```
 1 . set linesize 80

 2 . set seed 1010101

 3 . set matsize 11000

 4 .
 5 .
 6 . *******
 7 .
 8 . *   This script requires pre-installation of spost2 by J. Scott Long for fit
   > stat command
 9 . *   It also requires installation of title2.ado, title3.ado
10 . *
11 . *      for the fitstat command to function
12 . ******
13 . di "$User"
   Robert Alan Yaffee

14 . * 16 June 2012
15 .
16 . *------- Primary objective:  Hypothesis 1 tests for Part 2 of Nottingham hea
   > lth profile
17 .
18 . *********  Hypothesis tests      Robert A. Yaffee    10 June 2012 main effec
   > ts and moderator identification approach
19 . *  protocol is to test Health profile subscales against potential confounder
   > s including socio-demog vars,
20 . *     major neg life events, stresses and hassles, social supports, perceive
   > d health, distance,
21 . *     threat and dose to see whether there is a dose-psych response
22 .
23 . *  We construct a full model, trimmed model (at .1 level), and then test int
   > eractions with dose if there is a
24 . *     significant main effect dose psych response
25 .
```

```
26 . *     Trimming is performed with backward elimination to the .1 level
27 . *
28 . *  This approach identifies the moderating variables for our path analysis.
   >    We analyze our
29 . *     final models for congruence with regression assumptions with the rdiag
   >  program for a validity assessment
30 .
31 . *----------------------------------------------------------------------------
   > -------------------------------
32 .
33 . *----------- Organization of the program -----------------------------------
   > ---------------------------------------
34 . *  main effects regresssions are run for all part 1 health profile subscales
   >  except that of emotional
35 . *    reaction for both males and females separately
36 . *  these models are trimmed with backward elimination to determine whether t
   > he main effect of avg cumulative dose
37 . *     is significant for that wave
38 . *   If the main effect of average cumulative dose for that wave is not stati
   > stically significant with the
39 . *     covariates controlled we do not go further along that path
40 . *   If the main effect of average cumulative dose for that wave is statistic
   > ally significant, we trim the
41 . *     model to a p = .1
42 . *   If average cumulative dose is not significant, we stop
43 . *   If average cumulative dose is significant we perform a hierarchical regr
   > ession with interactions between dose
44 . *      and other significant main effects
45 . *   We proceed to test for mediating effects of those other significant expl
   > anatory variable
46 . *      We evaluate the model for statistical conguency.
47 . *   This concludes the test of part 1 of H1
48 . ***--------------------------------------------------------------------------
   > -----------------------------------------
49 .
50 . * Part 2 Nottingham subscales
51 . *  1: hp2work
```

```
. *  2: hp2hmcare
. *  3: hp2probsoc
. *  4: hp2pbfhm
. *  5: hp2sexlife
. *  6: hp2inthob
. *  7: hp2vactn
.
.
. local dvwhole HP2work-HP2vacatn

. local dv2 HP2work HP2hmcare HP2probsoc HP2pbfhm HP2sxlife HP2inthob HP2vacat
> n

.
.
.
. di "$User"
Robert Alan Yaffee

.
. title "Testing part 2 of hypothesis 1 for wave two"


*******************************************************************************
> *
*******************************************************************************
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****            Testing part 2 of hypothesis 1 for wave two               ****
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****                                            1 Jul 2012    14:58:43    ****
> *
*******************************************************************************
> *
*******************************************************************************
> *
```

```
68 .
69 . cd /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests/h1
   > pt2
   /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests/h1pt2

70 . use chwide1jul2012, clear
   (Zero for missing on all icdx)

71 . cd /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests/h1
   > pt2
   /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests/h1pt2

72 .
73 .
74 . di "{hline}"
   ──────────────────────────────────────────────────────────────────────────────

75 . di "{hline}"
   ──────────────────────────────────────────────────────────────────────────────

76 .
77 . title "Chunk 1 Hyp 1:radiation dose and Nottingham Health profile subscales"


   ******************************************************************************
   > *
   ******************************************************************************
   > *
   *****                                                                     ****
   > *
   *****                                                                     ****
   > *
   *****Chunk 1 Hyp 1:radiation dose and Nottingham Health profile subscales ****
   > *
   *****                                                                     ****
   > *
   *****                                                                     ****
   > *
   *****                                                   1 Jul 2012    14:58:43  ****
   > *
   ******************************************************************************
   > *
   ******************************************************************************
   > *
```

```
78 .
79 .
80 . //  there is substantial intercorrelation among the items warranting a
81 . //  multivariate regression model
82 . cap dummies educ

83 . cap order educ1-educ8, after(educ)

84 .
85 . * These variables are substantially correlated
86 . pwcorr HP2work HP2hmcare HP2probsoc HP2pbfhm HP2sxlife HP2inthob HP2vacatn,
   > ///
   >    obs sig
```

