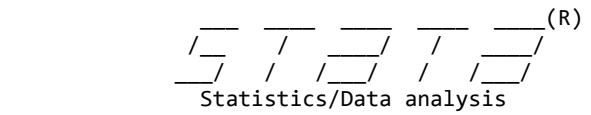


```
 1 .
 2 . cd "E:\16GBBACKUPUSB\BACKUP_USB_SEPTEMBER2014\May Baydoun_folder\HANDLS_PAPER64_HCYDEPANXIETY_LONG\DATA"
   E:\16GBBACKUPUSB\BACKUP_USB_SEPTEMBER2014\May Baydoun_folder\HANDLS_PAPER64_HCYDEPANXIETY_LONG\DATA

 3 .
 4 .
 5 .
 6 . //STEP 0: CREATE ANXIETY SCORE LONGITUDINAL AND CHECK ALL VARIABLES IN THE WAVES 1, 3 AND 4 DATASETS//
 7 .
 8 . use 2023-09-28_anx,clear

 9 . capture rename HNDID HNDID

10 . capture rename HNDWAVE HNDwave

11 . save, replace
   file 2023-09-28_anx.dta saved

12 .
13 .
14 . capture drop ga0* ga10* anxd*

15 . decode PDSQga01, generate(ga01)

16 . decode PDSQga02, generate(ga02)

17 . decode PDSQga03, generate(ga03)

18 . decode PDSQga04, generate(ga04)

19 . decode PDSQga05, generate(ga05)

20 . decode PDSQga06, generate(ga06)

21 . decode PDSQga07, generate(ga07)

22 . decode PDSQga08, generate(ga08)

23 . decode PDSQga09, generate(ga09)

24 . decode PDSQga10, generate(ga10)

25 . decode AnxietyDisorder, generate(anxd)

26 .
27 .
28 . replace ga01 = "0" if ga01 == "No"
   (3,513 real changes made)

29 . replace ga01 = "1" if ga01 == "Yes"
   (608 real changes made)
```

```
30 .
31 . replace ga02 = "0" if ga02 == "No"
   (3,160 real changes made)

32 . replace ga02 = "1" if ga02 == "Yes"
   (957 real changes made)

33 .
34 . replace ga03 = "0" if ga03 == "No"
   (3,267 real changes made)

35 . replace ga03 = "1" if ga03 == "Yes"
   (847 real changes made)

36 .
37 . replace ga04 = "0" if ga04 == "No"
   (3,048 real changes made)

38 . replace ga04 = "1" if ga04 == "Yes"
   (1,066 real changes made)

39 .
40 . replace ga05 = "0" if ga05 == "No"
   (2,775 real changes made)

41 . replace ga05 = "1" if ga05 == "Yes"
   (1,338 real changes made)

42 .
43 . replace ga06 = "0" if ga06 == "No"
   (2,684 real changes made)

44 . replace ga06 = "1" if ga06 == "Yes"
   (1,426 real changes made)

45 .
46 . replace ga07 = "0" if ga07 == "No"
   (2,621 real changes made)

47 . replace ga07 = "1" if ga07 == "Yes"
   (1,488 real changes made)

48 .
49 . replace ga08 = "0" if ga08 == "No"
   (2,765 real changes made)

50 . replace ga08 = "1" if ga08 == "Yes"
   (1,344 real changes made)

51 .
52 . replace ga09 = "0" if ga09 == "No"
   (2,716 real changes made)
```

```
53 . replace ga09 = "1" if ga09 == "Yes"
   (1,392 real changes made)

54 .
55 . replace ga10 = "0" if ga10 == "No"
   (3,069 real changes made)

56 . replace ga10 = "1" if ga10 == "Yes"
   (1,036 real changes made)

57 .
58 . replace anxd = "0" if anxd == "No"
   (5,764 real changes made)

59 . replace anxd = "1" if anxd == "Yes"
   (1,307 real changes made)

60 .
61 .
62 . encode ga01, generate(ga01_n)

63 . encode ga02, generate(ga02_n)

64 . encode ga03, generate(ga03_n)

65 . encode ga04, generate(ga04_n)

66 . encode ga05, generate(ga05_n)

67 . encode ga06, generate(ga06_n)

68 . encode ga07, generate(ga07_n)

69 . encode ga08, generate(ga08_n)

70 . encode ga09, generate(ga09_n)

71 . encode ga10, generate(ga10_n)

72 . encode anxd, generate(anxd_n)

73 .
74 . capture drop ANXIETY

75 . gen ANXIETY=ga01_n+ga02_n+ga03_n+ga04_n+ga05_n+ga06_n+ga07_n+ga08_n+ga09_n+ga10_n
   (4,254 missing values generated)

76 . replace ANXIETY=ANXIETY
   (0 real changes made)

77 .
```

```
 78 .
 79 . save, replace
    file 2023-09-28_anx.dta saved

 80 .
 81 . **********
 82 . use 2023-09-28_anx,clear

 83 . keep if HNDwave==1
    (4,639 observations deleted)

 84 . save 2023-09-28_anx_wave1, replace
    file 2023-09-28_anx_wave1.dta saved

 85 . capture rename HNDID HNDID

 86 . save, replace
    file 2023-09-28_anx_wave1.dta saved

 87 .
 88 .
 89 . use 2023-09-28_anx,clear

 90 . keep if HNDwave==3
    (5,891 observations deleted)

 91 . capture rename HNDID HNDID

 92 . save 2023-09-28_anx_wave3, replace
    file 2023-09-28_anx_wave3.dta saved

 93 .
 94 .
 95 . use 2023-09-28_anx,clear

 96 . keep if HNDwave==4
    (6,188 observations deleted)

 97 . capture rename HNDID HNDID

 98 . save 2023-09-28_anx_wave4, replace
    file 2023-09-28_anx_wave4.dta saved

 99 .
100 . use 2023-09-28_anx_wave1,clear

101 .
102 .
103 . describe

    Contains data from 2023-09-28_anx_wave1.dta
     Observations:         3,720
        Variables:            74                  30 Oct 2023 11:29
    ------------------------------------------------------------------------------------------------------------------------------
    Variable      Storage   Display    Value
        name         type    format    label      Variable label
    ------------------------------------------------------------------------------------------------------------------------------
    rownames        int     %8.0g
    HNDID           double  %12.0g
    HNDwave         byte    %8.0g
    Sex             byte    %8.0g      Sex
    Race            byte    %8.0g      Race
    PovStat         byte    %8.0g      PovStat
```

| | | | |
|---|---|---|---|
| **EducationYr** | byte | %8.0g | |
| **Age** | double | %12.0g | |
| **SF01** | byte | %8.0g | SF01 |
| **HCys** | double | %12.0g | |
| **Employment01** | byte | %8.0g | Employment01 |
| | | | |
| **PDSQga01** | byte | %8.0g | PDSQga01 |
| **PDSQga02** | byte | %8.0g | PDSQga02 |
| **PDSQga03** | byte | %8.0g | PDSQga03 |
| **PDSQga04** | byte | %8.0g | PDSQga04 |
| **PDSQga05** | byte | %8.0g | PDSQga05 |
| **PDSQga06** | byte | %8.0g | PDSQga06 |
| **PDSQga07** | byte | %8.0g | PDSQga07 |
| **PDSQga08** | byte | %8.0g | PDSQga08 |
| **PDSQga09** | byte | %8.0g | PDSQga09 |
| **PDSQga10** | byte | %8.0g | PDSQga10 |
| **CigaretteStatus** | byte | %8.0g | CigaretteStatus |
| | | | |
| **AlcStatus** | byte | %8.0g | AlcStatus |
| | | | |
| **MarijCurr** | byte | %8.0g | MarijCurr |
| | | | |
| **CokeCurr** | byte | %8.0g | CokeCurr |
| **OpiateCurr** | byte | %8.0g | OpiateCurr |
| | | | |
| **CVhighChol** | byte | %8.0g | CVhighChol |
| | | | |
| **CVaFib** | byte | %8.0g | CVaFib |
| **CVangina** | byte | %8.0g | CVangina |
| **CVcad** | byte | %8.0g | CVcad |
| **CVchf** | byte | %8.0g | CVchf |
| **CVmi** | byte | %8.0g | CVmi |
| **AnxietyDisorder** | byte | %8.0g | AnxietyDisorder |
| | | | |
| **BPsitRsys** | int | %8.0g | |
| **BPsitRdia** | int | %8.0g | |
| **BPsitLsys** | int | %8.0g | |
| **BPsitLdia** | int | %8.0g | |
| **BMI** | double | %12.0g | |
| **dxHTN** | byte | %8.0g | dxHTN |
| **dxDiabetes** | byte | %8.0g | dxDiabetes |
| | | | |
| **hei2010_total~e** | double | %12.0g | |
| **CES** | byte | %8.0g | |
| **CES_DA** | byte | %8.0g | |
| **CES_IP** | byte | %8.0g | |
| **CES_SC** | byte | %8.0g | |
| **CES_WB** | byte | %8.0g | |
| **Chol** | int | %8.0g | |
| **HDL** | int | %8.0g | |
| **HgbA1C** | double | %12.0g | |
| **Albumin** | double | %12.0g | |
| **CRP** | double | %12.0g | |
| **ga01** | str3 | %9s | |
| **ga02** | str3 | %9s | |
| **ga03** | str3 | %9s | |
| **ga04** | str3 | %9s | |
| **ga05** | str3 | %9s | |
| **ga06** | str3 | %9s | |
| **ga07** | str3 | %9s | |
| **ga08** | str3 | %9s | |
| **ga09** | str3 | %9s | |
| **ga10** | str3 | %9s | |

| | | | |
|---|---|---|---|
| **anxd** | str3 | %9s | |
| **ga01_n** | long | %8.0g | ga01_n |
| **ga02_n** | long | %8.0g | ga02_n |
| **ga03_n** | long | %8.0g | ga03_n |
| **ga04_n** | long | %8.0g | ga04_n |
| **ga05_n** | long | %8.0g | ga05_n |
| **ga06_n** | long | %8.0g | ga06_n |
| **ga07_n** | long | %8.0g | ga07_n |
| **ga08_n** | long | %8.0g | ga08_n |
| **ga09_n** | long | %8.0g | ga09_n |
| **ga10_n** | long | %8.0g | ga10_n |
| **anxd_n** | long | %8.0g | anxd_n |
| **ANXIETY** | float | %9.0g | |

Sorted by: **HNDID**

104 . su

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| rownames | **3,720** | **4173.255** | **2398.332** | **1** | **8358** |
| HNDID | **3,720** | **8.16e+09** | **4.20e+07** | **8.03e+09** | **8.22e+09** |
| HNDwave | **3,720** | **1** | **0** | **1** | **1** |
| Sex | **3,720** | **1.452957** | **.497849** | **1** | **2** |
| Race | **3,720** | **1.59086** | **.4917412** | **1** | **2** |
| PovStat | **3,720** | **1.412634** | **.4923743** | **1** | **2** |
| EducationYr | **3,646** | **12.05129** | **2.543741** | **1** | **20** |
| Age | **3,720** | **48.26927** | **9.357168** | **29.8** | **66.2** |
| SF01 | **3,717** | **3.08071** | **.9902358** | **1** | **5** |
| HCys | **1,460** | **9.176575** | **5.219708** | **2.88** | **112.59** |
| Employment01 | **3,628** | **1.432194** | **.4954493** | **1** | **2** |
| PDSQga01 | **2,228** | **1.138689** | **.3456997** | **1** | **2** |
| PDSQga02 | **2,227** | **1.260889** | **.4392182** | **1** | **2** |
| PDSQga03 | **2,227** | **1.233049** | **.4228681** | **1** | **2** |
| PDSQga04 | **2,227** | **1.271217** | **.4446876** | **1** | **2** |
| PDSQga05 | **2,227** | **1.351145** | **.4774354** | **1** | **2** |
| PDSQga06 | **2,225** | **1.377079** | **.4847638** | **1** | **2** |
| PDSQga07 | **2,225** | **1.374831** | **.4841882** | **1** | **2** |
| PDSQga08 | **2,225** | **1.363596** | **.4811422** | **1** | **2** |
| PDSQga09 | **2,225** | **1.349213** | **.4768287** | **1** | **2** |
| PDSQga10 | **2,225** | **1.26382** | **.440802** | **1** | **2** |
| CigaretteS~s | **2,585** | **2.958607** | **1.202193** | **1** | **4** |
| AlcStatus | **2,581** | **3.321193** | **.9529088** | **1** | **4** |
| MarijCurr | **2,579** | **1.863513** | **.3433716** | **1** | **2** |
| CokeCurr | **2,591** | **1.93902** | **.2393404** | **1** | **2** |
| OpiateCurr | **2,509** | **1.963332** | **.1879828** | **1** | **2** |
| CVhighChol | **2,497** | **1.271526** | **.4448357** | **1** | **2** |
| CVaFib | **2,504** | **1.079073** | **.2699073** | **1** | **2** |
| CVangina | **2,504** | **1.093051** | **.2905621** | **1** | **2** |
| CVcad | **2,505** | **1.038723** | **.1929715** | **1** | **2** |
| CVchf | **2,505** | **1.028743** | **.1671153** | **1** | **2** |
| CVmi | **2,503** | **1.036756** | **.1881995** | **1** | **2** |
| AnxietyDis~r | **2,630** | **1.129658** | **.3359904** | **1** | **2** |
| BPsitRsys | **2,766** | **121.1312** | **18.03847** | **80** | **194** |
| BPsitRdia | **2,765** | **73.00434** | **11.44163** | **40** | **144** |
| BPsitLsys | **2,740** | **120.1639** | **18.14553** | **76** | **217** |

| | | | | | |
|---|---|---|---|---|---|
| BPsitLdia | 2,733 | 73.10392 | 11.247 | 37 | 158 |
| BMI | 2,853 | 30.0263 | 7.921048 | 14.35524 | 70.069 |
| dxHTN | 2,750 | 1.467273 | .4990185 | 1 | 2 |
| dxDiabetes | 2,756 | 1.526488 | .7736745 | 1 | 3 |
| hei2010_to~e | 2,177 | 42.59318 | 11.48268 | 12.62117 | 89.42492 |
| CES | 2,736 | 15.16301 | 11.44406 | 0 | 59 |
| CES_DA | 2,794 | 4.651038 | 5.014007 | 0 | 21 |
| CES_IP | 2,794 | 1.012527 | 1.3815 | 0 | 6 |
| CES_SC | 2,794 | 6.740157 | 4.480029 | 0 | 21 |
| CES_WB | 2,794 | 9.306371 | 2.96825 | 0 | 12 |
| Chol | 2,752 | 187.0883 | 43.35285 | 68 | 651 |
| HDL | 2,751 | 52.74264 | 17.28135 | 11 | 175 |
| HgbA1C | 2,754 | 6.008642 | 1.31885 | 3.2 | 17.5 |
| Albumin | 2,753 | 4.270432 | .343827 | 2.2 | 5.3 |
| CRP | 2,646 | 5.036731 | 10.10386 | .005 | 163 |
| ga01 | 0 | | | | |
| ga02 | 0 | | | | |
| ga03 | 0 | | | | |
| ga04 | 0 | | | | |
| ga05 | 0 | | | | |
| ga06 | 0 | | | | |
| ga07 | 0 | | | | |
| ga08 | 0 | | | | |
| ga09 | 0 | | | | |
| ga10 | 0 | | | | |
| anxd | 0 | | | | |
| ga01_n | 2,228 | 1.138689 | .3456997 | 1 | 2 |
| ga02_n | 2,227 | 1.260889 | .4392182 | 1 | 2 |
| ga03_n | 2,227 | 1.233049 | .4228681 | 1 | 2 |
| ga04_n | 2,227 | 1.271217 | .4446876 | 1 | 2 |
| ga05_n | 2,227 | 1.351145 | .4774354 | 1 | 2 |
| ga06_n | 2,225 | 1.377079 | .4847638 | 1 | 2 |
| ga07_n | 2,225 | 1.374831 | .4841882 | 1 | 2 |
| ga08_n | 2,225 | 1.363596 | .4811422 | 1 | 2 |
| ga09_n | 2,225 | 1.349213 | .4768287 | 1 | 2 |
| ga10_n | 2,225 | 1.26382 | .440802 | 1 | 2 |
| anxd_n | 2,630 | 1.129658 | .3359904 | 1 | 2 |
| ANXIETY | 2,225 | 12.98247 | 3.224116 | 10 | 20 |

```
105 .
106 .
107 .
108 . use 2023-09-28_anx_wave3,clear
```

```
109 .
110 . describe

Contains data from 2023-09-28_anx_wave3.dta
 Observations:         2,468
    Variables:            74                  30 Oct 2023 11:29
```

| Variable name | Storage type | Display format | Value label | Variable label |
|---|---|---|---|---|
| **rownames** | int | %8.0g | | |
| **HNDID** | double | %12.0g | | |
| **HNDwave** | byte | %8.0g | | |
| **Sex** | byte | %8.0g | Sex | |
| **Race** | byte | %8.0g | Race | |
| **PovStat** | byte | %8.0g | PovStat | |
| **EducationYr** | byte | %8.0g | | |
| **Age** | double | %12.0g | | |
| **SF01** | byte | %8.0g | SF01 | |
| **HCys** | double | %12.0g | | |
| **Employment01** | byte | %8.0g | Employment01 | |
| **PDSQga01** | byte | %8.0g | PDSQga01 | |
| **PDSQga02** | byte | %8.0g | PDSQga02 | |
| **PDSQga03** | byte | %8.0g | PDSQga03 | |
| **PDSQga04** | byte | %8.0g | PDSQga04 | |
| **PDSQga05** | byte | %8.0g | PDSQga05 | |
| **PDSQga06** | byte | %8.0g | PDSQga06 | |
| **PDSQga07** | byte | %8.0g | PDSQga07 | |
| **PDSQga08** | byte | %8.0g | PDSQga08 | |
| **PDSQga09** | byte | %8.0g | PDSQga09 | |
| **PDSQga10** | byte | %8.0g | PDSQga10 | |
| **CigaretteStatus** | byte | %8.0g | CigaretteStatus | |
| **AlcStatus** | byte | %8.0g | AlcStatus | |
| **MarijCurr** | byte | %8.0g | MarijCurr | |
| **CokeCurr** | byte | %8.0g | CokeCurr | |
| **OpiateCurr** | byte | %8.0g | OpiateCurr | |
| **CVhighChol** | byte | %8.0g | CVhighChol | |
| **CVaFib** | byte | %8.0g | CVaFib | |
| **CVangina** | byte | %8.0g | CVangina | |
| **CVcad** | byte | %8.0g | CVcad | |
| **CVchf** | byte | %8.0g | CVchf | |
| **CVmi** | byte | %8.0g | CVmi | |
| **AnxietyDisorder** | byte | %8.0g | AnxietyDisorder | |
| **BPsitRsys** | int | %8.0g | | |
| **BPsitRdia** | int | %8.0g | | |
| **BPsitLsys** | int | %8.0g | | |
| **BPsitLdia** | int | %8.0g | | |
| **BMI** | double | %12.0g | | |
| **dxHTN** | byte | %8.0g | dxHTN | |
| **dxDiabetes** | byte | %8.0g | dxDiabetes | |
| **hei2010_total~e** | double | %12.0g | | |
| **CES** | byte | %8.0g | | |
| **CES_DA** | byte | %8.0g | | |
| **CES_IP** | byte | %8.0g | | |
| **CES_SC** | byte | %8.0g | | |

| | | | |
|---|---|---|---|
| **CES_WB** | byte | %8.0g | |
| **Chol** | int | %8.0g | |
| **HDL** | int | %8.0g | |
| **HgbA1C** | double | %12.0g | |
| **Albumin** | double | %12.0g | |
| **CRP** | double | %12.0g | |
| **ga01** | str3 | %9s | |
| **ga02** | str3 | %9s | |
| **ga03** | str3 | %9s | |
| **ga04** | str3 | %9s | |
| **ga05** | str3 | %9s | |
| **ga06** | str3 | %9s | |
| **ga07** | str3 | %9s | |
| **ga08** | str3 | %9s | |
| **ga09** | str3 | %9s | |
| **ga10** | str3 | %9s | |
| **anxd** | str3 | %9s | |
| **ga01_n** | long | %8.0g | ga01_n |
| **ga02_n** | long | %8.0g | ga02_n |
| **ga03_n** | long | %8.0g | ga03_n |
| **ga04_n** | long | %8.0g | ga04_n |
| **ga05_n** | long | %8.0g | ga05_n |
| **ga06_n** | long | %8.0g | ga06_n |
| **ga07_n** | long | %8.0g | ga07_n |
| **ga08_n** | long | %8.0g | ga08_n |
| **ga09_n** | long | %8.0g | ga09_n |
| **ga10_n** | long | %8.0g | ga10_n |
| **anxd_n** | long | %8.0g | anxd_n |
| **ANXIETY** | float | %9.0g | |

