```
1 .
2 . *------ H8: Physical ability as a function of crhtw
3 . /*
  > EQ( 4) Modelling WHPpa by OLS-CS
  >        The dataset is: /Users/robertyaffee/Documents/data/research/chwk/
  >        phase3/data/ox/workingdatasets/MARS/guys.dta
  >        The estimation sample is: 1 - 340
  >        Dropped 3 observation(s) with missing values from the sample
  >
  >                   Coefficient  Std.Error  t-value  t-prob Part.R^2
  > BSIsoma               1.13862     0.1624     7.01  0.0000   0.1321
  > BSIdep               0.785203     0.2309     3.40  0.0008   0.0346
  > BSIhos               -1.04403     0.2655    -3.93  0.0001   0.0457
  > childw1              -1.70882     0.8279    -2.06  0.0398   0.0130
  > emplw33               7.24315      1.888     3.84  0.0002   0.0436
  > deaw1                 3.83888      1.257     3.05  0.0025   0.0280
  > illw3                 2.76037     0.7702     3.58  0.0004   0.0382
  > shfamw1            -0.0363219    0.01900    -1.91  0.0568   0.0112
  > shhousw1            0.0943166    0.02406     3.92  0.0001   0.0454
  > shrelaw2           -0.0351518    0.02429    -1.45  0.1488   0.0064
  > sufamw2             0.0588756    0.01588     3.71  0.0002   0.0408
  > suchrw1              0.147311    0.05851     2.52  0.0123   0.0192
  > phlthw3             -0.106420    0.02165    -4.91  0.0000   0.0696
  > physdisagw2         -0.141342    0.04688    -3.02  0.0028   0.0274
  >
  > sigma                 10.9813  RSS                38949.9482
  > log-likelihood       -1278.55
  > no. of observations       337  no. of parameters          14
  > mean(WHPpa)            9.5427  se(WHPpa)             14.5571
  > When the log-likelihood constant is NOT included:
  > AIC                   4.83304  SC                    4.99173
  > HQ                    4.89629  FPE                   125.598
  > When the log-likelihood constant is included:
  > AIC                   7.67091  SC                    7.82961
  > HQ                    7.73417  FPE                   2145.14
  >
  > Normality test:   Chi^2(2)  =   79.671 [0.0000]**
  > Hetero test:      F(27,309) =   1.2388 [0.1963]
  > Hetero-X test:    F(105,231)=   1.8860 [0.0000]**
  > RESET23 test:     F(2,321)  =   7.4221 [0.0007]**
  >
  > Robust standard errors
  >              Coefficients           SE        HACSE         HCSE        JHC
  > SE
  > BSIsoma             1.1386      0.16239      0.18603      0.17424      0.184
  > 38
  > BSIdep             0.78520      0.23090      0.27351      0.25808      0.271
  > 64
  > BSIhos             -1.0440      0.26549      0.30466      0.29082      0.304
```

```
> 33
> childw1             -1.7088      0.82790      0.83367      0.79466       0.821
> 70
> emplw33              7.2432       1.8879       2.2931       2.2673        2.36
> 31
> deaw1                3.8389       1.2574       1.5782       1.6798        1.78
> 74
> illw3                2.7604      0.77019       1.0096      0.90800       0.971
> 51
> shfamw1          -0.036322     0.019002     0.020292     0.020705      0.0215
> 57
> shhousw1          0.094317     0.024061     0.035886     0.033831      0.0352
> 50
> shrelaw2         -0.035152     0.024287     0.029372     0.027854      0.0290
> 34
> sufamw2           0.058876     0.015879     0.016071     0.015954      0.0166
> 87
> suchrw1            0.14731     0.058513      0.10492      0.10099       0.125
> 69
> phlthw3           -0.10642     0.021654     0.018411     0.019472      0.0205
> 27
> physdisagw2       -0.14134     0.046878     0.039933     0.040963      0.0431
> 72
>
>               Coefficients          t-SE      t-HACSE       t-HCSE       t-JHC
> SE
> BSIsoma              1.1386        7.0118       6.1207       6.5349        6.17
> 55
> BSIdep               0.78520       3.4006       2.8708       3.0425        2.89
> 06
> BSIhos              -1.0440       -3.9325      -3.4269      -3.5900       -3.43
> 06
> childw1             -1.7088       -2.0640      -2.0498      -2.1504       -2.07
> 96
> emplw33              7.2432        3.8366       3.1586       3.1946        3.06
> 51
> deaw1                3.8389        3.0529       2.4324       2.2853        2.14
> 78
> illw3                2.7604        3.5840       2.7343       3.0401        2.84
> 13
> shfamw1          -0.036322       -1.9115      -1.7900      -1.7543       -1.68
> 49
> shhousw1          0.094317        3.9199       2.6282       2.7878        2.67
> 56
> shrelaw2         -0.035152       -1.4474      -1.1968      -1.2620       -1.21
> 07
> sufamw2           0.058876        3.7079       3.6636       3.6902        3.52
> 82
> suchrw1            0.14731        2.5176       1.4040       1.4586        1.17
```

```
> 20
> phlthw3           -0.10642      -4.9145      -5.7803      -5.4652      -5.18
> 44
> physdisagw2       -0.14134      -3.0151      -3.5395      -3.4505      -3.27
> 39
>
> WHPpa =  + 1.14*BSIsoma + 0.785*BSIdep - 1.04*BSIhos - 1.71*childw1
> (SE)      (0.162)        (0.231)        (0.265)       (0.828)
>          + 7.24*emplw33 + 3.84*deaw1 + 2.76*illw3 - 0.0363*shfamw1
>           (1.89)         (1.26)       (0.77)       (0.019)
>          + 0.0943*shhousw1 - 0.0352*shrelaw2 + 0.0589*sufamw2
>           (0.0241)          (0.0243)          (0.0159)
>          + 0.147*suchrw1 - 0.106*phlthw3 - 0.141*physdisagw2
>           (0.0585)        (0.0217)        (0.0469)
>
> /*
> EQ( 2) Modelling WHPpa by OLS-CS
>        The dataset is: /Users/robertyaffee/Documents/data/research/chwk/phas
> e3/data/ox/workingdatasets/MARS/guys.dta
>        The estimation sample is: 1 - 340
>
>                   Coefficient  Std.Error  t-value  t-prob Part.R^2
> BSIsoma               1.33609     0.1591     8.40  0.0000   0.1742
> BSIdep                1.16750     0.2295     5.09  0.0000   0.0719
> BSIhos               -1.46692     0.2616    -5.61  0.0000   0.0860
> deaw1                 5.22227      1.287     4.06  0.0001   0.0470
> sufamw2             0.0634838    0.01584     4.01  0.0001   0.0459
> phlthw3             -0.128363    0.02032    -6.32  0.0000   0.1067
>
> sigma                 11.7675  RSS                46250.2562
> log-likelihood       -1317.63
> no. of observations       340  no. of parameters           6
> mean(WHPpa)           9.54859  se(WHPpa)             14.5562
> When the log-likelihood constant is NOT included:
> AIC                   4.94817  SC                    5.01574
> HQ                    4.97509  FPE                   140.917
> When the log-likelihood constant is included:
> AIC                   7.78605  SC                    7.85362
> HQ                    7.81297  FPE                   2406.80
>
> Normality test:   Chi^2(2)  =   100.71 [0.0000]**
> Hetero test:      F(12,327) =   1.3791 [0.1740]
> Hetero-X test:    F(27,312) =   1.0351 [0.4202]
> RESET23 test:     F(2,332)  =   3.7470 [0.0246]*
>
> */
>
>
> cap gen whppa = WHPpa
```

```
  > // candidate illness variables for Physical ability
  > /* candiate illnesses  for males
  >
  > foreach i in 7 {
  > foreach j in 1 5 6 {
  > foreach k in 3 {
  > foreach m in 2 {
  > foreach n in 4 {
  > regress whppa icdx`i'nr1-icdx`i'nr28 if gender==1
  > regress whppa icdx`j'nr1-icdx`j'nr18 if gender==1
  > regress whppa icdx`k'nr1-icdx`k'nr11 if gender==1
  > regress whppa icdx`m'nr1-icdx`m'nr8 if gender==1
  > regress whppa icdx`n'nr1-icdx`n'nr20 if gender==1
  > }
  > }
  > }
  > }
  > }
  >
  > */
  >
  >
  > *-------Full male Physical ability crhtw model  **************/
4 . des icdx1nr5 icdx1nr18 icdx2nr4 icdx3nr3 icdx3nr7 icdx4nr8-icdx4nr10 icdx4nr
  > 12  ///
  >   icdx5nr7 icdx5nr10 icdx6nr7 icdx7nr1

              storage  display     value
  variable name   type   format      label      variable label
  ------------------------------------------------------------------------------
  icdx1nr5        double %8.0g                  icdx1nr==401 hypertension
  icdx1nr18       double %8.0g                  icdx1nr==732 osteochondropathies
  icdx2nr4        double %8.0g                  icdx2nr==401 hypertension
  icdx3nr3        double %8.0g                  icdx3nr==diabetes militus
  icdx3nr7        double %8.0g                  icdx3nr==434.91 crbrl art ocl
                                                  nos w infarc
  icdx4nr8        double %8.0g                  icdx4nr==angina pectoris
  icdx4nr9        double %8.0g                  icdx4nr==434.91 crbrl art ocl
                                                  nos w infarc
  icdx4nr10       double %8.0g                  icdx4nr==varicose veins in legs
  icdx4nr12       double %8.0g                  icdx4nr==gastritis/duodenitis
  icdx5nr7        double %8.0g                  icdx5nr==angina pectoris
  icdx5nr10       double %8.0g                  icdx5nr==ac bronchitis/brnchial
  icdx6nr7        double %8.0g                  icdx6nr==varicose veins in legs
  icdx7nr1        double %8.0g                  icdx7nr==malignant melanoma skin
```

```
5 .
6 . regress WHPpa age BSIsoma BSIdep deaw1 physdisagw2 ///
  >     illw3 BSIanx medcow1 WHPpain crhtw1-crhtw3 ///
  >     icdx1nr5 icdx1nr18 icdx2nr4 icdx3nr3 icdx3nr7 ///
  >     icdx4nr8-icdx4nr10 icdx4nr12 icdx5nr7 icdx5nr10 icdx6nr7 icdx7nr1 ///
  >     if gender==1, vce(cluster id)

Linear regression                               Number of obs =     338
                                                F( 21,   337) =       .
                                                Prob > F      =       .
                                                R-squared     =  0.6024
                                                Root MSE      =  9.5478

                                   (Std. Err. adjusted for 338 clusters in id)
------------------------------------------------------------------------------
             |               Robust
      WHPpa |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0545287   .0524031     1.04   0.299    -.0485496     .157607
     BSIsoma |   .5628542   .1857164     3.03   0.003     .1975448    .9281636
      BSIdep |   .3040762   .3011014     1.01   0.313    -.2881988    .8963511
       deaw1 |   2.266718   1.255357     1.81   0.072     -.202604    4.73604
  physdisagw2 |  -.1155609   .0393136    -2.94   0.004    -.1928918    -.03823
       illw3 |   1.565851   .8296602     1.89   0.060    -.0661142    3.197816
      BSIanx |  -.7255457    .307856    -2.36   0.019    -1.331107   -.1199843
     medcow1 |    .540166   .2349823     2.30   0.022     .0779493    1.002383
     WHPpain |   .4783801   .0540109     8.86   0.000     .3721391    .5846211
      crhtw1 |   1.008249   1.301731     0.77   0.439    -1.552293    3.568791
      crhtw2 |   1.057135   2.049181     0.52   0.606    -2.973662    5.087932
      crhtw3 |  -1.433471   1.804705    -0.79   0.428    -4.983377    2.116434
     icdx1nr5 |  -3.954297   2.596418    -1.52   0.129    -9.061525     1.15293
    icdx1nr18 |   3.780637   3.399621     1.11   0.267    -2.906512    10.46779
     icdx2nr4 |  -.7822253   3.536503    -0.22   0.825    -7.738627    6.174177
     icdx3nr3 |   11.29403   4.892569     2.31   0.022     1.670208    20.91785
     icdx3nr7 |   10.79598   12.74224     0.85   0.397    -14.26837    35.86034
     icdx4nr8 |   2.570385   4.893629     0.53   0.600    -7.055522    12.19629
     icdx4nr9 |  -17.53347   6.224572    -2.82   0.005    -29.77738   -5.28956
    icdx4nr10 |  -2.445988   3.073787    -0.80   0.427    -8.492214    3.600239
    icdx4nr12 |   16.12243   3.274253     4.92   0.000      9.68188    22.56298
     icdx5nr7 |   7.716505   3.671209     2.10   0.036     .4951339    14.93788
    icdx5nr10 |     14.423    2.06132     7.00   0.000     10.36833    18.47768
     icdx6nr7 |   22.84422   1.781839    12.82   0.000     19.33929    26.34914
     icdx7nr1 |   15.19774   2.458806     6.18   0.000      10.3612    20.03428
        _cons |  -2.796892   3.241522    -0.86   0.389    -9.173058    3.579273
------------------------------------------------------------------------------
```

```
 7 .    di e(r2_a)
   .5705122

 8 .
 9 . *-------Trimmed male Physical ability crhtw model  **************/
10 . des icdx1nr5 icdx1nr18 icdx3nr3  icdx4nr9 icdx4nr12  ///
   >   icdx5nr7 icdx5nr10 icdx6nr7 icdx7nr1

              storage  display     value
   variable name   type   format      label      variable label
   ------------------------------------------------------------------------------
   icdx1nr5        double %8.0g                  icdx1nr==401 hypertension
   icdx1nr18       double %8.0g                  icdx1nr==732 osteochondropathies
   icdx3nr3        double %8.0g                  icdx3nr==diabetes militus
   icdx4nr9        double %8.0g                  icdx4nr==434.91 crbrl art ocl
                                                   nos w infarc
   icdx4nr12       double %8.0g                  icdx4nr==gastritis/duodenitis
   icdx5nr7        double %8.0g                  icdx5nr==angina pectoris
   icdx5nr10       double %8.0g                  icdx5nr==ac bronchitis/brnchial
   icdx6nr7        double %8.0g                  icdx6nr==varicose veins in legs
   icdx7nr1        double %8.0g                  icdx7nr==malignant melanoma skin

11 .
12 .
13 . * Graph preparation
14 .
15 . cap drop H8MalePApred

16 . cap drop h8MPAsepred

17 . cap drop MrPAres

18 . cap drop upbPAm

19 . cap drop lpbPAm

20 .
```

```
21 .
22 . regress WHPpa age BSIsoma BSIdep deaw1 physdisagw2 ///
   >    illw3 BSIanx medcow1 WHPpain crhtw1-crhtw3 ///
   >     icdx3nr3 ///
   >     icdx4nr9 icdx4nr12 icdx5nr7 icdx5nr10 icdx6nr7 icdx7nr1 ///
   >    if gender==1, vce(cluster id)
```

Linear regression

Number of obs =	**338**
F(15, 337) =	.
Prob > F =	.
R-squared =	**0.5878**
Root MSE =	**9.6286**

(Std. Err. adjusted for **338** clusters in id)

WHPpa	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
age	**.0578442**	**.0597399**	**0.97**	**0.334**	**-.0596658**	**.1753543**
BSIsoma	**.5294401**	**.1869968**	**2.83**	**0.005**	**.1616121**	**.897268**
BSIdep	**.3052377**	**.3041135**	**1.00**	**0.316**	**-.2929623**	**.9034376**
deaw1	**2.045296**	**1.306777**	**1.57**	**0.118**	**-.5251717**	**4.615763**
physdisagw2	**-.1115784**	**.0384099**	**-2.90**	**0.004**	**-.1871319**	**-.036025**
illw3	**1.827375**	**.8479948**	**2.15**	**0.032**	**.1593456**	**3.495405**
BSIanx	**-.7640778**	**.3060775**	**-2.50**	**0.013**	**-1.366141**	**-.1620147**
medcow1	**.521033**	**.2245599**	**2.32**	**0.021**	**.0793172**	**.9627487**
WHPpain	**.4871103**	**.0573704**	**8.49**	**0.000**	**.3742612**	**.5999594**
crhtw1	**1.401308**	**1.365234**	**1.03**	**0.305**	**-1.284147**	**4.086763**
crhtw2	**.3348103**	**1.972859**	**0.17**	**0.865**	**-3.54586**	**4.215481**
crhtw3	**-1.045175**	**1.796972**	**-0.58**	**0.561**	**-4.579869**	**2.48952**
icdx3nr3	**10.71167**	**4.781384**	**2.24**	**0.026**	**1.306554**	**20.11679**
icdx4nr9	**-17.75787**	**4.863508**	**-3.65**	**0.000**	**-27.32453**	**-8.191217**
icdx4nr12	**16.40801**	**3.340722**	**4.91**	**0.000**	**9.836713**	**22.9793**
icdx5nr7	**6.313072**	**3.440606**	**1.83**	**0.067**	**-.4546969**	**13.08084**
icdx5nr10	**14.78105**	**1.392747**	**10.61**	**0.000**	**12.04148**	**17.52063**
icdx6nr7	**22.5554**	**1.848801**	**12.20**	**0.000**	**18.91875**	**26.19204**
icdx7nr1	**14.53545**	**2.90797**	**5.00**	**0.000**	**8.815386**	**20.25551**
_cons	**-2.409054**	**3.293573**	**-0.73**	**0.465**	**-8.887604**	**4.069497**

```
23 .    di e(r2_a)
   .56320566

24 .
25 .      predict H8MalePApred if gender==2, xb
   (340 missing values generated)

26 .      predict h8MPAsepred if gender==2, stdp
   (340 missing values generated)

27 .      predict MrPAres if gender==2, residual
   (340 missing values generated)

28 .      gen upbPAm = H8MalePApred + 1.96*h8MPAsepred
   (340 missing values generated)

29 .      gen lpbPAm = H8MalePApred - 1.96*h8MPAsepred
   (340 missing values generated)

30 .
31 . scatter H8MalePApred MrPAres || lowess H8MalePApred  MrPAres  ///
   >   || lowess upbPAm MrPAres || lowess lpbPAm MrPAres, ///
   >   title(Prediction interval of Male Physical Ability model)   ///
   >   ytitle(Predicted Male Physical Ability)

32 .
33 . fracpoly regress WHPpa age BSIsoma BSIdep deaw1 physdisagw2 ///
   >    illw3 BSIanx medcow1 WHPpain crhtw1-crhtw3 ///
   >     icdx3nr3 ///
   >     icdx4nr9 icdx4nr12 icdx5nr7 icdx5nr10 icdx6nr7 icdx7nr1 ///
   >    if gender==1, vce(cluster id) powers(5)
   -> gen double IBSIs__1 = BSIsoma-11.67751479 if e(sample)
   -> gen double IBSId__1 = BSIdep-8.124260355 if e(sample)
   -> gen double Ideaw__1 = deaw1-.1715976331 if e(sample)
   -> gen double Iphys__1 = physdisagw2-7.945266274 if e(sample)
   -> gen double Iillw__1 = illw3-.4881656805 if e(sample)
   -> gen double IBSIa__1 = BSIanx-7.621301775 if e(sample)
   -> gen double Imedc__1 = medcow1-1.00591716 if e(sample)
   -> gen double IWHPp__1 = WHPpain-10.15130164 if e(sample)
   -> gen double Icrht__1 = crhtw1+.1461800117 if e(sample)
   -> gen double Icrhta_1 = crhtw2+.18795889 if e(sample)
   -> gen double Icrhtb_1 = crhtw3+.1881187736 if e(sample)
   ..
   -> gen double Iage__1 = X-4.910946746 if e(sample)
   -> gen double Iage__2 = X^5-2856.44669 if e(sample)
      (where: X = age/10)
```

