	6,851	5,644	4,625	8,157	46,571
0	248	171	127	80	143	951
1	66	49	24	24	29	224
.	0	4	4	8	5	32
Total	8,245	7,075	5,799	4,737	8,334	47,778

pr_ad8_7	Survey wave		Total
	6	7	
-1	7,132	6,231	46,571
0	120	62	951
1	19	13	224
.	5	6	32
Total	7,276	6,312	47,778

pr_ad8_7	Survey wave					Total
	1	2	3	4	5	
-1	269	740	742	610	602	4,391
0	248	171	127	80	143	951
1	66	49	24	24	29	224
.	0	4	4	8	5	32
Total	583	964	897	722	779	5,598

pr_ad8_7	Survey wave		Total
	6	7	
-1	750	678	4,391
0	120	62	951
1	19	13	224
.	5	6	32
Total	894	759	5,598

(1,207 real changes made, 1,207 to missing)
 (114 real changes made)
 (200 real changes made)
 (79 real changes made)
 (142 real changes made)
 (63 real changes made)
 (88 real changes made)
 (49 real changes made)
 (56 real changes made)
 (74 real changes made)
 (99 real changes made)
 (65 real changes made)
 (74 real changes made)

(35 real changes made)

(40 real changes made)

pr_ad8_8	Survey wave					Total
	1	2	3	4	5	
-1	7,931	6,851	5,644	4,625	8,157	46,571
0	200	142	88	56	99	699
1	114	79	63	49	74	479
.	0	3	4	7	4	29
Total	8,245	7,075	5,799	4,737	8,334	47,778

pr_ad8_8	Survey wave		Total
	6	7	
-1	7,132	6,231	46,571
0	74	40	699
1	65	35	479
.	5	6	29
Total	7,276	6,312	47,778

pr_ad8_8	Survey wave					Total
	1	2	3	4	5	
-1	269	740	742	610	602	4,391
0	200	142	88	56	99	699
1	114	79	63	49	74	479
.	0	3	4	7	4	29
Total	583	964	897	722	779	5,598

pr_ad8_8	Survey wave		Total
	6	7	
-1	750	678	4,391
0	74	40	699
1	65	35	479
.	5	6	29
Total	894	759	5,598

287

288 tab pr_ad8_3 chgthink3 if wave==1, missing

pr_ad8_3	-9 Missin	R1 CP3C SP DIFF REMEMBER APPT				Total
		-8 DK	-1 Inappl	1 YES, A	2 NO, NO	
-1	168	2	7,494	126	25	7,931
0	0	4	0	0	177	181
1	0	0	0	129	0	133
Total	168	6	7,494	255	202	8,245

pr_ad8_3	R1 CP3C SP DIFF REMEMBER APPT 3 DEMENT		Total
-1	116		7,931
0	0		181
1	4		133
Total	120		8,245

289 tab chgthink1 dad8dem if wave==2 & proxy_ivw==1, missing //previous proxy ivw
 > ad8 items indicated dementia

R1 CP3A SP DIFF REMEMBER DATE	R2 D DEMENTIA REPORTED IN PRIOR AD8		Total
	-1 Inappl	1 DEMENTI	
-8 DK	1	0	1
-1 Inapplicable	463	120	583
1 YES, A CHANGE	135	0	135
2 NO, NO CHANGE	179	0	179
3 DEMENTIA/ALZHEIMER	66	0	66
Total	844	120	964

290

291 tab pr_ad8_1 wave, missing

pr_ad8_1	Survey wave					Total
	1	2	3	4	5	
-1	7,931	6,851	5,644	4,625	8,157	46,571
0	206	148	101	63	111	765
1	108	73	50	42	62	413
.	0	3	4	7	4	29
Total	8,245	7,075	5,799	4,737	8,334	47,778

pr_ad8_1	Survey wave		Total
	6	7	
-1	7,132	6,231	46,571
0	89	47	765
1	50	28	413
.	5	6	29
Total	7,276	6,312	47,778

292 tab pr_ad8_1 dad8dem if wave==2 & proxy_ivw==1, missing //previous proxy ivw a
 > d8 items indicated dementia

pr_ad8_1	R2 D DEMENTIA REPORTED IN PRIOR AD8		Total
	-1 Inappl	1 DEMENTI	
-1	623	117	740
0	148	0	148
1	73	0	73
.	0	3	3
Total	844	120	964

293 tab pr_ad8_1 sr_dementia_ever if wave==2 & proxy_ivw==1, missing // reported d
 > ementia directly

pr_ad8_1	Self report Dementia				Total
	-8	0	1	.	
-1	0	0	237	503	740
0	0	148	0	0	148
1	1	72	0	0	73
.	0	3	0	0	3
Total	1	223	237	503	964

294

```
295 gen pr_ad8_score=(pr_ad8_1+pr_ad8_2+pr_ad8_3+pr_ad8_4+pr_ad8_5+pr_ad8_6+pr_ad8_7+pr_ad8_8) if proxy_ivw==1 & dem_3_cat==.
      (46,605 missing values generated)
```

```
296 tab pr_ad8_score proxy_ivw, missing
```

pr_ad8_score	Interview via proxy			Total
	0	1	.	
0	0	364	0	364
1	0	166	0	166
2	0	113	0	113
3	0	94	0	94
4	0	90	0	90
5	0	94	0	94
6	0	78	0	78
7	0	78	0	78
8	0	96	0	96
.	39,211	4,425	2,969	46,605
Total	39,211	5,598	2,969	47,778

```
297 tab pr_ad8_score wave, missing
```

pr_ad8_score	Survey wave					Total
	1	2	3	4	5	
0	103	76	43	31	47	364
1	51	31	29	11	22	166
2	25	19	11	13	17	113
3	18	14	15	6	21	94
4	22	16	14	9	11	90
5	27	19	10	8	15	94
6	25	8	10	6	14	78
7	21	14	7	6	10	78
8	21	23	12	14	14	96
.	7,932	6,855	5,648	4,633	8,163	46,605
Total	8,245	7,075	5,799	4,737	8,334	47,778

pr_ad8_score	Survey wave		Total
	6	7	
0	42	22	364
1	12	10	166
2	20	8	113
3	12	8	94
4	13	5	90
5	10	5	94
6	11	4	78
7	11	9	78
8	8	4	96
.	7,137	6,237	46,605
Total	7,276	6,312	47,778

```

298
299 gen dem_via_proxy=1 if pr_ad8_score>=2 & pr_ad8_score~=. //from ad8 score dire
    > ctly
    (47,135 missing values generated)
300 replace dem_via_proxy=0 if inlist(pr_ad8_score,0,1)
    (530 real changes made)
301 replace dem_via_proxy=1 if (dad8dem==1 | dad8dem==1) & proxy_ivw==1 //if previ
    > ous interview ad8 indicated dementia
    (579 real changes made)
302 replace dem_via_proxy=-1 if sr_dementia_ever==1
    (3,316 real changes made)
303 tab dem_via_proxy wave if proxy_ivw==1 & ivw_type==1, missing