Sorted by: **HNDID**

111 . su

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| rownames | **2,468** | **4188.203** | **2448.433** | **4** | **8359** |
| HNDID | **2,468** | **8.16e+09** | **4.33e+07** | **8.03e+09** | **8.22e+09** |
| HNDwave | **2,468** | **3** | **0** | **3** | **3** |
| Sex | **2,468** | **1.422609** | **.4940745** | **1** | **2** |
| Race | **2,468** | **1.616694** | **.4862905** | **1** | **2** |
| PovStat | **2,468** | **1.404781** | **.4909491** | **1** | **2** |
| EducationYr | **2,433** | **12.18496** | **2.579873** | **1** | **20** |
| Age | **2,468** | **52.97776** | **9.033023** | **32.9** | **73** |
| SF01 | **1,760** | **3.114773** | **.9365353** | **1** | **5** |
| HCys | **1,486** | **10.40221** | **10.36594** | **3.87** | **303.93** |
| Employment01 | **0** | | | | |
| PDSQga01 | **0** | | | | |
| PDSQga02 | **0** | | | | |
| PDSQga03 | **0** | | | | |
| PDSQga04 | **0** | | | | |
| PDSQga05 | **0** | | | | |
| PDSQga06 | **0** | | | | |
| PDSQga07 | **0** | | | | |
| PDSQga08 | **0** | | | | |
| PDSQga09 | **0** | | | | |
| PDSQga10 | **0** | | | | |
| CigaretteS~s | **2,103** | **2.911555** | **1.127789** | **1** | **4** |
| AlcStatus | **2,134** | **3.31537** | **.87919** | **1** | **4** |

| | | | | | |
|---|---|---|---|---|---|
| MarijCurr | 1,990 | 1.882412 | .3222005 | 1 | 2 |
| CokeCurr | 1,942 | 1.969104 | .1730805 | 1 | 2 |
| OpiateCurr | 1,877 | 1.973362 | .1610667 | 1 | 2 |
| CVhighChol | 2,285 | 1.363239 | .481038 | 1 | 2 |
| CVaFib | 2,285 | 1.089716 | .2858363 | 1 | 2 |
| CVangina | 2,285 | 1.100656 | .3009391 | 1 | 2 |
| CVcad | 2,285 | 1.042888 | .2026498 | 1 | 2 |
| CVchf | 2,285 | 1.034573 | .1827364 | 1 | 2 |
| CVmi | 2,285 | 1.039387 | .1945572 | 1 | 2 |
| AnxietyDis~r | 2,290 | 1.177729 | .3823682 | 1 | 2 |
| BPsitRsys | 2,263 | 122.9585 | 18.23062 | 76 | 220 |
| BPsitRdia | 2,262 | 70.58267 | 10.04919 | 40 | 120 |
| BPsitLsys | 2,250 | 122.2787 | 17.98661 | 76 | 216 |
| BPsitLdia | 2,246 | 71.32502 | 10.32727 | 40 | 116 |
| BMI | 2,291 | 30.63998 | 7.955704 | 12.3 | 88 |
| dxHTN | 2,293 | 1.580898 | .4935197 | 1 | 2 |
| dxDiabetes | 2,314 | 1.589023 | .8128245 | 1 | 3 |
| hei2010_to~e | 2,140 | 46.2576 | 12.05283 | 16.62035 | 98.33624 |
| CES | 2,254 | 15.81233 | 11.65942 | 0 | 56 |
| CES_DA | 2,290 | 4.859389 | 5.135249 | 0 | 21 |
| CES_IP | 2,290 | 1.095197 | 1.450998 | 0 | 6 |
| CES_SC | 2,290 | 7.213537 | 4.4828 | 0 | 21 |
| CES_WB | 2,290 | 9.379476 | 2.830684 | 0 | 12 |
| Chol | 2,269 | 187.4606 | 41.57405 | 78 | 414 |
| HDL | 2,268 | 56.65785 | 18.58656 | 19 | 176 |
| HgbA1C | 2,265 | 6.036865 | 1.241404 | 3.8 | 16.2 |
| Albumin | 2,270 | 4.333789 | .3233109 | 2.6 | 5.4 |
| CRP | 2,216 | 7.889009 | 29.71592 | .0167696 | 1277.805 |
| ga01 | 0 | | | | |
| ga02 | 0 | | | | |
| ga03 | 0 | | | | |
| ga04 | 0 | | | | |
| ga05 | 0 | | | | |
| ga06 | 0 | | | | |
| ga07 | 0 | | | | |
| ga08 | 0 | | | | |
| ga09 | 0 | | | | |
| ga10 | 0 | | | | |
| anxd | 0 | | | | |
| ga01_n | 0 | | | | |
| ga02_n | 0 | | | | |
| ga03_n | 0 | | | | |
| ga04_n | 0 | | | | |
| ga05_n | 0 | | | | |
| ga06_n | 0 | | | | |
| ga07_n | 0 | | | | |
| ga08_n | 0 | | | | |
| ga09_n | 0 | | | | |
| ga10_n | 0 | | | | |
| anxd_n | 2,290 | 1.177729 | .3823682 | 1 | 2 |
| ANXIETY | 0 | | | | |

```
112 .
113 .
114 . use 2023-09-28_anx_wave4,clear

115 .
116 . describe

Contains data from 2023-09-28_anx_wave4.dta
 Observations:         2,171
    Variables:            74                  30 Oct 2023 11:29
```

| Variable name | Storage type | Display format | Value label | Variable label |
|---|---|---|---|---|
| **rownames** | int | %8.0g | | |
| **HNDID** | double | %12.0g | | |
| **HNDwave** | byte | %8.0g | | |
| **Sex** | byte | %8.0g | Sex | |
| **Race** | byte | %8.0g | Race | |
| **PovStat** | byte | %8.0g | PovStat | |
| **EducationYr** | byte | %8.0g | | |
| **Age** | double | %12.0g | | |
| **SF01** | byte | %8.0g | SF01 | |
| **HCys** | double | %12.0g | | |
| **Employment01** | byte | %8.0g | Employment01 | |
| **PDSQga01** | byte | %8.0g | PDSQga01 | |
| **PDSQga02** | byte | %8.0g | PDSQga02 | |
| **PDSQga03** | byte | %8.0g | PDSQga03 | |
| **PDSQga04** | byte | %8.0g | PDSQga04 | |
| **PDSQga05** | byte | %8.0g | PDSQga05 | |
| **PDSQga06** | byte | %8.0g | PDSQga06 | |
| **PDSQga07** | byte | %8.0g | PDSQga07 | |
| **PDSQga08** | byte | %8.0g | PDSQga08 | |
| **PDSQga09** | byte | %8.0g | PDSQga09 | |
| **PDSQga10** | byte | %8.0g | PDSQga10 | |
| **CigaretteStatus** | byte | %8.0g | CigaretteStatus | |
| **AlcStatus** | byte | %8.0g | AlcStatus | |
| **MarijCurr** | byte | %8.0g | MarijCurr | |
| **CokeCurr** | byte | %8.0g | CokeCurr | |
| **OpiateCurr** | byte | %8.0g | OpiateCurr | |
| **CVhighChol** | byte | %8.0g | CVhighChol | |
| **CVaFib** | byte | %8.0g | CVaFib | |
| **CVangina** | byte | %8.0g | CVangina | |
| **CVcad** | byte | %8.0g | CVcad | |
| **CVchf** | byte | %8.0g | CVchf | |
| **CVmi** | byte | %8.0g | CVmi | |
| **AnxietyDisorder** | byte | %8.0g | AnxietyDisorder | |
| **BPsitRsys** | int | %8.0g | | |
| **BPsitRdia** | int | %8.0g | | |
| **BPsitLsys** | int | %8.0g | | |
| **BPsitLdia** | int | %8.0g | | |
| **BMI** | double | %12.0g | | |
| **dxHTN** | byte | %8.0g | dxHTN | |
| **dxDiabetes** | byte | %8.0g | dxDiabetes | |
| **hei2010_total~e** | double | %12.0g | | |

| | | | |
|---|---|---|---|
| **CES** | byte | %8.0g | |
| **CES_DA** | byte | %8.0g | |
| **CES_IP** | byte | %8.0g | |
| **CES_SC** | byte | %8.0g | |
| **CES_WB** | byte | %8.0g | |
| **Chol** | int | %8.0g | |
| **HDL** | int | %8.0g | |
| **HgbA1C** | double | %12.0g | |
| **Albumin** | double | %12.0g | |
| **CRP** | double | %12.0g | |
| **ga01** | str3 | %9s | |
| **ga02** | str3 | %9s | |
| **ga03** | str3 | %9s | |
| **ga04** | str3 | %9s | |
| **ga05** | str3 | %9s | |
| **ga06** | str3 | %9s | |
| **ga07** | str3 | %9s | |
| **ga08** | str3 | %9s | |
| **ga09** | str3 | %9s | |
| **ga10** | str3 | %9s | |
| **anxd** | str3 | %9s | |
| **ga01_n** | long | %8.0g | ga01_n |
| **ga02_n** | long | %8.0g | ga02_n |
| **ga03_n** | long | %8.0g | ga03_n |
| **ga04_n** | long | %8.0g | ga04_n |
| **ga05_n** | long | %8.0g | ga05_n |
| **ga06_n** | long | %8.0g | ga06_n |
| **ga07_n** | long | %8.0g | ga07_n |
| **ga08_n** | long | %8.0g | ga08_n |
| **ga09_n** | long | %8.0g | ga09_n |
| **ga10_n** | long | %8.0g | ga10_n |
| **anxd_n** | long | %8.0g | anxd_n |
| **ANXIETY** | float | %9.0g | |

Sorted by: **HNDID**

117 . su

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| rownames | **2,171** | **4182.233** | **2399.216** | **5** | **8357** |
| HNDID | **2,171** | **8.16e+09** | **4.24e+07** | **8.03e+09** | **8.22e+09** |
| HNDwave | **2,171** | **4** | **0** | **4** | **4** |
| Sex | **2,171** | **1.413634** | **.4925979** | **1** | **2** |
| Race | **2,171** | **1.610778** | **.4876861** | **1** | **2** |
| PovStat | **2,171** | **1.405343** | **.4910714** | **1** | **2** |
| EducationYr | **2,139** | **12.15895** | **2.52434** | **1** | **20** |
| Age | **2,171** | **56.60129** | **9.10942** | **36.4** | **76.9** |
| SF01 | **2,129** | **3.060592** | **.930676** | **1** | **5** |
| HCys | **1,280** | **10.68614** | **4.557427** | **4.18** | **53.11** |
| Employment01 | **0** | | | | |
| PDSQga01 | **1,893** | **1.15795** | **.3647908** | **1** | **2** |
| PDSQga02 | **1,890** | **1.198942** | **.3993098** | **1** | **2** |
| PDSQga03 | **1,887** | **1.173821** | **.3790558** | **1** | **2** |
| PDSQga04 | **1,887** | **1.244833** | **.4301022** | **1** | **2** |
| PDSQga05 | **1,886** | **1.294804** | **.4560754** | **1** | **2** |
| PDSQga06 | **1,885** | **1.311406** | **.4631912** | **1** | **2** |
| PDSQga07 | **1,884** | **1.347134** | **.4761851** | **1** | **2** |
| PDSQga08 | **1,884** | **1.28397** | **.4510423** | **1** | **2** |
| PDSQga09 | **1,883** | **1.326606** | **.4690965** | **1** | **2** |

| | | | | | |
|---|---|---|---|---|---|
| PDSQga10 | 1,880 | 1.23883 | .426482 | 1 | 2 |
| CigaretteS~s | 2,013 | 2.958768 | 1.137552 | 1 | 4 |
| AlcStatus | 2,030 | 3.298522 | .8664082 | 1 | 4 |
| MarijCurr | 1,900 | 1.841579 | .3652315 | 1 | 2 |
| CokeCurr | 1,852 | 1.968683 | .1742214 | 1 | 2 |
| OpiateCurr | 1,804 | 1.972284 | .164204 | 1 | 2 |
| CVhighChol | 2,107 | 1.449454 | .4975566 | 1 | 2 |
| CVaFib | 2,107 | 1.10916 | .3119138 | 1 | 2 |
| CVangina | 2,107 | 1.113906 | .3177725 | 1 | 2 |
| CVcad | 2,107 | 1.059801 | .2371734 | 1 | 2 |
| CVchf | 2,107 | 1.04841 | .2146821 | 1 | 2 |
| CVmi | 2,107 | 1.05458 | .2272125 | 1 | 2 |
| AnxietyDis~r | 2,151 | 1.259879 | .4386701 | 1 | 2 |
| BPsitRsys | 2,113 | 118.6602 | 17.79255 | 80 | 204 |
| BPsitRdia | 2,112 | 65.94934 | 9.811911 | 40 | 118 |
| BPsitLsys | 2,115 | 119.079 | 17.86099 | 72 | 208 |
| BPsitLdia | 2,115 | 67.28747 | 9.948667 | 40 | 120 |
| BMI | 2,142 | 30.86928 | 7.952211 | 13.8 | 76.5 |
| dxHTN | 2,153 | 1.648398 | .4775815 | 1 | 2 |
| dxDiabetes | 2,162 | 1.650786 | .8461863 | 1 | 3 |
| hei2010_to~e | 2,066 | 48.68347 | 12.09708 | 14.40958 | 90.44823 |
| CES | 2,007 | 13.79771 | 10.87457 | 0 | 57 |
| CES_DA | 2,015 | 3.893797 | 4.474094 | 0 | 21 |
| CES_IP | 2,015 | .830273 | 1.269134 | 0 | 6 |
| CES_SC | 2,015 | 5.874442 | 4.275007 | 0 | 21 |
| CES_WB | 2,015 | 8.808437 | 3.147015 | 0 | 12 |
| Chol | 2,087 | 187.966 | 43.12726 | 58 | 409 |
| HDL | 2,085 | 57.31175 | 19.81095 | 14 | 199 |
| HgbA1C | 2,075 | 6.212386 | 1.351279 | 3.8 | 19.4 |
| Albumin | 2,086 | 4.2535 | .3457376 | 2.2 | 5.4 |
| CRP | 2,082 | 5.310447 | 9.392764 | .15 | 125 |
| ga01 | 0 | | | | |
| ga02 | 0 | | | | |
| ga03 | 0 | | | | |
| ga04 | 0 | | | | |
| ga05 | 0 | | | | |
| ga06 | 0 | | | | |
| ga07 | 0 | | | | |
| ga08 | 0 | | | | |
| ga09 | 0 | | | | |
| ga10 | 0 | | | | |
| anxd | 0 | | | | |
| ga01_n | 1,893 | 1.15795 | .3647908 | 1 | 2 |
| ga02_n | 1,890 | 1.198942 | .3993098 | 1 | 2 |
| ga03_n | 1,887 | 1.173821 | .3790558 | 1 | 2 |
| ga04_n | 1,887 | 1.244833 | .4301022 | 1 | 2 |
| ga05_n | 1,886 | 1.294804 | .4560754 | 1 | 2 |
| ga06_n | 1,885 | 1.311406 | .4631912 | 1 | 2 |
| ga07_n | 1,884 | 1.347134 | .4761851 | 1 | 2 |
| ga08_n | 1,884 | 1.28397 | .4510423 | 1 | 2 |
| ga09_n | 1,883 | 1.326606 | .4690965 | 1 | 2 |
| ga10_n | 1,880 | 1.23883 | .426482 | 1 | 2 |

| | | | | | |
|---|---|---|---|---|---|
| anxd_n | **2,151** | **1.259879** | **.4386701** | **1** | **2** |
| ANXIETY | **1,880** | **12.58138** | **3.213161** | **10** | **20** |

```
118 .
119 .
120 .
121 .
122 . //STEP 1: CREATE WAVE 1 DEMOGRAPHIC VARIABLES//
123 .
124 . use 2023-09-28_anx_wave1,clear

125 .
126 . keep HNDID HNDwave Race PovStat Sex Age

127 . capture rename HNDID HNDID

128 . sort HNDID

129 .
130 . save DEMOw1, replace
    file DEMOw1.dta saved

131 .
132 . addstub Race PovStat Sex Age, stub(w1)

133 .
134 . save, replace
    file DEMOw1.dta saved

135 .
136 .
137 . //STEP 2: CREATE DEPRESSIVE SYMPTOMS DATA AT WAVES 1, 3 AND 4, LONG//
138 .
139 . *****DEPRESSIVE SYMPTOMS AND ANXIETY DATA AT WAVE 1**
140 .
141 . use 2023-09-28_anx_wave1,clear

142 . capture rename HNDID HNDID

143 .
144 . keep HNDID HNDwave CES* PDSQ* ANXIETY AnxietyDisorder HCys

145 . sort HNDID

146 .
147 . save DEPRESSIVE_SYMPTOMS_wave1long, replace
    file DEPRESSIVE_SYMPTOMS_wave1long.dta saved

148 .
149 .
150 . *****DEPRESSIVE SYMPTOMS AND ANXIETY DATA AT WAVE 3**
```

```
151 .
152 .
153 . use 2023-09-28_anx_wave3,clear

154 . capture rename HNDID HNDID

155 .
156 .
157 . keep HNDID HNDwave CES* PDSQ* ANXIETY AnxietyDisorder HCys

158 . sort HNDID

159 .
160 . save DEPRESSIVE_SYMPTOMS_wave3long, replace
    file DEPRESSIVE_SYMPTOMS_wave3long.dta saved

161 .
162 .
163 . *****DEPRESSIVE SYMPTOMS AND ANXIETY DATA AT WAVE 4**
164 .
165 .
166 . use 2023-09-28_anx_wave4,clear

167 . capture rename HNDID HNDID

168 .
169 .
170 . keep HNDID HNDwave CES* PDSQ* ANXIETY AnxietyDisorder HCys

171 . sort HNDID

172 .
173 . save DEPRESSIVE_SYMPTOMS_wave4long, replace
    file DEPRESSIVE_SYMPTOMS_wave4long.dta saved

174 .
175 .
176 .
177 .
178 . //STEP 3: CREATE WAVE 1, 3 and 4 DEPRESSIVE SYMPTOMS DATA, WIDE//
179 .
180 .
181 . *****DEPRESSIVE SYMPTOMS AND ANXIETY DATA AT WAVE 1**
182 .
183 . use DEPRESSIVE_SYMPTOMS_wave1long, clear

184 .
185 . keep HNDID CES* PDSQ* ANXIETY AnxietyDisorder

186 .
187 . addstub CES* PDSQ* ANXIETY AnxietyDisorder, stub(w1)
```

```
. save DEPRESSIVE_SYMPTOMSwave1wide, replace
file DEPRESSIVE_SYMPTOMSwave1wide.dta saved

. *****DEPRESSIVE SYMPTOMS AND ANXIETY DATA AT WAVE 3**

. use DEPRESSIVE_SYMPTOMS_wave3long, clear

. keep HNDID CES* PDSQ* ANXIETY AnxietyDisorder

. addstub CES* PDSQ* ANXIETY AnxietyDisorder, stub(w3)

. save DEPRESSIVE_SYMPTOMSwave3wide, replace
file DEPRESSIVE_SYMPTOMSwave3wide.dta saved

. *****DEPRESSIVE SYMPTOMS AND ANXIETY DATA AT WAVE 4**

. use DEPRESSIVE_SYMPTOMS_wave4long, clear

. keep HNDID CES* PDSQ* ANXIETY AnxietyDisorder

. addstub CES* PDSQ* ANXIETY AnxietyDisorder, stub(w4)

. save DEPRESSIVE_SYMPTOMSwave4wide, replace
file DEPRESSIVE_SYMPTOMSwave4wide.dta saved

. //STEP 4: MERGE AGEw1 with DEP AND ANXIETY DATA AT WAVE 1//

. use 2023-09-28_anx_wave1,clear

. capture rename HNDID HNDID

. keep HNDID Age

. sort HNDID
```

```
223 .
224 . save Agew1, replace
    file Agew1.dta saved

225 . capture rename Age w1Age

226 . save, replace
    file Agew1.dta saved

227 .
228 . use DEPRESSIVE_SYMPTOMS_wave1long,clear

229 . merge HNDID using Agew1
    (you are using old merge syntax; see [D] merge for new syntax)

230 .
231 . save DEPRESSIVE_SYMPTOMS_wave1longAgew1, replace
    file DEPRESSIVE_SYMPTOMS_wave1longAgew1.dta saved

232 .
233 .
234 .
235 . //STEP 5: MERGE AGEw3 with DEP AND ANXIETY DATA AT WAVE 3//
236 .
237 .
238 . use 2023-09-28_anx_wave3,clear

239 . capture rename HNDID HNDID

240 .
241 . keep HNDID Age

242 . sort HNDID

243 .
244 . save Agew3, replace
    file Agew3.dta saved

245 . capture rename Age w3Age

246 . save, replace
    file Agew3.dta saved

247 .
248 . use DEPRESSIVE_SYMPTOMS_wave3long,clear

249 . merge HNDID using Agew3
    (you are using old merge syntax; see [D] merge for new syntax)

250 .
251 . save DEPRESSIVE_SYMPTOMS_wave3longAgew3, replace
    file DEPRESSIVE_SYMPTOMS_wave3longAgew3.dta saved
```

```
252 .
253 .
254 .
255 . //STEP 6: MERGE AGEw4 with DEP AND ANXIETY DATA AT WAVE 4//
256 .
257 .
258 . use 2023-09-28_anx_wave4,clear

259 . capture rename HNDID HNDID

260 .
261 . keep HNDID Age

262 . sort HNDID

263 .
264 . save Agew4, replace
    file Agew4.dta saved

265 . capture rename Age w4Age

266 . save, replace
    file Agew4.dta saved

267 .
268 . use DEPRESSIVE_SYMPTOMS_wave4long,clear

269 . merge HNDID using Agew4
    (you are using old merge syntax; see [D] merge for new syntax)

270 .
271 . save DEPRESSIVE_SYMPTOMS_wave4longAgew4, replace
    file DEPRESSIVE_SYMPTOMS_wave4longAgew4.dta saved

272 .
273 .
274 .
275 . //STEP 7: APPEND LONG DEPRESSIVE SYMPTOMS DATA MERGED WITH AGE VARIABLES//
276 .
277 . use DEPRESSIVE_SYMPTOMS_wave1longAgew1, clear

278 .
279 . capture drop _merge

280 .
281 . save, replace
    file DEPRESSIVE_SYMPTOMS_wave1longAgew1.dta saved

282 .
283 .
284 . use DEPRESSIVE_SYMPTOMS_wave3longAgew3, clear
```

```
285 .
286 . capture drop _merge

287 .
288 . save, replace
    file DEPRESSIVE_SYMPTOMS_wave3longAgew3.dta saved

289 .
290 .
291 .
292 . use DEPRESSIVE_SYMPTOMS_wave4longAgew4, clear

293 .
294 . capture drop _merge

295 .
296 . save, replace
    file DEPRESSIVE_SYMPTOMS_wave4longAgew4.dta saved

297 .
298 .
299 . use DEPRESSIVE_SYMPTOMS_wave1longAgew1, clear

300 . append using DEPRESSIVE_SYMPTOMS_wave3longAgew3
    (label AnxietyDisorder already defined)
    (label PDSQga10 already defined)
    (label PDSQga09 already defined)
    (label PDSQga08 already defined)
    (label PDSQga07 already defined)
    (label PDSQga06 already defined)
    (label PDSQga05 already defined)
    (label PDSQga04 already defined)
    (label PDSQga03 already defined)
    (label PDSQga02 already defined)
    (label PDSQga01 already defined)

301 . append using DEPRESSIVE_SYMPTOMS_wave4longAgew4
    (label AnxietyDisorder already defined)
    (label PDSQga10 already defined)
    (label PDSQga09 already defined)
    (label PDSQga08 already defined)
    (label PDSQga07 already defined)
    (label PDSQga06 already defined)
    (label PDSQga05 already defined)
    (label PDSQga04 already defined)
    (label PDSQga03 already defined)
    (label PDSQga02 already defined)
    (label PDSQga01 already defined)

302 .
303 .
```

```
304 . save DEPRESSIVE_SYMPTOMS_waves134_append, replace
    file DEPRESSIVE_SYMPTOMS_waves134_append.dta saved

305 .
306 .
307 .
308 .
309 . keep HNDID HNDwave CES* PDSQ* HCys

310 .
311 . save DEPRESSIVE_SYMPTOMS_waves134_appendsmall, replace
    file DEPRESSIVE_SYMPTOMS_waves134_appendsmall.dta saved

312 .
313 .
314 . //STEP 8: APPEND THE DEPRESSIVE SYMPTOMS (LONG) WITH DEMO AT WAVE 1: CALL THIS LAYER HNDWAVE==0//
315 .
316 . use DEMOw1, clear

317 . recode HNDwave 1=0
    (3,720 changes made to HNDwave)

318 .
319 . save, replace
    file DEMOw1.dta saved

320 .
321 . append using DEPRESSIVE_SYMPTOMS_waves134_appendsmall

322 .
323 . save DEPRESSIVE_SYMPTOMS_waves134_appendsmallDEMOw1long, replace
    file DEPRESSIVE_SYMPTOMS_waves134_appendsmallDEMOw1long.dta saved

324 .
325 . sort HNDID

326 .
327 . save, replace
    file DEPRESSIVE_SYMPTOMS_waves134_appendsmallDEMOw1long.dta saved

328 .
329 . use DEMOw1, clear

330 . sort HNDID

331 . capture drop HNDwave

332 . save DEMOw1wide, replace
    file DEMOw1wide.dta saved

333 .
```

```
334 . use DEPRESSIVE_SYMPTOMS_waves134_appendsmallDEMOw1long,clear

335 . capture drop w1Sex w1Race w1PovStat w1Age

336 .
337 . merge HNDID using DEMOw1wide
    (you are using old merge syntax; see [D] merge for new syntax)
    variable HNDID does not uniquely identify observations in the master data
    (label PovStat already defined)
    (label Race already defined)
    (label Sex already defined)

338 . save, replace
    file DEPRESSIVE_SYMPTOMS_waves134_appendsmallDEMOw1long.dta saved

339 .
340 . //STEP 9: MERGE WAVE 1 DEP, WIDE WITH THE APPENDED DATA//
341 . use  DEPRESSIVE_SYMPTOMS_waves134_appendsmallDEMOw1long,clear

342 . capture drop _merge

343 . sort HNDID

344 . save, replace
    file DEPRESSIVE_SYMPTOMS_waves134_appendsmallDEMOw1long.dta saved

345 .
346 . use DEPRESSIVE_SYMPTOMSwave1wide,clear

347 . sort HNDID

348 . save, replace
    file DEPRESSIVE_SYMPTOMSwave1wide.dta saved

349 .
350 . use  DEPRESSIVE_SYMPTOMS_waves134_appendsmallDEMOw1long,clear

351 . merge HNDID using DEPRESSIVE_SYMPTOMSwave1wide
    (you are using old merge syntax; see [D] merge for new syntax)
    variable HNDID does not uniquely identify observations in the master data
    (label PDSQga10 already defined)
    (label PDSQga09 already defined)
    (label PDSQga08 already defined)
    (label PDSQga07 already defined)
    (label PDSQga06 already defined)
    (label PDSQga05 already defined)
    (label PDSQga04 already defined)
    (label PDSQga03 already defined)
    (label PDSQga02 already defined)
    (label PDSQga01 already defined)
```

```
. 
. tab _merge
```