Linear regression

Number of obs =	**338**
F(16, 337) =	**.**
Prob > F =	**.**
R-squared =	**0.5881**
Root MSE =	**9.6412**

(Std. Err. adjusted for **338** clusters in id)

WHPpa	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
Iage__1	**.1544549**	**.9829496**	**0.16**	**0.875**	**-1.779035**	**2.087945**
Iage__2	**.0001025**	**.0002729**	**0.38**	**0.708**	**-.0004344**	**.0006393**
IBSIs__1	**.5295921**	**.18688**	**2.83**	**0.005**	**.1619939**	**.8971903**
IBSId__1	**.3082517**	**.3056617**	**1.01**	**0.314**	**-.2929934**	**.9094968**
Ideaw__1	**2.057673**	**1.302912**	**1.58**	**0.115**	**-.5051915**	**4.620538**
Iphys__1	**-.1109997**	**.0385064**	**-2.88**	**0.004**	**-.1867428**	**-.0352566**
Iillw__1	**1.848158**	**.8669567**	**2.13**	**0.034**	**.1428291**	**3.553486**
IBSIa__1	**-.754578**	**.305347**	**-2.47**	**0.014**	**-1.355204**	**-.1539519**
Imedc__1	**.5136651**	**.2304303**	**2.23**	**0.026**	**.0604021**	**.9669281**
IWHPp__1	**.4843921**	**.0581433**	**8.33**	**0.000**	**.3700226**	**.5987617**
Icrht__1	**1.41358**	**1.382269**	**1.02**	**0.307**	**-1.305381**	**4.132542**
Icrhta_1	**.2692346**	**2.000677**	**0.13**	**0.893**	**-3.666155**	**4.204624**
Icrhtb_1	**-.9850723**	**1.794732**	**-0.55**	**0.583**	**-4.515361**	**2.545216**
icdx3nr3	**10.60845**	**4.784885**	**2.22**	**0.027**	**1.196442**	**20.02045**
icdx4nr9	**-18.11597**	**4.729218**	**-3.83**	**0.000**	**-27.41848**	**-8.813465**
icdx4nr12	**16.40428**	**3.350766**	**4.90**	**0.000**	**9.813226**	**22.99533**
icdx5nr7	**6.333594**	**3.475396**	**1.82**	**0.069**	**-.5026078**	**13.16979**
icdx5nr10	**14.73802**	**1.475263**	**9.99**	**0.000**	**11.83613**	**17.6399**
icdx6nr7	**22.65023**	**1.817573**	**12.46**	**0.000**	**19.07501**	**26.22545**
icdx7nr1	**14.35475**	**3.097656**	**4.63**	**0.000**	**8.261571**	**20.44793**
_cons	**8.822317**	**.7463177**	**11.82**	**0.000**	**7.354289**	**10.29035**

Deviance: **2469.37.** Best powers of **age** among **5** models fit: **1 5.**

```
34 .    di e(r2_a)
.5620673
```

```
35 .
36 . // No significant risk => physical ability relationships
37 .
38 .
39 . title "Male physical ability indirect effects test"


   ********************************************************************************
   > *
   ********************************************************************************
   > *
   *****                                                                      ****
   > *
   *****                                                                      ****
   > *
   *****            Male physical ability indirect effects test               ****
   > *
   *****                                                                      ****
   > *
   *****                                                                      ****
   > *
   *****                                          13 Jul 2012    12:42:53  ****
   > *
   ********************************************************************************
   > *
   ********************************************************************************
   > *



40 . set more off

41 .  foreach var in age BSIsoma BSIdep deaw1 physdisagw2 ///
   >    illw3 BSIanx medcow1 WHPpain ///
   >     icdx3nr3 ///
   >     icdx4nr9 icdx4nr12 icdx5nr7 icdx5nr10 icdx6nr7 icdx7nr1 {
     2. sem (crhtw1-> `var')(`var'-> whppa) if gender==1, nocapslatent iterate(50
   > )
     3. sem (crhtw2-> `var')(`var'-> whppa) if gender==1, nocapslatent iterate(50
   > )
     4. sem (crhtw3-> `var')(`var'-> whppa) if gender==1, nocapslatent iterate(50
   > )
     5. }

   Endogenous variables

   Observed:  age whppa
```

```
Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -3133.4458
Iteration 1:   log likelihood = -3133.4458

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -3133.4458
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
age <-						
crhtw1	**4.266795**	**.6763452**	**6.31**	**0.000**	**2.941183**	**5.592408**
_cons	**49.78043**	**.635245**	**78.36**	**0.000**	**48.53537**	**51.02549**
whppa <-						
age	**.4123818**	**.0606164**	**6.80**	**0.000**	**.2935758**	**.5311877**
_cons	**-10.76585**	**3.07143**	**-3.51**	**0.000**	**-16.78574**	**-4.745961**
Variance						
e.age	**133.6667**	**10.26687**			**114.9854**	**155.383**
e.whppa	**186.0421**	**14.28981**			**160.0409**	**216.2677**

```
LR test of model vs. saturated: chi2(1)   =      6.64, Prob > chi2 = 0.0100

Endogenous variables

Observed:  age whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -3123.9492
Iteration 1:   log likelihood = -3123.9492

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -3123.9492
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
age <-						
crhtw2	**4.951499**	**.6691348**	**7.40**	**0.000**	**3.640019**	**6.262979**
_cons	**50.08515**	**.6280741**	**79.74**	**0.000**	**48.85415**	**51.31616**
whppa <-						
age	**.4123818**	**.0606164**	**6.80**	**0.000**	**.2935758**	**.5311877**
_cons	**-10.76585**	**3.07143**	**-3.51**	**0.000**	**-16.78574**	**-4.745961**
Variance						
e.age	**128.5885**	**9.876824**			**110.617**	**149.4798**
e.whppa	**186.0421**	**14.28981**			**160.0409**	**216.2677**

LR test of model vs. saturated: chi2(**1**) = **19.20**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **age whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3124.4426**
Iteration 1: log likelihood = **-3124.4426**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3124.4426**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
age <-						
crhtw3	**4.882082**	**.6713623**	**7.27**	**0.000**	**3.566236**	**6.197928**
_cons	**50.07363**	**.629633**	**79.53**	**0.000**	**48.83957**	**51.30769**
whppa <-						
age	**.4123818**	**.0606164**	**6.80**	**0.000**	**.2935758**	**.5311877**
_cons	**-10.76585**	**3.07143**	**-3.51**	**0.000**	**-16.78574**	**-4.745961**

Variance					
e.age	**129.2045**	**9.924137**		**111.1469**	**150.1959**
e.whppa	**186.0421**	**14.28981**		**160.0409**	**216.2677**

LR test of model vs. saturated: chi2(**1**) = **22.88**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **BSIsoma whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-2829.416**
Iteration 1: log likelihood = **-2829.416**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2829.416**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIsoma <-						
crhtw1	**2.705062**	**.2869551**	**9.43**	**0.000**	**2.142641**	**3.267484**
_cons	**12.07175**	**.2695174**	**44.79**	**0.000**	**11.54351**	**12.6**
whppa <-						
BSIsoma	**1.140767**	**.1292278**	**8.83**	**0.000**	**.8874849**	**1.394048**
_cons	**-3.819875**	**1.669799**	**-2.29**	**0.022**	**-7.092621**	**-.5471293**
Variance						
e.BSIsoma	**24.06104**	**1.848117**			**20.69827**	**27.97015**
e.whppa	**171.9222**	**13.20526**			**147.8943**	**199.8538**

LR test of model vs. saturated: chi2(**1**) = **0.80**, Prob > chi2 = **0.3718**

Endogenous variables

Observed: **BSIsoma whppa**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-2807.4447**
Iteration 1: log likelihood = **-2807.4447**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2807.4447**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIsoma <-						
crhtw2	**3.234601**	**.2736389**	**11.82**	**0.000**	**2.698279**	**3.770924**
_cons	**12.28251**	**.2568474**	**47.82**	**0.000**	**11.77909**	**12.78592**
whppa <-						
BSIsoma	**1.140767**	**.1292278**	**8.83**	**0.000**	**.8874849**	**1.394048**
_cons	**-3.819875**	**1.669799**	**-2.29**	**0.022**	**-7.092621**	**-.5471293**
Variance						
e.BSIsoma	**21.50457**	**1.651756**			**18.49909**	**24.99834**
e.whppa	**171.9222**	**13.20526**			**147.8943**	**199.8538**

LR test of model vs. saturated: chi2(**1**) = **5.93**, Prob > chi2 = **0.0149**

Endogenous variables

Observed: **BSIsoma whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-2805.1526**
Iteration 1: log likelihood = **-2805.1526**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2805.1526**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIsoma <-						
crhtw3	**3.282815**	**.2723032**	**12.06**	**0.000**	**2.74911**	**3.816519**
_cons	**12.29222**	**.2553779**	**48.13**	**0.000**	**11.79169**	**12.79275**
whppa <-						
BSIsoma	**1.140767**	**.1292278**	**8.83**	**0.000**	**.8874849**	**1.394048**
_cons	**-3.819875**	**1.669799**	**-2.29**	**0.022**	**-7.092621**	**-.5471293**
Variance						
e.BSIsoma	**21.2554**	**1.632618**			**18.28475**	**24.70869**
e.whppa	**171.9222**	**13.20526**			**147.8943**	**199.8538**

LR test of model vs. saturated: chi2(**1**) = **7.74**, Prob > chi2 = **0.0054**

Endogenous variables

Observed: **BSIdep whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-2662.9175**
Iteration 1: log likelihood = **-2662.9175**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2662.9175**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIdep <-						
crhtw1	**.5548862**	**.1648543**	**3.37**	**0.001**	**.2317777**	**.8779948**
_cons	**8.199803**	**.1548364**	**52.96**	**0.000**	**7.89633**	**8.503277**
whppa <-						
BSIdep	**1.413114**	**.2647865**	**5.34**	**0.000**	**.8941423**	**1.932086**
_cons	**-1.963197**	**2.280185**	**-0.86**	**0.389**	**-6.432277**	**2.505883**

Variance					
e.BSIdep	**7.941215**	**.6099611**		**6.831351**	**9.231396**
e.whppa	**195.0542**	**14.98202**		**167.7934**	**226.744**

LR test of model vs. saturated: chi2(**1**) = **13.38**, Prob > chi2 = **0.0003**

Endogenous variables

Observed: **BSIdep whppa**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-2651.7516**
Iteration 1: log likelihood = **-2651.7516**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2651.7516**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIdep <-						
crhtw2	**.8704939**	**.1622957**	**5.36**	**0.000**	**.5524002**	**1.188588**
_cons	**8.281121**	**.1523366**	**54.36**	**0.000**	**7.982547**	**8.579696**
whppa <-						
BSIdep	**1.413114**	**.2647865**	**5.34**	**0.000**	**.8941423**	**1.932086**
_cons	**-1.963197**	**2.280185**	**-0.86**	**0.389**	**-6.432277**	**2.505883**
Variance						
e.BSIdep	**7.564653**	**.5810375**			**6.507417**	**8.793655**
e.whppa	**195.0542**	**14.98202**			**167.7934**	**226.744**

LR test of model vs. saturated: chi2(**1**) = **27.11**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **BSIdep whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-2650.6659**
Iteration 1: log likelihood = **-2650.6659** (backed up)

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2650.6659**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIdep <-						
crhtw3	**.8942456**	**.1620792**	**5.52**	**0.000**	**.5765761**	**1.211915**
_cons	**8.285721**	**.152005**	**54.51**	**0.000**	**7.987796**	**8.583645**
whppa <-						
BSIdep	**1.413114**	**.2647865**	**5.34**	**0.000**	**.8941423**	**1.932086**
_cons	**-1.963197**	**2.280185**	**-0.86**	**0.389**	**-6.432277**	**2.505883**
Variance						
e.BSIdep	**7.530408**	**.5784071**			**6.477957**	**8.753846**
e.whppa	**195.0542**	**14.98202**			**167.7934**	**226.744**

LR test of model vs. saturated: chi2(**1**) = **30.60**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **deaw1 whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-2080.8683**
Iteration 1: log likelihood = **-2080.8683**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2080.8683**

	OIM					
	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
deaw1 <-						
crhtw1	.0047246	.0290116	0.16	0.871	-.0521372	.0615864
_cons	.1776626	.0272487	6.52	0.000	.1242562	.231069
whppa <-						
deaw1	5.795987	1.561016	3.71	0.000	2.736452	8.855523
_cons	8.486787	.8219993	10.32	0.000	6.875698	10.09788
Variance						
e.deaw1	.245941	.0188906			.2115683	.2858982
e.whppa	203.1793	15.60611			174.7829	236.1891

LR test of model vs. saturated: chi2(**1**) = **19.92**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **deaw1 whppa**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-2076.8898**
Iteration 1: log likelihood = **-2076.8898**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2076.8898**

	OIM					
	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
deaw1 <-						
crhtw2	.0425455	.0291734	1.46	0.145	-.0146333	.0997243
_cons	.1848198	.0273832	6.75	0.000	.1311498	.2384899
whppa <-						
deaw1	5.795987	1.561016	3.71	0.000	2.736452	8.855523
_cons	8.486787	.8219993	10.32	0.000	6.875698	10.09788

Variance						
e.deaw1	**.2444268**	**.0187743**			**.2102657**	**.2841379**
e.whppa	**203.1793**	**15.60611**			**174.7829**	**236.1891**

LR test of model vs. saturated: chi2(**1**) = **37.92**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **deaw1 whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-2076.3415**
Iteration 1: log likelihood = **-2076.3415**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2076.3415**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
deaw1 <-						
crhtw3	**.0469941**	**.0291807**	**1.61**	**0.107**	**-.010199**	**.1041872**
_cons	**.1856505**	**.0273669**	**6.78**	**0.000**	**.1320122**	**.2392887**
whppa <-						
deaw1	**5.795987**	**1.561016**	**3.71**	**0.000**	**2.736452**	**8.855523**
_cons	**8.486787**	**.8219993**	**10.32**	**0.000**	**6.875698**	**10.09788**
Variance						
e.deaw1	**.2440928**	**.0187487**			**.2099784**	**.2837497**
e.whppa	**203.1793**	**15.60611**			**174.7829**	**236.1891**

LR test of model vs. saturated: chi2(**1**) = **41.90**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **physdisagw2 whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0:   log likelihood = **-3234.3092**
Iteration 1:   log likelihood = **-3234.3092**

Structural equation model   Number of obs   =   **339**
Estimation method = **ml**
Log likelihood   = **-3234.3092**

	OIM					
	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Inter
Structural						
physdisagw2 <-						
crhtw1	**6.137606**	**.8624974**	**7.12**	**0.000**	**4.447142**	**7.8**
_cons	**9.059582**	**.8100851**	**11.18**	**0.000**	**7.471845**	**10.6**
whppa <-						
physdisagw2	**.1267652**	**.0494881**	**2.56**	**0.010**	**.0297703**	**.223**
_cons	**8.474758**	**.8809347**	**9.62**	**0.000**	**6.748158**	**10.2**
Variance						
e.physdisagw2	**217.3712**	**16.69618**			**186.9914**	**252.**
e.whppa	**207.4271**	**15.93238**			**178.4371**	**241.**

LR test of model vs. saturated: chi2(**1**)   =   **14.07**, Prob > chi2 = **0.0002**

Endogenous variables

Observed: **physdisagw2 whppa**

Exogenous variables

```
Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -3222.6182
Iteration 1:   log likelihood = -3222.6182

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -3222.6182

------------------------------------------------------------------------------
> ------
                 |                 OIM
                 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
-----------------+------------------------------------------------------------
> ------
Structural       |
  physdisagw2 <- |
         crhtw2  |   7.158925   .8477969     8.44   0.000     5.497274    8.82
> 0577
          _cons  |   9.504611   .7957728    11.94   0.000     7.944925     11.
> 0643
-----------------+------------------------------------------------------------
> ------
  whppa <-       |
     physdisagw2 |   .1267652   .0494881     2.56   0.010     .0297703    .223
> 7601
          _cons  |   8.474758   .8809347     9.62   0.000     6.748158    10.2
> 0136
-----------------+------------------------------------------------------------
> ------
Variance         |
   e.physdisagw2 |   206.4232   15.85527                      177.5735    239.
> 9601
         e.whppa |   207.4271   15.93238                      178.4371    241.
> 1271
-----------------+------------------------------------------------------------
> ------
LR test of model vs. saturated: chi2(1)   =     33.47, Prob > chi2 = 0.0000

Endogenous variables

Observed:  physdisagw2 whppa

Exogenous variables
```