```

dem_via_pr oxy	Survey wave					Total
	1	2	3	4	5	
-1	269	237	219	206	306	1,720
0	154	107	72	42	69	530
1	159	116	83	65	103	662
.	1	1	0	5	5	15
Total	583	461	374	318	483	2,927

dem_via_pr oxy	Survey wave		Total
	6	7	
-1	264	219	1,720
0	54	32	530
1	88	48	662
.	2	1	15
Total	408	300	2,927

```

304
305 //set 3 category dementia state variable
306 //first xwave variable for proxy allowed sp to answer cg section
307 /*2/14/19 Speaktosp already exists since removing prefixes.
    > gen speaktosp=.
    > forvalues w=1/$w{
    >     replace speaktosp=cg`w'speaktosp if wave==`w'
    > }*/
308
309 replace dem_3_cat=1 if dem_3_cat==. & dem_via_proxy==1 //if proxy ivw indicate
    > s dem
    (662 real changes made)
310 replace dem_3_cat=3 if dem_3_cat==. & dem_via_proxy==0 & speaktosp==2 //proxy
    > ind no dem
    (262 real changes made)
311 tab dem_3_cat wave, missing

```

dem_3_cat	Survey wave					Total
	1	2	3	4	5	
-1	636	1,019	915	700	758	5,640
1	616	557	506	443	674	3,978
3	76	57	31	20	35	262
.	6,917	5,442	4,347	3,574	6,867	37,898
Total	8,245	7,075	5,799	4,737	8,334	47,778

dem_3_cat	Survey wave		Total
	6	7	
-1	866	746	5,640
1	628	554	3,978
3	29	14	262
.	5,753	4,998	37,898
Total	7,276	6,312	47,778

```

312
313
314 notes dem_3_cat: sr_dementia_ever dem_via_proxy speaptosp
315 notes dem_3_cat: 3 Category dementia
316
317 forvalues i=1/8{
318     2. notes pr_ad8_`i': chgthink`i'
319     3. }
320
321 notes pr_ad8_1: Change caused by memeory problems remembering month or year. (
322 > from proxy)
323
324 notes pr_ad8_2: Change caused by memeory problems repeating questions, stories
325 > , statements. (from proxy)
326
327 notes pr_ad8_3: Change caused by memeory problems amount of difficulty remembe
328 > ring appointments. (from proxy)
329
330 notes pr_ad8_4: Change caused by memeory problems amount of interest in hobbie
331 > s/activities. (from proxy)
332
333 notes pr_ad8_5: Change caused by memeory problems handling money matters. (fro
334 > m proxy)
335
336 notes pr_ad8_6: Change caused by memeory problems trouble to use tools/gadgets
337 > /tv. (from proxy)
338
339 notes pr_ad8_7: Change caused by memeory problems, problems with judgement. (f
340 > rom proxy)
341
342 notes pr_ad8_8: Change caused by memeory problems, failly problems with thinkin
343 > g or memeory. (from proxy)
344
345
346
347 notes pr_ad8_score: chgthink*
348
349 notes pr_ad8_score: adding up pr_ad8_* (from proxy)
350
351
352 notes dem_via_proxy: chgthink* pr_ad8_* pr_ad8_score
353
354 notes dem_via_proxy: Dementia indicator from proxy.
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```

```

335 notes `x': Located in NHATS Setup, under Part 4.
    3. notes `x': Updated: 04/15/19-MH
    4. }

```

```

336
337 *****
338 //for self interviews
339 *****
340 //current date questions
341 tab todaydat1 speaktosp if wave==1 & ivw_type==1, missing

```

DATE CORRCT MNTH	R1 CG6A TODAY'S -1 Inappl	R1 CG1A MAY SPEAK TO SP ASK QUES 1 YES	2 NO	Total
-7 RF	3	2	0	5
-1 Inapplicable	0	6	284	290
1 YES	6,523	140	0	6,663
2 NO/DON'T KNOW	500	151	0	651
Total	7,026	299	284	7,609

```

342
343 forvalues i = 1/4{
    2.     gen date_item`i'=.
    3.     forvalues w=1/$w{
    4.         replace date_item`i'=1 if todaydat`i'==1 & wave==`w' //yes
    5.         replace date_item`i'=0 if inlist(todaydat`i',2,-7) & wave==
> `w' //no, dont know, refused
    6.     }
    7. }
(47,778 missing values generated)
(6,663 real changes made)
(656 real changes made)
(5,305 real changes made)
(499 real changes made)
(4,277 real changes made)
(409 real changes made)
(3,495 real changes made)
(359 real changes made)
(6,715 real changes made)
(618 real changes made)
(5,711 real changes made)
(472 real changes made)
(4,970 real changes made)
(421 real changes made)
(47,778 missing values generated)
(5,845 real changes made)
(1,474 real changes made)
(4,261 real changes made)
(1,543 real changes made)
(3,336 real changes made)
(1,350 real changes made)
(2,744 real changes made)
(1,110 real changes made)
(5,585 real changes made)
(1,748 real changes made)
(4,506 real changes made)
(1,677 real changes made)
(3,939 real changes made)
(1,452 real changes made)
(47,778 missing values generated)
(6,620 real changes made)
(699 real changes made)
(5,302 real changes made)
(502 real changes made)
(4,266 real changes made)
(420 real changes made)
(3,500 real changes made)
(354 real changes made)
(6,673 real changes made)
(660 real changes made)

```