| _merge | Freq. | Percent | Cum. |
|---|---|---|---|
| 3 | **12,079** | **100.00** | **100.00** |
| Total | **12,079** | **100.00** | |

```
. capture drop _merge

. 
. save DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1_APPENDED, replace
file DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1_APPENDED.dta saved

. 
. 
. 
. //STEP 9: MERGE WAVE 3 DEP, WIDE WITH THE APPENDED DATA//
. use  DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1_APPENDED,clear

. capture drop _merge

. sort HNDID

. save, replace
file DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1_APPENDED.dta saved

. 
. use DEPRESSIVE_SYMPTOMSwave3wide,clear

. sort HNDID

. save, replace
file DEPRESSIVE_SYMPTOMSwave3wide.dta saved

. 
. use  DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1_APPENDED,clear

. merge HNDID using DEPRESSIVE_SYMPTOMSwave3wide
(you are using old merge syntax; see [D] merge for new syntax)
variable HNDID does not uniquely identify observations in the master data
(label AnxietyDisorder already defined)
(label PDSQga10 already defined)
(label PDSQga09 already defined)
(label PDSQga08 already defined)
(label PDSQga07 already defined)
(label PDSQga06 already defined)
(label PDSQga05 already defined)
(label PDSQga04 already defined)
(label PDSQga03 already defined)
(label PDSQga02 already defined)
(label PDSQga01 already defined)
```

```
372 .
373 . tab _merge
```

| _merge | Freq. | Percent | Cum. |
|---|---|---|---|
| 1 | **2,734** | **22.63** | **22.63** |
| 3 | **9,345** | **77.37** | **100.00** |
| Total | **12,079** | **100.00** | |

```
374 . capture drop _merge

375 .
376 . save DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3_APPENDED, replace
    file DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3_APPENDED.dta saved

377 .
378 .
379 . //STEP 10: MERGE WAVE 4 DEP, WIDE WITH THE APPENDED DATA//
380 . use  DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3_APPENDED,clear

381 . capture drop _merge

382 . sort HNDID

383 . save, replace
    file DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3_APPENDED.dta saved

384 .
385 . use DEPRESSIVE_SYMPTOMSwave4wide,clear

386 . sort HNDID

387 . save, replace
    file DEPRESSIVE_SYMPTOMSwave4wide.dta saved

388 .
389 . use  DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3_APPENDED,clear

390 . merge HNDID using DEPRESSIVE_SYMPTOMSwave4wide
    (you are using old merge syntax; see [D] merge for new syntax)
    variable HNDID does not uniquely identify observations in the master data
    (label AnxietyDisorder already defined)
    (label PDSQga10 already defined)
    (label PDSQga09 already defined)
    (label PDSQga08 already defined)
    (label PDSQga07 already defined)
    (label PDSQga06 already defined)
    (label PDSQga05 already defined)
    (label PDSQga04 already defined)
    (label PDSQga03 already defined)
    (label PDSQga02 already defined)
    (label PDSQga01 already defined)
```

```
391 .
392 . tab _merge
```

| _merge | Freq. | Percent | Cum. |
|---|---|---|---|
| 1 | **3,625** | **30.01** | **30.01** |
| 3 | **8,454** | **69.99** | **100.00** |
| Total | **12,079** | **100.00** | |

```
393 . capture drop _merge

394 .
395 . save DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3W4_APPENDED, replace
    file DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3W4_APPENDED.dta saved

396 .
397 .
398 . //STEP 11: MERGE THIS FILE WITH WAVE 3 AGE//
399 . use 2023-09-28_anx_wave3,clear

400 .
401 . describe

    Contains data from 2023-09-28_anx_wave3.dta
     Observations:         2,468
        Variables:            74                  30 Oct 2023 11:29
```

| Variable name | Storage type | Display format | Value label | Variable label |
|---|---|---|---|---|
| **rownames** | int | %8.0g | | |
| **HNDID** | double | %12.0g | | |
| **HNDwave** | byte | %8.0g | | |
| **Sex** | byte | %8.0g | Sex | |
| **Race** | byte | %8.0g | Race | |
| **PovStat** | byte | %8.0g | PovStat | |
| **EducationYr** | byte | %8.0g | | |
| **Age** | double | %12.0g | | |
| **SF01** | byte | %8.0g | SF01 | |
| **HCys** | double | %12.0g | | |
| **Employment01** | byte | %8.0g | Employment01 | |
| **PDSQga01** | byte | %8.0g | PDSQga01 | |
| **PDSQga02** | byte | %8.0g | PDSQga02 | |
| **PDSQga03** | byte | %8.0g | PDSQga03 | |
| **PDSQga04** | byte | %8.0g | PDSQga04 | |
| **PDSQga05** | byte | %8.0g | PDSQga05 | |
| **PDSQga06** | byte | %8.0g | PDSQga06 | |
| **PDSQga07** | byte | %8.0g | PDSQga07 | |
| **PDSQga08** | byte | %8.0g | PDSQga08 | |
| **PDSQga09** | byte | %8.0g | PDSQga09 | |
| **PDSQga10** | byte | %8.0g | PDSQga10 | |
| **CigaretteStatus** | byte | %8.0g | CigaretteStatus | |
| **AlcStatus** | byte | %8.0g | AlcStatus | |
| **MarijCurr** | byte | %8.0g | MarijCurr | |
| **CokeCurr** | byte | %8.0g | CokeCurr | |
| **OpiateCurr** | byte | %8.0g | OpiateCurr | |
| **CVhighChol** | byte | %8.0g | CVhighChol | |

| | | | |
|---|---|---|---|
| **CVaFib** | byte | %8.0g | CVaFib |
| **CVangina** | byte | %8.0g | CVangina |
| **CVcad** | byte | %8.0g | CVcad |
| **CVchf** | byte | %8.0g | CVchf |
| **CVmi** | byte | %8.0g | CVmi |
| **AnxietyDisorder** | byte | %8.0g | AnxietyDisorder |
| **BPsitRsys** | int | %8.0g | |
| **BPsitRdia** | int | %8.0g | |
| **BPsitLsys** | int | %8.0g | |
| **BPsitLdia** | int | %8.0g | |
| **BMI** | double | %12.0g | |
| **dxHTN** | byte | %8.0g | dxHTN |
| **dxDiabetes** | byte | %8.0g | dxDiabetes |
| **hei2010_total~e** | double | %12.0g | |
| **CES** | byte | %8.0g | |
| **CES_DA** | byte | %8.0g | |
| **CES_IP** | byte | %8.0g | |
| **CES_SC** | byte | %8.0g | |
| **CES_WB** | byte | %8.0g | |
| **Chol** | int | %8.0g | |
| **HDL** | int | %8.0g | |
| **HgbA1C** | double | %12.0g | |
| **Albumin** | double | %12.0g | |
| **CRP** | double | %12.0g | |
| **ga01** | str3 | %9s | |
| **ga02** | str3 | %9s | |
| **ga03** | str3 | %9s | |
| **ga04** | str3 | %9s | |
| **ga05** | str3 | %9s | |
| **ga06** | str3 | %9s | |
| **ga07** | str3 | %9s | |
| **ga08** | str3 | %9s | |
| **ga09** | str3 | %9s | |
| **ga10** | str3 | %9s | |
| **anxd** | str3 | %9s | |
| **ga01_n** | long | %8.0g | ga01_n |
| **ga02_n** | long | %8.0g | ga02_n |
| **ga03_n** | long | %8.0g | ga03_n |
| **ga04_n** | long | %8.0g | ga04_n |
| **ga05_n** | long | %8.0g | ga05_n |
| **ga06_n** | long | %8.0g | ga06_n |
| **ga07_n** | long | %8.0g | ga07_n |
| **ga08_n** | long | %8.0g | ga08_n |
| **ga09_n** | long | %8.0g | ga09_n |
| **ga10_n** | long | %8.0g | ga10_n |
| **anxd_n** | long | %8.0g | anxd_n |
| **ANXIETY** | float | %9.0g | |

---

Sorted by: **HNDID**

```
402 . su
```

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| rownames | 2,468 | 4188.203 | 2448.433 | 4 | 8359 |
| HNDID | 2,468 | 8.16e+09 | 4.33e+07 | 8.03e+09 | 8.22e+09 |
| HNDwave | 2,468 | 3 | 0 | 3 | 3 |
| Sex | 2,468 | 1.422609 | .4940745 | 1 | 2 |
| Race | 2,468 | 1.616694 | .4862905 | 1 | 2 |
| PovStat | 2,468 | 1.404781 | .4909491 | 1 | 2 |
| EducationYr | 2,433 | 12.18496 | 2.579873 | 1 | 20 |
| Age | 2,468 | 52.97776 | 9.033023 | 32.9 | 73 |
| SF01 | 1,760 | 3.114773 | .9365353 | 1 | 5 |
| HCys | 1,486 | 10.40221 | 10.36594 | 3.87 | 303.93 |
| Employment01 | 0 | | | | |
| PDSQga01 | 0 | | | | |
| PDSQga02 | 0 | | | | |
| PDSQga03 | 0 | | | | |
| PDSQga04 | 0 | | | | |
| PDSQga05 | 0 | | | | |
| PDSQga06 | 0 | | | | |
| PDSQga07 | 0 | | | | |
| PDSQga08 | 0 | | | | |
| PDSQga09 | 0 | | | | |
| PDSQga10 | 0 | | | | |
| CigaretteS~s | 2,103 | 2.911555 | 1.127789 | 1 | 4 |
| AlcStatus | 2,134 | 3.31537 | .87919 | 1 | 4 |
| MarijCurr | 1,990 | 1.882412 | .3222005 | 1 | 2 |
| CokeCurr | 1,942 | 1.969104 | .1730805 | 1 | 2 |
| OpiateCurr | 1,877 | 1.973362 | .1610667 | 1 | 2 |
| CVhighChol | 2,285 | 1.363239 | .481038 | 1 | 2 |
| CVaFib | 2,285 | 1.089716 | .2858363 | 1 | 2 |
| CVangina | 2,285 | 1.100656 | .3009391 | 1 | 2 |
| CVcad | 2,285 | 1.042888 | .2026498 | 1 | 2 |
| CVchf | 2,285 | 1.034573 | .1827364 | 1 | 2 |
| CVmi | 2,285 | 1.039387 | .1945572 | 1 | 2 |
| AnxietyDis~r | 2,290 | 1.177729 | .3823682 | 1 | 2 |
| BPsitRsys | 2,263 | 122.9585 | 18.23062 | 76 | 220 |
| BPsitRdia | 2,262 | 70.58267 | 10.04919 | 40 | 120 |
| BPsitLsys | 2,250 | 122.2787 | 17.98661 | 76 | 216 |
| BPsitLdia | 2,246 | 71.32502 | 10.32727 | 40 | 116 |
| BMI | 2,291 | 30.63998 | 7.955704 | 12.3 | 88 |
| dxHTN | 2,293 | 1.580898 | .4935197 | 1 | 2 |
| dxDiabetes | 2,314 | 1.589023 | .8128245 | 1 | 3 |
| hei2010_to~e | 2,140 | 46.2576 | 12.05283 | 16.62035 | 98.33624 |
| CES | 2,254 | 15.81233 | 11.65942 | 0 | 56 |
| CES_DA | 2,290 | 4.859389 | 5.135249 | 0 | 21 |
| CES_IP | 2,290 | 1.095197 | 1.450998 | 0 | 6 |
| CES_SC | 2,290 | 7.213537 | 4.4828 | 0 | 21 |
| CES_WB | 2,290 | 9.379476 | 2.830684 | 0 | 12 |
| Chol | 2,269 | 187.4606 | 41.57405 | 78 | 414 |
| HDL | 2,268 | 56.65785 | 18.58656 | 19 | 176 |
| HgbA1C | 2,265 | 6.036865 | 1.241404 | 3.8 | 16.2 |
| Albumin | 2,270 | 4.333789 | .3233109 | 2.6 | 5.4 |

| | | | | | |
|---|---|---|---|---|---|
| CRP | **2,216** | **7.889009** | **29.71592** | **.0167696** | **1277.805** |
| ga01 | **0** | | | | |
| ga02 | **0** | | | | |
| ga03 | **0** | | | | |
| ga04 | **0** | | | | |
| ga05 | **0** | | | | |
| ga06 | **0** | | | | |
| ga07 | **0** | | | | |
| ga08 | **0** | | | | |
| ga09 | **0** | | | | |
| ga10 | **0** | | | | |
| anxd | **0** | | | | |
| ga01_n | **0** | | | | |
| ga02_n | **0** | | | | |
| ga03_n | **0** | | | | |
| ga04_n | **0** | | | | |
| ga05_n | **0** | | | | |
| ga06_n | **0** | | | | |
| ga07_n | **0** | | | | |
| ga08_n | **0** | | | | |
| ga09_n | **0** | | | | |
| ga10_n | **0** | | | | |
| anxd_n | **2,290** | **1.177729** | **.3823682** | **1** | **2** |
| ANXIETY | **0** | | | | |

```
403 .
404 .
405 . keep HNDID Age

406 . save Agew3, replace
    file Agew3.dta saved

407 . capture rename Age w3Age

408 . capture rename HNDID HNDID

409 . sort HNDID

410 . save, replace
    file Agew3.dta saved

411 .
412 . use DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3W4_APPENDED,clear

413 . sort HNDID
```

```
414 . capture drop _merge

415 . save, replace
    file DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3W4_APPENDED.dta saved

416 .
417 . merge HNDID using Agew3
    (you are using old merge syntax; see [D] merge for new syntax)
    variable HNDID does not uniquely identify observations in the master data

418 . save, replace
    file DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3W4_APPENDED.dta saved

419 .
420 . //STEP 12: MERGE THIS FILE WITH WAVE 4 AGE//
421 . use 2023-09-28_anx_wave3,clear

422 .
423 . describe

    Contains data from 2023-09-28_anx_wave3.dta
     Observations:         2,468
        Variables:            74                  30 Oct 2023 11:29
    ------------------------------------------------------------------------------
    Variable      Storage   Display    Value
        name         type    format    label      Variable label
    ------------------------------------------------------------------------------
    rownames        int     %8.0g
    HNDID           double  %12.0g
    HNDwave         byte    %8.0g
    Sex             byte    %8.0g      Sex
    Race            byte    %8.0g      Race
    PovStat         byte    %8.0g      PovStat
    EducationYr     byte    %8.0g
    Age             double  %12.0g
    SF01            byte    %8.0g      SF01
    HCys            double  %12.0g
    Employment01    byte    %8.0g      Employment01

    PDSQga01        byte    %8.0g      PDSQga01
    PDSQga02        byte    %8.0g      PDSQga02
    PDSQga03        byte    %8.0g      PDSQga03
    PDSQga04        byte    %8.0g      PDSQga04
    PDSQga05        byte    %8.0g      PDSQga05
    PDSQga06        byte    %8.0g      PDSQga06
    PDSQga07        byte    %8.0g      PDSQga07
    PDSQga08        byte    %8.0g      PDSQga08
    PDSQga09        byte    %8.0g      PDSQga09
    PDSQga10        byte    %8.0g      PDSQga10
    CigaretteStatus byte    %8.0g      CigaretteStatus

    AlcStatus       byte    %8.0g      AlcStatus

    MarijCurr       byte    %8.0g      MarijCurr

    CokeCurr        byte    %8.0g      CokeCurr
    OpiateCurr      byte    %8.0g      OpiateCurr

    CVhighChol      byte    %8.0g      CVhighChol

    CVaFib          byte    %8.0g      CVaFib
    CVangina        byte    %8.0g      CVangina
    CVcad           byte    %8.0g      CVcad
```

| | | | |
|---|---|---|---|
| **CVchf** | byte | %8.0g | CVchf |
| **CVmi** | byte | %8.0g | CVmi |
| **AnxietyDisorder** | byte | %8.0g | AnxietyDisorder |
| **BPsitRsys** | int | %8.0g | |
| **BPsitRdia** | int | %8.0g | |
| **BPsitLsys** | int | %8.0g | |
| **BPsitLdia** | int | %8.0g | |
| **BMI** | double | %12.0g | |
| **dxHTN** | byte | %8.0g | dxHTN |
| **dxDiabetes** | byte | %8.0g | dxDiabetes |
| **hei2010_total~e** | double | %12.0g | |
| **CES** | byte | %8.0g | |
| **CES_DA** | byte | %8.0g | |
| **CES_IP** | byte | %8.0g | |
| **CES_SC** | byte | %8.0g | |
| **CES_WB** | byte | %8.0g | |
| **Chol** | int | %8.0g | |
| **HDL** | int | %8.0g | |
| **HgbA1C** | double | %12.0g | |
| **Albumin** | double | %12.0g | |
| **CRP** | double | %12.0g | |
| **ga01** | str3 | %9s | |
| **ga02** | str3 | %9s | |
| **ga03** | str3 | %9s | |
| **ga04** | str3 | %9s | |
| **ga05** | str3 | %9s | |
| **ga06** | str3 | %9s | |
| **ga07** | str3 | %9s | |
| **ga08** | str3 | %9s | |
| **ga09** | str3 | %9s | |
| **ga10** | str3 | %9s | |
| **anxd** | str3 | %9s | |
| **ga01_n** | long | %8.0g | ga01_n |
| **ga02_n** | long | %8.0g | ga02_n |
| **ga03_n** | long | %8.0g | ga03_n |
| **ga04_n** | long | %8.0g | ga04_n |
| **ga05_n** | long | %8.0g | ga05_n |
| **ga06_n** | long | %8.0g | ga06_n |
| **ga07_n** | long | %8.0g | ga07_n |
| **ga08_n** | long | %8.0g | ga08_n |
| **ga09_n** | long | %8.0g | ga09_n |
| **ga10_n** | long | %8.0g | ga10_n |
| **anxd_n** | long | %8.0g | anxd_n |
| **ANXIETY** | float | %9.0g | |