	HP2work	HP2hmc~e	HP2pro~c	HP2pbfhm	HP2sxl~e	HP2int~b	HP2vac~n
HP2work	**1.0000**						
	703						
HP2hmcare	**0.4878**	**1.0000**					
	0.0000						
	703	**703**					
HP2probsoc	**0.4587**	**0.5420**	**1.0000**				
	0.0000	**0.0000**					
	703	**703**	**703**				
HP2pbfhm	**0.2832**	**0.4150**	**0.4745**	**1.0000**			
	0.0000	**0.0000**	**0.0000**				
	703	**703**	**703**	**703**			
HP2sxlife	**0.4968**	**0.4576**	**0.5589**	**0.4192**	**1.0000**		
	0.0000	**0.0000**	**0.0000**	**0.0000**			
	703	**703**	**703**	**703**	**703**		
HP2inthob	**0.3787**	**0.4757**	**0.5956**	**0.5089**	**0.5401**	**1.0000**	
	0.0000	**0.0000**	**0.0000**	**0.0000**	**0.0000**		
	703	**703**	**703**	**703**	**703**	**703**	
HP2vacatn	**0.4166**	**0.4757**	**0.5956**	**0.4416**	**0.5211**	**0.6840**	**1.0000**
	0.0000	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	
	703	**703**	**703**	**703**	**703**	**703**	**703**

```
.
. cap gen havmilsq = havmil^2

.
. cap rename Havmil havmil

. //  controlling for potential confounders
. //  socio-demographics age gender educ income occp marstat children inc
. //  distance from accident side
. //  perceived Chornobyl related health threat to oneself
.
. set linesize 130

.
. est clear

. title "Zero order tests"


  ********************************************************************************
  > *
  ********************************************************************************
  > *
  *****                                                                      ****
  > *
  *****                                                                      ****
  > *
  *****                          Zero order tests                            ****
  > *
  *****                                                                      ****
  > *
  *****                                                                      ****
  > *
  *****                                          1 Jul 2012    14:58:43      ****
  > *
  ********************************************************************************
  > *
  ********************************************************************************
  > *
```

```
100 . set more off

101 . foreach var in HP2work HP2hmcare HP2probsoc HP2pbfhm HP2sxlife HP2inthob ///
    >       HP2vacatn  {
      2.       forvalues k=2/2 {
      3.   logit `var' avgcumdosew2 if gender==`k', nolog
      4.   eststo w2`var'dose
      5.   }
      6.  }

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(1)      =       6.63
                                                      Prob > chi2     =     0.0100
    Log likelihood = -203.24758                       Pseudo R2       =     0.0160

    ------------------------------------------------------------------------------
         HP2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew2 |   .2046594   .0826501     2.48   0.013     .0426681    .3666507
           _cons |  -1.260388   .1448325    -8.70   0.000    -1.544255   -.9765218
    ------------------------------------------------------------------------------

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(1)      =       0.01
                                                      Prob > chi2     =     0.9082
    Log likelihood = -233.72194                       Pseudo R2       =     0.0000

    ------------------------------------------------------------------------------
       HP2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew2 |  -.0093108   .0810645    -0.11   0.909    -.1681944    .1495727
           _cons |  -.6356448     .13193    -4.82   0.000    -.8942228   -.3770668
    ------------------------------------------------------------------------------

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(1)      =      25.69
                                                      Prob > chi2     =     0.0000
    Log likelihood = -170.72516                       Pseudo R2       =     0.0700

    ------------------------------------------------------------------------------
      HP2probsoc |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew2 |   .5024747   .1391198     3.61   0.000      .229805    .7751444
           _cons |  -1.841993   .1807682   -10.19   0.000    -2.196292   -1.487694
    ------------------------------------------------------------------------------
```

```
Logistic regression                               Number of obs   =        363
                                                  LR chi2(1)      =       1.97
                                                  Prob > chi2     =     0.1602
Log likelihood = -138.91068                       Pseudo R2       =     0.0070
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	.1290516	.0853896	1.51	0.131	-.0383089	.2964121
_cons	-2.03386	.1824844	-11.15	0.000	-2.391523	-1.676197