Observed: **crhtw3**

Fitting target model:

Iteration 0:   log likelihood = **-3222.2885**
Iteration 1:   log likelihood = **-3222.2885**

Structural equation model   Number of obs   =   **339**
Estimation method = **ml**
Log likelihood   = **-3222.2885**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
physdisagw2 <-					
crhtw3	**7.16693**	**.8485563**	**8.45**	**0.000**	**5.50379** **8.83007**
_cons	**9.507919**	**.7958133**	**11.95**	**0.000**	**7.948154** **11.06768**
whppa <-					
physdisagw2	**.1267652**	**.0494881**	**2.56**	**0.010**	**.0297703** **.2237601**
_cons	**8.474758**	**.8809347**	**9.62**	**0.000**	**6.748158** **10.20136**
Variance					
e.physdisagw2	**206.4073**	**15.85405**			**177.5598** **239.9415**
e.whppa	**207.4271**	**15.93238**			**178.4371** **241.1271**

LR test of model vs. saturated: chi2(**1**)   =   **37.89**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **illw3 whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-2280.7795**
Iteration 1: log likelihood = **-2280.7795**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2280.7795**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
illw3 <-						
crhtw1	**-.0596154**	**.0551874**	**-1.08**	**0.280**	**-.1677807**	**.0485498**
_cons	**.4841529**	**.0518337**	**9.34**	**0.000**	**.3825607**	**.5857452**
whppa <-						
illw3	**5.680648**	**.7766955**	**7.31**	**0.000**	**4.158353**	**7.202944**
_cons	**6.714194**	**.8277159**	**8.11**	**0.000**	**5.0919**	**8.336487**
Variance						
e.illw3	**.8899501**	**.0683567**			**.7655706**	**1.034537**
e.whppa	**182.6246**	**14.02731**			**157.101**	**212.295**

LR test of model vs. saturated: chi2(**1**) = **27.19**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **illw3 whppa**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-2268.3706**
Iteration 1: log likelihood = **-2268.3706**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2268.3706**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
illw3 <-						
crhtw2	**.2464559**	**.054132**	**4.55**	**0.000**	**.1403591**	**.3525526**
_cons	**.5379751**	**.0508102**	**10.59**	**0.000**	**.4383888**	**.6375613**
whppa <-						
illw3	**5.680648**	**.7766955**	**7.31**	**0.000**	**4.158353**	**7.202944**
_cons	**6.714194**	**.8277159**	**8.11**	**0.000**	**5.0919**	**8.336487**
Variance						
e.illw3	**.8415554**	**.0646395**			**.7239396**	**.9782798**
e.whppa	**182.6246**	**14.02731**			**157.101**	**212.295**

LR test of model vs. saturated: chi2(**1**) = **25.94**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **illw3 whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-2262.0154**
Iteration 1: log likelihood = **-2262.0154**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2262.0154**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
illw3 <-						
crhtw3	**.3093305**	**.053226**	**5.81**	**0.000**	**.2050096**	**.4136515**
_cons	**.5496237**	**.0499176**	**11.01**	**0.000**	**.4517869**	**.6474605**
whppa <-						
illw3	**5.680648**	**.7766955**	**7.31**	**0.000**	**4.158353**	**7.202944**
_cons	**6.714194**	**.8277159**	**8.11**	**0.000**	**5.0919**	**8.336487**

Variance					
e.illw3	**.8121021**	**.0623772**		**.6986027**	**.9440414**
e.whppa	**182.6246**	**14.02731**		**157.101**	**212.295**

LR test of model vs. saturated: chi2(**1**) = **25.61**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **BSIanx whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-2656.3059**
Iteration 1: log likelihood = **-2656.3059**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2656.3059**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIanx <-						
crhtw1	**.58706**	**.1588541**	**3.70**	**0.000**	**.2757116**	**.8984084**
_cons	**7.697001**	**.1492009**	**51.59**	**0.000**	**7.404573**	**7.98943**
whppa <-						
BSIanx	**1.107621**	**.2787348**	**3.97**	**0.000**	**.5613114**	**1.653932**
_cons	**1.079673**	**2.258219**	**0.48**	**0.633**	**-3.346355**	**5.505701**
Variance						
e.BSIanx	**7.373665**	**.5663678**			**6.343121**	**8.571638**
e.whppa	**202.0313**	**15.51793**			**173.7954**	**234.8546**

LR test of model vs. saturated: chi2(**1**) = **14.25**, Prob > chi2 = **0.0002**

Endogenous variables

Observed: **BSIanx whppa**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-2637.1488**
Iteration 1: log likelihood = **-2637.1488**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2637.1488**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIanx <-						
crhtw2	**1.070136**	**.1527452**	**7.01**	**0.000**	**.770761**	**1.369511**
_cons	**7.810482**	**.1433722**	**54.48**	**0.000**	**7.529478**	**8.091487**
whppa <-						
BSIanx	**1.107621**	**.2787348**	**3.97**	**0.000**	**.5613114**	**1.653932**
_cons	**1.079673**	**2.258219**	**0.48**	**0.633**	**-3.346355**	**5.505701**
Variance						
e.BSIanx	**6.700548**	**.514666**			**5.764079**	**7.789162**
e.whppa	**202.0313**	**15.51793**			**173.7954**	**234.8546**

LR test of model vs. saturated: chi2(**1**) = **28.28**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **BSIanx whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-2634.4204**
Iteration 1: log likelihood = **-2634.4204**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-2634.4204**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIanx <-						
crhtw3	**1.122177**	**.1518041**	**7.39**	**0.000**	**.8246464**	**1.419708**
_cons	**7.820346**	**.1423686**	**54.93**	**0.000**	**7.541308**	**8.099383**
whppa <-						
BSIanx	**1.107621**	**.2787348**	**3.97**	**0.000**	**.5613114**	**1.653932**
_cons	**1.079673**	**2.258219**	**0.48**	**0.633**	**-3.346355**	**5.505701**
Variance						
e.BSIanx	**6.605884**	**.5073949**			**5.682646**	**7.679118**
e.whppa	**202.0313**	**15.51793**			**173.7954**	**234.8546**

LR test of model vs. saturated: chi2(**1**) = **31.84**, Prob > chi2 = **0.0000**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **medcow1 whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-2574.3788**
Iteration 1: log likelihood = **-2574.3788**

Structural equation model Number of obs = **338**
Estimation method = **ml**
Log likelihood = **-2574.3788**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
medcow1 <-						
crhtw1	**.5424444**	**.1266741**	**4.28**	**0.000**	**.2941676**	**.7907211**
_cons	**1.085212**	**.1188501**	**9.13**	**0.000**	**.8522697**	**1.318154**
whppa <-						
medcow1	**.9690895**	**.3531383**	**2.74**	**0.006**	**.2769511**	**1.661228**
_cons	**8.501626**	**.8594458**	**9.89**	**0.000**	**6.817143**	**10.18611**
Variance						
e.medcow1	**4.658475**	**.3583442**			**4.006514**	**5.416526**
e.whppa	**207.0116**	**15.92397**			**178.04**	**240.6976**

LR test of model vs. saturated: chi2(**1**) = **14.86**, Prob > chi2 = **0.0001**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **medcow1 whppa**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-2572.1572**
Iteration 1: log likelihood = **-2572.1572**

Structural equation model Number of obs = **338**
Estimation method = **ml**
Log likelihood = **-2572.1572**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
medcow1 <-						
crhtw2	**.5269721**	**.1280089**	**4.12**	**0.000**	**.2760792**	**.7778649**
_cons	**1.104966**	**.120064**	**9.20**	**0.000**	**.8696452**	**1.340287**
whppa <-						
medcow1	**.9690895**	**.3531383**	**2.74**	**0.006**	**.2769511**	**1.661228**
_cons	**8.501626**	**.8594458**	**9.89**	**0.000**	**6.817143**	**10.18611**
Variance						
e.medcow1	**4.67672**	**.3597477**			**4.022206**	**5.43774**
e.whppa	**207.0116**	**15.92397**			**178.04**	**240.6976**

LR test of model vs. saturated: chi2(**1**) = **34.10**, Prob > chi2 = **0.0000**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **medcow1 whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-2573.1878**
Iteration 1: log likelihood = **-2573.1878**

Structural equation model Number of obs = **338**
Estimation method = **ml**
Log likelihood = **-2573.1878**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
medcow1 <-						
crhtw3	**.4851739**	**.1286026**	**3.77**	**0.000**	**.2331175**	**.7372303**
_cons	**1.097187**	**.1205336**	**9.10**	**0.000**	**.860946**	**1.333429**
whppa <-						
medcow1	**.9690895**	**.3531383**	**2.74**	**0.006**	**.2769511**	**1.661228**
_cons	**8.501626**	**.8594458**	**9.89**	**0.000**	**6.817143**	**10.18611**
Variance						
e.medcow1	**4.712756**	**.3625197**			**4.053199**	**5.47964**
e.whppa	**207.0116**	**15.92397**			**178.04**	**240.6976**

LR test of model vs. saturated: chi2(**1**) = **38.63**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **WHPpain whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3152.7352**
Iteration 1: log likelihood = **-3152.7352**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3152.7352**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
WHPpain <-						
crhtw1	**3.750412**	**.9400436**	**3.99**	**0.000**	**1.907961**	**5.592864**
_cons	**10.74268**	**.8829189**	**12.17**	**0.000**	**9.012189**	**12.47317**
whppa <-						
WHPpain	**.6188354**	**.0343149**	**18.03**	**0.000**	**.5515794**	**.6860915**
_cons	**3.194516**	**.6641311**	**4.81**	**0.000**	**1.892843**	**4.496189**

Variance					
e.WHPpain	**258.2155**	**19.83341**		**222.1273**	**300.1668**
e.whppa	**107.9135**	**8.288784**		**92.83148**	**125.4458**

LR test of model vs. saturated: chi2(**1**) = **5.40**, Prob > chi2 = **0.0202**

Endogenous variables

Observed: **WHPpain whppa**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3133.7867**
Iteration 1: log likelihood = **-3133.7867**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3133.7867**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
WHPpain <-						
crhtw2	**6.464798**	**.9044495**	**7.15**	**0.000**	**4.692109**	**8.237486**
_cons	**11.39925**	**.848949**	**13.43**	**0.000**	**9.735336**	**13.06316**
whppa <-						
WHPpain	**.6188354**	**.0343149**	**18.03**	**0.000**	**.5515794**	**.6860915**
_cons	**3.194516**	**.6641311**	**4.81**	**0.000**	**1.892843**	**4.496189**
Variance						
e.WHPpain	**234.9328**	**18.04508**			**202.0986**	**273.1014**
e.whppa	**107.9135**	**8.288784**			**92.83148**	**125.4458**

LR test of model vs. saturated: chi2(**1**) = **4.96**, Prob > chi2 = **0.0259**

Endogenous variables

Observed: **WHPpain whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3128.9028**
Iteration 1: log likelihood = **-3128.9028**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-3128.9028**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
WHPpain <-						
crhtw3	**7.018416**	**.8931795**	**7.86**	**0.000**	**5.267816**	**8.769015**
_cons	**11.50291**	**.8376629**	**13.73**	**0.000**	**9.861124**	**13.1447**
whppa <-						
WHPpain	**.6188354**	**.0343149**	**18.03**	**0.000**	**.5515794**	**.6860915**
_cons	**3.194516**	**.6641311**	**4.81**	**0.000**	**1.892843**	**4.496189**
Variance						
e.WHPpain	**228.6868**	**17.56533**			**196.7256**	**265.8408**
e.whppa	**107.9135**	**8.288784**			**92.83148**	**125.4458**

LR test of model vs. saturated: chi2(**1**) = **4.51**, Prob > chi2 = **0.0337**

Endogenous variables

Observed: **icdx3nr3 whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-1598.8869**
Iteration 1: log likelihood = **-1598.8869**