Sorted by: **HNDID**

424 . su

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| rownames | **2,468** | **4188.203** | **2448.433** | **4** | **8359** |
| HNDID | **2,468** | **8.16e+09** | **4.33e+07** | **8.03e+09** | **8.22e+09** |
| HNDwave | **2,468** | **3** | **0** | **3** | **3** |
| Sex | **2,468** | **1.422609** | **.4940745** | **1** | **2** |
| Race | **2,468** | **1.616694** | **.4862905** | **1** | **2** |
| PovStat | **2,468** | **1.404781** | **.4909491** | **1** | **2** |
| EducationYr | **2,433** | **12.18496** | **2.579873** | **1** | **20** |
| Age | **2,468** | **52.97776** | **9.033023** | **32.9** | **73** |
| SF01 | **1,760** | **3.114773** | **.9365353** | **1** | **5** |

| | | | | | |
|---|---|---|---|---|---|
| HCys | 1,486 | 10.40221 | 10.36594 | 3.87 | 303.93 |
| Employment01 | 0 | | | | |
| PDSQga01 | 0 | | | | |
| PDSQga02 | 0 | | | | |
| PDSQga03 | 0 | | | | |
| PDSQga04 | 0 | | | | |
| PDSQga05 | 0 | | | | |
| PDSQga06 | 0 | | | | |
| PDSQga07 | 0 | | | | |
| PDSQga08 | 0 | | | | |
| PDSQga09 | 0 | | | | |
| PDSQga10 | 0 | | | | |
| CigaretteS~s | 2,103 | 2.911555 | 1.127789 | 1 | 4 |
| AlcStatus | 2,134 | 3.31537 | .87919 | 1 | 4 |
| MarijCurr | 1,990 | 1.882412 | .3222005 | 1 | 2 |
| CokeCurr | 1,942 | 1.969104 | .1730805 | 1 | 2 |
| OpiateCurr | 1,877 | 1.973362 | .1610667 | 1 | 2 |
| CVhighChol | 2,285 | 1.363239 | .481038 | 1 | 2 |
| CVaFib | 2,285 | 1.089716 | .2858363 | 1 | 2 |
| CVangina | 2,285 | 1.100656 | .3009391 | 1 | 2 |
| CVcad | 2,285 | 1.042888 | .2026498 | 1 | 2 |
| CVchf | 2,285 | 1.034573 | .1827364 | 1 | 2 |
| CVmi | 2,285 | 1.039387 | .1945572 | 1 | 2 |
| AnxietyDis~r | 2,290 | 1.177729 | .3823682 | 1 | 2 |
| BPsitRsys | 2,263 | 122.9585 | 18.23062 | 76 | 220 |
| BPsitRdia | 2,262 | 70.58267 | 10.04919 | 40 | 120 |
| BPsitLsys | 2,250 | 122.2787 | 17.98661 | 76 | 216 |
| BPsitLdia | 2,246 | 71.32502 | 10.32727 | 40 | 116 |
| BMI | 2,291 | 30.63998 | 7.955704 | 12.3 | 88 |
| dxHTN | 2,293 | 1.580898 | .4935197 | 1 | 2 |
| dxDiabetes | 2,314 | 1.589023 | .8128245 | 1 | 3 |
| hei2010_to~e | 2,140 | 46.2576 | 12.05283 | 16.62035 | 98.33624 |
| CES | 2,254 | 15.81233 | 11.65942 | 0 | 56 |
| CES_DA | 2,290 | 4.859389 | 5.135249 | 0 | 21 |
| CES_IP | 2,290 | 1.095197 | 1.450998 | 0 | 6 |
| CES_SC | 2,290 | 7.213537 | 4.4828 | 0 | 21 |
| CES_WB | 2,290 | 9.379476 | 2.830684 | 0 | 12 |
| Chol | 2,269 | 187.4606 | 41.57405 | 78 | 414 |
| HDL | 2,268 | 56.65785 | 18.58656 | 19 | 176 |
| HgbA1C | 2,265 | 6.036865 | 1.241404 | 3.8 | 16.2 |
| Albumin | 2,270 | 4.333789 | .3233109 | 2.6 | 5.4 |
| CRP | 2,216 | 7.889009 | 29.71592 | .0167696 | 1277.805 |
| ga01 | 0 | | | | |
| ga02 | 0 | | | | |
| ga03 | 0 | | | | |
| ga04 | 0 | | | | |
| ga05 | 0 | | | | |
| ga06 | 0 | | | | |
| ga07 | 0 | | | | |
| ga08 | 0 | | | | |
| ga09 | 0 | | | | |
| ga10 | 0 | | | | |

| | | | | | |
|---|---|---|---|---|---|
| anxd | **0** | | | | |
| ga01_n | **0** | | | | |
| ga02_n | **0** | | | | |
| ga03_n | **0** | | | | |
| ga04_n | **0** | | | | |
| ga05_n | **0** | | | | |
| ga06_n | **0** | | | | |
| ga07_n | **0** | | | | |
| ga08_n | **0** | | | | |
| ga09_n | **0** | | | | |
| ga10_n | **0** | | | | |
| anxd_n | **2,290** | **1.177729** | **.3823682** | **1** | **2** |
| ANXIETY | **0** | | | | |

```
425 .
426 .
427 . keep HNDID Age

428 . save Agew3, replace
    file Agew3.dta saved

429 . capture rename Age w4Age

430 . capture rename HNDID HNDID

431 . sort HNDID

432 . save, replace
    file Agew3.dta saved

433 .
434 . use DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3W4_APPENDED,clear

435 . sort HNDID

436 . capture drop _merge

437 . save, replace
    file DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3W4_APPENDED.dta saved

438 .
439 . merge HNDID using Agew4
    (you are using old merge syntax; see [D] merge for new syntax)
    variable HNDID does not uniquely identify observations in the master data

440 . save, replace
    file DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3W4_APPENDED.dta saved

441 .
```

```
442 .
443 .
444 .
445 . //STEP 12: CREATE THE TIME VARIABLE BETWEEN WAVES 1, 3 and 4//
446 .
447 . use DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3W4_APPENDED,clear

448 .
449 . capture drop timew1w3w4

450 . gen timew1w3w4=.
(12,079 missing values generated)

451 . replace timew1w3w4=0 if HNDwave==1
(3,720 real changes made)

452 . replace timew1w3w4=w3Age-w1Age if HNDwave==3
(2,468 real changes made)

453 . replace timew1w3w4=w4Age-w1Age if HNDwave==4
(2,171 real changes made)

454 .
455 . su timew1w3w4 if HNDwave==4

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
  timew1w3w4 |      2,171     8.67462    1.657789        4.6       12.5

456 .
457 . save, replace
file DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3W4_APPENDED.dta saved

458 .
459 . ********************************************************************************
460 . //STEP 13A: CREATE THE EXPOSURE VARIABLES AT WAVE 1//
461 . use 2023-09-28_anx_wave1,clear

462 .
463 . describe

Contains data from 2023-09-28_anx_wave1.dta
 Observations:         3,720
    Variables:            74                  30 Oct 2023 11:29
-------------------------------------------------------------------------------
Variable      Storage   Display    Value
    name         type    format    label      Variable label
-------------------------------------------------------------------------------
rownames        int     %8.0g
HNDID           double  %12.0g
HNDwave         byte    %8.0g
Sex             byte    %8.0g      Sex
Race            byte    %8.0g      Race
PovStat         byte    %8.0g      PovStat
EducationYr     byte    %8.0g
Age             double  %12.0g
SF01            byte    %8.0g      SF01
HCys            double  %12.0g
Employment01    byte    %8.0g      Employment01

PDSQga01        byte    %8.0g      PDSQga01
PDSQga02        byte    %8.0g      PDSQga02
PDSQga03        byte    %8.0g      PDSQga03
```

| | | | |
|---|---|---|---|
| **PDSQga04** | byte | %8.0g | PDSQga04 |
| **PDSQga05** | byte | %8.0g | PDSQga05 |
| **PDSQga06** | byte | %8.0g | PDSQga06 |
| **PDSQga07** | byte | %8.0g | PDSQga07 |
| **PDSQga08** | byte | %8.0g | PDSQga08 |
| **PDSQga09** | byte | %8.0g | PDSQga09 |
| **PDSQga10** | byte | %8.0g | PDSQga10 |
| **CigaretteStatus** | byte | %8.0g | CigaretteStatus |
| **AlcStatus** | byte | %8.0g | AlcStatus |
| **MarijCurr** | byte | %8.0g | MarijCurr |
| **CokeCurr** | byte | %8.0g | CokeCurr |
| **OpiateCurr** | byte | %8.0g | OpiateCurr |
| **CVhighChol** | byte | %8.0g | CVhighChol |
| **CVaFib** | byte | %8.0g | CVaFib |
| **CVangina** | byte | %8.0g | CVangina |
| **CVcad** | byte | %8.0g | CVcad |
| **CVchf** | byte | %8.0g | CVchf |
| **CVmi** | byte | %8.0g | CVmi |
| **AnxietyDisorder** | byte | %8.0g | AnxietyDisorder |
| **BPsitRsys** | int | %8.0g | |
| **BPsitRdia** | int | %8.0g | |
| **BPsitLsys** | int | %8.0g | |
| **BPsitLdia** | int | %8.0g | |
| **BMI** | double | %12.0g | |
| **dxHTN** | byte | %8.0g | dxHTN |
| **dxDiabetes** | byte | %8.0g | dxDiabetes |
| **hei2010_total~e** | double | %12.0g | |
| **CES** | byte | %8.0g | |
| **CES_DA** | byte | %8.0g | |
| **CES_IP** | byte | %8.0g | |
| **CES_SC** | byte | %8.0g | |
| **CES_WB** | byte | %8.0g | |
| **Chol** | int | %8.0g | |
| **HDL** | int | %8.0g | |
| **HgbA1C** | double | %12.0g | |
| **Albumin** | double | %12.0g | |
| **CRP** | double | %12.0g | |
| **ga01** | str3 | %9s | |
| **ga02** | str3 | %9s | |
| **ga03** | str3 | %9s | |
| **ga04** | str3 | %9s | |
| **ga05** | str3 | %9s | |
| **ga06** | str3 | %9s | |
| **ga07** | str3 | %9s | |
| **ga08** | str3 | %9s | |
| **ga09** | str3 | %9s | |
| **ga10** | str3 | %9s | |
| **anxd** | str3 | %9s | |
| **ga01_n** | long | %8.0g | ga01_n |
| **ga02_n** | long | %8.0g | ga02_n |
| **ga03_n** | long | %8.0g | ga03_n |
| **ga04_n** | long | %8.0g | ga04_n |
| **ga05_n** | long | %8.0g | ga05_n |
| **ga06_n** | long | %8.0g | ga06_n |
| **ga07_n** | long | %8.0g | ga07_n |
| **ga08_n** | long | %8.0g | ga08_n |

| | | | |
|---|---|---|---|
| **ga09_n** | long | %8.0g | ga09_n |
| **ga10_n** | long | %8.0g | ga10_n |
| **anxd_n** | long | %8.0g | anxd_n |
| **ANXIETY** | float | %9.0g | |

Sorted by: **HNDID**

464 . su

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| rownames | 3,720 | 4173.255 | 2398.332 | 1 | 8358 |
| HNDID | 3,720 | 8.16e+09 | 4.20e+07 | 8.03e+09 | 8.22e+09 |
| HNDwave | 3,720 | 1 | 0 | 1 | 1 |
| Sex | 3,720 | 1.452957 | .497849 | 1 | 2 |
| Race | 3,720 | 1.59086 | .4917412 | 1 | 2 |
| PovStat | 3,720 | 1.412634 | .4923743 | 1 | 2 |
| EducationYr | 3,646 | 12.05129 | 2.543741 | 1 | 20 |
| Age | 3,720 | 48.26927 | 9.357168 | 29.8 | 66.2 |
| SF01 | 3,717 | 3.08071 | .9902358 | 1 | 5 |
| HCys | 1,460 | 9.176575 | 5.219708 | 2.88 | 112.59 |
| Employment01 | 3,628 | 1.432194 | .4954493 | 1 | 2 |
| PDSQga01 | 2,228 | 1.138689 | .3456997 | 1 | 2 |
| PDSQga02 | 2,227 | 1.260889 | .4392182 | 1 | 2 |
| PDSQga03 | 2,227 | 1.233049 | .4228681 | 1 | 2 |
| PDSQga04 | 2,227 | 1.271217 | .4446876 | 1 | 2 |
| PDSQga05 | 2,227 | 1.351145 | .4774354 | 1 | 2 |
| PDSQga06 | 2,225 | 1.377079 | .4847638 | 1 | 2 |
| PDSQga07 | 2,225 | 1.374831 | .4841882 | 1 | 2 |
| PDSQga08 | 2,225 | 1.363596 | .4811422 | 1 | 2 |
| PDSQga09 | 2,225 | 1.349213 | .4768287 | 1 | 2 |
| PDSQga10 | 2,225 | 1.26382 | .440802 | 1 | 2 |
| CigaretteS~s | 2,585 | 2.958607 | 1.202193 | 1 | 4 |
| AlcStatus | 2,581 | 3.321193 | .9529088 | 1 | 4 |
| MarijCurr | 2,579 | 1.863513 | .3433716 | 1 | 2 |
| CokeCurr | 2,591 | 1.93902 | .2393404 | 1 | 2 |
| OpiateCurr | 2,509 | 1.963332 | .1879828 | 1 | 2 |
| CVhighChol | 2,497 | 1.271526 | .4448357 | 1 | 2 |
| CVaFib | 2,504 | 1.079073 | .2699073 | 1 | 2 |
| CVangina | 2,504 | 1.093051 | .2905621 | 1 | 2 |
| CVcad | 2,505 | 1.038723 | .1929715 | 1 | 2 |
| CVchf | 2,505 | 1.028743 | .1671153 | 1 | 2 |
| CVmi | 2,503 | 1.036756 | .1881995 | 1 | 2 |
| AnxietyDis~r | 2,630 | 1.129658 | .3359904 | 1 | 2 |
| BPsitRsys | 2,766 | 121.1312 | 18.03847 | 80 | 194 |
| BPsitRdia | 2,765 | 73.00434 | 11.44163 | 40 | 144 |
| BPsitLsys | 2,740 | 120.1639 | 18.14553 | 76 | 217 |
| BPsitLdia | 2,733 | 73.10392 | 11.247 | 37 | 158 |
| BMI | 2,853 | 30.0263 | 7.921048 | 14.35524 | 70.069 |
| dxHTN | 2,750 | 1.467273 | .4990185 | 1 | 2 |
| dxDiabetes | 2,756 | 1.526488 | .7736745 | 1 | 3 |
| hei2010_to~e | 2,177 | 42.59318 | 11.48268 | 12.62117 | 89.42492 |
| CES | 2,736 | 15.16301 | 11.44406 | 0 | 59 |
| CES_DA | 2,794 | 4.651038 | 5.014007 | 0 | 21 |
| CES_IP | 2,794 | 1.012527 | 1.3815 | 0 | 6 |

| | | | | | |
|---|---|---|---|---|---|
| CES_SC | 2,794 | 6.740157 | 4.480029 | 0 | 21 |
| CES_WB | 2,794 | 9.306371 | 2.96825 | 0 | 12 |
| Chol | 2,752 | 187.0883 | 43.35285 | 68 | 651 |
| HDL | 2,751 | 52.74264 | 17.28135 | 11 | 175 |
| HgbA1C | 2,754 | 6.008642 | 1.31885 | 3.2 | 17.5 |
| Albumin | 2,753 | 4.270432 | .343827 | 2.2 | 5.3 |
| CRP | 2,646 | 5.036731 | 10.10386 | .005 | 163 |
| ga01 | 0 | | | | |
| ga02 | 0 | | | | |
| ga03 | 0 | | | | |
| ga04 | 0 | | | | |
| ga05 | 0 | | | | |
| ga06 | 0 | | | | |
| ga07 | 0 | | | | |
| ga08 | 0 | | | | |
| ga09 | 0 | | | | |
| ga10 | 0 | | | | |
| anxd | 0 | | | | |
| ga01_n | 2,228 | 1.138689 | .3456997 | 1 | 2 |
| ga02_n | 2,227 | 1.260889 | .4392182 | 1 | 2 |
| ga03_n | 2,227 | 1.233049 | .4228681 | 1 | 2 |
| ga04_n | 2,227 | 1.271217 | .4446876 | 1 | 2 |
| ga05_n | 2,227 | 1.351145 | .4774354 | 1 | 2 |
| ga06_n | 2,225 | 1.377079 | .4847638 | 1 | 2 |
| ga07_n | 2,225 | 1.374831 | .4841882 | 1 | 2 |
| ga08_n | 2,225 | 1.363596 | .4811422 | 1 | 2 |
| ga09_n | 2,225 | 1.349213 | .4768287 | 1 | 2 |
| ga10_n | 2,225 | 1.26382 | .440802 | 1 | 2 |
| anxd_n | 2,630 | 1.129658 | .3359904 | 1 | 2 |
| ANXIETY | 2,225 | 12.98247 | 3.224116 | 10 | 20 |

```
465 .
466 .
467 . keep HNDID HCys

468 .
469 .
470 . addstub HCys, stub(w1)

471 .
472 . save HOMOCYSTEINE_EXPOSURES_W1,replace
    file HOMOCYSTEINE_EXPOSURES_W1.dta saved

473 .
474 .
```

```
475 . //STEP 13B: CREATE THE EXPOSURE VARIABLES AT WAVE 3//
476 .
477 . use 2023-09-28_anx_wave3,clear

478 .
479 . describe

Contains data from 2023-09-28_anx_wave3.dta
 Observations:         2,468
    Variables:            74                  30 Oct 2023 11:29
```

| Variable name | Storage type | Display format | Value label | Variable label |
|---|---|---|---|---|
| **rownames** | int | %8.0g | | |
| **HNDID** | double | %12.0g | | |
| **HNDwave** | byte | %8.0g | | |
| **Sex** | byte | %8.0g | Sex | |
| **Race** | byte | %8.0g | Race | |
| **PovStat** | byte | %8.0g | PovStat | |
| **EducationYr** | byte | %8.0g | | |
| **Age** | double | %12.0g | | |
| **SF01** | byte | %8.0g | SF01 | |
| **HCys** | double | %12.0g | | |
| **Employment01** | byte | %8.0g | Employment01 | |
| **PDSQga01** | byte | %8.0g | PDSQga01 | |
| **PDSQga02** | byte | %8.0g | PDSQga02 | |
| **PDSQga03** | byte | %8.0g | PDSQga03 | |
| **PDSQga04** | byte | %8.0g | PDSQga04 | |
| **PDSQga05** | byte | %8.0g | PDSQga05 | |
| **PDSQga06** | byte | %8.0g | PDSQga06 | |
| **PDSQga07** | byte | %8.0g | PDSQga07 | |
| **PDSQga08** | byte | %8.0g | PDSQga08 | |
| **PDSQga09** | byte | %8.0g | PDSQga09 | |
| **PDSQga10** | byte | %8.0g | PDSQga10 | |
| **CigaretteStatus** | byte | %8.0g | CigaretteStatus | |
| **AlcStatus** | byte | %8.0g | AlcStatus | |
| **MarijCurr** | byte | %8.0g | MarijCurr | |
| **CokeCurr** | byte | %8.0g | CokeCurr | |
| **OpiateCurr** | byte | %8.0g | OpiateCurr | |
| **CVhighChol** | byte | %8.0g | CVhighChol | |
| **CVaFib** | byte | %8.0g | CVaFib | |
| **CVangina** | byte | %8.0g | CVangina | |
| **CVcad** | byte | %8.0g | CVcad | |
| **CVchf** | byte | %8.0g | CVchf | |
| **CVmi** | byte | %8.0g | CVmi | |
| **AnxietyDisorder** | byte | %8.0g | AnxietyDisorder | |
| **BPsitRsys** | int | %8.0g | | |
| **BPsitRdia** | int | %8.0g | | |
| **BPsitLsys** | int | %8.0g | | |
| **BPsitLdia** | int | %8.0g | | |
| **BMI** | double | %12.0g | | |
| **dxHTN** | byte | %8.0g | dxHTN | |
| **dxDiabetes** | byte | %8.0g | dxDiabetes | |
| **hei2010_total~e** | double | %12.0g | | |

| | | | |
|---|---|---|---|
| **CES** | byte | %8.0g | |
| **CES_DA** | byte | %8.0g | |
| **CES_IP** | byte | %8.0g | |
| **CES_SC** | byte | %8.0g | |
| **CES_WB** | byte | %8.0g | |
| **Chol** | int | %8.0g | |
| **HDL** | int | %8.0g | |
| **HgbA1C** | double | %12.0g | |
| **Albumin** | double | %12.0g | |
| **CRP** | double | %12.0g | |
| **ga01** | str3 | %9s | |
| **ga02** | str3 | %9s | |
| **ga03** | str3 | %9s | |
| **ga04** | str3 | %9s | |
| **ga05** | str3 | %9s | |
| **ga06** | str3 | %9s | |
| **ga07** | str3 | %9s | |
| **ga08** | str3 | %9s | |
| **ga09** | str3 | %9s | |
| **ga10** | str3 | %9s | |
| **anxd** | str3 | %9s | |
| **ga01_n** | long | %8.0g | ga01_n |
| **ga02_n** | long | %8.0g | ga02_n |
| **ga03_n** | long | %8.0g | ga03_n |
| **ga04_n** | long | %8.0g | ga04_n |
| **ga05_n** | long | %8.0g | ga05_n |
| **ga06_n** | long | %8.0g | ga06_n |
| **ga07_n** | long | %8.0g | ga07_n |
| **ga08_n** | long | %8.0g | ga08_n |
| **ga09_n** | long | %8.0g | ga09_n |
| **ga10_n** | long | %8.0g | ga10_n |
| **anxd_n** | long | %8.0g | anxd_n |
| **ANXIETY** | float | %9.0g | |