```

(5,668 real changes made)
(515 real changes made)
(4,930 real changes made)
(461 real changes made)
(47,778 missing values generated)
(6,583 real changes made)
(736 real changes made)
(5,357 real changes made)
(447 real changes made)
(4,325 real changes made)
(361 real changes made)
(82 real changes made)
(3,772 real changes made)
(6,774 real changes made)
(559 real changes made)
(5,760 real changes made)
(423 real changes made)
(4,991 real changes made)
(400 real changes made)

```

```

344 //count date questions correct
345 gen date_sum=date_item1+date_item2+date_item3+date_item4
    (7,208 missing values generated)

```

```

346 tab date_sum wave, missing

```

date_sum	Survey wave					Total
	1	2	3	4	5	
0	317	202	179	200	268	1,534
1	213	158	138	185	203	1,205
2	293	294	196	825	305	2,389
3	1,072	1,121	1,018	2,590	1,294	9,568
4	5,424	4,029	3,155	54	5,263	25,874
.	926	1,271	1,113	883	1,001	7,208
Total	8,245	7,075	5,799	4,737	8,334	47,778

date_sum	Survey wave		Total
	6	7	
0	186	182	1,534
1	174	134	1,205
2	246	230	2,389
3	1,329	1,144	9,568
4	4,248	3,701	25,874
.	1,093	921	7,208
Total	7,276	6,312	47,778

```

347
348 local i=1
349 foreach x in Month Day Year "Day of Week" {
    2. notes date_item`i': todaydat`i'
    3. notes date_item`i': Did SP say correct `x'
    4. notes date_item`i': Located in NHATS Setup, under Part 4.
    5. notes date_item`i': Updated: 04/16/19-MH
    6. local i=`i'+1
    7. }

```

```

350
351 notes date_sum: todaydat1 todaydat2 todaydat3 todaydat4
352 notes date_sum: Count of date_item1-date_item4
353 notes date_sum: Located in NHATS Setup, under Part 4.
354 notes date_sum: Updated: 04/16/19-MH
355
356
357 //add categories for proxy says can't speak to sp or proxy says can speak but
> sp unble to answer
358 forvalues w=1/$w{
    2.         replace date_sum=-2 if date_sum==. & speaktosp==2 & wave=='w'
    3.         replace date_sum=-3 if (date_item1==. | date_item2==. | date_item3=
> =. | ///
>         date_item4==. ) & speaktosp==1 & wave=='w'
    4. }
(284 real changes made)
(6 real changes made)
(250 real changes made)
(2 real changes made)
(197 real changes made)
(1 real change made)
(182 real changes made)
(1 real change made)
(237 real changes made)
(6 real changes made)
(220 real changes made)
(7 real changes made)
(170 real changes made)
(5 real changes made)
359 tab date_sum wave, missing

```

date_sum	Survey wave					Total
	1	2	3	4	5	
-3	6	2	1	1	6	28
-2	284	250	197	182	237	1,540
0	317	202	179	200	268	1,534
1	213	158	138	185	203	1,205
2	293	294	196	825	305	2,389
3	1,072	1,121	1,018	2,590	1,294	9,568
4	5,424	4,029	3,155	54	5,263	25,874
.	636	1,019	915	700	758	5,640
Total	8,245	7,075	5,799	4,737	8,334	47,778

date_sum	Survey wave		Total
	6	7	
-3	7	5	28
-2	220	170	1,540
0	186	182	1,534
1	174	134	1,205
2	246	230	2,389
3	1,329	1,144	9,568
4	4,248	3,701	25,874
.	866	746	5,640
Total	7,276	6,312	47,778

```

360
361 //new version date sum measure, without the extra categories
362 gen date_sumr=date_sum
    (5,640 missing values generated)

363 replace date_sumr=. if date_sum== -2
    (1,540 real changes made, 1,540 to missing)

364 replace date_sumr=0 if date_sum== -3
    (28 real changes made)

365
366 //president/vp items and count
367 capture program drop president

368 program define president
    1.      args newv oldv
    2.      gen `newv'=.
    3.      forvalues w=1/$w{
    4.          replace `newv'=1 if `oldv'==1 & wave==`w' //yes
    5.          replace `newv'=0 if inlist(`oldv',2,-7) & wave==`w' //no, r
    > efused
    6.      }
    7.      tab `newv' wave, missing
    8. end

369
370 president preslast presidnal
    (47,778 missing values generated)
    (6,672 real changes made)
    (532 real changes made)
    (5,395 real changes made)
    (329 real changes made)
    (4,331 real changes made)
    (281 real changes made)
    (3,594 real changes made)
    (188 real changes made)
    (6,802 real changes made)
    (415 real changes made)
    (5,786 real changes made)
    (321 real changes made)
    (4,878 real changes made)
    (444 real changes made)

```

preslast	Survey wave					Total
	1	2	3	4	5	
0	532	329	281	188	415	2,510
1	6,672	5,395	4,331	3,594	6,802	37,458
.	1,041	1,351	1,187	955	1,117	7,810
Total	8,245	7,075	5,799	4,737	8,334	47,778

preslast	Survey wave		Total
	6	7	
0	321	444	2,510
1	5,786	4,878	37,458
.	1,169	990	7,810
Total	7,276	6,312	47,778

371 president presfirst presidna3
 (47,778 missing values generated)
 (3,943 real changes made)
 (3,261 real changes made)
 (3,689 real changes made)
 (2,035 real changes made)
 (3,086 real changes made)
 (1,526 real changes made)
 (2,640 real changes made)
 (1,142 real changes made)
 (4,841 real changes made)
 (2,376 real changes made)
 (4,304 real changes made)
 (1,803 real changes made)
 (4,324 real changes made)
 (998 real changes made)

presfirst	Survey wave					Total
	1	2	3	4	5	
0	3,261	2,035	1,526	1,142	2,376	13,141
1	3,943	3,689	3,086	2,640	4,841	26,827
.	1,041	1,351	1,187	955	1,117	7,810
Total	8,245	7,075	5,799	4,737	8,334	47,778

presfirst	Survey wave		Total
	6	7	
0	1,803	998	13,141
1	4,304	4,324	26,827
.	1,169	990	7,810
Total	7,276	6,312	47,778

372 president vplast vpname1
 (47,778 missing values generated)
 (3,387 real changes made)
 (3,817 real changes made)
 (3,202 real changes made)
 (2,522 real changes made)
 (2,710 real changes made)
 (1,902 real changes made)
 (2,286 real changes made)
 (1,496 real changes made)
 (4,680 real changes made)
 (2,537 real changes made)
 (3,974 real changes made)
 (2,133 real changes made)
 (3,053 real changes made)
 (2,269 real changes made)

vplast	Survey wave					Total
	1	2	3	4	5	
0	3,817	2,522	1,902	1,496	2,537	16,676
1	3,387	3,202	2,710	2,286	4,680	23,292
.	1,041	1,351	1,187	955	1,117	7,810
Total	8,245	7,075	5,799	4,737	8,334	47,778

vplast	Survey wave		Total
	6	7	
0	2,133	2,269	16,676
1	3,974	3,053	23,292
.	1,169	990	7,810
Total	7,276	6,312	47,778