Structural equation model Number of obs = **339**
Estimation method = **ml**
Log likelihood = **-1598.8869**

```
> -
               |            OIM
               |     Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
---------------+----------------------------------------------------------------
> -
Structural     |
  icdx3nr3 <-  |
      crhtw1   |   .0041994   .0070484     0.60   0.551    -.0096151     .01801
> 4
       _cons   |   .0153461     .00662     2.32   0.020      .002371    .028321
> 1
  -------------+----------------------------------------------------------------
> -
  whppa <-     |
     icdx3nr3  |   27.55783   6.378184     4.32   0.000     15.05682    40.0588
> 4
       _cons   |   9.106168   .7746084    11.76   0.000     7.587963    10.6243
> 7
---------------+----------------------------------------------------------------
> -
Variance       |
   e.icdx3nr3  |   .0145165    .001115                      .0124877     .01687
> 5
      e.whppa  |   200.4061    15.3931                      172.3973    232.965
> 3
---------------+----------------------------------------------------------------
> -
LR test of model vs. saturated: chi2(1)   =     19.24, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx3nr3 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1593.9397
Iteration 1:   log likelihood = -1593.9397

Structural equation model                       Number of obs      =        339
Estimation method  = ml
Log likelihood     = -1593.9397
```

```
-----------------------------------------------------------------------------
> -
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+---------------------------------------------------------------
> -
Structural   |
  icdx3nr3 <-|
      crhtw2 |   .0148493   .0070674     2.10   0.036     .0009974    .028701
> 2
       _cons |   .0174817   .0066337     2.64   0.008     .0044797    .030483
> 6
  -----------+---------------------------------------------------------------
> -
  whppa <-   |
    icdx3nr3 |   27.55783   6.378184     4.32   0.000     15.05682    40.0588
> 4
       _cons |   9.106168   .7746084    11.76   0.000     7.587963    10.6243
> 7
-------------+---------------------------------------------------------------
> -
Variance     |
  e.icdx3nr3 |   .0143449   .0011018                      .0123401    .016675
> 5
     e.whppa |   200.4061    15.3931                      172.3973    232.965
> 3
-----------------------------------------------------------------------------
> -
LR test of model vs. saturated: chi2(1)   =     36.14, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx3nr3 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1591.3169
Iteration 1:   log likelihood = -1591.3169

Structural equation model                        Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1591.3169
```

```
> ─
              │                 OIM
              │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼──────────────────────────────────────────────────────────────────
> ─
Structural    │
  icdx3nr3 <- │
       crhtw3 │   .0212169   .0070261     3.02   0.003     .0074461    .034987
> 8
        _cons │   .0186588   .0065894     2.83   0.005     .0057439    .031573
> 7
  ────────────┼──────────────────────────────────────────────────────────────────
> ─
  whppa <-    │
     icdx3nr3 │   27.55783   6.378184     4.32   0.000     15.05682    40.0588
> 4
        _cons │   9.106168   .7746084    11.76   0.000     7.587963    10.6243
> 7
──────────────┼──────────────────────────────────────────────────────────────────
> ─
Variance      │
   e.icdx3nr3 │   .0141511   .0010869                     .0121733    .016450
> 1
      e.whppa │   200.4061    15.3931                     172.3973    232.965
> 3
──────────────┼──────────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =     38.10, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx4nr9 whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -1334.3152
Iteration 1:   log likelihood = -1334.3152

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1334.3152
```

```
> ─
              │                 OIM
              │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼──────────────────────────────────────────────────────────────
> ─
Structural    │
  icdx4nr9 <- │
       crhtw1 │  -.0005647   .0031725    -0.18   0.859    -.0067826    .005653
> 1
        _cons │   .0028696   .0029797     0.96   0.336    -.0029705    .008709
> 6
   ───────────┼──────────────────────────────────────────────────────────────
> ─
  whppa <-    │
     icdx4nr9 │   35.73278   14.43264     2.48   0.013     7.445329    64.0202
> 3
        _cons │   9.407219   .7838733    12.00   0.000     7.870855    10.9435
> 8
──────────────┼──────────────────────────────────────────────────────────────
> ─
Variance      │
   e.icdx4nr9 │   .0029409   .0002259                     .0025299    .003418
> 7
      e.whppa │   207.6866   15.95231                     178.6603    241.428
> 7
──────────────┼──────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =     20.00, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx4nr9 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1330.2696
Iteration 1:   log likelihood = -1330.2696

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1330.2696
```

```
> ─
              │                 OIM
              │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼──────────────────────────────────────────────────────────────────
> ─
Structural    │
  icdx4nr9 <- │
       crhtw2 │   .0048025   .0031895     1.51   0.132    -.0014488    .011053
> 9
        _cons │   .0038336   .0029938     1.28   0.200    -.0020342    .009701
> 3
   ───────────┼──────────────────────────────────────────────────────────────────
> ─
  whppa <-    │
     icdx4nr9 │   35.73278   14.43264     2.48   0.013     7.445329    64.0202
> 3
        _cons │   9.407219   .7838733    12.00   0.000     7.870855    10.9435
> 8
──────────────┼──────────────────────────────────────────────────────────────────
> ─
Variance      │
   e.icdx4nr9 │   .0029216   .0002244                      .0025133    .003396
> 3
      e.whppa │   207.6866   15.95231                      178.6603    241.428
> 7
──────────────┼──────────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =     38.24, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx4nr9 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1330.0077
Iteration 1:   log likelihood = -1330.0077

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1330.0077
```

```
───────────────┬────────────────────────────────────────────────────────────
> ─
               │                 OIM
               │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
───────────────┼────────────────────────────────────────────────────────────
> ─
Structural     │
  icdx4nr9 <-  │
       crhtw3  │   .0046896    .003193     1.47   0.142    -.0015685    .010947
> 8
        _cons  │    .003814   .0029945     1.27   0.203    -.0020552    .009683
> 2
  ─────────────┼────────────────────────────────────────────────────────────
> ─
  whppa <-     │
     icdx4nr9  │   35.73278   14.43264     2.48   0.013     7.445329    64.0202
> 3
        _cons  │   9.407219   .7838733    12.00   0.000     7.870855    10.9435
> 8
───────────────┼────────────────────────────────────────────────────────────
> ─
Variance       │
   e.icdx4nr9  │   .0029226   .0002245                      .0025141    .003397
> 4
      e.whppa  │   207.6866   15.95231                      178.6603    241.428
> 7
───────────────┴────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =     42.63, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx4nr12 whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -1334.5888
Iteration 1:   log likelihood = -1334.5888

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1334.5888
```

```
-----------------------------------------------------------------------------
> --
                 |                 OIM
                 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-----------------+-----------------------------------------------------------
> --
Structural       |
  icdx4nr12 <-   |
          crhtw1 |  -.0009735   .0031722    -0.31   0.759    -.0071908    .00524
> 38
           _cons |   .0028115   .0029794     0.94   0.345     -.003028     .0086
> 51
  ---------------+-----------------------------------------------------------
> --
  whppa <-       |
       icdx4nr12 |    33.9074   14.44562     2.35   0.019     5.594495     62.22
> 03
           _cons |   9.412604   .7845786    12.00   0.000     7.874858    10.950
> 35
-----------------+-----------------------------------------------------------
> --
Variance         |
     e.icdx4nr12 |   .0029403   .0002258                      .0025294     .0034
> 18
         e.whppa |   208.0605   15.98103                      178.9819    241.86
> 33
-----------------------------------------------------------------------------
> --
LR test of model vs. saturated: chi2(1)   =     20.11, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx4nr12 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1331.6493
Iteration 1:   log likelihood = -1331.6493

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1331.6493
```

```
> ——
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+------------------------------------------------------------
> ——
Structural   |
  icdx4nr12 <-
       crhtw2 |  -.0010612   .0031996    -0.33   0.740    -.0073323      .005
> 21
        _cons |   .0027546   .0030033     0.92   0.359    -.0031318     .00864
> 09
-------------+------------------------------------------------------------
> ——
  whppa <-   |
     icdx4nr12 |    33.9074   14.44562     2.35   0.019     5.594495     62.22
> 03
        _cons |   9.412604   .7845786    12.00   0.000     7.874858    10.950
> 35
-------------+------------------------------------------------------------
> ——
Variance     |
   e.icdx4nr12 |   .0029402   .0002258                      .0025293    .00341
> 79
       e.whppa |   208.0605   15.98103                      178.9819    241.86
> 33
-------------+------------------------------------------------------------
> ——
LR test of model vs. saturated: chi2(1)   =     41.27, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx4nr12 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1331.3335
Iteration 1:   log likelihood = -1331.3335

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1331.3335
```

```
> ——
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+------------------------------------------------------------
> ——
Structural   |
  icdx4nr12 <-
       crhtw3 |  -.0010542   .0032026    -0.33   0.742    -.0073312    .00522
> 29
        _cons |   .0027556   .0030036     0.92   0.359    -.0031313    .00864
> 25
-------------+------------------------------------------------------------
> ——
  whppa <-   |
     icdx4nr12 |    33.9074   14.44562     2.35   0.019     5.594495     62.22
> 03
        _cons |   9.412604   .7845786    12.00   0.000     7.874858    10.950
> 35
-------------+------------------------------------------------------------
> ——
Variance     |
   e.icdx4nr12 |   .0029402   .0002258                      .0025293    .00341
> 79
       e.whppa |   208.0605   15.98103                      178.9819    241.86
> 33
-------------+------------------------------------------------------------
> ——
LR test of model vs. saturated: chi2(1)   =     45.76, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx5nr7 whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -1519.8299
Iteration 1:   log likelihood = -1519.8299

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1519.8299
```

```
> ─
              │                 OIM
              │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼──────────────────────────────────────────────────────────────────
> ─
Structural    │
  icdx5nr7 <- │
       crhtw1 │  -.0003965   .0054788    -0.07   0.942    -.0111347    .010341
> 7
        _cons │   .0087932   .0051458     1.71   0.087    -.0012925    .018878
> 9
   ───────────┼──────────────────────────────────────────────────────────────────
> ─
  whppa <-    │
     icdx5nr7 │   19.67818   8.364668     2.35   0.019     3.283738    36.0726
> 3
        _cons │   9.338482   .7868817    11.87   0.000     7.796222    10.8807
> 4
──────────────┼──────────────────────────────────────────────────────────────────
> ─
Variance      │
   e.icdx5nr7 │   .0087711   .0006737                     .0075453    .010196
> 1
      e.whppa │   208.0454   15.97987                      178.969    241.845
> 8
──────────────┼──────────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =     19.83, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx5nr7 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1515.4729
Iteration 1:   log likelihood = -1515.4729

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1515.4729
```

```
> ─
              │                 OIM
              │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼──────────────────────────────────────────────────────────────
> ─
Structural    │
  icdx5nr7 <- │
       crhtw2 │   .0093199   .0055032     1.69   0.090    -.0014662    .020105
> 9
        _cons │   .0105645   .0051655     2.05   0.041     .0004403    .020688
> 6
  ────────────┼──────────────────────────────────────────────────────────────
> ─
  whppa <-    │
     icdx5nr7 │   19.67818   8.364668     2.35   0.019     3.283738    36.0726
> 3
        _cons │   9.338482   .7868817    11.87   0.000     7.796222    10.8807
> 4
──────────────┼──────────────────────────────────────────────────────────────
> ─
Variance      │
   e.icdx5nr7 │   .0086977   .0006681                      .0074821    .010110
> 7
      e.whppa │   208.0454   15.97987                       178.969    241.845
> 8
──────────────┼──────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =     38.06, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx5nr7 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1515.1813
Iteration 1:   log likelihood = -1515.1813

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1515.1813
```

```
> ─
              │                 OIM
              │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼──────────────────────────────────────────────────────────────
> ─
Structural    │
  icdx5nr7 <- │
       crhtw3 │   .0092469   .0055087     1.68   0.093      -.00155    .020043
> 8
        _cons │   .0105534   .0051663     2.04   0.041     .0004276    .020679
> 2
  ────────────┼──────────────────────────────────────────────────────────────
> ─
  whppa <-    │
     icdx5nr7 │   19.67818   8.364668     2.35   0.019     3.283738    36.0726
> 3
        _cons │   9.338482   .7868817    11.87   0.000     7.796222    10.8807
> 4
──────────────┼──────────────────────────────────────────────────────────────
> ─
Variance      │
   e.icdx5nr7 │   .0086989   .0006682                     .0074832    .010112
> 2
      e.whppa │   208.0454   15.97987                      178.969    241.845
> 8
──────────────┼──────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =     42.39, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx5nr10 whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -1518.7511
Iteration 1:   log likelihood = -1518.7511

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1518.7511
```

```
─────────────────────┬──────────────────────────────────────────────────────────
> ──
                     │                 OIM
                     │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
─────────────────────┼──────────────────────────────────────────────────────────
> ──
Structural           │
  icdx5nr10 <-       │
        crhtw1       │   .0001098   .0054788     0.02   0.984    -.0106285    .01084
> 81
         _cons       │   .0088652   .0051459     1.72   0.085    -.0012206    .01895
> 09
  ───────────────────┼──────────────────────────────────────────────────────────
> ──
  whppa <-           │
     icdx5nr10       │   23.19598   8.338031     2.78   0.005     6.853742    39.538
> 22
         _cons       │   9.307351    .784376    11.87   0.000     7.770003     10.84
> 47
─────────────────────┼──────────────────────────────────────────────────────────
> ──
Variance             │
   e.icdx5nr10       │   .0087712   .0006737                      .0075454    .01019
> 63
       e.whppa       │   206.7225   15.87826                       177.831     240.3
> 08
─────────────────────┴──────────────────────────────────────────────────────────
> ──
LR test of model vs. saturated: chi2(1)   =     19.84, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx5nr10 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1515.6964
Iteration 1:   log likelihood = -1515.6964

Structural equation model                        Number of obs      =        339
Estimation method  = ml
Log likelihood     = -1515.6964
```

```
> ──
                │                 OIM
                │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
────────────────┼──────────────────────────────────────────────────────────────
> ──
Structural      │
  icdx5nr10 <-  │
        crhtw2  │   .0027437   .0055244     0.50   0.619    -.0080839    .01357
> 13
         _cons  │   .0093544   .0051854     1.80   0.071    -.0008088    .01951
> 76
    ────────────┼──────────────────────────────────────────────────────────────
> ──
  whppa <-      │
     icdx5nr10  │   23.19598   8.338031     2.78   0.005     6.853742    39.538
> 22
         _cons  │   9.307351    .784376    11.87   0.000     7.770003     10.84
> 47
────────────────┼──────────────────────────────────────────────────────────────
> ──
Variance        │
   e.icdx5nr10  │   .0087649   .0006732                      .0075399    .01018
> 89
       e.whppa  │   206.7225   15.87826                       177.831     240.3
> 08
────────────────┼──────────────────────────────────────────────────────────────
> ──
LR test of model vs. saturated: chi2(1)   =     39.93, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx5nr10 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1515.3786
Iteration 1:   log likelihood = -1515.3786

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1515.3786
```

```
─────────────┬──────────────────────────────────────────────────────────
> ──
             │                 OIM
             │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
─────────────┼──────────────────────────────────────────────────────────
> ──
Structural   │
  icdx5nr10 <-
      crhtw3 │   .0027586   .0055295     0.50   0.618    -.0080791    .01359
> 63
       _cons │   .0093579   .0051858     1.80   0.071    -.0008062    .01952
> 19
  ───────────┼──────────────────────────────────────────────────────────
> ──
  whppa <-   │
   icdx5nr10 │   23.19598   8.338031     2.78   0.005     6.853742    39.538
> 22
       _cons │   9.307351    .784376    11.87   0.000     7.770003     10.84
> 47
─────────────┼──────────────────────────────────────────────────────────
> ──
Variance     │
 e.icdx5nr10 │   .0087648   .0006732                      .0075398    .01018
> 88
     e.whppa │   206.7225   15.87826                       177.831     240.3
> 08
─────────────┴──────────────────────────────────────────────────────────
> ──
LR test of model vs. saturated: chi2(1)   =     44.36, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx6nr7 whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -1334.4895
Iteration 1:   log likelihood = -1334.4895

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1334.4895
```

```
> -
              |              OIM
              |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
> -
Structural    |
  icdx6nr7 <- |
       crhtw1 |   .0006774   .0031724     0.21   0.831    -.0055404    .006895
> 1
        _cons |   .0030461   .0029796     1.02   0.307    -.0027938     .00888
> 6
> -
  whppa <-    |
     icdx6nr7 |   34.65962   14.44036     2.40   0.016     6.357037    62.9621
> 9
        _cons |   9.410385   .7842925    12.00   0.000       7.8732    10.9475
> 7
> -
Variance      |
   e.icdx6nr7 |   .0029408   .0002259                      .0025298    .003418
> 5
      e.whppa |   207.9088   15.96938                      178.8514     241.68
> 7
> -
LR test of model vs. saturated: chi2(1)   =     19.50, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx6nr7 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1331.5716
Iteration 1:   log likelihood = -1331.5716

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1331.5716
```

```
-----------------+----------------------------------------------------------------
> -
                 |               OIM
                 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-----------------+----------------------------------------------------------------
> -
Structural       |
  icdx6nr7 <-    |
          crhtw2 |   .0004308   .0032001     0.13   0.893    -.0058413    .006702
> 8
           _cons |   .0030291   .0030037     1.01   0.313     -.002858    .008916
> 3
  ---------------+----------------------------------------------------------------
> -
  whppa <-       |
        icdx6nr7 |   34.65962   14.44036     2.40   0.016     6.357037    62.9621
> 9
           _cons |   9.410385   .7842925    12.00   0.000       7.8732    10.9475
> 7
-----------------+----------------------------------------------------------------
> -
Variance         |
      e.icdx6nr7 |    .002941   .0002259                        .00253    .003418
> 8
         e.whppa |   207.9088   15.96938                      178.8514     241.68
> 7
-----------------+----------------------------------------------------------------
> -
LR test of model vs. saturated: chi2(1)   =     40.45, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx6nr7 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1331.2551
Iteration 1:   log likelihood = -1331.2551

Structural equation model                        Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1331.2551
```

```
> -
                    OIM
              Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
> -
Structural
  icdx6nr7 <-
      crhtw3     .0004278   .0032031     0.13   0.894    -.0058501    .006705
> 7
       _cons     .0030287    .003004     1.01   0.313    -.002859     .008916
> 4
> -
  whppa <-
    icdx6nr7     34.65962   14.44036     2.40   0.016    6.357037     62.9621
> 9
       _cons     9.410385   .7842925    12.00   0.000      7.8732     10.9475
> 7
> -
Variance
  e.icdx6nr7     .002941    .0002259                       .00253     .003418
> 8
     e.whppa     207.9088   15.96938                     178.8514      241.68
> 7
> -
LR test of model vs. saturated: chi2(1)   =     44.90, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx7nr1 whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -1334.8243
Iteration 1:   log likelihood = -1334.8243

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1334.8243
```

```
> ─
              │                 OIM
              │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼──────────────────────────────────────────────────────────────────
> ─
Structural    │
  icdx7nr1 <- │
       crhtw1 │   .0009926   .0031721     0.31   0.754    -.0052247    .007209
> 9
        _cons │   .0030909   .0029794     1.04   0.300    -.0027486    .008930
> 4
  ────────────┼──────────────────────────────────────────────────────────────────
> ─
  whppa <-    │
     icdx7nr1 │   32.41299   14.45574     2.24   0.025     4.080262    60.7457
> 2
        _cons │   9.417012    .785128    11.99   0.000     7.878189    10.9558
> 3
──────────────┼──────────────────────────────────────────────────────────────────
> ─
Variance      │
   e.icdx7nr1 │   .0029403   .0002258                      .0025294     .00341
> 8
      e.whppa │    208.352   16.00342                      179.2327    242.202
> 2
──────────────┼──────────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =     19.37, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx7nr1 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1331.9239
Iteration 1:   log likelihood = -1331.9239

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1331.9239
```

```
> ─
              │                 OIM
              │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼──────────────────────────────────────────────────────────────
> ─
Structural    │
  icdx7nr1 <- │
       crhtw2 │    .000603      .0032     0.19   0.851    -.0056689    .006874
> 8
        _cons │   .0030608   .0030036     1.02   0.308    -.0028262    .008947
> 8
  ────────────┼──────────────────────────────────────────────────────────────
> ─
  whppa <-    │
     icdx7nr1 │   32.41299   14.45574     2.24   0.025     4.080262    60.7457
> 2
        _cons │   9.417012    .785128    11.99   0.000     7.878189    10.9558
> 3
──────────────┼──────────────────────────────────────────────────────────────
> ─
Variance      │
   e.icdx7nr1 │   .0029408   .0002259                      .0025298    .003418
> 6
      e.whppa │    208.352   16.00342                      179.2327    242.202
> 2
──────────────┼──────────────────────────────────────────────────────────────
> ─
LR test of model vs. saturated: chi2(1)   =     40.28, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx7nr1 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1331.6089
Iteration 1:   log likelihood = -1331.6089

Structural equation model                       Number of obs      =       339
Estimation method  = ml
Log likelihood     = -1331.6089
```

```
------------------------------------------------------------------------------
> ---
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+----------------------------------------------------------------
> ---
Structural   |
  icdx7nr1 <-|
       crhtw3|    .000575    .003203     0.18   0.858    -.0057027    .006852
> 8
       _cons |   .0030558   .0030039     1.02   0.309    -.0028317    .008943
> 4
  -----------+----------------------------------------------------------------
> ---
  whppa <-   |
     icdx7nr1|   32.41299   14.45574     2.24   0.025     4.080262    60.7457
> 2
       _cons |   9.417012    .785128    11.99   0.000     7.878189    10.9558
> 3
-------------+----------------------------------------------------------------
> ---
Variance     |
   e.icdx7nr1|   .0029409   .0002259                      .0025299    .003418
> 7
      e.whppa|    208.352   16.00342                      179.2327    242.202
> 2
-------------+----------------------------------------------------------------
> ---
LR test of model vs. saturated: chi2(1)   =     44.74, Prob > chi2 = 0.0000

42 .
43 . // possible indirect effects for males on physical ability
44 .
45 . // wave 1 whppain medcow1 BSIanx physdisagw2  BSIdep BSIsoma age
46 . // wave 2 icdx3nr3 medcow1 whpain   BSIanx illw3 physdisagw2  BSIdep BSIsoma
>  age
```

```
47 . // wave 3 icdx3nr3 medcow1 whppain  BSIanx illw3 physdisagw2  BSIdep BSIsoma
   >  age
48 .
49 .
50 .
51 .
52 . gr save MPAPredInt.gph, replace
   (file MPAPredInt.gph saved)

53 . gr export MPAPredInt.eps, replace
   (file MPAPredInt.eps written in EPS format)

54 . gr use  MPAPredInt.gph

55 .
56 .
57 . // No significant main effect for Risk perceptioin => Physical ability
58 .
59 .
60 .
61 .
62 .
63 .
64 .
65 . *-+-  No male threat physical ability relationship found
66 .
67 .
68 .
69 . *--------------------------- FemPA-chunk-----------------------------------
   > ----
70 .
71 .
72 .
73 . *------  female Physical ability
74 . /* testing for candiate illnesses for female model
   >
   > foreach i in 7 {
   > foreach j in 1 5 6 {
   > foreach k in 3 {
   > foreach m in 2 {
   > foreach n in 4 {
   > regress whppa icdx`i'nr1-icdx`i'nr28 if gender==2
   > regress whppa icdx`j'nr1-icdx`j'nr18 if gender==2
   > regress whppa icdx`k'nr1-icdx`k'nr11 if gender==2
   > regress whppa icdx`m'nr1-icdx`m'nr8 if gender==2
   > regress whppa icdx`n'nr1-icdx`n'nr20 if gender==2
   > }
   > }
   > }
```

```
   > }
   > }
   > */
75 .
76 . // Full female Physical ability model with candidate illnesses
77 . des icdx1nr12 icdx4nr5 icdx4nr12 icdx5nr4 icdx5nr5 icdx6nr5 icdx6nr6 icdx6nr
   > 12 ///
   >   icdx6nr15 icdx7nr10 icdx7nr19 icdx7nr26

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
icdx1nr12       double %8.0g                  icdx1nr==531 gastric ulcer
icdx4nr5        double %8.0g                  icdx4nr==rheum fev w/o hrt
                                                involv
icdx4nr12       double %8.0g                  icdx4nr==gastritis/duodenitis
icdx5nr4        double %8.0g                  icdx5nr==rheum fev w/o hrt
                                                involv
icdx5nr5        double %8.0g                  icdx5nr==hypertension
icdx6nr5        double %8.0g                  icdx6nr==hypertension
icdx6nr6        double %8.0g                  icdx6nr==acute myocardial
                                                infarct
icdx6nr12       double %8.0g                  icdx6nr==575.1 cholecystitis
icdx6nr15       double %8.0g                  icdx6nr==renal/ureteral calculus
icdx7nr10       double %8.0g                  icdx7nr==acute myocardial
                                                infarct
icdx7nr19       double %8.0g                  icdx7nr==oth gallbladder disordr
icdx7nr26       double %8.0g                  icdx7nr==intervertebral disc
                                                dis*

78 . regress WHPpa age marrw14 marrw15 CSprbslv injselfr ///
   >   BSIanx illw3  medcow1 sepaw2 inc2w1 inc2w3 inc4w3 WHPpain ///
   >   crhtw1 crhtw2 crhtw3  icdx1nr12  icdx1nr12 icdx4nr5 icdx4nr12 icdx5nr4 ///
   >     icdx5nr5 icdx6nr5 icdx6nr6 icdx6nr12 ///
   >   icdx6nr15 icdx7nr10 icdx7nr19 icdx7nr26 ///
   >   if gender==2, vce(cluster id)
note: icdx1nr12 omitted because of collinearity
note: icdx6nr15 omitted because of collinearity

Linear regression                               Number of obs =     360
                                                F( 20,   359) =       .
                                                Prob > F      =       .
                                                R-squared     =  0.6941
                                                Root MSE      =   12.35
```