Sorted by: **HNDID**

480 . su

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| rownames | **2,468** | **4188.203** | **2448.433** | **4** | **8359** |
| HNDID | **2,468** | **8.16e+09** | **4.33e+07** | **8.03e+09** | **8.22e+09** |
| HNDwave | **2,468** | **3** | **0** | **3** | **3** |
| Sex | **2,468** | **1.422609** | **.4940745** | **1** | **2** |
| Race | **2,468** | **1.616694** | **.4862905** | **1** | **2** |
| PovStat | **2,468** | **1.404781** | **.4909491** | **1** | **2** |
| EducationYr | **2,433** | **12.18496** | **2.579873** | **1** | **20** |
| Age | **2,468** | **52.97776** | **9.033023** | **32.9** | **73** |
| SF01 | **1,760** | **3.114773** | **.9365353** | **1** | **5** |
| HCys | **1,486** | **10.40221** | **10.36594** | **3.87** | **303.93** |
| Employment01 | **0** | | | | |
| PDSQga01 | **0** | | | | |
| PDSQga02 | **0** | | | | |
| PDSQga03 | **0** | | | | |
| PDSQga04 | **0** | | | | |
| PDSQga05 | **0** | | | | |
| PDSQga06 | **0** | | | | |
| PDSQga07 | **0** | | | | |
| PDSQga08 | **0** | | | | |
| PDSQga09 | **0** | | | | |

| | | | | | |
|---|---|---|---|---|---|
| PDSQga10 | 0 | | | | |
| CigaretteS~s | 2,103 | 2.911555 | 1.127789 | 1 | 4 |
| AlcStatus | 2,134 | 3.31537 | .87919 | 1 | 4 |
| MarijCurr | 1,990 | 1.882412 | .3222005 | 1 | 2 |
| CokeCurr | 1,942 | 1.969104 | .1730805 | 1 | 2 |
| OpiateCurr | 1,877 | 1.973362 | .1610667 | 1 | 2 |
| CVhighChol | 2,285 | 1.363239 | .481038 | 1 | 2 |
| CVaFib | 2,285 | 1.089716 | .2858363 | 1 | 2 |
| CVangina | 2,285 | 1.100656 | .3009391 | 1 | 2 |
| CVcad | 2,285 | 1.042888 | .2026498 | 1 | 2 |
| CVchf | 2,285 | 1.034573 | .1827364 | 1 | 2 |
| CVmi | 2,285 | 1.039387 | .1945572 | 1 | 2 |
| AnxietyDis~r | 2,290 | 1.177729 | .3823682 | 1 | 2 |
| BPsitRsys | 2,263 | 122.9585 | 18.23062 | 76 | 220 |
| BPsitRdia | 2,262 | 70.58267 | 10.04919 | 40 | 120 |
| BPsitLsys | 2,250 | 122.2787 | 17.98661 | 76 | 216 |
| BPsitLdia | 2,246 | 71.32502 | 10.32727 | 40 | 116 |
| BMI | 2,291 | 30.63998 | 7.955704 | 12.3 | 88 |
| dxHTN | 2,293 | 1.580898 | .4935197 | 1 | 2 |
| dxDiabetes | 2,314 | 1.589023 | .8128245 | 1 | 3 |
| hei2010_to~e | 2,140 | 46.2576 | 12.05283 | 16.62035 | 98.33624 |
| CES | 2,254 | 15.81233 | 11.65942 | 0 | 56 |
| CES_DA | 2,290 | 4.859389 | 5.135249 | 0 | 21 |
| CES_IP | 2,290 | 1.095197 | 1.450998 | 0 | 6 |
| CES_SC | 2,290 | 7.213537 | 4.4828 | 0 | 21 |
| CES_WB | 2,290 | 9.379476 | 2.830684 | 0 | 12 |
| Chol | 2,269 | 187.4606 | 41.57405 | 78 | 414 |
| HDL | 2,268 | 56.65785 | 18.58656 | 19 | 176 |
| HgbA1C | 2,265 | 6.036865 | 1.241404 | 3.8 | 16.2 |
| Albumin | 2,270 | 4.333789 | .3233109 | 2.6 | 5.4 |
| CRP | 2,216 | 7.889009 | 29.71592 | .0167696 | 1277.805 |
| ga01 | 0 | | | | |
| ga02 | 0 | | | | |
| ga03 | 0 | | | | |
| ga04 | 0 | | | | |
| ga05 | 0 | | | | |
| ga06 | 0 | | | | |
| ga07 | 0 | | | | |
| ga08 | 0 | | | | |
| ga09 | 0 | | | | |
| ga10 | 0 | | | | |
| anxd | 0 | | | | |
| ga01_n | 0 | | | | |
| ga02_n | 0 | | | | |
| ga03_n | 0 | | | | |
| ga04_n | 0 | | | | |
| ga05_n | 0 | | | | |
| ga06_n | 0 | | | | |
| ga07_n | 0 | | | | |
| ga08_n | 0 | | | | |
| ga09_n | 0 | | | | |
| ga10_n | 0 | | | | |

```
        anxd_n |      2,290    1.177729    .3823682          1          2
       ANXIETY |          0
```

```
481 .
482 .
483 . keep HNDID HCys

484 .
485 .
486 . addstub HCys, stub(w3)

487 .
488 . save HOMOCYSTEINE_EXPOSURES_W3,replace
    file HOMOCYSTEINE_EXPOSURES_W3.dta saved

489 .
490 .
491 . //STEP 13C: CREATE THE EXPOSURE VARIABLES AT WAVE 4//
492 .
493 . use 2023-09-28_anx_wave4,clear

494 .
495 . describe

    Contains data from 2023-09-28_anx_wave4.dta
     Observations:         2,171
        Variables:            74                  30 Oct 2023 11:29
```

| Variable name | Storage type | Display format | Value label | Variable label |
|---|---|---|---|---|
| **rownames** | int | %8.0g | | |
| **HNDID** | double | %12.0g | | |
| **HNDwave** | byte | %8.0g | | |
| **Sex** | byte | %8.0g | Sex | |
| **Race** | byte | %8.0g | Race | |
| **PovStat** | byte | %8.0g | PovStat | |
| **EducationYr** | byte | %8.0g | | |
| **Age** | double | %12.0g | | |
| **SF01** | byte | %8.0g | SF01 | |
| **HCys** | double | %12.0g | | |
| **Employment01** | byte | %8.0g | Employment01 | |
| **PDSQga01** | byte | %8.0g | PDSQga01 | |
| **PDSQga02** | byte | %8.0g | PDSQga02 | |
| **PDSQga03** | byte | %8.0g | PDSQga03 | |
| **PDSQga04** | byte | %8.0g | PDSQga04 | |
| **PDSQga05** | byte | %8.0g | PDSQga05 | |
| **PDSQga06** | byte | %8.0g | PDSQga06 | |
| **PDSQga07** | byte | %8.0g | PDSQga07 | |
| **PDSQga08** | byte | %8.0g | PDSQga08 | |
| **PDSQga09** | byte | %8.0g | PDSQga09 | |
| **PDSQga10** | byte | %8.0g | PDSQga10 | |
| **CigaretteStatus** | byte | %8.0g | CigaretteStatus | |
| **AlcStatus** | byte | %8.0g | AlcStatus | |
| **MarijCurr** | byte | %8.0g | MarijCurr | |
| **CokeCurr** | byte | %8.0g | CokeCurr | |
| **OpiateCurr** | byte | %8.0g | OpiateCurr | |
| **CVhighChol** | byte | %8.0g | CVhighChol | |

| | | | |
|---|---|---|---|
| **CVaFib** | byte | %8.0g | CVaFib |
| **CVangina** | byte | %8.0g | CVangina |
| **CVcad** | byte | %8.0g | CVcad |
| **CVchf** | byte | %8.0g | CVchf |
| **CVmi** | byte | %8.0g | CVmi |
| **AnxietyDisorder** | byte | %8.0g | AnxietyDisorder |
| | | | |
| **BPsitRsys** | int | %8.0g | |
| **BPsitRdia** | int | %8.0g | |
| **BPsitLsys** | int | %8.0g | |
| **BPsitLdia** | int | %8.0g | |
| **BMI** | double | %12.0g | |
| **dxHTN** | byte | %8.0g | dxHTN |
| **dxDiabetes** | byte | %8.0g | dxDiabetes |
| | | | |
| **hei2010_total~e** | double | %12.0g | |
| **CES** | byte | %8.0g | |
| **CES_DA** | byte | %8.0g | |
| **CES_IP** | byte | %8.0g | |
| **CES_SC** | byte | %8.0g | |
| **CES_WB** | byte | %8.0g | |
| **Chol** | int | %8.0g | |
| **HDL** | int | %8.0g | |
| **HgbA1C** | double | %12.0g | |
| **Albumin** | double | %12.0g | |
| **CRP** | double | %12.0g | |
| **ga01** | str3 | %9s | |
| **ga02** | str3 | %9s | |
| **ga03** | str3 | %9s | |
| **ga04** | str3 | %9s | |
| **ga05** | str3 | %9s | |
| **ga06** | str3 | %9s | |
| **ga07** | str3 | %9s | |
| **ga08** | str3 | %9s | |
| **ga09** | str3 | %9s | |
| **ga10** | str3 | %9s | |
| **anxd** | str3 | %9s | |
| **ga01_n** | long | %8.0g | ga01_n |
| **ga02_n** | long | %8.0g | ga02_n |
| **ga03_n** | long | %8.0g | ga03_n |
| **ga04_n** | long | %8.0g | ga04_n |
| **ga05_n** | long | %8.0g | ga05_n |
| **ga06_n** | long | %8.0g | ga06_n |
| **ga07_n** | long | %8.0g | ga07_n |
| **ga08_n** | long | %8.0g | ga08_n |
| **ga09_n** | long | %8.0g | ga09_n |
| **ga10_n** | long | %8.0g | ga10_n |
| **anxd_n** | long | %8.0g | anxd_n |
| **ANXIETY** | float | %9.0g | |

---

Sorted by: **HNDID**

```
496 . su
```

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| rownames | 2,171 | 4182.233 | 2399.216 | 5 | 8357 |
| HNDID | 2,171 | 8.16e+09 | 4.24e+07 | 8.03e+09 | 8.22e+09 |
| HNDwave | 2,171 | 4 | 0 | 4 | 4 |
| Sex | 2,171 | 1.413634 | .4925979 | 1 | 2 |
| Race | 2,171 | 1.610778 | .4876861 | 1 | 2 |
| PovStat | 2,171 | 1.405343 | .4910714 | 1 | 2 |
| EducationYr | 2,139 | 12.15895 | 2.52434 | 1 | 20 |
| Age | 2,171 | 56.60129 | 9.10942 | 36.4 | 76.9 |
| SF01 | 2,129 | 3.060592 | .930676 | 1 | 5 |
| HCys | 1,280 | 10.68614 | 4.557427 | 4.18 | 53.11 |
| Employment01 | 0 | | | | |
| PDSQga01 | 1,893 | 1.15795 | .3647908 | 1 | 2 |
| PDSQga02 | 1,890 | 1.198942 | .3993098 | 1 | 2 |
| PDSQga03 | 1,887 | 1.173821 | .3790558 | 1 | 2 |
| PDSQga04 | 1,887 | 1.244833 | .4301022 | 1 | 2 |
| PDSQga05 | 1,886 | 1.294804 | .4560754 | 1 | 2 |
| PDSQga06 | 1,885 | 1.311406 | .4631912 | 1 | 2 |
| PDSQga07 | 1,884 | 1.347134 | .4761851 | 1 | 2 |
| PDSQga08 | 1,884 | 1.28397 | .4510423 | 1 | 2 |
| PDSQga09 | 1,883 | 1.326606 | .4690965 | 1 | 2 |
| PDSQga10 | 1,880 | 1.23883 | .426482 | 1 | 2 |
| CigaretteS~s | 2,013 | 2.958768 | 1.137552 | 1 | 4 |
| AlcStatus | 2,030 | 3.298522 | .8664082 | 1 | 4 |
| MarijCurr | 1,900 | 1.841579 | .3652315 | 1 | 2 |
| CokeCurr | 1,852 | 1.968683 | .1742214 | 1 | 2 |
| OpiateCurr | 1,804 | 1.972284 | .164204 | 1 | 2 |
| CVhighChol | 2,107 | 1.449454 | .4975566 | 1 | 2 |
| CVaFib | 2,107 | 1.10916 | .3119138 | 1 | 2 |
| CVangina | 2,107 | 1.113906 | .3177725 | 1 | 2 |
| CVcad | 2,107 | 1.059801 | .2371734 | 1 | 2 |
| CVchf | 2,107 | 1.04841 | .2146821 | 1 | 2 |
| CVmi | 2,107 | 1.05458 | .2272125 | 1 | 2 |
| AnxietyDis~r | 2,151 | 1.259879 | .4386701 | 1 | 2 |
| BPsitRsys | 2,113 | 118.6602 | 17.79255 | 80 | 204 |
| BPsitRdia | 2,112 | 65.94934 | 9.811911 | 40 | 118 |
| BPsitLsys | 2,115 | 119.079 | 17.86099 | 72 | 208 |
| BPsitLdia | 2,115 | 67.28747 | 9.948667 | 40 | 120 |
| BMI | 2,142 | 30.86928 | 7.952211 | 13.8 | 76.5 |
| dxHTN | 2,153 | 1.648398 | .4775815 | 1 | 2 |
| dxDiabetes | 2,162 | 1.650786 | .8461863 | 1 | 3 |
| hei2010_to~e | 2,066 | 48.68347 | 12.09708 | 14.40958 | 90.44823 |
| CES | 2,007 | 13.79771 | 10.87457 | 0 | 57 |
| CES_DA | 2,015 | 3.893797 | 4.474094 | 0 | 21 |
| CES_IP | 2,015 | .830273 | 1.269134 | 0 | 6 |
| CES_SC | 2,015 | 5.874442 | 4.275007 | 0 | 21 |
| CES_WB | 2,015 | 8.808437 | 3.147015 | 0 | 12 |
| Chol | 2,087 | 187.966 | 43.12726 | 58 | 409 |
| HDL | 2,085 | 57.31175 | 19.81095 | 14 | 199 |
| HgbA1C | 2,075 | 6.212386 | 1.351279 | 3.8 | 19.4 |
| Albumin | 2,086 | 4.2535 | .3457376 | 2.2 | 5.4 |

| | | | | | |
|---|---|---|---|---|---|
| CRP | 2,082 | 5.310447 | 9.392764 | .15 | 125 |
| ga01 | 0 | | | | |
| ga02 | 0 | | | | |
| ga03 | 0 | | | | |
| ga04 | 0 | | | | |
| ga05 | 0 | | | | |
| ga06 | 0 | | | | |
| ga07 | 0 | | | | |
| ga08 | 0 | | | | |
| ga09 | 0 | | | | |
| ga10 | 0 | | | | |
| anxd | 0 | | | | |
| ga01_n | 1,893 | 1.15795 | .3647908 | 1 | 2 |
| ga02_n | 1,890 | 1.198942 | .3993098 | 1 | 2 |
| ga03_n | 1,887 | 1.173821 | .3790558 | 1 | 2 |
| ga04_n | 1,887 | 1.244833 | .4301022 | 1 | 2 |
| ga05_n | 1,886 | 1.294804 | .4560754 | 1 | 2 |
| ga06_n | 1,885 | 1.311406 | .4631912 | 1 | 2 |
| ga07_n | 1,884 | 1.347134 | .4761851 | 1 | 2 |
| ga08_n | 1,884 | 1.28397 | .4510423 | 1 | 2 |
| ga09_n | 1,883 | 1.326606 | .4690965 | 1 | 2 |
| ga10_n | 1,880 | 1.23883 | .426482 | 1 | 2 |
| anxd_n | 2,151 | 1.259879 | .4386701 | 1 | 2 |
| ANXIETY | 1,880 | 12.58138 | 3.213161 | 10 | 20 |

```
497 .
498 .
499 . keep HNDID HCys

500 .
501 .
502 . addstub HCys, stub(w4)

503 .
504 . save HOMOCYSTEINE_EXPOSURES_W4,replace
    file HOMOCYSTEINE_EXPOSURES_W4.dta saved

505 .
506 .
507 . //STEP 13D: MERGE WAVES, 1, 3 AND 4 EXPOSURES WITH FINAL FILE///
508 .
509 . use DEPRESSIVE_SYMPTOMS_DEMO_WIDEW1W3W4_APPENDED,clear

510 . capture drop _merge

511 . sort HNDID
```

```
512 .
513 . save HANDLS_PAPER64_HCYDEPANXIETY_LONG, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

514 .
515 .
516 . use HOMOCYSTEINE_EXPOSURES_W1,clear

517 . sort HNDID

518 . capture drop _merge

519 . save HOMOCYSTEINE_EXPOSURES_W1, replace
    file HOMOCYSTEINE_EXPOSURES_W1.dta saved

520 .
521 .
522 . use HOMOCYSTEINE_EXPOSURES_W3,clear

523 . sort HNDID

524 . capture drop _merge

525 . save HOMOCYSTEINE_EXPOSURES_W3, replace
    file HOMOCYSTEINE_EXPOSURES_W3.dta saved

526 .
527 .
528 . use HOMOCYSTEINE_EXPOSURES_W4,clear

529 . sort HNDID

530 . capture drop _merge

531 . save HOMOCYSTEINE_EXPOSURES_W4, replace
    file HOMOCYSTEINE_EXPOSURES_W4.dta saved

532 .
533 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG

534 . merge HNDID using HOMOCYSTEINE_EXPOSURES_W1
    (you are using old merge syntax; see [D] merge for new syntax)
    variable HNDID does not uniquely identify observations in the master data

535 . tab _merge
```

| _merge | Freq. | Percent | Cum. |
|---|---|---|---|
| 3 | **12,079** | **100.00** | **100.00** |
| Total | **12,079** | **100.00** | |

```
536 . capture drop _merge

537 . sort HNDID

538 . merge HNDID using HOMOCYSTEINE_EXPOSURES_W3
    (you are using old merge syntax; see [D] merge for new syntax)
    variable HNDID does not uniquely identify observations in the master data

539 . tab _merge
```

| _merge | Freq. | Percent | Cum. |
|---|---|---|---|
| 1 | **2,734** | **22.63** | **22.63** |
| 3 | **9,345** | **77.37** | **100.00** |
| Total | **12,079** | **100.00** | |

```
540 . capture drop _merge

541 . sort HNDID

542 . merge HNDID using HOMOCYSTEINE_EXPOSURES_W4
    (you are using old merge syntax; see [D] merge for new syntax)
    variable HNDID does not uniquely identify observations in the master data

543 . tab _merge
```

| _merge | Freq. | Percent | Cum. |
|---|---|---|---|
| 1 | **3,625** | **30.01** | **30.01** |
| 3 | **8,454** | **69.99** | **100.00** |
| Total | **12,079** | **100.00** | |

```
544 . capture drop _merge

545 . sort HNDID

546 .
547 . save HANDLS_PAPER64_HCYDEPANXIETY_LONG, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

548 .
549 .
550 . ********************************************************************************************************
551 .
552 .
553 . //STEP 13: CREATE ALL OTHER COVARIATE VARIABLES AT WAVES 1 //
554 .
555 . ************************WAVE 1 VARIABLES***********************
556 .
```

```
557 . use 2023-09-28_anx_wave1,clear

558 . capture rename HNDID HNDID

559 . save, replace
    file 2023-09-28_anx_wave1.dta saved

560 .
561 .
562 . ///DEMOGRAPHICS//
    >
563 . keep HNDID Race PovStat Sex

564 . save DEMOGRAPHICS_wave1, replace
    file DEMOGRAPHICS_wave1.dta saved

565 . sort HNDID

566 . save, replace
    file DEMOGRAPHICS_wave1.dta saved

567 .
568 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG, clear

569 . sort HNDID

570 . capture drop _merge

571 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

572 .
573 .
574 . merge HNDID using DEMOGRAPHICS_wave1
    (you are using old merge syntax; see [D] merge for new syntax)
    variable HNDID does not uniquely identify observations in the master data
    (label PovStat already defined)
    (label Race already defined)
    (label Sex already defined)

575 .
576 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

577 .
578 .
579 . // EDUCATION//
580 . use 2023-09-28_anx_wave1,clear

581 . capture rename HNDID HNDID
```

```
582 . save, replace
    file 2023-09-28_anx_wave1.dta saved

583 .
584 .
585 . keep HNDID Education

586 . capture rename Education w1Education

587 . save Educationw1, replace
    file Educationw1.dta saved

588 . sort HNDID

589 . save,replace
    file Educationw1.dta saved

590 .
591 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG,clear

592 . sort HNDID

593 . capture drop _merge

594 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

595 .
596 . merge HNDID using Educationw1
    (you are using old merge syntax; see [D] merge for new syntax)
    variable HNDID does not uniquely identify observations in the master data

597 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

598 .
599 . tab w1Education if HNDwave==1
```

| w1Education | Freq. | Percent | Cum. |
|---|---|---|---|
| 1 | 5 | 0.14 | 0.14 |
| 2 | 9 | 0.25 | 0.38 |
| 3 | 5 | 0.14 | 0.52 |
| 4 | 4 | 0.11 | 0.63 |
| 5 | 5 | 0.14 | 0.77 |
| 6 | 31 | 0.85 | 1.62 |
| 7 | 65 | 1.78 | 3.40 |
| 8 | 134 | 3.68 | 7.08 |
| 9 | 213 | 5.84 | 12.92 |
| 10 | 364 | 9.98 | 22.90 |
| 11 | 410 | 11.25 | 34.15 |
| 12 | 1,253 | 34.37 | 68.51 |
| 13 | 254 | 6.97 | 75.48 |
| 14 | 402 | 11.03 | 86.51 |
| 15 | 76 | 2.08 | 88.59 |
| 16 | 246 | 6.75 | 95.34 |
| 17 | 74 | 2.03 | 97.37 |
| 18 | 70 | 1.92 | 99.29 |
| 20 | 26 | 0.71 | 100.00 |
| Total | 3,646 | 100.00 | |

```
600 .
601 . capture drop w1edubr

602 . gen w1edubr=.
    (12,079 missing values generated)

603 . replace w1edubr=1 if w1Education>=1 & w1Education<=8
    (822 real changes made)

604 . replace w1edubr=2 if w1Education>=9 & w1Education<=12
    (7,228 real changes made)

605 . replace w1edubr=3 if w1Education>=13 & w1Education~=.
    (3,814 real changes made)

606 .
607 . tab w1edubr if HNDwave==1
```

| w1edubr | Freq. | Percent | Cum. |
|---|---|---|---|
| 1 | **258** | **7.08** | **7.08** |
| 2 | **2,240** | **61.44** | **68.51** |
| 3 | **1,148** | **31.49** | **100.00** |
| Total | **3,646** | **100.00** | |

```
608 . tab w1edubr w1Education
```

| | w1Education | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| w1edubr | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | **16** | **30** | **17** | **11** | **16** | **94** | **206** | **432** | **0** |
| 2 | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **670** |
| 3 | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| Total | **16** | **30** | **17** | **11** | **16** | **94** | **206** | **432** | **670** |

| | w1Education | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| w1edubr | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 20 | Total |
| 1 | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **822** |
| 2 | **4,081** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **7,228** |
| 3 | **0** | **827** | **1,329** | **255** | **831** | **246** | **241** | **85** | **3,814** |
| Total | **4,081** | **827** | **1,329** | **255** | **831** | **246** | **241** | **85** | **11,864** |

```
609 .
610 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved
```

```
611 .
612 .
613 . //LIFESTYLE FACTORS: SMOKING AND DRUG USE: CigaretteStatus //
614 .
615 . use 2023-09-28_anx_wave1,clear

616 . capture rename HNDID HNDID

617 . save, replace
    file 2023-09-28_anx_wave1.dta saved

618 .
619 .
620 . keep HNDID CigaretteStatus MarijCurr CokeCurr OpiateCurr

621 . addstub CigaretteStatus MarijCurr CokeCurr OpiateCurr,stub(w1)

622 . sort HNDID

623 . save Smoke_drugsw1,replace
    file Smoke_drugsw1.dta saved

624 .
625 .
626 . **Current smoking status**
627 .
628 . tab  w1CigaretteStatus
```

| w1CigaretteStatus | Freq. | Percent | Cum. |
|---|---|---|---|
| Never tried | **554** | **21.43** | **21.43** |
| Tried, never used regularly | **261** | **10.10** | **31.53** |
| Former user | **508** | **19.65** | **51.18** |
| Current user | **1,262** | **48.82** | **100.00** |
| Total | **2,585** | **100.00** | |

```
629 . su w1CigaretteStatus
```