```
Logistic regression                               Number of obs   =        363
                                                  LR chi2(1)      =      13.99
                                                  Prob > chi2     =     0.0002
Log likelihood = -200.62862                       Pseudo R2       =     0.0337
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	.3220323	.1022608	3.15	0.002	.1216048	.5224598
_cons	-1.353229	.1520692	-8.90	0.000	-1.65128	-1.055179

```
Logistic regression                               Number of obs   =        363
                                                  LR chi2(1)      =       5.33
                                                  Prob > chi2     =     0.0210
Log likelihood = -169.44834                       Pseudo R2       =     0.0155
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	.1881347	.0796521	2.36	0.018	.0320195	.34425
_cons	-1.691176	.1610367	-10.50	0.000	-2.006802	-1.37555

```
Logistic regression                               Number of obs   =        363
                                                  LR chi2(1)      =       4.26
                                                  Prob > chi2     =     0.0389
Log likelihood = -165.38435                       Pseudo R2       =     0.0127
```

HP2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	.1706012	.0795148	2.15	0.032	.0147551	.3264474
_cons	-1.730143	.1632828	-10.60	0.000	-2.050172	-1.410115

```
. 
. 
. *------- estout code snippt
. 
. estout  *,      cells(b(star fmt(%9.3f)) se(par) t p)               ///
>                 stats( bic N, fmt(%9.3f %9.0g) )        ///
>                 legend collabels(none) varlabels(_cons Constant)  ///
>                 mlabels(workw2  homecarew2 socprobsw2 pbfhmw2 sexlifew2 inth
> obw2 vactnw2) ///
>                                 title("Zero-order regression coefficients" /
> //
>                  "of reconstructed dose for females in wave 2")

Zero-order regression coefficients of reconstructed dose for females in wave 2
------------------------------------------------------------------------------
> ----------------------------------------------
                   workw2      homecarew2      socprobsw2         pbfhmw2
>   sexlifew2        inthobw2         vactnw2
------------------------------------------------------------------------------
> ----------------------------------------------
main
>
avgcumdosew2        0.205*         -0.009           0.502***         0.129
>       0.322**         0.188*          0.171*
                   (0.083)        (0.081)         (0.139)          (0.085)
>     (0.102)        (0.080)         (0.080)
                    2.476          -0.115           3.612            1.511
>       3.149          2.362           2.146
                    0.013           0.909           0.000            0.131
>       0.002          0.018           0.032
Constant           -1.260***       -0.636***       -1.842***        -2.034***
>      -1.353***      -1.691***       -1.730***
                   (0.145)        (0.132)         (0.181)          (0.182)
>     (0.152)        (0.161)         (0.163)
                   -8.702          -4.818         -10.190          -11.145
>      -8.899        -10.502         -10.596
                    0.000           0.000           0.000            0.000
>       0.000          0.000           0.000
------------------------------------------------------------------------------
> ----------------------------------------------
bic               418.284         479.233         353.239          289.610
>     413.046        350.685         342.558
N                     363             363             363              363
>         363            363             363
------------------------------------------------------------------------------
> ----------------------------------------------
* p<0.05, ** p<0.01, *** p<0.001
```