(Std. Err. adjusted for **360** clusters in id)

WHPpa	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
age	.342642	.0586434	5.84	0.000	.2273142	.4579697
marrw14	20.0629	17.61741	1.14	0.256	-14.58339	54.7092
marrw15	6.572265	10.32968	0.64	0.525	-13.74203	26.88656
CSprbslv	-.2490141	.1556114	-1.60	0.110	-.5550386	.0570105
injselfr	3.927676	1.402029	2.80	0.005	1.170455	6.684897
BSIanx	-.5985432	.2248685	-2.66	0.008	-1.040768	-.1563182
illw3	1.64225	.7453057	2.20	0.028	.1765363	3.107964
medcow1	.6925395	.2106715	3.29	0.001	.2782343	1.106845
sepaw2	-9.833499	2.856635	-3.44	0.001	-15.45134	-4.215658
inc2w1	-1.478954	1.50891	-0.98	0.328	-4.446368	1.488459
inc2w3	-2.827452	1.413466	-2.00	0.046	-5.607166	-.0477392
inc4w3	-8.222078	3.466326	-2.37	0.018	-15.03893	-1.405222
WHPpain	.5732947	.0405816	14.13	0.000	.4934872	.6531023
crhtw1	1.179102	1.153757	1.02	0.307	-1.089869	3.448074
crhtw2	2.46974	2.156825	1.15	0.253	-1.771859	6.711339
crhtw3	-3.161378	1.911385	-1.65	0.099	-6.920295	.5975404
icdx1nr12	6.717806	6.058974	1.11	0.268	-5.197735	18.63335
icdx1nr12	0	(omitted)				
icdx4nr5	-.6352011	5.472252	-0.12	0.908	-11.3969	10.1265
icdx4nr12	.7603838	3.107902	0.24	0.807	-5.351597	6.872364
icdx5nr4	29.49139	3.320407	8.88	0.000	22.9615	36.02128
icdx5nr5	5.528182	11.70114	0.47	0.637	-17.4832	28.53956
icdx6nr5	9.906	2.129735	4.65	0.000	5.717677	14.09432
icdx6nr6	-18.4459	4.310556	-4.28	0.000	-26.92301	-9.968787
icdx6nr12	14.59511	5.834292	2.50	0.013	3.121424	26.06879
icdx6nr15	0	(omitted)				
icdx7nr10	14.50939	10.50235	1.38	0.168	-6.144459	35.16325
icdx7nr19	43.74917	12.49369	3.50	0.001	19.17915	68.3192
icdx7nr26	14.34909	12.02749	1.19	0.234	-9.304108	38.00228
_cons	-1.96652	4.347224	-0.45	0.651	-10.51574	6.582704

```
79 .
80 . // Trimmed female Physical ability model with candidate illnesses
81 . des  WHPpa age marrw14 marrw15 CSprbslv injselfr ///
   >                 BSIanx illw3  medcow1 sepaw2 inc2w1 inc2w3 inc4w3 WHPpain //
   > /
   >                 crhtw1 crhtw2 crhtw3    icdx5nr4 ///
   >         icdx6nr5 icdx6nr6 icdx6nr12 ///
   >                 icdx7nr19

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
WHPpa           double %9.0g                  Wtd Health Profile Physical
                                                Ability Pt 1 Subscale
age             double %8.0g                * Respondent's age
marrw14         byte   %8.0g                  marrw1==4. separated
marrw15         byte   %8.0g                  marrw1==5. divorced
CSprbslv        double %9.0g                  Coping Problem Solving Subscale
injselfr        double %9.0g       dum        Were u injured because of
                                                Chornobyl acc in 1986?
BSIanx          double %9.0g                  Basic symptom inventory Anxiety
                                                subscale
illw3           double %8.0g                  Total number of illnesses
                                                experienced in time period
                                                1996-NOW
medcow1         double %8.0g                  number of medical visits for a
                                                medical condition per year
                                                1976-1986
sepaw2          double %8.0g                  Total number of separations
                                                experienced in time period
                                                1987-1996
inc2w1          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1986
inc2w3          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities NOW
inc4w3          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items NOW
WHPpain         double %9.0g                  Wtd Health Profile Pain Pt 1
                                                subscale
crhtw1          float  %9.0g                  Chornobyl related health threat:
                                                wave 1 alpha =
                                                .7962935573200089
crhtw2          float  %9.0g                  Chornobyl related health threat:
                                                wave 2 alpha =
                                                .8219889682935094
crhtw3          float  %9.0g                  Chornobyl related health threat:
                                                wave 3 alpha =
                                                .8347477221944793
icdx5nr4        double %8.0g                  icdx5nr==rheum fev w/o hrt
```

```
                                                  involv
icdx6nr5        double %8.0g                  icdx6nr==hypertension
icdx6nr6        double %8.0g                  icdx6nr==acute myocardial
                                                infarct
icdx6nr12       double %8.0g                  icdx6nr==575.1 cholecystitis
icdx7nr19       double %8.0g                  icdx7nr==oth gallbladder disordr

82 .
83 .
84 . * Graph preparation
85 .
86 . cap drop H8FemPApred

87 . cap drop h8FPAsepred

88 . cap drop FrPAres

89 . cap drop upbF

90 . cap drop lpbF

91 .
92 .
93 . regress WHPpa age marrw14 marrw15 CSprbslv injselfr ///
  >         BSIanx illw3  medcow1 sepaw2 inc2w1 inc2w3 inc4w3 WHPpain ///
  >         crhtw1 crhtw2 crhtw3    icdx5nr4 ///
  >     icdx6nr5 icdx6nr6 icdx6nr12 ///
  >         icdx7nr19 if gender==2, vce(cluster id)

Linear regression                               Number of obs =     360
                                                F( 17,   359) =       .
                                                Prob > F      =       .
                                                R-squared     =  0.6892
                                                Root MSE      =  12.339

                                   (Std. Err. adjusted for 360 clusters in id)
------------------------------------------------------------------------------
             |               Robust
       WHPpa |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .3482028    .059034     5.90   0.000     .2321069    .4642986
     marrw14 |   19.62981   17.55158     1.12   0.264    -14.88702    54.14664
     marrw15 |   7.810871   9.178617     0.85   0.395    -10.23974    25.86148
    CSprbslv |  -.2572574   .1528363    -1.68   0.093    -.5578243    .0433096
    injselfr |   3.826369   1.403084     2.73   0.007     1.067073    6.585665
      BSIanx |  -.6087282   .2229695    -2.73   0.007    -1.047219   -.1702377
       illw3 |   1.756534   .7445011     2.36   0.019     .2924022    3.220665
     medcow1 |   .6841996   .2016887     3.39   0.001     .2875597    1.080839
      sepaw2 |  -9.869247   2.905035    -3.40   0.001    -15.58227   -4.156222
```

inc2w1	-1.056651	1.497261	-0.71	0.481	-4.001156	1.887854
inc2w3	-3.014879	1.407928	-2.14	0.033	-5.783703	-.246056
inc4w3	-8.317145	3.472502	-2.40	0.017	-15.14615	-1.488143
WHPpain	.5860507	.0407996	14.36	0.000	.5058145	.6662869
crhtw1	1.085233	1.211396	0.90	0.371	-1.29709	3.467557
crhtw2	2.663147	2.260917	1.18	0.240	-1.783158	7.109451
crhtw3	-3.222642	1.933385	-1.67	0.096	-7.024826	.5795418
icdx5nr4	28.21617	3.251006	8.68	0.000	21.82276	34.60957
icdx6nr5	16.23052	6.727014	2.41	0.016	3.001214	29.45982
icdx6nr6	-19.87407	4.324977	-4.60	0.000	-28.37955	-11.3686
icdx6nr12	13.41546	5.62233	2.39	0.018	2.358615	24.4723
icdx7nr19	49.72662	4.86081	10.23	0.000	40.16738	59.28586
_cons	-2.032377	4.308756	-0.47	0.637	-10.50595	6.441197

```
 94 .  di e(r2_a)
.66987567

 95 .     predict H8FemPApred if gender==2, xb
(342 missing values generated)

 96 .      predict h8FPAsepred if gender==2, stdp
(346 missing values generated)

 97 .      predict FrPAres if gender==2, residual
(342 missing values generated)

 98 .      gen upbF = H8FemPApred + 1.96*h8FPAsepred
(346 missing values generated)

 99 .      gen lpbF = H8FemPApred - 1.96*h8FPAsepred
(346 missing values generated)

100 .
101 . scatter H8FemPApred FrPAres || lowess H8FemPApred  FrPAres  ///
    >   || lowess upbF FrPAres || lowess lpbF FrPAres, ///
    >   title(Prediction interval of Female Physical Ability model)   ///
    >   ytitle(Predicted Female Physical Ability)
```

```
102 .
103 . gr save FPAPredInt.gph, replace
    (file FPAPredInt.gph saved)

104 . gr export FPAPredInt.eps, replace
    (file FPAPredInt.eps written in EPS format)

105 . gr use  FPAPredInt.gph

106 .
107 . // no significant perceived risk => physical ability main effects
108 .
109 .
110 .  title "Female physical ability indirect effects test"


    ********************************************************************************
    > *
    ********************************************************************************
    > *
    *****                                                                      ****
    > *
    *****                                                                      ****
    > *
    *****           Female physical ability indirect effects test              ****
    > *
    *****                                                                      ****
    > *
    *****                                                                      ****
    > *
    *****                                          13 Jul 2012    12:43:07   ****
    > *
    ********************************************************************************
    > *
    ********************************************************************************
    > *
```

```
111 . set more off

112 .  foreach var in age BSIsoma BSIdep deaw1 physdisagw2 ///
    >    illw3 BSIanx medcow1 WHPpain  ///
    >     icdx3nr3 ///
    >     icdx4nr9 icdx4nr12 icdx5nr7 icdx5nr10 icdx6nr7 icdx7nr1 {
      2. sem (crhtw1-> `var')(`var'-> whppa) if gender==2, nocapslatent iterate(50
    > )
      3. sem (crhtw2-> `var')(`var'-> whppa) if gender==2, nocapslatent iterate(50
    > )
      4. sem (crhtw3-> `var')(`var'-> whppa) if gender==2, nocapslatent iterate(50
    > )
      5. }
    (1 observations with missing values excluded;
     specify option 'method(mlmv)' to use all observations)

    Endogenous variables

    Observed:  age whppa

    Exogenous variables

    Observed:  crhtw1

    Fitting target model:

    Iteration 0:   log likelihood = -3457.9701
    Iteration 1:   log likelihood = -3457.9701

    Structural equation model                       Number of obs      =       362
    Estimation method  = ml
    Log likelihood     = -3457.9701
```

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
age <-					
crhtw1	**3.218873**	**.6364183**	**5.06**	**0.000**	**1.971516** **4.46623**
_cons	**49.84232**	**.6063362**	**82.20**	**0.000**	**48.65393** **51.03072**
whppa <-					
age	**.9102984**	**.082299**	**11.06**	**0.000**	**.7489954** **1.071601**
_cons	**-27.24484**	**4.250053**	**-6.41**	**0.000**	**-35.57479** **-18.91489**
Variance					
e.age	**130.49**	**9.699243**			**112.7997** **150.9546**
e.whppa	**342.5539**	**25.46183**			**296.1145** **396.2765**

LR test of model vs. saturated: chi2(1) = **2.57**, Prob > chi2 = **0.1088**

Endogenous variables

Observed: **age whppa**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3435.4369**
Iteration 1: log likelihood = **-3435.4369**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3435.4369**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
age <-						
crhtw2	**3.897443**	**.6851925**	**5.69**	**0.000**	**2.554491**	**5.240396**
_cons	**49.54513**	**.6075589**	**81.55**	**0.000**	**48.35434**	**50.73593**
whppa <-						
age	**.9103239**	**.0818546**	**11.12**	**0.000**	**.7498917**	**1.070756**
_cons	**-27.24629**	**4.223246**	**-6.45**	**0.000**	**-35.5237**	**-18.96888**
Variance						
e.age	**128.9608**	**9.57237**			**111.5002**	**149.1557**
e.whppa	**341.6103**	**25.35669**			**295.3581**	**395.1055**

LR test of model vs. saturated: chi2(1) = **10.05**, Prob > chi2 = **0.0015**

Endogenous variables

Observed: **age whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

```
Iteration 0:   log likelihood =  -3445.014
Iteration 1:   log likelihood =  -3445.014

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     =  -3445.014
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
age <-						
crhtw3	3.646918	.6723377	5.42	0.000	2.32916	4.964675
_cons	49.58731	.6093473	81.38	0.000	48.39301	50.78161
whppa <-						
age	.9103239	.0818546	11.12	0.000	.7498917	1.070756
_cons	-27.24629	4.223246	-6.45	0.000	-35.5237	-18.96888
Variance						
e.age	129.9244	9.643895			112.3333	150.2702
e.whppa	341.6103	25.35669			295.3581	395.1055

```
LR test of model vs. saturated: chi2(1)   =     11.41, Prob > chi2 = 0.0007
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  BSIsoma whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -3198.3058
Iteration 1:   log likelihood = -3198.3058

Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     = -3198.3058
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIsoma <-						
crhtw1	**.8048852**	**.3153465**	**2.55**	**0.011**	**.1868174**	**1.422953**
_cons	**13.62769**	**.3004408**	**45.36**	**0.000**	**13.03883**	**14.21654**
whppa <-						
BSIsoma	**1.96533**	**.1677785**	**11.71**	**0.000**	**1.63649**	**2.294169**
_cons	**-8.476903**	**2.495671**	**-3.40**	**0.001**	**-13.36833**	**-3.585478**
Variance						
e.BSIsoma	**32.03819**	**2.38138**			**27.69482**	**37.06272**
e.whppa	**332.3496**	**24.70335**			**287.2935**	**384.4717**

LR test of model vs. saturated: chi2(**1**) = **8.65**, Prob > chi2 = **0.0033**

Endogenous variables

Observed: **BSIsoma whppa**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3163.6622**
Iteration 1: log likelihood = **-3163.6622**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3163.6622**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIsoma <-						
crhtw2	**1.964404**	**.328986**	**5.97**	**0.000**	**1.319604**	**2.609205**
_cons	**13.37869**	**.2917112**	**45.86**	**0.000**	**12.80694**	**13.95043**
whppa <-						
BSIsoma	**1.968322**	**.1672464**	**11.77**	**0.000**	**1.640525**	**2.296119**
_cons	**-8.532494**	**2.485088**	**-3.43**	**0.001**	**-13.40318**	**-3.661811**

Variance						
e.BSIsoma	**29.72948**	**2.206729**			**25.70427**	**34.38503**
e.whppa	**331.5103**	**24.607**			**286.6256**	**383.4239**

LR test of model vs. saturated: chi2(**1**) = **8.54**, Prob > chi2 = **0.0035**

Endogenous variables

Observed: **BSIsoma whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3169.2668**
Iteration 1: log likelihood = **-3169.2668**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3169.2668**

	OIM					
	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIsoma <-						
crhtw3	**2.055796**	**.3193004**	**6.44**	**0.000**	**1.429978**	**2.681613**
_cons	**13.36249**	**.2893856**	**46.18**	**0.000**	**12.79531**	**13.92968**
whppa <-						
BSIsoma	**1.968322**	**.1672464**	**11.77**	**0.000**	**1.640525**	**2.296119**
_cons	**-8.532494**	**2.485088**	**-3.43**	**0.001**	**-13.40318**	**-3.661811**
Variance						
e.BSIsoma	**29.30318**	**2.175086**			**25.33569**	**33.89198**
e.whppa	**331.5103**	**24.607**			**286.6256**	**383.4239**