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| w1Cigarett~s | **2,585** | **2.958607** | **1.202193** | **1** | **4** |

```
630 .
631 . capture drop w1smoke

632 . gen w1smoke=.
    (3,720 missing values generated)

633 . replace w1smoke=1 if w1CigaretteStatus==4
    (1,262 real changes made)
```

```
634 . replace w1smoke=0 if w1CigaretteStatus~=4 & w1CigaretteStatus~=.
    (1,323 real changes made)

635 . replace w1smoke=9 if w1smoke==.
    (1,135 real changes made)

636 .
637 . tab1 w1smoke w1CigaretteStatus w1MarijCurr w1CokeCurr w1OpiateCurr
```

**-> tabulation of w1smoke**

| w1smoke | Freq. | Percent | Cum. |
|---|---|---|---|
| 0 | 1,323 | 35.56 | 35.56 |
| 1 | 1,262 | 33.92 | 69.49 |
| 9 | 1,135 | 30.51 | 100.00 |
| Total | 3,720 | 100.00 | |

**-> tabulation of w1CigaretteStatus**

| w1CigaretteStatus | Freq. | Percent | Cum. |
|---|---|---|---|
| Never tried | 554 | 21.43 | 21.43 |
| Tried, never used regularly | 261 | 10.10 | 31.53 |
| Former user | 508 | 19.65 | 51.18 |
| Current user | 1,262 | 48.82 | 100.00 |
| Total | 2,585 | 100.00 | |

**-> tabulation of w1MarijCurr**

| w1MarijCurr | Freq. | Percent | Cum. |
|---|---|---|---|
| Yes | 352 | 13.65 | 13.65 |
| No | 2,227 | 86.35 | 100.00 |
| Total | 2,579 | 100.00 | |

**-> tabulation of w1CokeCurr**

| w1CokeCurr | Freq. | Percent | Cum. |
|---|---|---|---|
| Yes | 158 | 6.10 | 6.10 |
| No | 2,433 | 93.90 | 100.00 |
| Total | 2,591 | 100.00 | |

**-> tabulation of w1OpiateCurr**

| w1OpiateCurr | Freq. | Percent | Cum. |
|---|---|---|---|
| Yes | 92 | 3.67 | 3.67 |
| No | 2,417 | 96.33 | 100.00 |
| Total | 2,509 | 100.00 | |

```
638 .
639 . capture drop w1smoke1 w1smoke9

640 . gen w1smoke1=1 if w1smoke==1
    (2,458 missing values generated)

641 . replace w1smoke1=0 if w1smoke~=1
    (2,458 real changes made)

642 .
643 . gen w1smoke9=1 if w1smoke==9
    (2,585 missing values generated)

644 . replace w1smoke9=0 if w1smoke~=9
    (2,585 real changes made)

645 .
646 . sort HNDID

647 .
648 . save, replace
    file Smoke_drugsw1.dta saved

649 .
650 .
651 . **Current drug use**
652 .
653 . tab1 w1MarijCurr w1CokeCurr w1OpiateCurr

    -> tabulation of w1MarijCurr

    w1MarijCurr |      Freq.     Percent        Cum.
    ------------+-----------------------------------
            Yes |        352       13.65       13.65
             No |      2,227       86.35      100.00
    ------------+-----------------------------------
          Total |      2,579      100.00

    -> tabulation of w1CokeCurr

     w1CokeCurr |      Freq.     Percent        Cum.
    ------------+-----------------------------------
            Yes |        158        6.10        6.10
             No |      2,433       93.90      100.00
    ------------+-----------------------------------
          Total |      2,591      100.00

    -> tabulation of w1OpiateCurr

    w1OpiateCur |
              r |      Freq.     Percent        Cum.
    ------------+-----------------------------------
            Yes |         92        3.67        3.67
             No |      2,417       96.33      100.00
    ------------+-----------------------------------
          Total |      2,509      100.00
```

```
654 .
655 . capture drop w1currdrugs

656 . gen w1currdrugs=.
    (3,720 missing values generated)

657 . replace w1currdrugs=1 if w1MarijCurr==1 | w1CokeCurr==1 | w1OpiateCurr==1
    (453 real changes made)

658 . replace w1currdrugs=0 if w1currdrugs~=1 & w1MarijCurr~=. & w1CokeCurr~=. & w1OpiateCurr~=.
    (2,044 real changes made)

659 . replace w1currdrugs=9 if w1currdrugs==.
    (1,223 real changes made)

660 .
661 . tab w1currdrugs
```

| w1currdrugs | Freq. | Percent | Cum. |
|---|---|---|---|
| 0 | **2,044** | **54.95** | **54.95** |
| 1 | **453** | **12.18** | **67.12** |
| 9 | **1,223** | **32.88** | **100.00** |
| Total | **3,720** | **100.00** | |

```
662 .
663 . tab w1currdrugs w1MarijCurr
```

| w1currdrugs | w1MarijCurr | | |
|---|---|---|---|
| | Yes | No | Total |
| 0 | **0** | **2,044** | **2,044** |
| 1 | **352** | **99** | **451** |
| 9 | **0** | **84** | **84** |
| Total | **352** | **2,227** | **2,579** |

```
664 . tab w1currdrugs w1CokeCurr
```

| w1currdrugs | w1CokeCurr | | |
|---|---|---|---|
| | Yes | No | Total |
| 0 | **0** | **2,044** | **2,044** |
| 1 | **158** | **293** | **451** |
| 9 | **0** | **96** | **96** |
| Total | **158** | **2,433** | **2,591** |

```
665 . tab w1currdrugs w1OpiateCurr
```

| w1currdrugs | w1OpiateCurr | | |
|---|---|---|---|
| | Yes | No | Total |
| 0 | **0** | **2,044** | **2,044** |
| 1 | **92** | **347** | **439** |
| 9 | **0** | **26** | **26** |
| Total | **92** | **2,417** | **2,509** |

```
666 .
667 . save, replace
    file Smoke_drugsw1.dta saved

668 .
669 .
670 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG,clear

671 . sort HNDID

672 . capture drop _merge

673 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

674 .
675 . merge HNDID using Smoke_drugsw1
    (you are using old merge syntax; see [D] merge for new syntax)
    variable HNDID does not uniquely identify observations in the master data

676 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

677 .
678 .
679 .
680 .
681 . //CES-D, BMI, SELF-RATED HEALTH AND CO-MORBIND CONDITIONS//
682 .
683 . use 2023-09-28_anx_wave1,clear

684 . capture rename HNDID HNDID

685 . save, replace
    file 2023-09-28_anx_wave1.dta saved

686 .
687 .
688 . keep HNDID BMI SF01 dxHTN dxDiabetes CVhighChol CVaFib CVangina CVcad CVchf CVmi

689 .
690 . addstub SF01-dxDiabetes,stub(w1)

691 .
692 . save HEALTH_w1, replace
    file HEALTH_w1.dta saved

693 .
694 . tab w1SF01
```

| w1SF01 | Freq. | Percent | Cum. |
|---|---|---|---|
| Poor | 187 | 5.03 | 5.03 |
| Fair | 827 | 22.25 | 27.28 |
| Good | 1,498 | 40.30 | 67.58 |
| vGood | 909 | 24.46 | 92.04 |
| Excellent | 296 | 7.96 | 100.00 |
| Total | 3,717 | 100.00 | |

```
695 .
696 .
697 . capture drop w1SRH

698 . gen w1SRH=.
    (3,720 missing values generated)

699 . replace w1SRH=1 if w1SF01==1 | w1SF01==2
    (1,014 real changes made)

700 . replace w1SRH=2 if w1SF01==3
    (1,498 real changes made)

701 . replace w1SRH=3 if w1SF01==4 | w1SF01==5
    (1,205 real changes made)

702 .
703 .
704 . tab w1SRH
```

| w1SRH | Freq. | Percent | Cum. |
|---|---|---|---|
| 1 | **1,014** | **27.28** | **27.28** |
| 2 | **1,498** | **40.30** | **67.58** |
| 3 | **1,205** | **32.42** | **100.00** |
| Total | **3,717** | **100.00** | |

```
705 .
706 . save, replace
    file HEALTH_w1.dta saved

707 .
708 . su w1dxHTN w1dxDiabetes
```

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| w1dxHTN | **2,750** | **1.467273** | **.4990185** | **1** | **2** |
| w1dxDiabetes | **2,756** | **1.526488** | **.7736745** | **1** | **3** |

```
709 .
710 . tab1 w1dxHTN w1dxDiabetes
```

**-> tabulation of w1dxHTN**

| w1dxHTN | Freq. | Percent | Cum. |
|---|---|---|---|
| No | **1,465** | **53.27** | **53.27** |
| Yes | **1,285** | **46.73** | **100.00** |
| Total | **2,750** | **100.00** | |

**-> tabulation of w1dxDiabetes**

| w1dxDiabetes | Freq. | Percent | Cum. |
|---|---|---|---|
| NoDx | **1,786** | **64.80** | **64.80** |
| preDiabetes | **489** | **17.74** | **82.55** |
| Diabetes | **481** | **17.45** | **100.00** |
| Total | **2,756** | **100.00** | |

```
711 .
712 .
713 . tab1 w1CVhighChol
```

**-> tabulation of w1CVhighChol**

| w1CVhighChol | Freq. | Percent | Cum. |
|---|---|---|---|
| No | **1,819** | **72.85** | **72.85** |
| Yes | **678** | **27.15** | **100.00** |
| Total | **2,497** | **100.00** | |

```
714 .
715 . save, replace
file HEALTH_w1.dta saved

716 .
717 . tab1  w1CVaFib w1CVangina w1CVcad w1CVchf w1CVmi
```

**-> tabulation of w1CVaFib**

| w1CVaFib | Freq. | Percent | Cum. |
|---|---|---|---|
| No | **2,306** | **92.09** | **92.09** |
| Yes | **198** | **7.91** | **100.00** |
| Total | **2,504** | **100.00** | |

**-> tabulation of w1CVangina**

| w1CVangina | Freq. | Percent | Cum. |
|---|---|---|---|
| No | **2,271** | **90.69** | **90.69** |
| Yes | **233** | **9.31** | **100.00** |
| Total | **2,504** | **100.00** | |

**-> tabulation of w1CVcad**

| w1CVcad | Freq. | Percent | Cum. |
|---|---|---|---|
| No | **2,408** | **96.13** | **96.13** |
| Yes | **97** | **3.87** | **100.00** |
| Total | **2,505** | **100.00** | |

**-> tabulation of w1CVchf**

| w1CVchf | Freq. | Percent | Cum. |
|---|---|---|---|
| No | **2,433** | **97.13** | **97.13** |
| Yes | **72** | **2.87** | **100.00** |
| Total | **2,505** | **100.00** | |

**-> tabulation of w1CVmi**

| w1CVmi | Freq. | Percent | Cum. |
|---|---|---|---|
| No | **2,411** | **96.32** | **96.32** |
| Yes | **92** | **3.68** | **100.00** |
| Total | **2,503** | **100.00** | |

```
718 .
719 . capture drop w1cvdbr

720 . gen w1cvdbr=.
    (3,720 missing values generated)

721 . replace w1cvdbr=1 if w1CVaFib==2 | w1CVangina==2 | w1CVcad==2 | w1CVchf==2 | w1CVmi==2
    (461 real changes made)

722 . replace w1cvdbr=0 if w1cvdbr~=1 & w1CVaFib~=. & w1CVangina~=. & w1CVcad~=. & w1CVchf~=. & w1CVmi~=.
    (2,042 real changes made)

723 .
724 .
725 . tab w1cvdbr
```

| w1cvdbr | Freq. | Percent | Cum. |
|---|---|---|---|
| 0 | **2,042** | **81.58** | **81.58** |
| 1 | **461** | **18.42** | **100.00** |
| Total | **2,503** | **100.00** | |

```
726 .
727 .
728 . sort HNDID

729 . save, replace
    file HEALTH_w1.dta saved

730 .
731 .
732 .
733 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG,clear

734 . sort HNDID

735 . capture drop _merge

736 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

737 .
738 .
```

```
739 .
740 . merge HNDID using HEALTH_w1
    (you are using old merge syntax; see [D] merge for new syntax)
    variable HNDID does not uniquely identify observations in the master data

741 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

742 .
743 .
744 . //HEI, Wave 1://
745 .
746 .
747 . use 2023-09-28_anx_wave1,clear

748 . capture rename HNDID HNDID

749 . save, replace
    file 2023-09-28_anx_wave1.dta saved

750 .
751 .
752 . keep HNDID hei2010_total_score

753 . addstub hei2010_total_score,stub(w1)

754 . sort HNDID

755 . save Otherdietarysw1,replace
    file Otherdietarysw1.dta saved

756 .
757 .
758 . su w1hei2010_total_score

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
w1hei2010_~e |      2,177    42.59318    11.48268   12.62117   89.42492

759 . histogram w1hei2010_total_score
    (bin=33, start=12.62117, width=2.3273864)

760 .
761 .
762 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG,clear

763 . sort HNDID

764 . capture drop _merge

765 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved
```

```
766 .
767 .
768 . merge HNDID using Otherdietarysw1
    (you are using old merge syntax; see [D] merge for new syntax)
    variable HNDID does not uniquely identify observations in the master data

769 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

770 .
771 .
772 . //ANXIETY VARIABLES, WAVE 1//
773 .
774 .
775 . use 2023-09-28_anx_wave1,clear

776 . capture rename HNDID HNDID

777 . save, replace
    file 2023-09-28_anx_wave1.dta saved

778 .
779 . capture drop ANXIETY_ORD

780 . gen ANXIETY_ORD=ANXIETY-10
    (1,495 missing values generated)

781 .
782 . save, replace
    file 2023-09-28_anx_wave1.dta saved

783 .
784 .
785 .
786 . keep HNDID ANXIETY* AnxietyDisorder ga* anxd

787 . addstub ANXIETY* AnxietyDisorder ga* anxd,stub(w1)

788 . sort HNDID

789 . save ANXIETYw1,replace
    file ANXIETYw1.dta saved

790 .
791 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG,clear

792 . sort HNDID

793 . capture drop _merge

794 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved
```

```
795 .
796 .
797 . merge HNDID using ANXIETYw1
    (you are using old merge syntax; see [D] merge for new syntax)
    variable HNDID does not uniquely identify observations in the master data
    (label AnxietyDisorder already defined)

798 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

799 .
800 .
801 . //STEP 14: CREATE DEPRESSIVE SYMPTOMS SELECTION VARIABLES//
802 .
803 .
804 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG,clear

805 . sort HNDID

806 . capture drop _merge

807 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

808 .
809 . capture drop sample_CES=.

810 . gen sample_CES=1 if w1CES~=. | w3CES~=. | w4CES~=.
    (1,459 missing values generated)

811 . replace sample_CES=0 if sample_CES~=1
    (1,459 real changes made)

812 .
813 . tab sample_CES if HNDwave==1

 sample_CES |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        692       18.60       18.60
          1 |      3,028       81.40      100.00
------------+-----------------------------------
      Total |      3,720      100.00

814 .
815 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

816 .
817 .
818 .
819 .
```

```
820 . //STEP 15A: RENAME FIXED COVARIATES///
821 .
822 .
823 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG,clear

824 . sort HNDID

825 . capture drop _merge

826 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

827 .
828 . capture rename w1Sex Sex

829 . capture rename w1Race Race

830 . capture rename w1PovStat PovStat

831 .
832 . save, replace
    file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

833 .
834 .
835 .
836 . //STEP 15B: CREATE EMPIRICAL BAYES ESTIMATORS FOR CES-D TOTAL SCORE AND DOMAINS ANNUALIZED RATE OF CHANGE: //
837 .
838 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG,clear

839 .
840 .
841 . **CES**
842 .
843 . xtmixed CES timew1w3w4 ||HNDID: timew1w3w4, cov(un)

    Performing EM optimization:

    Performing gradient-based optimization:

    Iteration 0:  Log likelihood = -26047.164
    Iteration 1:  Log likelihood = -26021.171
    Iteration 2:  Log likelihood = -26020.415
    Iteration 3:  Log likelihood = -26020.406
    Iteration 4:  Log likelihood = -26020.406

    Computing standard errors:

    Mixed-effects ML regression                     Number of obs    =  6,997
    Group variable: HNDID                           Number of groups =  3,028
                                                    Obs per group:
                                                                 min =      1
                                                                 avg =    2.3
                                                                 max =      3
                                                    Wald chi2(1)     =  23.90
    Log likelihood = -26020.406                     Prob > chi2      = 0.0000
```

| CES | Coefficient | Std. err. | z | P>\|z\| | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| timew1w3w4 | -.1279407 | .0261719 | -4.89 | 0.000 | -.1792366 | -.0766448 |
| _cons | 15.63814 | .2115595 | 73.92 | 0.000 | 15.22349 | 16.05279 |

| Random-effects parameters | Estimate | Std. err. | [95% conf. | interval] |
|---|---|---|---|---|
| **HNDID**: Unstructured | | | | |
| sd(timew1w3w4) | .3485934 | .0903266 | .2097771 | .5792689 |
| sd(_cons) | 9.083296 | .2062307 | 8.687953 | 9.496629 |
| corr(timew1w3w4,_cons) | -.3817178 | .0745101 | -.5175696 | -.2270942 |
| sd(Residual) | 7.243474 | .1140634 | 7.023329 | 7.47052 |

LR test vs. linear model: chi2(**3**) = **1830.25** Prob > chi2 = **0.0000**

Note: LR test is conservative and provided only for reference.

```
844 .
845 .
846 . capture drop e_consCES e_TIMECES

847 . predict  e_TIMECES e_consCES, reffects level(HNDID)
    (1,459 missing values generated)
    (1,459 missing values generated)

848 .
849 . estat ic
```

Akaike's information criterion and Bayesian information criterion

| Model | N | ll(null) | ll(model) | df | AIC | BIC |
|---|---|---|---|---|---|---|
| . | 6,997 | . | -26020.41 | 6 | 52052.81 | 52093.93 |

Note: BIC uses N = number of observations. See **[R] IC note**.

```
850 .
851 . capture drop bayes1CES

852 . gen bayes1CES= -.1279407  +e_TIMECES
    (1,459 missing values generated)

853 .
854 .
855 . su bayes1CES
```

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| bayes1CES | 10,620 | -.12722 | .1112121 | -.6282941 | .2223563 |

```
856 .
857 .
858 . su bayes1CES if HNDwave==1,det

                          bayes1CES
-------------------------------------------------------------
      Percentiles      Smallest
 1%    -.4401833      -.6282941
 5%    -.3371408      -.5566962
10%    -.2831894      -.5534463       Obs               3,028
25%    -.1871673      -.5395759       Sum of wgt.       3,028

50%     -.110424                      Mean           -.1279407
                       Largest       Std. dev.      .1101825
75%    -.0499281       .2054381
90%    -.0092219       .2077951       Variance       .0121402
95%     .0120952       .2212858       Skewness      -.7375311
99%      .085207       .2223563       Kurtosis       3.796309

859 . su bayes1CES if HNDwave==3,det

                          bayes1CES
-------------------------------------------------------------
      Percentiles      Smallest
 1%    -.4478911      -.5566962
 5%    -.3384229      -.5534463
10%    -.2811071      -.5395759       Obs               2,399
25%     -.185408      -.5324442       Sum of wgt.       2,399

50%    -.1063404                      Mean           -.1257214
                       Largest       Std. dev.       .111613
75%    -.0460021       .2054381
90%    -.0074193       .2077951       Variance       .0124575
95%     .0160277       .2212858       Skewness      -.7270684
99%     .0953117       .2223563       Kurtosis       3.795737

860 .
861 .
862 . histogram bayes1CES if HNDwave==1
    (bin=34, start=-.62829405, width=.02501913)

863 .
864 .
865 .
866 . **CES_DA**
867 .
868 . xtmixed CES_DA timew1w3w4 ||HNDID: timew1w3w4, cov(un)

    Performing EM optimization:

    Performing gradient-based optimization:

    Iteration 0:  Log likelihood = -20603.873
    Iteration 1:  Log likelihood = -20568.841
    Iteration 2:  Log likelihood = -20566.666
    Iteration 3:  Log likelihood = -20566.443
    Iteration 4:  Log likelihood = -20566.405
    Iteration 5:  Log likelihood = -20566.404

    Computing standard errors:
```