```

373 president vpfirst vpname3
(47,778 missing values generated)
(2,587 real changes made)
(4,617 real changes made)
(2,589 real changes made)
(3,135 real changes made)
(2,259 real changes made)
(2,353 real changes made)
(1,932 real changes made)
(1,850 real changes made)
(3,902 real changes made)
(3,315 real changes made)
(3,451 real changes made)
(2,656 real changes made)
(1,438 real changes made)
(3,884 real changes made)

```

vpfirst	Survey wave					Total
	1	2	3	4	5	
0	4,617	3,135	2,353	1,850	3,315	21,810
1	2,587	2,589	2,259	1,932	3,902	18,158
.	1,041	1,351	1,187	955	1,117	7,810
Total	8,245	7,075	5,799	4,737	8,334	47,778

vpfirst	Survey wave		Total
	6	7	
0	2,656	3,884	21,810
1	3,451	1,438	18,158
.	1,169	990	7,810
Total	7,276	6,312	47,778

```

374
375 //count president questions correct
376 gen presvp=preslast+presfirst+vplast+vpfirst
(7,810 missing values generated)

```

```

377 tab presvp wave, missing

```

presvp	Survey wave					Total
	1	2	3	4	5	
0	459	295	245	170	361	2,214
1	1,940	1,184	805	638	1,100	6,991
2	1,807	1,241	1,028	797	1,441	9,047
3	957	807	611	488	1,017	6,214
4	2,041	2,197	1,923	1,689	3,298	15,502
.	1,041	1,351	1,187	955	1,117	7,810
Total	8,245	7,075	5,799	4,737	8,334	47,778

presvp	Survey wave		Total
	6	7	
0	279	405	2,214
1	880	444	6,991
2	1,190	1,543	9,047
3	777	1,557	6,214
4	2,981	1,373	15,502
.	1,169	990	7,810
Total	7,276	6,312	47,778

```

378
379
380
381 //add categories for proxy says can't speak to sp or proxy says can speak but
> sp unble to answer
382 forvalues w=1/$w{
  2.      replace presvp=-2 if presvp==. & speaktosp==2 & wave==`w'
  3.      replace presvp=-3 if presvp==. & (preslast==. | presfirst==. | vpla
> st==. | ///
>      vpfirst==. ) & speaktosp==1 & wave==`w'
  4. }
(284 real changes made)
(121 real changes made)
(250 real changes made)
(82 real changes made)
(197 real changes made)
(75 real changes made)
(182 real changes made)
(73 real changes made)
(237 real changes made)
(122 real changes made)
(220 real changes made)
(83 real changes made)
(170 real changes made)
(74 real changes made)

```

```

383 tab presvp wave, missing

```

presvp	Survey wave					Total
	1	2	3	4	5	
-3	121	82	75	73	122	630
-2	284	250	197	182	237	1,540
0	459	295	245	170	361	2,214
1	1,940	1,184	805	638	1,100	6,991
2	1,807	1,241	1,028	797	1,441	9,047
3	957	807	611	488	1,017	6,214
4	2,041	2,197	1,923	1,689	3,298	15,502
.	636	1,019	915	700	758	5,640
Total	8,245	7,075	5,799	4,737	8,334	47,778

presvp	Survey wave		Total
	6	7	
-3	83	74	630
-2	220	170	1,540
0	279	405	2,214
1	880	444	6,991
2	1,190	1,543	9,047
3	777	1,557	6,214
4	2,981	1,373	15,502
.	866	746	5,640
Total	7,276	6,312	47,778

```

384
385 //new version president sum measure, without the extra categories
386 gen presvpr=presvp
    (5,640 missing values generated)

387 replace presvpr=. if presvp==2
    (1,540 real changes made, 1,540 to missing)

388 replace presvpr=0 if presvp==3
    (630 real changes made)

389
390 //total orientation domain, date and president questions
391 gen date_prvp=date_sumr+presvpr
    (7,180 missing values generated)

392 tab date_prvp, missing

```

date_prvp	Freq.	Percent	Cum.
0	1,162	2.43	2.43
1	670	1.40	3.83
2	878	1.84	5.67
3	1,402	2.93	8.61
4	3,068	6.42	15.03
5	6,368	13.33	28.36
6	7,726	16.17	44.53
7	7,774	16.27	60.80
8	11,550	24.17	84.97
.	7,180	15.03	100.00
-----+			
Total	47,778	100.00	

```

393
394 //executive function domain, clock drawing score
395 gen clock_scorer=.
    (47,778 missing values generated)