LR test of model vs. saturated: chi2(**1**) = **7.58**, Prob > chi2 = **0.0059**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **BSIdep whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3083.9248**
Iteration 1: log likelihood = **-3083.9248**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-3083.9248**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIdep <-						
crhtw1	**.3880135**	**.2084177**	**1.86**	**0.063**	**-.0204776**	**.7965047**
_cons	**9.614106**	**.1985662**	**48.42**	**0.000**	**9.224923**	**10.00329**
whppa <-						
BSIdep	**1.952909**	**.2812052**	**6.94**	**0.000**	**1.401757**	**2.504061**
_cons	**-.3597985**	**2.916346**	**-0.12**	**0.902**	**-6.075732**	**5.356135**
Variance						
e.BSIdep	**13.99461**	**1.040211**			**12.09739**	**16.18938**
e.whppa	**404.4403**	**30.06181**			**349.611**	**467.8684**

LR test of model vs. saturated: chi2(**1**) = **11.60**, Prob > chi2 = **0.0007**

Endogenous variables

Observed: **BSIdep whppa**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3049.2186**
Iteration 1: log likelihood = **-3049.2186**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3049.2186**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIdep <-						
crhtw2	**1.222397**	**.2175138**	**5.62**	**0.000**	**.7960774**	**1.648716**
_cons	**9.445589**	**.192869**	**48.97**	**0.000**	**9.067572**	**9.823605**
whppa <-						
BSIdep	**1.961005**	**.2805733**	**6.99**	**0.000**	**1.411092**	**2.510919**
_cons	**-.4692658**	**2.907125**	**-0.16**	**0.872**	**-6.167126**	**5.228595**
Variance						
e.BSIdep	**12.99589**	**.9646457**			**11.23632**	**15.03101**
e.whppa	**403.6796**	**29.96391**			**349.0235**	**466.8947**

LR test of model vs. saturated: chi2(**1**) = **15.40**, Prob > chi2 = **0.0001**

Endogenous variables

Observed: **BSIdep whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3052.7098**
Iteration 1: log likelihood = **-3052.7098**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3052.7098**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIdep <-						
crhtw3	**1.360398**	**.2098845**	**6.48**	**0.000**	**.9490322**	**1.771764**
_cons	**9.421549**	**.1902207**	**49.53**	**0.000**	**9.048723**	**9.794375**
whppa <-						
BSIdep	**1.961005**	**.2805733**	**6.99**	**0.000**	**1.411092**	**2.510919**
_cons	**-.4692658**	**2.907125**	**-0.16**	**0.872**	**-6.167126**	**5.228595**

Variance					
e.BSIdep	**12.66125**	**.9398062**		**10.94698**	**14.64397**
e.whppa	**403.6796**	**29.96391**		**349.0235**	**466.8947**

LR test of model vs. saturated: chi2(**1**) = **14.05**, Prob > chi2 = **0.0002**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **deaw1 whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-2545.5755**
Iteration 1: log likelihood = **-2545.5755**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-2545.5755**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
deaw1 <-					
crhtw1	**.1533406**	**.0446205**	**3.44**	**0.001**	**.065886** **.2407951**
_cons	**.2779346**	**.0425114**	**6.54**	**0.000**	**.1946139** **.3612554**
whppa <-					
deaw1	**3.38289**	**1.37107**	**2.47**	**0.014**	**.6956415** **6.070138**
_cons	**17.50726**	**1.188474**	**14.73**	**0.000**	**15.17789** **19.83663**
Variance					
e.deaw1	**.6414464**	**.0476783**			**.5544866** **.7420441**
e.whppa	**450.7446**	**33.50358**			**389.6379** **521.4346**

LR test of model vs. saturated: chi2(**1**) = **12.05**, Prob > chi2 = **0.0005**

Endogenous variables

Observed: **deaw1 whppa**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-2520.164**
Iteration 1: log likelihood = **-2520.164**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-2520.164**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
deaw1 <-						
crhtw2	**.1967562**	**.0479479**	**4.10**	**0.000**	**.10278**	**.2907324**
_cons	**.2637098**	**.0425153**	**6.20**	**0.000**	**.1803812**	**.3470383**
whppa <-						
deaw1	**3.404605**	**1.370208**	**2.48**	**0.013**	**.7190463**	**6.090163**
_cons	**17.45257**	**1.18609**	**14.71**	**0.000**	**15.12788**	**19.77726**
Variance						
e.deaw1	**.6314985**	**.0468742**			**.5459969**	**.7303893**
e.whppa	**450.3446**	**33.42771**			**389.3703**	**520.8672**

LR test of model vs. saturated: chi2(**1**) = **25.76**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **deaw1 whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-2529.0621**
Iteration 1: log likelihood = **-2529.0621**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-2529.0621**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
deaw1 <-						
crhtw3	**.1844962**	**.0469605**	**3.93**	**0.000**	**.0924554**	**.276537**
_cons	**.2657724**	**.0425608**	**6.24**	**0.000**	**.1823548**	**.34919**
whppa <-						
deaw1	**3.404605**	**1.370208**	**2.48**	**0.013**	**.7190463**	**6.090163**
_cons	**17.45257**	**1.18609**	**14.71**	**0.000**	**15.12788**	**19.77726**
Variance						
e.deaw1	**.6338412**	**.0470481**			**.5480224**	**.7330989**
e.whppa	**450.3446**	**33.42771**			**389.3703**	**520.8672**

LR test of model vs. saturated: chi2(**1**) = **26.57**, Prob > chi2 = **0.0000**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **physdisagw2 whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3570.7114**
Iteration 1: log likelihood = **-3570.7114**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-3570.7114**

```
──────────────────────┬────────────────────────────────────────────────────────────
> ─────
                      │                 OIM
                      │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
──────────────────────┼────────────────────────────────────────────────────────────
> ─────
Structural            │
  physdisagw2 <-      │
          crhtw1      │   .1794615    .757552     0.24   0.813    -1.305313    1.66
> 4236
           _cons      │   8.429154   .7217442    11.68   0.000     7.014562    9.84
> 3747
  ────────────────────┼────────────────────────────────────────────────────────────
> ─────
  whppa <-            │
     physdisagw2      │   .2028482    .082055     2.47   0.013     .0420233     .36
> 3673
           _cons      │   16.80184   1.313839    12.79   0.000     14.22676    19.3
> 7691
──────────────────────┼────────────────────────────────────────────────────────────
> ─────
Variance              │
   e.physdisagw2      │   184.8914   13.74287                       159.826    213.
> 8878
         e.whppa      │   450.7157   33.50144                       389.613    521.
> 4012
──────────────────────┴────────────────────────────────────────────────────────────
> ─────
LR test of model vs. saturated: chi2(1)   =     14.70, Prob > chi2 = 0.0001

Endogenous variables

Observed:  physdisagw2 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -3549.6989
Iteration 1:   log likelihood = -3549.6989

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -3549.6989
```

```
─────────────────┬──────────────────────────────────────────────────────────────
> ────
                 │                 OIM
                 │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
─────────────────┼──────────────────────────────────────────────────────────────
> ────
Structural       │
  physdisagw2 <- │
          crhtw2 │   1.136389    .817627     1.39   0.165    -.4661308    2.73
> 8908
           _cons │   8.234473   .7249883    11.36   0.000     6.813522    9.65
> 5424
  ───────────────┼──────────────────────────────────────────────────────────────
> ────
  whppa <-       │
     physdisagw2 │   .2049617   .0819689     2.50   0.012     .0443057    .365
> 6178
           _cons │   16.73773    1.31065    12.77   0.000     14.16891    19.3
> 0656
─────────────────┼──────────────────────────────────────────────────────────────
> ────
Variance         │
   e.physdisagw2 │   183.6297   13.63028                      158.7673    212.
> 3856
         e.whppa │   450.2488    33.4206                      389.2875    520.
> 7565
─────────────────┴──────────────────────────────────────────────────────────────
> ────
LR test of model vs. saturated: chi2(1)   =     28.45, Prob > chi2 = 0.0000

Endogenous variables

Observed:  physdisagw2 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -3557.6034
Iteration 1:   log likelihood = -3557.6034

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -3557.6034
```

```
------------------------------------------------------------------------------
> ------
                    |                 OIM
                    |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
--------------------+---------------------------------------------------------
> ------
Structural          |
  physdisagw2 <-    |
          crhtw3    |   1.282413   .7985994     1.61   0.108    -.2828131    2.84
> 7639
           _cons    |   8.209073   .7237797    11.34   0.000     6.790491    9.62
> 7656
--------------------+---------------------------------------------------------
> ------
  whppa <-          |
     physdisagw2    |   .2049617   .0819689     2.50   0.012     .0443057    .365
> 6178
           _cons    |   16.73773    1.31065    12.77   0.000     14.16891    19.3
> 0656
--------------------+---------------------------------------------------------
> ------
Variance            |
   e.physdisagw2    |   183.3048   13.60616                      158.4863    212.
> 0098
         e.whppa    |   450.2488    33.4206                      389.2875    520.
> 7565
------------------------------------------------------------------------------
> ------
LR test of model vs. saturated: chi2(1)   =     28.87, Prob > chi2 = 0.0000
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  illw3 whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -2651.8571
Iteration 1:   log likelihood = -2651.8571
```

```
Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     = -2651.8571
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
illw3 <-						
crhtw1	**-.3790981**	**.0616884**	**-6.15**	**0.000**	**-.500005**	**-.2581911**
_cons	**.7631609**	**.0587725**	**12.99**	**0.000**	**.6479689**	**.8783529**
whppa <-						
illw3	**5.017812**	**.9303606**	**5.39**	**0.000**	**3.194339**	**6.841286**
_cons	**14.94029**	**1.269483**	**11.77**	**0.000**	**12.45215**	**17.42843**
Variance						
e.illw3	**1.226022**	**.0911295**			**1.059813**	**1.418299**
e.whppa	**424.235**	**31.53314**			**366.7221**	**490.7675**

```
LR test of model vs. saturated: chi2(1)   =     36.42, Prob > chi2 = 0.0000

Endogenous variables

Observed:  illw3 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -2646.0783
Iteration 1:   log likelihood = -2646.0783

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -2646.0783
```

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
illw3 <-						
crhtw2	**.1047588**	**.0699308**	**1.50**	**0.134**	**-.032303**	**.2418206**
_cons	**.6927419**	**.0620075**	**11.17**	**0.000**	**.5712095**	**.8142743**
whppa <-						
illw3	**5.039456**	**.9292706**	**5.42**	**0.000**	**3.218119**	**6.860792**
_cons	**14.88375**	**1.266248**	**11.75**	**0.000**	**12.40195**	**17.36555**
Variance						
e.illw3	**1.343288**	**.0997082**			**1.161414**	**1.553643**
e.whppa	**423.6788**	**31.44839**			**366.315**	**490.0257**

LR test of model vs. saturated: chi2(**1**) = **27.61**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **illw3 whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-2648.7298**
Iteration 1: log likelihood = **-2648.7298**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-2648.7298**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
illw3 <-						
crhtw3	**.2486013**	**.067322**	**3.69**	**0.000**	**.1166525**	**.3805501**
_cons	**.6679643**	**.0610147**	**10.95**	**0.000**	**.5483776**	**.787551**
whppa <-						
illw3	**5.039456**	**.9292706**	**5.42**	**0.000**	**3.218119**	**6.860792**
_cons	**14.88375**	**1.266248**	**11.75**	**0.000**	**12.40195**	**17.36555**

Variance					
e.illw3	**1.302658**	**.0966923**		**1.126285**	**1.50665**
e.whppa	**423.6788**	**31.44839**		**366.315**	**490.0257**

LR test of model vs. saturated: chi2(**1**) = **22.61**, Prob > chi2 = **0.0000**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **BSIanx whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3081.1411**
Iteration 1: log likelihood = **-3081.1411**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-3081.1411**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
BSIanx <-					
crhtw1	**-.4122699**	**.2021768**	**-2.04**	**0.041**	**-.8085292**	**-.0160107**
_cons	**9.043819**	**.1926204**	**46.95**	**0.000**	**8.66629**	**9.421348**
whppa <-					
BSIanx	**1.623054**	**.2962642**	**5.48**	**0.000**	**1.042387**	**2.203721**
_cons	**3.926965**	**2.874244**	**1.37**	**0.172**	**-1.70645**	**9.56038**
Variance					
e.BSIanx	**13.16905**	**.9788479**			**11.38375**	**15.23435**
e.whppa	**423.2349**	**31.4588**			**365.8577**	**489.6106**

LR test of model vs. saturated: chi2(**1**) = **21.39**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **BSIanx whppa**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3054.9919**
Iteration 1: log likelihood = **-3054.9919**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3054.9919**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIanx <-						
crhtw2	**.8193537**	**.2160312**	**3.79**	**0.000**	**.3959404**	**1.242767**
_cons	**8.837162**	**.1915544**	**46.13**	**0.000**	**8.461723**	**9.212602**
whppa <-						
BSIanx	**1.632956**	**.2955091**	**5.53**	**0.000**	**1.053769**	**2.212143**
_cons	**3.804892**	**2.864018**	**1.33**	**0.184**	**-1.808479**	**9.418263**
Variance						
e.BSIanx	**12.81933**	**.9515401**			**11.08366**	**14.8268**
e.whppa	**422.4661**	**31.35837**			**365.2664**	**488.623**

LR test of model vs. saturated: chi2(**1**) = **21.64**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **BSIanx whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3059.1876**
Iteration 1: log likelihood = **-3059.1876**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3059.1876**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
BSIanx <-						
crhtw3	**.9985733**	**.2088589**	**4.78**	**0.000**	**.5892175**	**1.407929**
_cons	**8.806126**	**.1892912**	**46.52**	**0.000**	**8.435122**	**9.17713**
whppa <-						
BSIanx	**1.632956**	**.2955091**	**5.53**	**0.000**	**1.053769**	**2.212143**
_cons	**3.804892**	**2.864018**	**1.33**	**0.184**	**-1.808479**	**9.418263**
Variance						
e.BSIanx	**12.53781**	**.9306433**			**10.84025**	**14.50119**
e.whppa	**422.4661**	**31.35837**			**365.2664**	**488.623**

LR test of model vs. saturated: chi2(**1**) = **20.12**, Prob > chi2 = **0.0000**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **medcow1 whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3111.0569**
Iteration 1: log likelihood = **-3111.0569**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-3111.0569**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
medcow1 <-					
crhtw1	**1.302134**	**.2209042**	**5.89**	**0.000**	**.8691698** **1.735098**
_cons	**2.484159**	**.2104626**	**11.80**	**0.000**	**2.07166** **2.896658**
whppa <-					
medcow1	**1.5254**	**.2589418**	**5.89**	**0.000**	**1.017883** **2.032916**
_cons	**14.46283**	**1.276266**	**11.33**	**0.000**	**11.9614** **16.96427**
Variance					
e.medcow1	**15.72171**	**1.168586**			**13.59035** **18.18734**
e.whppa	**418.2315**	**31.0869**			**361.5326** **483.8225**

LR test of model vs. saturated: chi2(**1**) = **5.48**, Prob > chi2 = **0.0192**

Endogenous variables

Observed: **medcow1 whppa**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3096.5341**
Iteration 1: log likelihood = **-3096.5341**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3096.5341**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
medcow1 <-					
crhtw2	**1.156964**	**.2432171**	**4.76**	**0.000**	**.6802673** **1.633661**
_cons	**2.473362**	**.2156601**	**11.47**	**0.000**	**2.050676** **2.896048**
whppa <-					
medcow1	**1.502726**	**.2585977**	**5.81**	**0.000**	**.995884** **2.009568**
_cons	**14.44996**	**1.277436**	**11.31**	**0.000**	**11.94623** **16.95369**

Variance					
e.medcow1	**16.24878**	**1.206098**		**14.04878**	**18.79329**
e.whppa	**419.024**	**31.10288**		**362.2903**	**484.6419**

LR test of model vs. saturated: chi2(**1**) = **19.14**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **medcow1 whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3108.1622**
Iteration 1: log likelihood = **-3108.1622**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3108.1622**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
medcow1 <-						
crhtw3	**.9439075**	**.2400064**	**3.93**	**0.000**	**.4735037**	**1.414311**
_cons	**2.509748**	**.2175205**	**11.54**	**0.000**	**2.083416**	**2.93608**
whppa <-						
medcow1	**1.502726**	**.2585977**	**5.81**	**0.000**	**.995884**	**2.009568**
_cons	**14.44996**	**1.277436**	**11.31**	**0.000**	**11.94623**	**16.95369**
Variance						
e.medcow1	**16.55622**	**1.228918**			**14.3146**	**19.14888**
e.whppa	**419.024**	**31.10288**			**362.2903**	**484.6419**

LR test of model vs. saturated: chi2(**1**) = **21.60**, Prob > chi2 = **0.0000**
(1 observations with missing values excluded;
specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed: **WHPpain whppa**

Exogenous variables

Observed: **crhtw1**

Fitting target model:

Iteration 0: log likelihood = **-3610.1709**
Iteration 1: log likelihood = **-3610.1709**

Structural equation model Number of obs = **362**
Estimation method = **ml**
Log likelihood = **-3610.1709**

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural						
WHPpain <-						
crhtw1	**1.729479**	**1.239418**	**1.40**	**0.163**	**-.6997351**	**4.158694**
_cons	**17.83115**	**1.180833**	**15.10**	**0.000**	**15.51676**	**20.14554**
whppa <-						
WHPpain	**.7073063**	**.034096**	**20.74**	**0.000**	**.6404794**	**.7741332**
_cons	**5.741629**	**.9786106**	**5.87**	**0.000**	**3.823588**	**7.659671**
Variance						
e.WHPpain	**494.9113**	**36.78647**			**427.817**	**572.5279**
e.whppa	**209.3976**	**15.5644**			**181.0099**	**242.2373**

LR test of model vs. saturated: chi2(**1**) = **17.27**, Prob > chi2 = **0.0000**

Endogenous variables

Observed: **WHPpain whppa**

Exogenous variables

Observed: **crhtw2**

Fitting target model:

Iteration 0: log likelihood = **-3581.7982**
Iteration 1: log likelihood = **-3581.7982**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3581.7982**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
WHPpain <-					
crhtw2	**5.721746**	**1.311307**	**4.36**	**0.000**	**3.151631** **8.291861**
_cons	**17.02834**	**1.162733**	**14.65**	**0.000**	**14.74942** **19.30725**
whppa <-					
WHPpain	**.7078794**	**.0340256**	**20.80**	**0.000**	**.6411904** **.7745684**
_cons	**5.71549**	**.9752457**	**5.86**	**0.000**	**3.804043** **7.626936**
Variance					
e.WHPpain	**472.3255**	**35.05929**			**408.3752** **546.2904**
e.whppa	**208.9112**	**15.50684**			**180.6257** **241.6261**

LR test of model vs. saturated: chi2(**1**) = **11.51**, Prob > chi2 = **0.0007**

Endogenous variables

Observed: **WHPpain whppa**

Exogenous variables

Observed: **crhtw3**

Fitting target model:

Iteration 0: log likelihood = **-3586.8894**
Iteration 1: log likelihood = **-3586.8894**

Structural equation model Number of obs = **363**
Estimation method = **ml**
Log likelihood = **-3586.8894**

	OIM				
	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]
Structural					
WHPpain <-					
crhtw3	**6.442221**	**1.270903**	**5.07**	**0.000**	**3.951297** **8.933145**
_cons	**16.90299**	**1.151834**	**14.67**	**0.000**	**14.64544** **19.16054**
whppa <-					
WHPpain	**.7078794**	**.0340256**	**20.80**	**0.000**	**.6411904** **.7745684**
_cons	**5.71549**	**.9752457**	**5.86**	**0.000**	**3.804043** **7.626936**