Mixed-effects ML regression — Number of obs = **7,099**
Group variable: **HNDID** — Number of groups = **3,058**
Obs per group:
min = **1**
avg = **2.3**
max = **3**
Wald chi2(**1**) = **44.66**
Log likelihood = **-20566.404** — Prob > chi2 = **0.0000**

| CES_DA | Coefficient | Std. err. | z | P>\|z\| | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| timew1w3w4 | **-.075786** | **.0113402** | **-6.68** | **0.000** | **-.0980124** | **-.0535595** |
| _cons | **4.82739** | **.0921623** | **52.38** | **0.000** | **4.646755** | **5.008025** |

| Random-effects parameters | Estimate | Std. err. | [95% conf. | interval] |
|---|---|---|---|---|
| **HNDID**: Unstructured | | | | |
| sd(timew1w3w4) | **.0690563** | . | . | . |
| sd(_cons) | **3.891876** | . | . | . |
| corr(timew1w3w4,_cons) | **-.9999992** | . | . | . |
| sd(Residual) | **3.315684** | . | . | . |

LR test vs. linear model: chi2(**3**) = **1614.66** — Prob > chi2 = **0.0000**

Note: LR test is conservative and provided only for reference.

```
869 .
870 .
871 . capture drop e_consCES_DA e_TIMECES_DA

872 . predict  e_TIMECES_DA e_consCES_DA, reffects level(HNDID)
    (1,389 missing values generated)
    (1,389 missing values generated)

873 .
874 . estat ic
```

Akaike's information criterion and Bayesian information criterion

| Model | N | ll(null) | ll(model) | df | AIC | BIC |
|---|---|---|---|---|---|---|
| . | **7,099** | . | **-20566.4** | **2** | **41136.81** | **41150.54** |

Note: BIC uses N = number of observations. See **[R] IC note**.

```
875 .
```

```
876 . capture drop bayes1CES_DA

877 . gen bayes1CES_DA= -.075786  +e_TIMECES_DA
    (1,389 missing values generated)

878 .
879 .
880 . su bayes1CES_DA
```

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| bayes1CES_DA | **10,690** | **-.0756385** | **.059132** | **-.312223** | **-.0076478** |

```
881 .
882 .
883 . su bayes1CES_DA if HNDwave==1,det
```

bayes1CES_DA

| Percentiles | | Smallest | | |
|---|---|---|---|---|
| 1% | **-.2493804** | **-.312223** | | |
| 5% | **-.1945109** | **-.3003779** | | |
| 10% | **-.1639393** | **-.2792588** | Obs | **3,058** |
| 25% | **-.1084046** | **-.2754567** | Sum of wgt. | **3,058** |
| 50% | **-.0594996** | | Mean | **-.075786** |
| | | Largest | Std. dev. | **.0584691** |
| 75% | **-.0276845** | **-.0077714** | | |
| 90% | **-.0142135** | **-.0077587** | Variance | **.0034186** |
| 95% | **-.008857** | **-.007746** | Skewness | **-1.078277** |
| 99% | **-.0082223** | **-.0076478** | Kurtosis | **3.620301** |

```
884 . su bayes1CES_DA if HNDwave==3,det
```

bayes1CES_DA

| Percentiles | | Smallest | | |
|---|---|---|---|---|
| 1% | **-.2530487** | **-.312223** | | |
| 5% | **-.1975328** | **-.3003779** | | |
| 10% | **-.1666555** | **-.2792588** | Obs | **2,408** |
| 25% | **-.1084613** | **-.2754567** | Sum of wgt. | **2,408** |
| 50% | **-.0596093** | | Mean | **-.0756838** |
| | | Largest | Std. dev. | **.060226** |
| 75% | **-.0271471** | **-.0077714** | | |
| 90% | **-.0138288** | **-.0077587** | Variance | **.0036272** |
| 95% | **-.0085932** | **-.007746** | Skewness | **-1.082558** |
| 99% | **-.00817** | **-.0076478** | Kurtosis | **3.610137** |

```
885 .
886 .
```

```
887 . histogram bayes1CES_DA if HNDwave==1
    (bin=34, start=-.31222299, width=.00895809)

888 .
889 .
890 .
891 . **CES_SC**
892 .
893 . xtmixed CES_SC timew1w3w4 ||HNDID: timew1w3w4, cov(un)

    Performing EM optimization:

    Performing gradient-based optimization:

    Iteration 0:  Log likelihood = -20107.431
    Iteration 1:  Log likelihood = -20078.729
    Iteration 2:  Log likelihood = -20077.807
    Iteration 3:  Log likelihood = -20077.789
    Iteration 4:  Log likelihood = -20077.789

    Computing standard errors:

    Mixed-effects ML regression                     Number of obs     =  7,099
    Group variable: HNDID                           Number of groups  =  3,058
                                                    Obs per group:
                                                                  min =      1
                                                                  avg =    2.3
                                                                  max =      3
                                                    Wald chi2(1)      =  51.57
    Log likelihood = -20077.789                     Prob > chi2       = 0.0000
```

| CES_SC | Coefficient | Std. err. | z | P>\|z\| | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| timew1w3w4 | -.0806016 | .0112242 | -7.18 | 0.000 | -.1026007 | -.0586025 |
| _cons | 6.994053 | .0816427 | 85.67 | 0.000 | 6.834036 | 7.154069 |

| Random-effects parameters | Estimate | Std. err. | [95% conf. | interval] |
|---|---|---|---|---|
| **HNDID**: Unstructured | | | | |
| sd(timew1w3w4) | .1381727 | .0415158 | .0766774 | .2489872 |
| sd(_cons) | 3.219574 | .0900939 | 3.047748 | 3.401087 |
| corr(timew1w3w4,_cons) | -.4052348 | .0822736 | -.5530973 | -.2326224 |
| sd(Residual) | 3.192472 | .0485514 | 3.098717 | 3.289063 |

```
    LR test vs. linear model: chi2(3) = 1161.47                   Prob > chi2 = 0.0000

    Note: LR test is conservative and provided only for reference.
```

```
894 .
895 .
896 . capture drop e_consCES_SC e_TIMECES_SC

897 . predict  e_TIMECES_SC e_consCES_SC, reffects level(HNDID)
    (1,389 missing values generated)
    (1,389 missing values generated)

898 .
899 . estat ic

    Akaike's information criterion and Bayesian information criterion

------------------------------------------------------------------------------
       Model |          N   ll(null)  ll(model)      df        AIC        BIC
-------------+----------------------------------------------------------------
           . |      7,099          .  -20077.79       6   40167.58   40208.78
------------------------------------------------------------------------------
    Note: BIC uses N = number of observations. See [R] IC note.

900 .
901 . capture drop bayes1CES_SC

902 . gen bayes1CES_SC= -.0806016 +e_TIMECES_SC
    (1,389 missing values generated)

903 .
904 .
905 . su bayes1CES_SC

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
bayes1CES_SC |     10,690   -.0805261    .0415586  -.2841231   .0506789

906 .
907 .
908 . su bayes1CES_SC if HNDwave==1,det

                        bayes1CES_SC
-------------------------------------------------------------
      Percentiles      Smallest
 1%    -.1861448      -.2841231
 5%    -.1557833       -.229719
10%    -.1366988      -.2235658       Obs               3,058
25%    -.1069611      -.2194345       Sum of wgt.       3,058

50%    -.0784511                      Mean           -.0806016
                        Largest       Std. dev.       .0412628
75%    -.0509052       .0218509
90%    -.0281804       .0257232       Variance        .0017026
95%    -.0192699       .0382957       Skewness       -.4600571
99%    -.0045237       .0506789       Kurtosis        3.133082
```

```
909 . su bayes1CES_SC if HNDwave==3,det

                        bayes1CES_SC
-------------------------------------------------------------
      Percentiles      Smallest
 1%    -.1864711       -.229719
 5%    -.1560849      -.2235658
10%    -.1368594      -.2194345       Obs               2,408
25%    -.1063582      -.2127995       Sum of wgt.       2,408

50%    -.0766746                      Mean           -.0802532
                        Largest       Std. dev.      .0415938
75%    -.0502262       .0210982
90%    -.0284054       .0218509       Variance         .00173
95%    -.0191254       .0382957       Skewness       -.4446882
99%    -.0029759       .0506789       Kurtosis         2.99746

910 .
911 .
912 . histogram bayes1CES_SC if HNDwave==1
    (bin=34, start=-.28412309, width=.00984712)

913 .
914 . **CES_IP**
915 .
916 . xtmixed CES_IP timew1w3w4 ||HNDID: timew1w3w4, cov(un)

    Performing EM optimization:

    Performing gradient-based optimization:

    Iteration 0:  Log likelihood = -11963.658
    Iteration 1:  Log likelihood = -11924.068
    Iteration 2:  Log likelihood = -11920.932
    Iteration 3:  Log likelihood = -11920.714
    Iteration 4:  Log likelihood = -11920.687
    Iteration 5:  Log likelihood = -11920.687

    Computing standard errors:
    standard-error calculation has failed

    Mixed-effects ML regression                     Number of obs     =      7,099
    Group variable: HNDID                           Number of groups  =      3,058
                                                    Obs per group:
                                                                  min =          1
                                                                  avg =        2.3
                                                                  max =          3
                                                    Wald chi2(1)      =      16.30
    Log likelihood = -11920.687                     Prob > chi2       =     0.0001

------------------------------------------------------------------------------
      CES_IP | Coefficient  Std. err.      z    P>|z|     [95% conf. interval]
-------------+----------------------------------------------------------------
   timew1w3w4 |  -.0144396   .0035761    -4.04   0.000    -.0214486   -.0074305
        _cons |   1.054208   .0253822    41.53   0.000     1.00446    1.103956
------------------------------------------------------------------------------
```

| Random-effects parameters | Estimate | Std. err. | [95% conf. interval] | |
|---|---|---|---|---|
| **HNDID**: Unstructured | | | | |
| sd(timew1w3w4) | **.0144438** | . | . | . |
| sd(_cons) | **.9361761** | . | . | . |
| corr(timew1w3w4,_cons) | **-1** | . | . | . |
| sd(Residual) | **1.061049** | . | . | . |

LR test vs. linear model: chi2(**3**) = **841.60** Prob > chi2 = **0.0000**

Note: LR test is conservative and provided only for reference.
Warning: Standard-error calculation failed.

```
917 .
918 .
919 . capture drop e_cons_CES_IP e_TIMECES_IP

920 . predict  e_TIME_CES_IP e_cons_CES_IP, reffects level(HNDID)
    (1,389 missing values generated)
    (1,389 missing values generated)

921 .
922 . estat ic
```

Akaike's information criterion and Bayesian information criterion

| Model | N | ll(null) | ll(model) | df | AIC | BIC |
|---|---|---|---|---|---|---|
| . | **7,099** | . | **-11920.69** | **2** | **23845.37** | **23859.11** |

Note: BIC uses N = number of observations. See **[R] IC note**.

```
923 .
924 . capture drop bayes1CES_IP

925 . gen bayes1CES_IP= -.0144396 +e_TIME_CES_IP
    (1,389 missing values generated)

926 .
927 .
928 . su bayes1CES_IP
```

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| bayes1CES_IP | **10,690** | **-.0143708** | **.0112845** | **-.0697646** | **-.0032558** |

```
929 .
930 .
```

```
931 . su bayes1CES_IP if HNDwave==1,det

                        bayes1CES_IP
-------------------------------------------------------------
      Percentiles      Smallest
 1%    -.0480206      -.0697646
 5%    -.0367633      -.0697564
10%    -.0298647      -.0661646       Obs               3,058
25%    -.0208269      -.0659743       Sum of wgt.       3,058

50%    -.0105754                      Mean           -.0144396
                      Largest        Std. dev.       .011162
75%    -.0055326      -.0032836
90%    -.0034694      -.0032829       Variance       .0001246
95%    -.0034266      -.0032559       Skewness       -1.33933
99%    -.0033109      -.0032558       Kurtosis       4.736336

932 . su bayes1CES_IP if HNDwave==3,det

                        bayes1CES_IP
-------------------------------------------------------------
      Percentiles      Smallest
 1%    -.0505922      -.0697646
 5%    -.0370135      -.0697564
10%    -.0298965      -.0661646       Obs               2,408
25%     -.020715      -.0659743       Sum of wgt.       2,408

50%    -.0106714                      Mean           -.0142882
                      Largest        Std. dev.       .0113657
75%    -.0048162      -.0032836
90%     -.003453      -.0032829       Variance       .0001292
95%    -.0034107      -.0032559       Skewness       -1.362528
99%    -.0033014      -.0032558       Kurtosis       4.890318

933 .
934 .
935 . histogram bayes1CES_IP if HNDwave==1
    (bin=34, start=-.06976456, width=.00195614)

936 .
937 . **CES_WB**
938 .
939 . xtmixed CES_WB timew1w3w4 ||HNDID: timew1w3w4, cov(un)

    Performing EM optimization:

    Performing gradient-based optimization:

    Iteration 0:  Log likelihood = -17406.468
    Iteration 1:  Log likelihood = -17386.301
    Iteration 2:  Log likelihood = -17386.139
    Iteration 3:  Log likelihood = -17386.139

    Computing standard errors:
```

Mixed-effects ML regression — Number of obs = **7,099**
Group variable: **HNDID** — Number of groups = **3,058**
Obs per group:
min = **1**
avg = **2.3**
max = **3**
Wald chi2(**1**) = **36.54**
Log likelihood = **-17386.139** — Prob > chi2 = **0.0000**

| CES_WB | Coefficient | Std. err. | z | P>\|z\| | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| timew1w3w4 | **-.0491547** | **.0081316** | **-6.04** | **0.000** | **-.0650923** | **-.0332171** |
| _cons | **9.345061** | **.0536589** | **174.16** | **0.000** | **9.239892** | **9.450231** |

| Random-effects parameters | Estimate | Std. err. | [95% conf. | interval] |
|---|---|---|---|---|
| **HNDID**: Unstructured | | | | |
| sd(timew1w3w4) | **.1553915** | **.0194933** | **.1215198** | **.1987043** |
| sd(_cons) | **2.031183** | **.0634125** | **1.910623** | **2.15935** |
| corr(timew1w3w4,_cons) | **-.2370659** | **.0740837** | **-.3761012** | **-.0875902** |
| sd(Residual) | **2.177357** | **.0344455** | **2.110881** | **2.245927** |

LR test vs. linear model: chi2(**3**) = **890.63** — Prob > chi2 = **0.0000**

Note: LR test is conservative and provided only for reference.

```
940 .
941 .
942 . capture drop e_cons_CES_WB e_TIMECES_WB

943 . predict  e_TIMECES_WB e_cons_CES_WB, reffects level(HNDID)
    (1,389 missing values generated)
    (1,389 missing values generated)

944 .
945 . estat ic
```

Akaike's information criterion and Bayesian information criterion

| Model | N | ll(null) | ll(model) | df | AIC | BIC |
|---|---|---|---|---|---|---|
| . | **7,099** | . | **-17386.14** | **6** | **34784.28** | **34825.48** |

Note: BIC uses N = number of observations. See **[R] IC note**.

```
946 .
```

```
947 . capture drop bayes1CES_WB

948 . gen bayes1CES_WB=   -.0491547 +e_TIMECES_WB
    (1,389 missing values generated)

949 .
950 .
951 . su bayes1CES_WB
```

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| bayes1CES_WB | **10,690** | **-.0496128** | **.0559275** | **-.2831072** | **.2008129** |

```
952 .
953 .
954 . su bayes1CES_WB if HNDwave==1,det
```

bayes1CES_WB

| Percentiles | | Smallest | | |
|---|---|---|---|---|
| 1% | **-.2146019** | **-.2831072** | | |
| 5% | **-.1456454** | **-.2791547** | | |
| 10% | **-.1131017** | **-.2750199** | Obs | **3,058** |
| 25% | **-.0715596** | **-.2672825** | Sum of wgt. | **3,058** |
| 50% | **-.0462427** | | Mean | **-.0491547** |
| | | Largest | Std. dev. | **.0539053** |
| 75% | **-.0195747** | **.1950778** | | |
| 90% | **.007636** | **.1953543** | Variance | **.0029058** |
| 95% | **.0297079** | **.1982135** | Skewness | **-.317404** |
| 99% | **.0814298** | **.2008129** | Kurtosis | **5.56077** |

```
955 . su bayes1CES_WB if HNDwave==3,det
```

bayes1CES_WB

| Percentiles | | Smallest | | |
|---|---|---|---|---|
| 1% | **-.2209693** | **-.2831072** | | |
| 5% | **-.1532451** | **-.2791547** | | |
| 10% | **-.120123** | **-.2750199** | Obs | **2,408** |
| 25% | **-.0790599** | **-.2672825** | Sum of wgt. | **2,408** |
| 50% | **-.0457797** | | Mean | **-.0505188** |
| | | Largest | Std. dev. | **.0566731** |
| 75% | **-.0186531** | **.1950778** | | |
| 90% | **.007947** | **.1953543** | Variance | **.0032118** |
| 95% | **.0291976** | **.1982135** | Skewness | **-.3320984** |
| 99% | **.0863636** | **.2008129** | Kurtosis | **5.240606** |

```
956 .
957 .
```

```
958 . histogram bayes1CES_WB if HNDwave==1
    (bin=34, start=-.28310716, width=.01423294)

959 .
960 .
961 . **HCY***
962 . capture drop LnHCys

963 . gen LnHCys=ln(HCys)
    (7,853 missing values generated)

964 .
965 . xtmixed LnHCys timew1w3w4 ||HNDID: timew1w3w4, cov(un)

    Performing EM optimization:

    Performing gradient-based optimization:

    Iteration 0:  Log likelihood = -672.99393
    Iteration 1:  Log likelihood = -659.64166
    Iteration 2:  Log likelihood = -658.91821
    Iteration 3:  Log likelihood = -658.88234
    Iteration 4:  Log likelihood = -658.88185
    Iteration 5:  Log likelihood = -658.88185

    Computing standard errors:

    Mixed-effects ML regression                     Number of obs     =  4,226
    Group variable: HNDID                           Number of groups  =  1,576
                                                    Obs per group:
                                                                  min =      1
                                                                  avg =    2.7
                                                                  max =      3
                                                    Wald chi2(1)      = 419.29
    Log likelihood = -658.88185                     Prob > chi2       = 0.0000

------------------------------------------------------------------------------
      LnHCys | Coefficient  Std. err.      z    P>|z|     [95% conf. interval]
-------------+----------------------------------------------------------------
   timew1w3w4 |   .0185574   .0009063    20.48   0.000     .0167811    .0203336
        _cons |   2.155515   .0084456   255.22   0.000     2.138962    2.172068
------------------------------------------------------------------------------

------------------------------------------------------------------------------
  Random-effects parameters |   Estimate   Std. err.      [95% conf. interval]
----------------------------+-------------------------------------------------
HNDID: Unstructured         |
                sd(timew1w3w4) |   .0053417   .0052747      .0007712    .0370003
                     sd(_cons) |   .2743762   .0076972      .2596972    .2898848
          corr(timew1w3w4,_cons) |   .3854822   .5768318     -.7265621    .9395705
----------------------------+-------------------------------------------------
                  sd(Residual) |   .2000513   .0037809      .1927765    .2076007
------------------------------------------------------------------------------
LR test vs. linear model: chi2(3) = 1677.50                   Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.
```

```
966 .
967 .
968 . capture drop e_cons_LnHcys e_TIME_LnHcys

969 . predict  e_TIME_LnHcys e_cons_LnHcys, reffects level(HNDID)
    (6,046 missing values generated)
    (6,046 missing values generated)

970 .
971 . estat ic

    Akaike's information criterion and Bayesian information criterion

------------------------------------------------------------------------------
       Model |          N   ll(null)  ll(model)      df        AIC        BIC
-------------+----------------------------------------------------------------
           . |      4,226          .  -658.8819       6   1329.764   1367.858
------------------------------------------------------------------------------
    Note: BIC uses N = number of observations. See [R] IC note.

972 .
973 . capture drop bayes1HCys

974 . gen bayes1HCys=   .0185574  + e_TIME_LnHcys
    (6,046 missing values generated)

975 .
976 .
977 . su bayes1HCys

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
  bayes1HCys |      6,033    .0185374    .0022863   .0130147    .034075

978 .
979 .
980 . su bayes1HCys if HNDwave==1,det

                        bayes1HCys
-------------------------------------------------------------
      Percentiles      Smallest
 1%     .0141261       .0130147
 5%     .0152401       .0131037
10%     .0159896       .0132496       Obs               1,576
25%     .0170537       .0133357       Sum of wgt.       1,576

50%     .0183289                      Mean           .0185574
                        Largest       Std. dev.       .002299
75%     .0197171       .0296737
90%     .0213793       .0296941       Variance       5.29e-06
95%     .0226486       .0303369       Skewness        1.05313
99%      .025649        .034075       Kurtosis       6.101011
```

```
 981 . su bayes1HCys if HNDwave==3,det

                           bayes1HCys
-------------------------------------------------------------
      Percentiles      Smallest
 1%     .0141261       .0130147
 5%     .0152376       .0131037
10%     .0159867       .0132496       Obs               1,542
25%     .0170307       .0133357       Sum of wgt.       1,542

50%     .0183215                      Mean           .0185359
                        Largest       Std. dev.      .0022836
75%     .0196907       .0285485
90%     .0213458       .0296941       Variance       5.21e-06
95%     .0226261       .0303369       Skewness       1.017795
99%     .0254272        .034075       Kurtosis       5.994339

 982 .
 983 .
 984 . histogram bayes1HCys if HNDwave==1
     (bin=31, start=.01301472, width=.00067936)

 985 .
 986 .
 987 .
 988 . save, replace
     file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

 989 .
 990 . //STEP 16: COLLAPSE THE EMPIRICAL BAYES ESTIMATORS AND RE-MERGE WITH DATA//
 991 .
 992 . use  HANDLS_PAPER64_HCYDEPANXIETY_LONG,clear

 993 .
 994 . keep HNDID bayes1*

 995 .
 996 . save bayes1_depchange, replace
     file bayes1_depchange.dta saved

 997 .
 998 . collapse (mean) bayes1*, by(HNDID)

 999 .
1000 . save bayes1_depchange_collapse, replace
     file bayes1_depchange_collapse.dta saved

1001 .
1002 . addstub bayes1*, stub(w1w3w4)

1003 .
```

```
1004 . sort HNDID

1005 . save, replace
     file bayes1_depchange_collapse.dta saved

1006 .
1007 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG,clear

1008 . capture drop _merge

1009 . sort HNDID

1010 . save, replace
     file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

1011 .
1012 . merge HNDID using bayes1_depchange_collapse
     (you are using old merge syntax; see [D] merge for new syntax)
     variable HNDID does not uniquely identify observations in the master data

1013 . tab _merge
```