396 forvalues w=1/$w{
    2.      replace clock_scorer=dclkdraw if wave==`w'
    3.      replace clock_scorer=. if inlist(dclkdraw,-2,-9) & wave==`w' //miss
> ing
    4.      replace clock_scorer=0 if inlist(dclkdraw,-3,-4,-7) & wave==`w' //r
> efused,unable
    5. //assign mean values where missing response
397      replace clock_scorer=2 if dclkdraw==9 & speaktosp==1 & wave==`w' //pr
> oxy
    6.      replace clock_scorer=3 if dclkdraw==9 & speaktosp==1 & wave==`w'
> //self
    7.      }
    (8,245 real changes made)
    (347 real changes made, 347 to missing)
    (344 real changes made)
    (4 real changes made)
    (59 real changes made)
    (7,075 real changes made)
    (357 real changes made, 357 to missing)
    (195 real changes made)
    (81 real changes made)
    (26 real changes made)
    (5,799 real changes made)
    (278 real changes made, 278 to missing)
    (147 real changes made)
    (72 real changes made)
    (9 real changes made)
    (4,737 real changes made)
    (256 real changes made, 256 to missing)
    (110 real changes made)
    (68 real changes made)
    (6 real changes made)
    (8,334 real changes made)
    (540 real changes made, 540 to missing)

```

```

(139 real changes made)
(113 real changes made)
(11 real changes made)
(7,276 real changes made)
(480 real changes made, 480 to missing)
(110 real changes made)
(73 real changes made)
(10 real changes made)
(6,312 real changes made)
(399 real changes made, 399 to missing)
(69 real changes made)
(69 real changes made)
(2 real changes made)

```

```
398 tab clock_scorer wave, missing //left as -1 if inapplicable
```

clock_scorer	Survey wave					Total
	1	2	3	4	5	
-1	636	1,019	915	700	579	5,126
0	416	250	186	153	204	1,501
1	332	183	128	125	265	1,406
2	950	869	606	447	954	5,152
3	1,991	1,303	1,042	847	1,563	8,999
4	2,673	2,246	1,891	1,160	2,536	14,677
5	963	955	834	1,123	1,817	8,863
.	284	250	197	182	416	2,054
Total	8,245	7,075	5,799	4,737	8,334	47,778

clock_scorer	Survey wave		Total
	6	7	
-1	689	588	5,126
0	170	122	1,501
1	197	176	1,406
2	734	592	5,152
3	1,183	1,070	8,999
4	2,249	1,922	14,677
5	1,657	1,514	8,863
.	397	328	2,054
Total	7,276	6,312	47,778

```

399
400 //memory domain, word recall, uses derived scores, not raw responses
401 capture program drop recall

402 program define recall
1.     args newv oldv
2.     gen `newv'=.
3.     forvalues w=1/$w{
4.         replace `newv'=`oldv' if wave==`w'
5.         replace `newv'=. if inlist(`oldv',-2,-1) & wave==`w' //n/a
> or not asked
6.         replace `newv'=0 if inlist(`oldv',-7,-3) & wave==`w' //refu
> sed or unable
7.     }
8.     tab `newv' wave, missing
9. end

```


403

404 recall irecall dwrdimrc

(47,778 missing values generated)
 (8,245 real changes made)
 (920 real changes made, 920 to missing)
 (261 real changes made)
 (7,075 real changes made)
 (1,269 real changes made, 1,269 to missing)
 (170 real changes made)
 (5,799 real changes made)
 (1,112 real changes made, 1,112 to missing)
 (141 real changes made)
 (4,737 real changes made)
 (882 real changes made, 882 to missing)
 (117 real changes made)
 (8,334 real changes made)
 (995 real changes made, 995 to missing)
 (194 real changes made)
 (7,276 real changes made)
 (1,086 real changes made, 1,086 to missing)
 (142 real changes made)
 (6,312 real changes made)
 (916 real changes made, 916 to missing)
 (117 real changes made)

irecall	Survey wave					Total
	1	2	3	4	5	
-9	0	0	0	0	9	9
0	392	261	212	162	283	1,744
1	169	124	101	78	157	892
2	496	344	252	203	444	2,384
3	937	738	608	485	919	5,054
4	1,539	1,163	911	781	1,417	8,038
5	1,710	1,294	1,090	866	1,728	9,381
6	1,262	1,014	856	714	1,322	7,360
7	594	562	431	376	745	3,879
8	184	221	194	142	242	1,427
9	36	51	27	40	66	347
10	6	34	5	8	7	83
.	920	1,269	1,112	882	995	7,180
Total	8,245	7,075	5,799	4,737	8,334	47,778

irecall	Survey wave		Total
	6	7	
-9	0	0	9
0	230	204	1,744
1	144	119	892
2	336	309	2,384
3	728	639	5,054
4	1,185	1,042	8,038
5	1,454	1,239	9,381
6	1,172	1,020	7,360
7	609	562	3,879
8	253	191	1,427
9	68	59	347
10	11	12	83
.	1,086	916	7,180
Total	7,276	6,312	47,778

405 recall drecall dwrddlyrc

(47,778 missing values generated)
 (8,245 real changes made)
 (920 real changes made, 920 to missing)
 (286 real changes made)
 (7,075 real changes made)
 (1,269 real changes made, 1,269 to missing)
 (204 real changes made)
 (5,799 real changes made)
 (1,112 real changes made, 1,112 to missing)
 (155 real changes made)
 (4,737 real changes made)
 (882 real changes made, 882 to missing)
 (125 real changes made)
 (8,334 real changes made)
 (995 real changes made, 995 to missing)
 (215 real changes made)
 (7,276 real changes made)
 (1,086 real changes made, 1,086 to missing)
 (155 real changes made)
 (6,312 real changes made)
 (916 real changes made, 916 to missing)
 (125 real changes made)

drecall	Survey wave					Total
	1	2	3	4	5	
-9	0	0	0	0	9	9
0	1,395	1,021	832	656	1,228	6,937
1	589	413	305	270	525	2,904
2	876	623	479	374	744	4,258
3	1,216	924	734	634	1,184	6,475
4	1,411	1,104	921	695	1,391	7,739
5	1,036	911	731	630	1,176	6,432
6	526	515	426	363	666	3,632
7	195	203	182	159	305	1,542
8	61	74	51	54	81	492
9	19	13	20	20	30	160
10	1	5	6	0	0	18
.	920	1,269	1,112	882	995	7,180
Total	8,245	7,075	5,799	4,737	8,334	47,778

drecall	Survey wave		Total
	6	7	
-9	0	0	9
0	991	814	6,937
1	418	384	2,904
2	596	566	4,258
3	950	833	6,475
4	1,171	1,046	7,739
5	1,058	890	6,432
6	615	521	3,632
7	260	238	1,542
8	98	73	492
9	27	31	160
10	6	0	18
.	1,086	916	7,180
Total	7,276	6,312	47,778