```
Variance |
   e.WHPpain |   464.2378   34.45896                      401.3825    536.9361
     e.whppa |   208.9112   15.50684                      180.6257    241.6261
-------------+------------------------------------------------------------------

LR test of model vs. saturated: chi2(1)   =      7.69, Prob > chi2 = 0.0055
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  icdx3nr3 whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -1758.9097
Iteration 1:   log likelihood = -1758.9097

Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     = -1758.9097

-------------+------------------------------------------------------------------
> ─
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+------------------------------------------------------------------
> ─
Structural   |
  icdx3nr3 <-|
       crhtw1|   .0045417   .0050451     0.90   0.368    -.0053464    .014429
> 9
       _cons |   .0076828   .0048066     1.60   0.110    -.0017379    .017103
> 6
  -----------+------------------------------------------------------------------
> ─
  whppa <-   |
     icdx3nr3|   13.62977   12.39106     1.10   0.271    -10.65627     37.915
> 8
       _cons |   18.40357   1.128015    16.32   0.000      16.1927    20.6144
> 3
-------------+------------------------------------------------------------------
> ─
Variance     |
   e.icdx3nr3|   .0082003   .0006095                      .0070886    .009486
```

```
> 3
      e.whppa |   456.7979   33.95352                      394.8706    528.437
> 3
--------------+-------------------------------------------------------------
> —
LR test of model vs. saturated: chi2(1)   =     14.36, Prob > chi2 = 0.0002

Endogenous variables

Observed:  icdx3nr3 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1733.8302
Iteration 1:   log likelihood = -1733.8302

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1733.8302

--------------+-------------------------------------------------------------
> —
              |                 OIM
              |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
--------------+-------------------------------------------------------------
> —
Structural    |
  icdx3nr3 <- |
       crhtw2 |   .0040269   .0054584     0.74   0.461    -.0066714    .014725
> 1
        _cons |   .0075725   .0048399     1.56   0.118    -.0019136    .017058
> 6
  ------------+-------------------------------------------------------------
> —
  whppa <-    |
     icdx3nr3 |   13.68089   12.38647     1.10   0.269    -10.59615    37.9579
> 2
        _cons |   18.35244   1.126043    16.30   0.000     16.14544    20.5594
> 5
--------------+-------------------------------------------------------------
> —
Variance      |
   e.icdx3nr3 |   .0081839   .0006075                      .0070758    .009465
> 5
```

```
      e.whppa |     456.47   33.88238                      394.6664    527.951
> 9
--------------+-------------------------------------------------------------
> —
LR test of model vs. saturated: chi2(1)   =     29.50, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx3nr3 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1742.1075
Iteration 1:   log likelihood = -1742.1075

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1742.1075

--------------+-------------------------------------------------------------
> —
              |                 OIM
              |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
--------------+-------------------------------------------------------------
> —
Structural    |
  icdx3nr3 <- |
       crhtw3 |   .0035461   .0053368     0.66   0.506    -.0069139    .014006
> 1
        _cons |   .0076543   .0048368     1.58   0.114    -.0018258    .017134
> 3
  ------------+-------------------------------------------------------------
> —
  whppa <-    |
     icdx3nr3 |   13.68089   12.38647     1.10   0.269    -10.59615    37.9579
> 2
        _cons |   18.35244   1.126043    16.30   0.000     16.14544    20.5594
> 5
--------------+-------------------------------------------------------------
> —
Variance      |
   e.icdx3nr3 |   .0081862   .0006076                      .0070778    .009468
> 1
      e.whppa |     456.47   33.88238                      394.6664    527.951
```

```
> 9
-------------+----------------------------------------------------------------
> —
LR test of model vs. saturated: chi2(1)   =     30.25, Prob > chi2 = 0.0000
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  icdx4nr9 whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -1686.6347
Iteration 1:   log likelihood = -1686.6347

Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     = -1686.6347

-------------+----------------------------------------------------------------
> —
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+----------------------------------------------------------------
> —
Structural   |
  icdx4nr9 <-|
       crhtw1|  -.0008901   .0041294    -0.22   0.829    -.0089836    .007203
> 3
       _cons |   .0056433   .0039342     1.43   0.151    -.0020675    .013354
> 2
  -----------+----------------------------------------------------------------
> —
  whppa <-   |
     icdx4nr9|   13.13606   15.16439     0.87   0.386    -16.58561    42.8577
> 2
       _cons |   18.44394    1.12716    16.36   0.000     16.23475    20.6531
> 4
-------------+----------------------------------------------------------------
> —
Variance     |
   e.icdx4nr9|   .0054936   .0004083                      .0047489    .006355
> 2
```

```
      e.whppa |   457.3766   33.99654                      395.3709    529.106
> 7
--------------+-------------------------------------------------------------
> —
LR test of model vs. saturated: chi2(1)   =     14.80, Prob > chi2 = 0.0001

Endogenous variables

Observed:  icdx4nr9 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1661.2089
Iteration 1:   log likelihood = -1661.2089

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1661.2089

--------------+-------------------------------------------------------------
> —
              |                 OIM
              |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
--------------+-------------------------------------------------------------
> —
Structural    |
  icdx4nr9 <- |
       crhtw2 |  -.0011924   .0044658    -0.27   0.789    -.0099453    .007560
> 5
        _cons |   .0057145   .0039599     1.44   0.149    -.0020466    .013475
> 7
  ------------+-------------------------------------------------------------
> —
  whppa <-    |
     icdx4nr9 |   13.18715   15.15888     0.87   0.384    -16.52371    42.8980
> 1
        _cons |   18.39285   1.125198    16.35   0.000     16.18751     20.598
> 2
--------------+-------------------------------------------------------------
> —
Variance      |
   e.icdx4nr9 |   .0054782   .0004066                      .0047365    .006336
> 1
      e.whppa |   457.0512   33.92552                      395.1689    528.624
```

```
> 1
-------------+----------------------------------------------------------------
> -
LR test of model vs. saturated: chi2(1)   =     30.06, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx4nr9 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1669.3034
Iteration 1:   log likelihood = -1669.3034  (backed up)

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1669.3034

-------------+----------------------------------------------------------------
> -
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+----------------------------------------------------------------
> -
Structural   |
  icdx4nr9 <-|
       crhtw3 |  -.0025237   .0043642    -0.58   0.563    -.0110774    .006029
> 9
        _cons |   .0059439   .0039553     1.50   0.133    -.0018084    .013696
> 2
  -----------+----------------------------------------------------------------
> -
  whppa <-   |
     icdx4nr9 |   13.18715   15.15888     0.87   0.384    -16.52371    42.8980
> 1
        _cons |   18.39285   1.125198    16.35   0.000     16.18751     20.598
> 2
-------------+----------------------------------------------------------------
> -
Variance     |
   e.icdx4nr9 |   .0054742   .0004063                      .0047331    .006331
> 5
      e.whppa |   457.0512   33.92552                      395.1689    528.624
> 1
```

```
> -
LR test of model vs. saturated: chi2(1)   =     30.96, Prob > chi2 = 0.0000
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  icdx4nr12 whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -1848.9789
Iteration 1:   log likelihood = -1848.9789

Structural equation model                        Number of obs      =       362
Estimation method  = ml
Log likelihood     = -1848.9789

------------------------------------------------------------------------------
> --
               |                 OIM
               |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
---------------+--------------------------------------------------------------
> --
Structural     |
  icdx4nr12 <- |
        crhtw1 |  -.0070144   .0064918    -1.08   0.280    -.0197381    .00570
> 93
         _cons |   .0147457    .006185     2.38   0.017     .0026234     .0268
> 68
  -------------+--------------------------------------------------------------
> --
  whppa <-     |
     icdx4nr12 |   18.27185   9.593044     1.90   0.057    -.5301669    37.073
> 88
         _cons |   18.26415   1.127424    16.20   0.000     16.05444    20.473
> 86
---------------+--------------------------------------------------------------
> --
Variance       |
   e.icdx4nr12 |   .0135776   .0010092                      .0117369     .0157
> 07
       e.whppa |   453.7771   33.72898                      392.2593    524.94
```

```
> 27
-------------+----------------------------------------------------------------
> ---
LR test of model vs. saturated: chi2(1)   =     15.76, Prob > chi2 = 0.0001

Endogenous variables

Observed:  icdx4nr12 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1824.3077
Iteration 1:   log likelihood = -1824.3077

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1824.3077

-------------+----------------------------------------------------------------
> ---
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+----------------------------------------------------------------
> ---
Structural   |
  icdx4nr12 <-
       crhtw2|   .0053593   .0070268     0.76   0.446    -.0084129    .01913
> 15
        _cons|   .0128532   .0062306     2.06   0.039     .0006414     .0250
> 65
-------------+----------------------------------------------------------------
> ---
  whppa <-   |
    icdx4nr12|   18.32287   9.589332     1.91   0.056    -.4718728    37.117
> 62
        _cons|   18.21313   1.125434    16.18   0.000     16.00732    20.418
> 94
-------------+----------------------------------------------------------------
> ---
Variance     |
   e.icdx4nr12|   .0135626   .0010067                     .0117263    .01568
> 65
      e.whppa|   453.4434   33.65772                     392.0496    524.45
> 13
```

```
> ——
LR test of model vs. saturated: chi2(1)   =     29.33, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx4nr12 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1832.1805
Iteration 1:   log likelihood = -1832.1805

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1832.1805

> ——
                |                 OIM
                |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
> ——
Structural      |
  icdx4nr12 <-  |
        crhtw3  |   .0077943   .0068626     1.14   0.256    -.0056562    .02124
> 49
          _cons |   .0124328   .0062197     2.00   0.046     .0002425    .02462
> 32
> ——
  whppa <-      |
     icdx4nr12  |   18.32287   9.589332     1.91   0.056    -.4718728    37.117
> 62
          _cons |   18.21313   1.125434    16.18   0.000     16.00732    20.418
> 94
> ——
Variance        |
   e.icdx4nr12  |   .0135363   .0010048                      .0117035     .0156
> 56
        e.whppa |   453.4434   33.65772                      392.0496    524.45
> 13
```

```
> --
LR test of model vs. saturated: chi2(1)   =     29.65, Prob > chi2 = 0.0000
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  icdx5nr7 whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -1561.6848
Iteration 1:   log likelihood = -1561.6848

Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     = -1561.6848

---------------------------------------------------------------------------------
> -
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+-------------------------------------------------------------------
> -
Structural   |
  icdx5nr7 <-|
      crhtw1 | -.0025381   .0029211    -0.87   0.385    -.0082634    .003187
> 1
       _cons |  .0031002    .002783     1.11   0.265    -.0023544    .008554
> 9
  -----------+-------------------------------------------------------------------
> -
  whppa <-   |
    icdx5nr7 |  3.483102   21.43737     0.16   0.871    -38.53337    45.4995
> 7
       _cons |   18.5069   1.126723    16.43   0.000     16.29856    20.7152
> 3
-------------+-------------------------------------------------------------------
> -
Variance     |
  e.icdx5nr7 |  .0027491   .0002043                      .0023764    .003180
> 2
     e.whppa |  458.2913   34.06452                      396.1615    530.164
> 8
```

```
> ─
LR test of model vs. saturated: chi2(1)   =     14.78, Prob > chi2 = 0.0001

Endogenous variables

Observed:  icdx5nr7 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1536.2465
Iteration 1:   log likelihood = -1536.2465

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1536.2465

> ─
              |                 OIM
              |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼──────────────────────────────────────────────────────────────
> ─
Structural    |
  icdx5nr7 <- |
       crhtw2 |   .0010798    .003162     0.34   0.733    -.0051176    .007277
> 2
        _cons |   .0025693   .0028037     0.92   0.359     -.002926    .008064
> 5
  ────────────┼──────────────────────────────────────────────────────────────
> ─
  whppa <-    |
     icdx5nr7 |   3.534226   21.42977     0.16   0.869    -38.46734    45.5357
> 9
        _cons |   18.45577   1.124771    16.41   0.000     16.25126    20.6602
> 8
──────────────┼──────────────────────────────────────────────────────────────
> ─
Variance      |
   e.icdx5nr7 |   .0027463   .0002039                      .0023745    .003176
> 4
      e.whppa |   457.9697    33.9937                      395.9631    529.686
> 5
──────────────┴──────────────────────────────────────────────────────────────
```

```
> —
LR test of model vs. saturated: chi2(1)   =     29.83, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx5nr7 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1544.4563
Iteration 1:   log likelihood = -1544.4563

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1544.4563

──────────────┬─────────────────────────────────────────────────────────────────
> —
              │                 OIM
              │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
──────────────┼─────────────────────────────────────────────────────────────────
> —
Structural    │
  icdx5nr7 <- │
       crhtw3 │   .0011937    .003091     0.39   0.699    -.0048646     .00725
> 2
        _cons │   .0025494   .0028014     0.91   0.363    -.0029413    .008040
> 1
──────────────┼─────────────────────────────────────────────────────────────────
> —
  whppa <-    │
     icdx5nr7 │   3.534226   21.42977     0.16   0.869    -38.46734    45.5357
> 9
        _cons │   18.45577   1.124771    16.41   0.000     16.25126    20.6602
> 8
──────────────┼─────────────────────────────────────────────────────────────────
> —
Variance      │
   e.icdx5nr7 │   .0027461   .0002038                      .0023743    .003176
> 1
      e.whppa │   457.9697    33.9937                      395.9631    529.686
> 5
──────────────┴─────────────────────────────────────────────────────────────────
> —
```

```
LR test of model vs. saturated: chi2(1)   =     30.53, Prob > chi2 = 0.0000
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  icdx5nr10 whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -1849.5235
Iteration 1:   log likelihood = -1849.5235

Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     = -1849.5235

------------------------------------------------------------------------------
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
Structural   |
  icdx5nr10 <-
      crhtw1 |  -.0088058   .0064858    -1.36   0.175    -.0215177    .00390
> 61
       _cons |   .0149841   .0061792     2.42   0.015     .0028731    .02709
> 51
-------------+----------------------------------------------------------------
  whppa <-   |
   icdx5nr10 |   13.08826   9.616421     1.36   0.174    -5.759581     31.93
> 61
       _cons |   18.33574   1.130171    16.22   0.000     16.12065    20.550
> 84
-------------+----------------------------------------------------------------
Variance     |
  e.icdx5nr10 |   .0135524   .0010073                     .0117151    .01567
> 78
     e.whppa |   455.9913   33.89357                     394.1734    527.50
> 42
------------------------------------------------------------------------------
```

```
> ——
LR test of model vs. saturated: chi2(1)   =     15.62, Prob > chi2 = 0.0001

Endogenous variables

Observed:  icdx5nr10 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1825.4481
Iteration 1:   log likelihood = -1825.4481

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1825.4481

───────────────┬──────────────────────────────────────────────────────────────
> ——
               │                 OIM
               │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
───────────────┼──────────────────────────────────────────────────────────────
> ——
Structural     │
  icdx5nr10 <- │
        crhtw2 │   .0018573   .0070317     0.26   0.792    -.0119246    .01563
> 92
         _cons │   .0134549    .006235     2.16   0.031     .0012345    .02567
> 54
───────────────┼──────────────────────────────────────────────────────────────
> ——
  whppa <-     │
     icdx5nr10 │   13.13948   9.612728     1.37   0.172    -5.701126    31.980
> 08
         _cons │   18.28453    1.12818    16.21   0.000     16.07333    20.495
> 72
───────────────┼──────────────────────────────────────────────────────────────
> ——
Variance       │
   e.icdx5nr10 │   .0135818   .0010081                      .0117429    .01570
> 86
       e.whppa │   455.6588   33.82216                       393.965    527.01
> 36
───────────────┴──────────────────────────────────────────────────────────────
> ——
```

```
LR test of model vs. saturated: chi2(1)   =     29.80, Prob > chi2 = 0.0000

Endogenous variables

Observed:  icdx5nr10 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1833.4948
Iteration 1:   log likelihood = -1833.4948