| _merge | Freq. | Percent | Cum. |
|---|---|---|---|
| 3 | **12,079** | **100.00** | **100.00** |
| Total | **12,079** | **100.00** | |

```
1014 . capture drop _merge

1015 . sort HNDID

1016 . save, replace
     file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

1017 .
1018 .
1019 . //STEP 17: CREATE STEPWISE SELECTION PROCESS FOR FLOWCHART//
1020 .
1021 . **Initial wave 1 sample: SAMPLE1**
1022 .
1023 . capture drop sample1

1024 . gen sample1=1 if w1Age~=.

1025 . replace sample1=0 if sample1~=1
     (0 real changes made)

1026 .
1027 . tab sample1
```

| sample1 | Freq. | Percent | Cum. |
|---|---|---|---|
| 1 | **12,079** | **100.00** | **100.00** |
| Total | **12,079** | **100.00** | |

```
1028 . tab sample1 if HNDwave==1
```

| sample1 | Freq. | Percent | Cum. |
|---|---|---|---|
| 1 | **3,720** | **100.00** | **100.00** |
| Total | **3,720** | **100.00** | |

```
1029 .
1030 . **Sample with complete w1 HCys load  exposure data: SAMPLE2**
1031 .
1032 . capture drop sample2

1033 . gen sample2=1 if w1HCys~=.
     (6,495 missing values generated)

1034 . replace sample2=0 if sample2~=1
     (6,495 real changes made)

1035 .
1036 . tab sample2
```

| sample2 | Freq. | Percent | Cum. |
|---|---|---|---|
| 0 | **6,495** | **53.77** | **53.77** |
| 1 | **5,584** | **46.23** | **100.00** |
| Total | **12,079** | **100.00** | |

```
1037 . tab sample2 if HNDwave==1
```

| sample2 | Freq. | Percent | Cum. |
|---|---|---|---|
| 0 | **2,260** | **60.75** | **60.75** |
| 1 | **1,460** | **39.25** | **100.00** |
| Total | **3,720** | **100.00** | |

```
1038 .
1039 .
1040 . save, replace
     file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

1041 .
1042 . **Samples with complete CES-D data at waves 1 and/or 3 and/or 4: SAMPLE3**
1043 .
1044 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG,clear

1045 .
1046 . keep HNDID sample_CES
```

```
1047 .
1048 . save selectCES, replace
     file selectCES.dta saved

1049 . collapse (mean) sample_CES, by(HNDID)

1050 .
1051 . save sampleCES_collapse, replace
     file sampleCES_collapse.dta saved

1052 . sort HNDID

1053 . addstub sample_CES, stub(w1w3w4)

1054 . save, replace
     file sampleCES_collapse.dta saved

1055 .
1056 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG,clear

1057 . capture drop _merge

1058 . sort HNDID

1059 .
1060 . merge HNDID using sampleCES_collapse
     (you are using old merge syntax; see [D] merge for new syntax)
     variable HNDID does not uniquely identify observations in the master data

1061 . tab _merge

      _merge |      Freq.     Percent        Cum.
-------------+-----------------------------------
           3 |     12,079      100.00      100.00
-------------+-----------------------------------
       Total |     12,079      100.00

1062 . capture drop _merge

1063 . sort HNDID

1064 .
1065 . save, replace
     file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

1066 .
1067 .
1068 . capture drop sample3obs

1069 . gen sample3obs=.
     (12,079 missing values generated)
```

```
1070 . replace sample3obs=1 if w1w3w4sample_CES>0 & w1w3w4sample_CES~=. & sample_CES==1 & HNDwave==1 | w1w3w4sample_CE
     > =. & sample_CES==1 & HNDwave==4
     (7,592 real changes made)

1071 . replace sample3obs=0 if sample3obs~=1
     (4,487 real changes made)

1072 .
1073 . capture drop sample3part

1074 . gen sample3part=.
     (12,079 missing values generated)

1075 . replace sample3part=1 if w1w3w4sample_CES>0 & w1w3w4sample_CES~=. & HNDwave==1 | w1w3w4sample_CES>0 & w1w3w4sam
     (7,592 real changes made)

1076 . replace sample3part=0 if sample3part~=1
     (4,487 real changes made)

1077 .
1078 . tab sample3obs if HNDwave==1  | HNDwave==3  | HNDwave==4
```

| sample3obs | Freq. | Percent | Cum. |
|---|---|---|---|
| 0 | **767** | **9.18** | **9.18** |
| 1 | **7,592** | **90.82** | **100.00** |
| Total | **8,359** | **100.00** | |

```
1079 . tab sample3part if HNDwave==1
```

| sample3part | Freq. | Percent | Cum. |
|---|---|---|---|
| 0 | **692** | **18.60** | **18.60** |
| 1 | **3,028** | **81.40** | **100.00** |
| Total | **3,720** | **100.00** | |

```
1080 .
1081 .
1082 . xtmixed CES timew1w3w4 || HNDID: timew1w3w4

     Performing EM optimization:

     Performing gradient-based optimization:

     Iteration 0:  Log likelihood =  -26070.03
     Iteration 1:  Log likelihood = -26028.825
     Iteration 2:  Log likelihood = -26026.076
     Iteration 3:  Log likelihood = -26025.883
     Iteration 4:  Log likelihood = -26025.877
     Iteration 5:  Log likelihood = -26025.877

     Computing standard errors:
```

Mixed-effects ML regression — Number of obs = **6,997**
Group variable: **HNDID** — Number of groups = **3,028**
Obs per group:
min = **1**
avg = **2.3**
max = **3**
Wald chi2(**1**) = **23.30**
Log likelihood = **-26025.877** — Prob > chi2 = **0.0000**

| CES | Coefficient | Std. err. | z | P>\|z\| | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| timew1w3w4 | **-.1241456** | **.0257213** | **-4.83** | **0.000** | **-.1745585** | **-.0737327** |
| _cons | **15.62451** | **.2063698** | **75.71** | **0.000** | **15.22003** | **16.02899** |

| Random-effects parameters | Estimate | Std. err. | [95% conf. | interval] |
|---|---|---|---|---|
| **HNDID**: Independent | | | | |
| sd(timew1w3w4) | **1.29e-07** | **5.47e-08** | **5.60e-08** | **2.96e-07** |
| sd(_cons) | **8.617701** | **.1530456** | **8.322898** | **8.922946** |
| sd(Residual) | **7.408574** | **.0827102** | **7.248226** | **7.57247** |

LR test vs. linear model: chi2(**2**) = **1819.31** — Prob > chi2 = **0.0000**

Note: LR test is conservative and provided only for reference.

```
1083 .
1084 . save, replace
     file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

1085 .
1086 .
1087 . **Samples with complete depressive symptoms data at waves 1 and/or 3 and HCys data at wave 1: SAMPLE4 SERIES**
1088 .
1089 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG,clear

1090 .
1091 .
1092 . **sample4: N=2,298; N'=5,548, k=2.4**
1093 .
1094 .
1095 . capture drop sample4obs

1096 . gen sample4obs=.
     (12,079 missing values generated)

1097 . replace sample4obs=1 if sample3obs==1 & w1HCys~=.
     (4,124 real changes made)
```

```
1098 . replace sample4obs=0 if sample4obs~=1
     (7,955 real changes made)

1099 .
1100 . capture drop sample4part

1101 . gen sample4part=1 if sample3part==1 &  w1HCys~=.
     (7,955 missing values generated)

1102 . replace sample4part=0 if sample4part~=1
     (7,955 real changes made)

1103 .
1104 . tab sample4obs if HNDwave==1  | HNDwave==3
```

| sample4obs | Freq. | Percent | Cum. |
|---|---|---|---|
| 0 | **3,300** | **53.33** | **53.33** |
| 1 | **2,888** | **46.67** | **100.00** |
| Total | **6,188** | **100.00** | |

```
1105 . tab sample4part if HNDwave==1
```

| sample4part | Freq. | Percent | Cum. |
|---|---|---|---|
| 0 | **2,260** | **60.75** | **60.75** |
| 1 | **1,460** | **39.25** | **100.00** |
| Total | **3,720** | **100.00** | |

```
1106 .
1107 .
1108 .
1109 . xtmixed CES c.timew1w3##c.w1HCys || HNDID: timew1w3w4

     Performing EM optimization:

     Performing gradient-based optimization:

     Iteration 0:  Log likelihood = -14766.093
     Iteration 1:  Log likelihood = -14748.932
     Iteration 2:  Log likelihood =  -14747.96
     Iteration 3:  Log likelihood = -14747.919
     Iteration 4:  Log likelihood = -14747.918

     Computing standard errors:

     Mixed-effects ML regression                     Number of obs    =  4,015
     Group variable: HNDID                           Number of groups =  1,460
                                                     Obs per group:
                                                                  min =      1
                                                                  avg =    2.8
                                                                  max =      3
                                                     Wald chi2(3)     =  12.77
     Log likelihood = -14747.918                     Prob > chi2      = 0.0052
```

| CES | Coefficient | Std. err. | z | P>\|z\| | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| timew1w3w4 | -.0812394 | .0664584 | -1.22 | 0.222 | -.2114956 | .0490167 |
| w1HCys | .0431124 | .0541301 | 0.80 | 0.426 | -.0629807 | .1492055 |
| c.timew1w3w4#c.w1HCys | -.0034461 | .0064178 | -0.54 | 0.591 | -.0160247 | .0091325 |
| _cons | 14.00033 | .5703457 | 24.55 | 0.000 | 12.88247 | 15.11818 |

| Random-effects parameters | Estimate | Std. err. | [95% conf. | interval] |
|---|---|---|---|---|
| **HNDID**: Independent | | | | |
| sd(timew1w3w4) | .0000776 | .0133455 | 3.0e-151 | 2.0e+142 |
| sd(_cons) | 8.483653 | .2013171 | 8.098114 | 8.887547 |
| sd(Residual) | 7.160936 | .1001956 | 6.967225 | 7.360033 |

LR test vs. linear model: chi2(**2**) = **1222.72** Prob > chi2 = **0.0000**

Note: LR test is conservative and provided only for reference.

```
1110 . xtmixed CES_DA c.timew1w3##c.w1HCys || HNDID: timew1w3w4

     Performing EM optimization:

     Performing gradient-based optimization:

     Iteration 0:  Log likelihood = -11482.645
     Iteration 1:  Log likelihood = -11456.179
     Iteration 2:  Log likelihood = -11455.084
     Iteration 3:  Log likelihood =  -11455.08
     Iteration 4:  Log likelihood =  -11455.08

     Computing standard errors:

     Mixed-effects ML regression                     Number of obs    =  4,032
     Group variable: HNDID                           Number of groups =  1,460
                                                     Obs per group:
                                                                  min =      1
                                                                  avg =    2.8
                                                                  max =      3
                                                     Wald chi2(3)     =  28.09
     Log likelihood =  -11455.08                     Prob > chi2      = 0.0000
```

| CES_DA | Coefficient | Std. err. | z | P>\|z\| | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| timew1w3w4 | -.0623699 | .0294034 | -2.12 | 0.034 | -.1199995 | -.0047402 |
| w1HCys | .0110212 | .0230789 | 0.48 | 0.633 | -.0342127 | .056255 |
| c.timew1w3w4#c.w1HCys | -.0014315 | .002841 | -0.50 | 0.614 | -.0069997 | .0041367 |
| _cons | 4.378544 | .2430675 | 18.01 | 0.000 | 3.902141 | 4.854948 |

| Random-effects parameters | Estimate | Std. err. | [95% conf. | interval] |
|---|---|---|---|---|
| **HNDID**: Independent | | | | |
| sd(timew1w3w4) | **9.94e-11** | **5.53e-11** | **3.34e-11** | **2.96e-10** |
| sd(_cons) | **3.527891** | **.086398** | **3.362554** | **3.701358** |
| sd(Residual) | **3.173729** | **.0443067** | **3.088067** | **3.261767** |

LR test vs. linear model: chi2(**2**) = **1070.17** Prob > chi2 = **0.0000**

Note: LR test is conservative and provided only for reference.

1111 . xtmixed CES_IP c.timew1w3##c.w1HCys || HNDID: timew1w3w4

Performing EM optimization:

Performing gradient-based optimization:

Iteration 0: Log likelihood = **-6520.5602**
Iteration 1: Log likelihood = **-6497.8931**
Iteration 2: Log likelihood = **-6497.1181**
Iteration 3: Log likelihood = **-6497.1174**
Iteration 4: Log likelihood = **-6497.1174**

Computing standard errors:

Mixed-effects ML regression Number of obs = **4,032**
Group variable: **HNDID** Number of groups = **1,460**
Obs per group:
min = **1**
avg = **2.8**
max = **3**
Wald chi2(**3**) = **7.14**
Log likelihood = **-6497.1174** Prob > chi2 = **0.0676**

| CES_IP | Coefficient | Std. err. | z | P>\|z\| | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| timew1w3w4 | **-.006571** | **.0092555** | **-0.71** | **0.478** | **-.0247114** | **.0115693** |
| w1HCys | **.0070484** | **.006239** | **1.13** | **0.259** | **-.0051798** | **.0192766** |
| c.timew1w3w4#c.w1HCys | **-.0004704** | **.0008944** | **-0.53** | **0.599** | **-.0022235** | **.0012826** |
| _cons | **.8769231** | **.0656475** | **13.36** | **0.000** | **.7482563** | **1.00559** |

| Random-effects parameters | Estimate | Std. err. | [95% conf. | interval] |
|---|---|---|---|---|
| **HNDID**: Independent | | | | |
| sd(timew1w3w4) | **2.60e-12** | **1.55e-12** | **8.09e-13** | **8.37e-12** |
| sd(_cons) | **.8228982** | **.024317** | **.7765916** | **.8719659** |
| sd(Residual) | **1.003451** | **.0139672** | **.9764454** | **1.031203** |

LR test vs. linear model: chi2(**2**) = **551.07** Prob > chi2 = **0.0000**

Note: LR test is conservative and provided only for reference.

```
1112 . xtmixed CES_SC c.timew1w3##c.w1HCys || HNDID: timew1w3w4

     Performing EM optimization:

     Performing gradient-based optimization:

     Iteration 0:  Log likelihood = -11264.009
     Iteration 1:  Log likelihood = -11246.754
     Iteration 2:  Log likelihood = -11245.849
     Iteration 3:  Log likelihood = -11245.806
     Iteration 4:  Log likelihood = -11245.805
     Iteration 5:  Log likelihood = -11245.805

     Computing standard errors:

     Mixed-effects ML regression                     Number of obs     =  4,032
     Group variable: HNDID                           Number of groups  =  1,460
                                                     Obs per group:
                                                                   min =      1
                                                                   avg =    2.8
                                                                   max =      3
                                                     Wald chi2(3)      =  36.53
     Log likelihood = -11245.805                     Prob > chi2       = 0.0000

------------------------------------------------------------------------------
      CES_SC | Coefficient  Std. err.      z    P>|z|     [95% conf. interval]
-------------+----------------------------------------------------------------
   timew1w3w4 |  -.0840625   .0288088    -2.92   0.004    -.1405267   -.0275983
       w1HCys |   .0166912   .0211482     0.79   0.430    -.0247585    .0581408
              |
c.timew1w3w4#c.w1HCys |   .0000613   .0027837     0.02   0.982    -.0053947    .0055173
              |
        _cons |   6.539215   .2226508    29.37   0.000     6.102827    6.975602
------------------------------------------------------------------------------

------------------------------------------------------------------------------
  Random-effects parameters |   Estimate   Std. err.      [95% conf. interval]
----------------------------+-------------------------------------------------
HNDID: Independent          |
               sd(timew1w3w4) |   7.74e-08   4.14e-08      2.72e-08    2.21e-07
                    sd(_cons) |   3.062848   .0797567       2.91045    3.223226
----------------------------+-------------------------------------------------
                 sd(Residual) |   3.114738   .0433526      3.030917    3.200877
------------------------------------------------------------------------------
     LR test vs. linear model: chi2(2) = 846.32                Prob > chi2 = 0.0000

     Note: LR test is conservative and provided only for reference.

1113 . xtmixed CES_WB c.timew1w3##c.w1HCys || HNDID: timew1w3w4

     Performing EM optimization:

     Performing gradient-based optimization:

     Iteration 0:  Log likelihood = -9547.8178
     Iteration 1:  Log likelihood = -9542.9612
     Iteration 2:  Log likelihood = -9542.9321
     Iteration 3:  Log likelihood = -9542.9321

     Computing standard errors:
```

Mixed-effects ML regression — Number of obs = **4,032**
Group variable: **HNDID** — Number of groups = **1,460**
Obs per group:
min = **1**
avg = **2.8**
max = **3**
Wald chi2(**3**) = **33.85**
Log likelihood = **-9542.9321** — Prob > chi2 = **0.0000**

| CES_WB | Coefficient | Std. err. | z | P>\|z\| | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| timew1w3w4 | **-.0734598** | **.0205602** | **-3.57** | **0.000** | **-.1137571** | **-.0331625** |
| w1HCys | **-.0070254** | **.0129428** | **-0.54** | **0.587** | **-.0323928** | **.018342** |
| c.timew1w3w4#c.w1HCys | **.0017226** | **.0019799** | **0.87** | **0.384** | **-.0021579** | **.0056031** |
| _cons | **9.790284** | **.1362189** | **71.87** | **0.000** | **9.5233** | **10.05727** |

| Random-effects parameters | Estimate | Std. err. | [95% conf. | interval] |
|---|---|---|---|---|
| **HNDID**: Independent | | | | |
| sd(timew1w3w4) | **.1410697** | **.0153832** | **.1139233** | **.1746845** |
| sd(_cons) | **1.746625** | **.0543134** | **1.643351** | **1.856388** |
| sd(Residual) | **2.036133** | **.0330576** | **1.972361** | **2.101966** |

LR test vs. linear model: chi2(**2**) = **640.60** — Prob > chi2 = **0.0000**

Note: LR test is conservative and provided only for reference.

```
1114 .
1115 .
1116 . save HANDLS_PAPER64_HCYDEPANXIETY_LONG, replace
     file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

1117 .
1118 .
1119 . //STEP 18: CREATE INVERSE MILLS RATIOS FOR FINAL SELECTED SAMPLES FOR MIXED-EFFECTS REGRESSION MODELS//
1120 .
1121 . use HANDLS_PAPER64_HCYDEPANXIETY_LONG, clear

1122 .
1123 .
1124 . xi:probit sample4obs w1Age Race PovStat Sex

     Iteration 0:  Log likelihood = -7754.3822
     Iteration 1:  Log likelihood = -7710.9748
     Iteration 2:  Log likelihood = -7710.9676
     Iteration 3:  Log likelihood = -7710.9676

     Probit regression                                 Number of obs = 12,079
                                                       LR chi2(4)    =  86.83
                                                       Prob > chi2   = 0.0000
     Log likelihood = -7710.9676                       Pseudo R2     = 0.0056
```

| sample4obs | Coefficient | Std. err. | z | P>\|z\| | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| w1Age | -.0041239 | .0012809 | -3.22 | 0.001 | -.0066345 | -.0016133 |
| Race | -.1066353 | .0242149 | -4.40 | 0.000 | -.1540957 | -.059175 |
| PovStat | -.1559099 | .0244117 | -6.39 | 0.000 | -.2037559 | -.1080638 |
| Sex | -.0820968 | .0238142 | -3.45 | 0.001 | -.1287718 | -.0354217 |
| _cons | .2962679 | .0887148 | 3.34 | 0.001 | .1223901 | .4701456 |

```
1125 .
1126 . capture drop p1CES

1127 . predict p1CES, xb

1128 .
1129 . capture drop phiCES

1130 . capture drop caphiCES

1131 . capture drop invmillsCES

1132 .
1133 . gen phiCES=(1/sqrt(2*_pi))*exp(-(p1CES^2/2))

1134 .
1135 . egen caphiCES=std(p1CES)

1136 .
1137 . capture drop invmillsCES

1138 . gen invmillsCES=phiCES/caphiCES

1139 .
1140 .
1141 . su invmillsCES
```

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| invmillsCES | 12,079 | .7446791 | 45.62387 | -256.8285 | 3476.2 |

```
1142 .
1143 . save , replace
file HANDLS_PAPER64_HCYDEPANXIETY_LONG.dta saved

1144 .
1145 .
1146 . capture log close
```