```

406
407 gen wordrecall0_20=irecall+drecall
    (7,180 missing values generated)

408
409 //overall cognitive domain score, assigns cutoffs for each of the domain varia
> bles
410 gen clock65=0 if clock_scorer>1 & clock_scorer<=5
    (10,087 missing values generated)

411 replace clock65=1 if inlist(clock_scorer,0,1)
    (2,907 real changes made)

412
413 gen word65=0 if wordrecall0_20>3 & wordrecall0_20<=20
    (12,837 missing values generated)

414 replace word65=1 if inlist(wordrecall0_20,0,1,2,3)
    (5,648 real changes made)

415
416 gen datena65=0 if date_prvp>3 & date_prvp<=8
    (11,292 missing values generated)

417 replace datena65=1 if inlist(date_prvp,0,1,2,3)
    (4,112 real changes made)

418
419 gen domain65=clock65+word65+datena65
    (7,189 missing values generated)

420 tab domain65 wave, missing

```

domain65	Survey wave					Total
	1	2	3	4	5	
0	5,577	4,553	3,738	2,919	5,906	32,156
1	1,071	784	541	551	866	5,065
2	417	366	326	300	425	2,508
3	260	103	82	85	133	860
.	920	1,269	1,112	882	1,004	7,189
Total	8,245	7,075	5,799	4,737	8,334	47,778

domain65	Survey wave		Total
	6	7	
0	5,072	4,391	32,156
1	654	598	5,065
2	358	316	2,508
3	106	91	860
.	1,086	916	7,189
Total	7,276	6,312	47,778

```

421
422 //now apply to dementia 3 category variable
423 replace dem_3_cat=1 if dem_3_cat==. & inlist(speaktosp,1,-1) & inlist(domain65
> ,2,3)
    (1,873 real changes made)

```

```
424 replace dem_3_cat=2 if dem_3_cat==. & inlist(speaktosp,1,-1) & domain65==1
(4,524 real changes made)
```

```
425 replace dem_3_cat=3 if dem_3_cat==. & inlist(speaktosp,1,-1) & domain65==0
(31,481 real changes made)
```

```
426
```

```
427 la def dem3 1"Probable dementia" 2"Possible dementia" 3"No dementia"
```

```
428 la val dem_3_cat dem3
```

```
429 la var dem_3_cat "Dementia likelihood, 3 categories"
```

```
430
```

```
431 tab dem_3_cat wave, missing
```

Dementia likelihood, 3 categories	1	2	3	4	Total
-1	636	1,019	915	700	5,640
Probable dementia	1,038	840	718	662	5,851
Possible dementia	996	675	478	498	4,524
No dementia	5,575	4,540	3,688	2,873	31,743
.	0	1	0	4	20
Total	8,245	7,075	5,799	4,737	47,778

Dementia likelihood, 3 categories	5	6	7	Total
-1	758	866	746	5,640
Probable dementia	961	862	770	5,851
Possible dementia	779	572	526	4,524
No dementia	5,823	4,975	4,269	31,743
.	13	1	1	20
Total	8,334	7,276	6,312	47,778

```
432
```

```
433 gen dem_2_cat=1 if inlist(dem_3_cat,1,2)
(37,403 missing values generated)
```

```
434 replace dem_2_cat=0 if dem_3_cat==3
(31,743 real changes made)
```

```
435 la var dem_2_cat "Ind prob/possible dementia"
```

```
436 tab dem_2_cat wave, missing
```

Ind prob/possible dementia	1	2	3	4	5	Total
0	5,575	4,540	3,688	2,873	5,823	31,743
1	2,034	1,515	1,196	1,160	1,740	10,375
.	636	1,020	915	704	771	5,660
Total	8,245	7,075	5,799	4,737	8,334	47,778

Ind				
prob/possi				
ble		Survey wave		
dementia		6	7	Total
-----+-----				
0	4,975	4,269		31,743
1	1,434	1,296		10,375
.	867	747		5,660
-----+-----				
Total	7,276	6,312		47,778

437 *****

438 //rate memory

439 gen memory=.

(47,778 missing values generated)

440 forvalues w=1/\$w{

2. replace memory=ratememry if wave==`w' & proxy_ivw==0 //self interview

3. replace memory=memrygood if wave==`w' & proxy_ivw==1 //proxy interview

4.

441 }

(7,026 real changes made)

(583 real changes made)

(5,595 real changes made)

(964 real changes made)

(4,510 real changes made)

(897 real changes made)

(3,719 real changes made)

(722 real changes made)

(7,093 real changes made)

(779 real changes made)

(6,002 real changes made)

(894 real changes made)

(5,266 real changes made)

(759 real changes made)

442 replace memory=. if inlist(memory,-1)

(319 real changes made, 319 to missing)

443 la var memory "Rate memory 1=Excell, 5=Poor"

444 la def mem 1"Excellent" 2"Very good" 3"Good" 4"Fair" 5"Poor"

445 la val memory mem

446 tab memory wave, missing

Rate						
memory						
1=Excell,		Survey wave				
5=Poor	1	2	3	4	5	Total
-----+-----						
-8	2	17	20	15	13	99
-7	4	5	2	0	0	14
Excellent	912	685	486	335	770	4,233
Very good	2,290	1,837	1,463	1,153	2,249	12,499
Good	2,615	2,269	1,891	1,656	2,799	15,984
Fair	1,314	1,180	1,026	875	1,470	8,398
Poor	472	439	402	388	562	3,263
.	636	643	509	315	471	3,288
-----+-----						
Total	8,245	7,075	5,799	4,737	8,334	47,778

Rate memory 1=Excell, 5=Poor	Survey wave		Total
	6	7	
-8	16	16	99
-7	1	2	14
Excellent	583	462	4,233
Very good	1,915	1,592	12,499
Good	2,516	2,238	15,984
Fair	1,332	1,201	8,398
Poor	507	493	3,263
.	406	308	3,288
Total	7,276	6,312	47,778