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1833.4948

------------------------------------------------------------------------------
> ----
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interva
> l]
-------------+----------------------------------------------------------------
> ----
Structural   |
  icdx5nr10 <-
       crhtw3 |   .0044981   .0068708     0.65   0.513    -.0089684    .01796
> 46
        _cons |   .0130001   .0062271     2.09   0.037     .0007953    .02520
> 49
-------------+----------------------------------------------------------------
> ----
  whppa <-   |
    icdx5nr10 |   13.13948   9.612728     1.37   0.172    -5.701126    31.980
> 08
        _cons |   18.28453    1.12818    16.21   0.000     16.07333    20.495
> 72
-------------+----------------------------------------------------------------
> ----
Variance     |
   e.icdx5nr10 |   .0135684   .0010071                      .0117313    .01569
> 31
      e.whppa |   455.6588   33.82216                       393.965    527.01
> 36
------------------------------------------------------------------------------

> ----
LR test of model vs. saturated: chi2(1)   =     30.20, Prob > chi2 = 0.0000
```

```
(1 observations with missing values excluded;
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  icdx6nr7 whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -1759.5605
Iteration 1:   log likelihood = -1759.5605

Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     = -1759.5605

------------------------------------------------------------------------------
> ─
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+----------------------------------------------------------------
> ─
Structural   |
  icdx6nr7 <-|
       crhtw1|   .0011809   .0050503     0.23   0.815    -.0087176    .011079
> 4
       _cons |   .0081301   .0048116     1.69   0.091    -.0013005    .017560
> 7
  -----------+----------------------------------------------------------------
> ─
  whppa <-   |
     icdx6nr7|   10.08708   12.40042     0.81   0.416    -14.21731    34.3914
> 6
       _cons |   18.43292   1.128867    16.33   0.000     16.22039    20.6454
> 6
-------------+----------------------------------------------------------------
> ─
Variance     |
   e.icdx6nr7|   .0082174   .0006108                      .0071034    .009506
> 1
     e.whppa |   457.4885   34.00485                      395.4676    529.236
> 1
------------------------------------------------------------------------------

> ─
```

```
LR test of model vs. saturated: chi2(1)   =     14.64, Prob > chi2 = 0.0001

Endogenous variables

Observed:  icdx6nr7 whphpa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -1734.3094
Iteration 1:   log likelihood = -1734.3094

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1734.3094

------------------------------------------------------------------------------
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
Structural   |
  icdx6nr7 <-|
       crhtw2|   .0020067   .0054615     0.37   0.713    -.0086975     .01271
           _cons|   .0079196   .0048427     1.64   0.102    -.0015718    .017411
-------------+----------------------------------------------------------------
  whphpa <-  |
     icdx6nr7|   10.13828   12.39585     0.82   0.413    -14.15714     34.433
           _cons|   18.38172   1.126895    16.31   0.000     16.17305     20.590
-------------+----------------------------------------------------------------
Variance     |
    e.icdx6nr7|   .0081931   .0006081                      .0070838    .009476
      e.whphpa|   457.1616   33.93372                      395.2643    528.751
------------------------------------------------------------------------------

LR test of model vs. saturated: chi2(1)   =     29.74, Prob > chi2 = 0.0000
```

```
Endogenous variables

Observed:  icdx6nr7 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -1742.3307
Iteration 1:   log likelihood = -1742.3307

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     = -1742.3307

------------------------------------------------------------------------------
> ─
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+----------------------------------------------------------------
> ─
Structural   |
  icdx6nr7 <-|
       crhtw3|   .0039382   .0053361     0.74   0.460    -.0065203    .014396
> 7
       _cons |   .0075868   .0048361     1.57   0.117    -.0018919    .017065
> 4
-------------+----------------------------------------------------------------
> ─
  whppa <-   |
     icdx6nr7|   10.13828   12.39585     0.82   0.413    -14.15714     34.433
> 7
       _cons |   18.38172   1.126895    16.31   0.000     16.17305     20.590
> 4
------------------------------------------------------------------------------
> ─
Variance     |
   e.icdx6nr7|   .0081839   .0006075                      .0070758    .009465
> 5
     e.whppa |   457.1616   33.93372                      395.2643    528.751
> 8
-------------+----------------------------------------------------------------
> ─
LR test of model vs. saturated: chi2(1)   =     30.29, Prob > chi2 = 0.0000
(1 observations with missing values excluded;
```

```
 specify option 'method(mlmv)' to use all observations)

Endogenous variables

Observed:  icdx7nr1 whppa

Exogenous variables

Observed:  crhtw1

Fitting target model:

Iteration 0:   log likelihood = -2447.9634  (not concave)
Iteration 1:   log likelihood = -2307.0232  (not concave)
Iteration 2:   log likelihood = -2177.9662  (not concave)
Iteration 3:   log likelihood = -2038.0006  (not concave)
Iteration 4:   log likelihood = -1881.4665  (not concave)
Iteration 5:   log likelihood = -1697.1886  (not concave)
Iteration 6:   log likelihood = -1457.0113  (not concave)
Iteration 7:   log likelihood = -1270.0788  (not concave)
Iteration 8:   log likelihood = -1120.9207  (not concave)
Iteration 9:   log likelihood =  -270.9283  (not concave)
Iteration 10:  log likelihood =   302.7646  (not concave)
Iteration 11:  log likelihood =   441.4664  (not concave)
Iteration 12:  log likelihood =  715.92964  (not concave)
Iteration 13:  log likelihood =  897.29676  (not concave)
Iteration 14:  log likelihood =   1182.545  (not concave)
Iteration 15:  log likelihood =  1316.4038  (not concave)
Iteration 16:  log likelihood =  1474.2143  (not concave)
Iteration 17:  log likelihood =  1665.0544  (not concave)
Iteration 18:  log likelihood =  1906.0672  (not concave)
Iteration 19:  log likelihood =  2240.5696  (not concave)
Iteration 20:  log likelihood =  3079.7494  (not concave)
Iteration 21:  log likelihood =   3286.331  (not concave)
Iteration 22:  log likelihood =  3949.1192  (not concave)
Iteration 23:  log likelihood =  4322.2456  (not concave)
Iteration 24:  log likelihood =  4743.5939  (not concave)
Iteration 25:  log likelihood =  4873.0668  (not concave)
Iteration 26:  log likelihood =  5033.5106  (not concave)
Iteration 27:  log likelihood =  5272.1782  (not concave)
Iteration 28:  log likelihood =  5417.6967  (not concave)
Iteration 29:  log likelihood =  5613.4561  (not concave)
Iteration 30:  log likelihood =  6023.9952  (not concave)
Iteration 31:  log likelihood =  6681.9685  (not concave)
Iteration 32:  log likelihood =  6924.6362  (not concave)
Iteration 33:  log likelihood =  7071.4972  (not concave)
Iteration 34:  log likelihood =  7268.2992  (not concave)
Iteration 35:  log likelihood =  7375.5315  (not concave)
Iteration 36:  log likelihood =  7494.2223  (not concave)
```

```
Iteration 37:  log likelihood =  7632.0568  (not concave)
Iteration 38:  log likelihood =  7646.6679  (not concave)
Iteration 39:  log likelihood =  7658.7753  (not concave)
Iteration 40:  log likelihood =   7659.992  (not concave)
Iteration 41:  log likelihood =  7660.9682  (not concave)
Iteration 42:  log likelihood =  7660.9926  (not concave)
Iteration 43:  log likelihood =  7660.9975  (not concave)
Iteration 44:  log likelihood =  7660.9976  (not concave)
Iteration 45:  log likelihood =  7660.9976  (not concave)
Iteration 46:  log likelihood =  7660.9976  (not concave)
Iteration 47:  log likelihood =  7660.9976  (not concave)
Iteration 48:  log likelihood =  7660.9976  (not concave)
Iteration 49:  log likelihood =  7660.9976  (not concave)
Iteration 50:  log likelihood =  7660.9976  (not concave)
convergence not achieved

Structural equation model                       Number of obs      =       362
Estimation method  = ml
Log likelihood     =  7660.9976

------------------------------------------------------------------------------
> ─
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+----------------------------------------------------------------
> ─
Structural   |
  icdx7nr1 <-|
       crhtw1|          0   4.15e-14     0.00   1.000    -8.14e-14    8.14e-1
> 4
       _cons |          0   3.95e-14     0.00   1.000    -7.75e-14    7.75e-1
> 4
  -----------+----------------------------------------------------------------
> ─
  whppa <-   |
     icdx7nr1|          0  (constrained)
       _cons |   18.51652   1.125207    16.46   0.000     16.31115    20.7218
> 8
-------------+----------------------------------------------------------------
> ─
Variance     |
   e.icdx7nr1|   5.55e-25          .                           .
> .
      e.whppa|   458.3247   34.06701                     396.1904    530.203
> 5
-------------+----------------------------------------------------------------
> ─
Warning: convergence not achieved
```

```
Endogenous variables

Observed:  icdx7nr1 whppa

Exogenous variables

Observed:  crhtw2

Fitting target model:

Iteration 0:   log likelihood = -2425.1532  (not concave)
Iteration 1:   log likelihood = -2286.3826  (not concave)
Iteration 2:   log likelihood = -2159.1602  (not concave)
Iteration 3:   log likelihood = -2022.2947  (not concave)
Iteration 4:   log likelihood = -1871.2022  (not concave)
Iteration 5:   log likelihood = -1697.3845  (not concave)
Iteration 6:   log likelihood = -1481.8806  (not concave)
Iteration 7:   log likelihood = -1289.6862  (not concave)
Iteration 8:   log likelihood = -1137.1559  (not concave)
Iteration 9:   log likelihood = -1010.9042  (not concave)
Iteration 10:  log likelihood = -608.36762  (not concave)
Iteration 11:  log likelihood =  -468.8809  (not concave)
Iteration 12:  log likelihood = -150.78423  (not concave)
Iteration 13:  log likelihood = -13.093461  (not concave)
Iteration 14:  log likelihood =  230.50661  (not concave)
Iteration 15:  log likelihood =  534.62947  (not concave)
Iteration 16:  log likelihood =  1053.2958  (not concave)
Iteration 17:  log likelihood =  1532.1674  (not concave)
Iteration 18:  log likelihood =  1736.3482  (not concave)
Iteration 19:  log likelihood =   1999.448  (not concave)
Iteration 20:  log likelihood =  2386.2519  (not concave)
Iteration 21:  log likelihood =  2521.7105  (not concave)
Iteration 22:  log likelihood =  2702.6365  (not concave)
Iteration 23:  log likelihood =  3052.7251  (not concave)
Iteration 24:  log likelihood =  3255.4811  (not concave)
Iteration 25:  log likelihood =  3810.6206  (not concave)
Iteration 26:  log likelihood =  4143.0144  (not concave)
Iteration 27:  log likelihood =  4431.9316  (not concave)
Iteration 28:  log likelihood =   4639.384  (not concave)
Iteration 29:  log likelihood =  5211.2955  (not concave)
Iteration 30:  log likelihood =  5366.2778  (not concave)
Iteration 31:  log likelihood =   5586.888  (not concave)
Iteration 32:  log likelihood =  5714.9518  (not concave)
Iteration 33:  log likelihood =  5871.2863  (not concave)
Iteration 34:  log likelihood =  6094.6681  (not concave)
Iteration 35:  log likelihood =  6224.5237  (not concave)
Iteration 36:  log likelihood =   6383.957  (not concave)
Iteration 37:  log likelihood =  6615.4779  (not concave)
```

```
Iteration 38:  log likelihood =  6752.0299  (not concave)
Iteration 39:  log likelihood =  6924.9468  (not concave)
Iteration 40:  log likelihood =  7201.1579  (not concave)
Iteration 41:  log likelihood =  7383.0972  (not concave)
Iteration 42:  log likelihood =  7696.5623  (not concave)
Iteration 43:  log likelihood =  7704.9212  (not concave)
Iteration 44:  log likelihood =  7711.7422  (not concave)
Iteration 45:  log likelihood =  7712.4262  (not concave)
Iteration 46:  log likelihood =  7712.9742  (not concave)
Iteration 47:  log likelihood =   7713.029  (not concave)
Iteration 48:  log likelihood =    7713.04  (not concave)
Iteration 49:  log likelihood =  7713.0488  (not concave)
Iteration 50:  log likelihood =  7713.0505  (not concave)
convergence not achieved

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     =  7713.0505

------------------------------------------------------------------------------
> ─
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+----------------------------------------------------------------
> ─
Structural   |
  icdx7nr1 <-|
       crhtw2|           0   4.48e-14     0.00   1.000    -8.78e-14    8.78e-1
> 4
       _cons |           0   3.97e-14     0.00   1.000    -7.78e-14    7.78e-1
> 4
  -----------+----------------------------------------------------------------
> ─
  whppa <-   |
     icdx7nr1|           0  (constrained)
        _cons|    18.46551   1.123263    16.44   0.000     16.26396    20.6670
> 6
-------------+----------------------------------------------------------------
> ─
Variance     |
   e.icdx7nr1|   5.51e-25          .                           .
> .
      e.whppa|    458.004   33.99625                      395.9927    529.726
> 1
------------------------------------------------------------------------------
> ─
Warning: convergence not achieved
```

```
Endogenous variables

Observed:  icdx7nr1 whppa

Exogenous variables

Observed:  crhtw3

Fitting target model:

Iteration 0:   log likelihood = -2433.3792  (not concave)
Iteration 1:   log likelihood = -2293.9004  (not concave)
Iteration 2:   log likelihood = -2166.0709  (not concave)
Iteration 3:   log likelihood = -2028.2457  (not concave)
Iteration 4:   log likelihood = -1875.5541  (not concave)
Iteration 5:   log likelihood = -1698.8098  (not concave)
Iteration 6:   log likelihood = -1476.8534  (not concave)
Iteration 7:   log likelihood = -1285.8149  (not concave)
Iteration 8:   log likelihood = -1134.0009  (not concave)
Iteration 9:   log likelihood =  321.07832  (not concave)
Iteration 10:  log likelihood =  472.61534  (not concave)
Iteration 11:  log likelihood =  797.74115  (not concave)
Iteration 12:  log likelihood =  1018.2348  (not concave)
Iteration 13:  log likelihood =  1431.8805  (not concave)
Iteration 14:  log likelihood =  1612.8934  (not concave)
Iteration 15:  log likelihood =  1838.1425  (not concave)
Iteration 16:  log likelihood =  2139.7569  (not concave)
Iteration 17:  log likelihood =  2660.1584  (not concave)
Iteration 18:  log likelihood =  2820.3356  (not concave)
Iteration 19:  log likelihood =  3070.8819  (not concave)
Iteration 20:  log likelihood =  3237.7433  (not concave)
Iteration 21:  log likelihood =  3508.8342  (not concave)
Iteration 22:  log likelihood =  3698.0689  (not concave)
Iteration 23:  log likelihood =  4081.5046  (not concave)
Iteration 24:  log likelihood =  4498.5279  (not concave)
Iteration 25:  log likelihood =  5361.9751  (not concave)
Iteration 26:  log likelihood =  5524.1774  (not concave)
Iteration 27:  log likelihood =  5766.2915  (not concave)
Iteration 28:  log likelihood =  5914.0542  (not concave)
Iteration 29:  log likelihood =  6114.1718  (not concave)
Iteration 30:  log likelihood =  6555.1023  (not concave)
Iteration 31:  log likelihood =  6688.6633  (not concave)
Iteration 32:  log likelihood =   6855.285  (not concave)
Iteration 33:  log likelihood =  7108.8802  (not concave)
Iteration 34:  log likelihood =  7266.1423  (not concave)
Iteration 35:  log likelihood =  7489.8807  (not concave)
Iteration 36:  log likelihood =  7618.7141  (not concave)
Iteration 37:  log likelihood =  7680.5733  (not concave)
Iteration 38:  log likelihood =  7693.4948  (not concave)
```

```
Iteration 39:  log likelihood =  7704.1565  (not concave)
Iteration 40:  log likelihood =  7704.4236  (not concave)
Iteration 41:  log likelihood =   7704.477  (not concave)
Iteration 42:  log likelihood =  7704.4984  (not concave)
Iteration 43:  log likelihood =  7704.4995  (not concave)
Iteration 44:  log likelihood =  7704.4999  (not concave)
Iteration 45:  log likelihood =     7704.5  (not concave)
Iteration 46:  log likelihood =     7704.5  (not concave)
Iteration 47:  log likelihood =     7704.5  (not concave)
Iteration 48:  log likelihood =     7704.5  (not concave)
Iteration 49:  log likelihood =     7704.5  (not concave)
Iteration 50:  log likelihood =     7704.5  (not concave)
convergence not achieved

Structural equation model                       Number of obs      =       363
Estimation method  = ml
Log likelihood     =     7704.5

------------------------------------------------------------------------------
> —
             |                 OIM
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
> ]
-------------+----------------------------------------------------------------
> —
Structural   |
  icdx7nr1 <-|
       crhtw3|          0   4.38e-14     0.00   1.000    -8.59e-14    8.59e-1
> 4
       _cons |          0   3.97e-14     0.00   1.000    -7.79e-14    7.79e-1
> 4
  -----------+----------------------------------------------------------------
> —
  whppa <-   |
     icdx7nr1|          0  (constrained)
       _cons |   18.46551   1.123263    16.44   0.000     16.26396    20.6670
> 6
-------------+----------------------------------------------------------------
> —
Variance     |
   e.icdx7nr1|   5.52e-25          .                           .
> .
      e.whppa|    458.004   33.99625                      395.9927    529.726
> 1
-------------+----------------------------------------------------------------

> —
Warning: convergence not achieved
```

```
113 .
114 . // possible indirect effects for females on physical ability
115 .
116 . // wave 1 medcow1 BSIanx illw3 deaw1 BSIdep BSIsoma age
117 . // wave 2 whpain medcow1  BSIanx deaw1 BSIdep BSIsoma age
118 . // wave 3 whppain medcow1 BSIanx illw3 deaw1 BSIdep BSIsoma age
119 .
120 .
121 .
122 .
123 .
124 .
125 . *-+-  No female threat physical ability relationships significant
126 .
127 .
```