```

447
448 notes memory: ratememry memrygood
449 notes memory: Rate your memory.
450 notes memory: Located in NHATS Setup, under Part 4.
451 notes memory: Updated: 04/17/19-MH
452 *****
453 //total number self reported medical conditions, ever
454 //note that depression and anxeity are from the specific interview questions
455 //the others are all if the person has reported the condition in any interview
> wave
456 egen sr_numconditions1=anycount(sr_ami_ever sr_stroke_ever sr_cancer_ever ///
> sr_hip_ever sr_heart_dis_ever sr_htn_ever sr_ra_ever sr_osteoprs_ever
> ///
> sr_diabetes_ever sr_lung_dis_ever sr_dementia_ever sr_phq2_depressed /
> //
> sr_gad2_anxiety), values(1)
457 replace sr_numconditions1=. if ivw_type!=1
(5,640 real changes made, 5,640 to missing)
458 la var sr_numconditions1 "Count medical conditions"
459 tab sr_numconditions1 wave, missing

```

Count medical conditions	Survey wave					Total
	1	2	3	4	5	
0	570	357	233	161	449	2,311
1	1,163	840	613	444	1,003	5,390
2	1,685	1,287	957	746	1,556	8,520
3	1,606	1,275	1,029	854	1,601	8,940
4	1,107	931	830	719	1,254	6,908
5	728	652	578	509	791	4,702
6	389	379	298	285	492	2,668
7	213	185	183	175	235	1,489
8	99	84	90	83	113	714
9	32	40	43	37	47	300
10	15	19	20	15	20	127
11	2	4	8	7	12	52
12	0	3	2	2	3	16
13	0	0	0	0	0	1
.	636	1,019	915	700	758	5,640
Total	8,245	7,075	5,799	4,737	8,334	47,778

Count	Survey wave		
medical	6	7	Total
conditions			
0	310	231	2,311
1	743	584	5,390
2	1,240	1,049	8,520
3	1,382	1,193	8,940
4	1,103	964	6,908
5	753	691	4,702
6	431	394	2,668
7	242	256	1,489
8	122	123	714
9	52	49	300
10	20	18	127
11	9	10	52
12	3	3	16
13	0	1	1
.	866	746	5,640
Total	7,276	6,312	47,778

460 notes sr_numconditions1: Counting number of medical conditions.

461 notes sr_numconditions1: Located in NHATS Setup, under Part 4.

462 notes sr_numconditions1: Updated: 04/17/19-MH

463

```
464 local ivars srh srh_fp sr_ami_raw sr_ami_ever sr_ami_new sr_stroke_raw sr_stro
> ke_ever sr_stroke_new sr_cancer_raw sr_cancer_ever sr_cancer_new ///
> sr_hip_raw sr_hip_ever sr_hip_new sr_heart_dis_raw sr_heart_dis_ever sr_heart_
> dis_new sr_htn_raw sr_htn_ever sr_htn_new sr_ra_raw ///
> sr_ra_ever sr_ra_new sr_osteoprs_raw sr_osteoprs_ever sr_osteoprs_new sr_diabe
> tes_raw sr_diabetes_ever sr_diabetes_new sr_lung_dis_raw ///
> sr_lung_dis_ever sr_lung_dis_new sr_dementia_raw sr_dementia_ever sr_dementia_
> new
```

```
465 foreach w in `ivars'{
  2. tab `w'
  3. }
```

Self			
reported			
health,			
categorical	Freq.	Percent	Cum.
-8	31	0.07	0.07
-7	2	0.00	0.08
Excellent	4,657	11.05	11.13
Very good	11,993	28.46	39.59
Good	14,294	33.92	73.51
Fair	8,450	20.05	93.57
Poor	2,711	6.43	100.00
Total	42,138	100.00	

Self			
reported			
health=fair			
/poor	Freq.	Percent	Cum.
-8	31	0.07	0.07
-7	2	0.00	0.08
0	30,944	73.43	73.51
1	11,161	26.49	100.00
Total	42,138	100.00	

Self report			
Heart			
Attack, Raw	Freq.	Percent	Cum.
-8	58	0.14	0.14
-7	1	0.00	0.14
0	39,550	93.86	94.00
1	2,529	6.00	100.00

Total	42,138	100.00	
-------	--------	--------	--

Ever Self			
report			
Heart			
Attack	Freq.	Percent	Cum.
-8	120	0.28	0.28
-7	3	0.01	0.29
0	35,023	83.12	83.41
1	6,992	16.59	100.00

Total	42,138	100.00	
-------	--------	--------	--

Self report			
Heart			
Attack			
since prev			
year	Freq.	Percent	Cum.
-8	50	0.14	0.14
-7	1	0.00	0.15
0	33,113	95.90	96.05
1	1,365	3.95	100.00

Total	34,529	100.00	
-------	--------	--------	--

Self report			
Stroke, Raw	Freq.	Percent	Cum.
-8	60	0.14	0.14
-7	1	0.00	0.14
0	39,924	94.75	94.89
1	2,153	5.11	100.00

Total	42,138	100.00	
-------	--------	--------	--

Ever Self			
report			
Stroke	Freq.	Percent	Cum.
-8	122	0.29	0.29
-7	3	0.01	0.30
0	36,555	86.75	87.05
1	5,458	12.95	100.00

Total	42,138	100.00	
-------	--------	--------	--

Self report			
Stroke			
since prev			
year	Freq.	Percent	Cum.
-8	52	0.15	0.15
-7	1	0.00	0.15
0	33,215	96.19	96.35
1	1,261	3.65	100.00

Total	34,529	100.00	
-------	--------	--------	--

Self report Cancer, Raw			
	Freq.	Percent	Cum.
-8	37	0.09	0.09
-7	3	0.01	0.09
0	37,348	88.63	88.73
1	4,750	11.27	100.00
Total	42,138	100.00	

Ever Self report Cancer			
	Freq.	Percent	Cum.
-8	85	0.20	0.20
-7	10	0.02	0.23
0	29,831	70.79	71.02
1	12,212	28.98	100.00
Total	42,138	100.00	

Self report Cancer since prev year			
	Freq.	Percent	Cum.
-8	35	0.10	0.10
-7	2	0.01	0.11
0	31,695	91.79	91.90
1	2,797	8.10	100.00
Total	34,529	100.00	

Self report Hip Fracture, Raw			
	Freq.	Percent	Cum.
-8	15	0.04	0.04
-7	1	0.00	0.04
0	41,145	97.64	97.68
1	977	2.32	100.00
Total	42,138	100.00	

Ever Self report Hip Fracture (since age 50)			
	Freq.	Percent	Cum.
-8	34	0.08	0.08
-7	3	0.01	0.09
0	39,564	93.89	93.98
1	2,537	6.02	100.00
Total	42,138	100.00	

Self report Hip Fracture since prev year			
	Freq.	Percent	Cum.
-8	11	0.03	0.03
-7	1	0.00	0.03
0	33,919	98.23	98.27
1	598	1.73	100.00
Total	34,529	100.00	

sr_heart_dis_raw	Freq.	Percent	Cum.
-8	77	0.18	0.18
-7	1	0.00	0.19
No	32,845	77.95	78.13
Yes	2,844	6.75	84.88
Previously reported	6,371	15.12	100.00
Total	42,138	100.00	

Self report			
Heart			
Disease	Freq.	Percent	Cum.
-8	77	0.18	0.18
-7	1	0.00	0.19
0	32,845	77.95	78.13
1	9,215	21.87	100.00
Total	42,138	100.00	

Self report			
Heart			
Disease			
since prev			
year	Freq.	Percent	Cum.
-8	61	0.18	0.18
-7	1	0.00	0.18
0	33,034	95.67	95.85
1	1,433	4.15	100.00
Total	34,529	100.00	

sr_htn_raw	Freq.	Percent	Cum.
-8	43	0.10	0.10
No	12,220	29.00	29.10
Yes	8,331	19.77	48.87
Previously reported	21,544	51.13	100.00
Total	42,138	100.00	

Self report			
high blood			
pressure	Freq.	Percent	Cum.
-8	43	0.10	0.10
0	12,220	29.00	29.10
1	29,875	70.90	100.00
Total	42,138	100.00	

Self report			
high blood			
pressure			
since prev			
year	Freq.	Percent	Cum.
-8	33	0.10	0.10
0	31,273	90.57	90.67
1	3,223	9.33	100.00
Total	34,529	100.00	

sr_ra_raw	Freq.	Percent	Cum.
-8	44	0.10	0.10
-7	1	0.00	0.11
No	15,616	37.06	37.17
Yes	7,551	17.92	55.09
Previously reported	18,926	44.91	100.00
Total	42,138	100.00	

Self report arthritis	Freq.	Percent	Cum.
-8	44	0.10	0.10
-7	1	0.00	0.11
0	15,616	37.06	37.17
1	26,477	62.83	100.00
Total	42,138	100.00	

Self report arthritis since prev year	Freq.	Percent	Cum.
-8	29	0.08	0.08
0	31,197	90.35	90.43
1	3,303	9.57	100.00
Total	34,529	100.00	

sr_osteoprs_raw	Freq.	Percent	Cum.
-8	131	0.31	0.31
-7	1	0.00	0.31
No	31,161	73.95	74.26
Yes	3,165	7.51	81.77
Previously reported	7,680	18.23	100.00
Total	42,138	100.00	

Self report osteoporosi s	Freq.	Percent	Cum.
-8	131	0.31	0.31
-7	1	0.00	0.31
0	31,161	73.95	74.26
1	10,845	25.74	100.00
Total	42,138	100.00	

Self report osteoporosi s since prev year	Freq.	Percent	Cum.
-8	104	0.30	0.30
-7	1	0.00	0.30
0	32,818	95.04	95.35
1	1,606	4.65	100.00
Total	34,529	100.00	

sr_diabetes_raw	Freq.	Percent	Cum.
-8	22	0.05	0.05
-7	2	0.00	0.06
No	30,435	72.23	72.28
Yes	3,355	7.96	80.25
Previously reported	8,324	19.75	100.00
Total	42,138	100.00	

Self report diabetes	Freq.	Percent	Cum.
-8	22	0.05	0.05
-7	2	0.00	0.06
0	30,435	72.23	72.28
1	11,679	27.72	100.00
Total	42,138	100.00	

Self report diabetes since prev year	Freq.	Percent	Cum.
-8	20	0.06	0.06
-7	1	0.00	0.06
0	33,078	95.80	95.86
1	1,430	4.14	100.00
Total	34,529	100.00	

sr_lung_dis_raw	Freq.	Percent	Cum.
-8	30	0.07	0.07
-7	1	0.00	0.07
No	34,367	81.56	81.63
Yes	2,362	5.61	87.24
Previously reported	5,378	12.76	100.00
Total	42,138	100.00	

Self report Lung Disease	Freq.	Percent	Cum.
-8	30	0.07	0.07
-7	1	0.00	0.07
0	34,367	81.56	81.63
1	7,740	18.37	100.00
Total	42,138	100.00	

Self report Lung Disease since prev year	Freq.	Percent	Cum.
-8	25	0.07	0.07
-7	1	0.00	0.08
0	33,295	96.43	96.50
1	1,208	3.50	100.00
Total	34,529	100.00	

sr_dementia_raw	Freq.	Percent	Cum.
-8	33	0.08	0.08
-7	2	0.00	0.08
No	38,787	92.05	92.13
Yes	1,371	3.25	95.38
Previously reported	1,945	4.62	100.00
Total	42,138	100.00	

Self report	Freq.	Percent	Cum.
Dementia			
-8	33	0.08	0.08
-7	2	0.00	0.08
0	38,787	92.05	92.13
1	3,316	7.87	100.00
Total	42,138	100.00	

Self report	Freq.	Percent	Cum.
Dementia			
since prev			
year			
-8	27	0.08	0.08
-7	2	0.01	0.08
0	33,586	97.27	97.35
1	914	2.65	100.00
Total	34,529	100.00	

466

467 *****

468 save round_1_{w}_cleanv2.dta, replace
 file round_1_7_cleanv2.dta saved

469

470 *****

471 log close

```

  name: <unnamed>
  log: E:\nhats\nhats_code\NHATS data setup\logs\3_nhats_cleaning_19_Apr_
> 2019.smcl
  log type: text
  closed on: 19 Apr 2019, 16:26:49

```