```
107 .
108 .
109 .
110 .
111 . // signif zero order relationships in wave 2 are
112 .
113 . // female work social life  sex life   interest and hobbies vacation plans
114 . // no significant male zero order effects
115 .
116 .
117 .
118 . local w1bf bf1 bf4 bf9 bf10 bf11 bf4m bf15m bf20 bf22 bf30 bf40

119 . local w2bf bf1 bf4 bf6 bf7 bf14 bf15 bf40

120 . local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

121 .
122 . *---------------------------------------------------------------------------
    > ----
123 . *  Hypothesis 1   Part 2 wave 2 tests    male and female
124 . * endogneous Nottingham pt 2 subscales: HP2work HP2hmcare HP2probsoc HP2pbfh
    > m ///
    > *                                       HP2sxlife HP2inthob HP2vacatn
125 . *  structure of models
126 . *    1. general models on all Pt 2 subscales with all potential confounders
127 . *    2. trimmed models on all Pt 2 subscales with from all potential confoun
    > ders
128 . *    3. from trimmed models examination of possible moderator variables
129 . *    4. from trimmed models examination of possible mediator variables
130 . *    5. Summary analysis and model evaluation of final models only
131 . *   program is divided into 8 chunks one a general model and 1 for each
132 . *       endogenous variable
133 . *---------------------------------------------------------------------------
    > ----
134 . * Chunk 1  General models for all part 2 of Nottingham Health Profile
```

```
135 .
136 . title " Hypothesis 1 part2 wave 2  H1: General models"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****             Hypothesis 1 part2 wave 2  H1: General models           ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                          1 Jul 2012    14:58:53     ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *



137 . forvalues j=2/2 {
      2. set more off
      3.
138 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
139 .   foreach var in HP2work HP2hmcare HP2probsoc HP2pbfhm HP2sxlife HP2inthob /
    > //
    >        HP2vacatn  {
      5.       forvalues k=1/2 {
      6. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      7.
```

```
140 . di as input "Full main model for `var' for wave= `j' "
      8. di _skip(4)
      9. di as input  "chunk 2 H1 test:Gender= `k'  model Wave =  `j' for `e(depva
    > r)' "
     10. di _skip(4)
     11.
141 .       xi: logistic `var' age i.educ occ1w`j'-occ8w`j' ///
    >                marrw`j'1- marrw`j'3 marrw`j'5-marrw`j'6 inc1w`j'-inc4w`j' /
    > //
    >                radhlw`j' havmil avgcumdosew`j' `w`j'bf'  ///
    >                 deaw`j' dvcew`j' sepaw`j' accdw`j' movew`j' ///
    >                illw`j' shfamw`j' shhlw`j' shjobw`j' shrelaw`j' suprtw`j' su
    > chrw`j' ///
    >                 havmilsq if gender==`k', coef nolog  difficult iterate(50)
     12.                          estat class
     13.                          estat gof
     14.                          fitstat
     15. }
     16. }
     17. }

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
age             double %8.0g                * Respondent's age
educ1           byte   %8.0g                  educ==1. did not graduate high
                                                school
educ2           byte   %8.0g                  educ==2. graduated high school
educ3           byte   %8.0g                  educ==3. technical degree
educ4           byte   %8.0g                  educ==4. did not finish
                                                college/bachelor's
educ5           byte   %8.0g                  educ==5. graduated
                                                college/bachelor's
educ6           byte   %8.0g                  educ==6. finished
                                                specialist/master's degree
educ7           byte   %8.0g                  educ==7. doctor of science/phd
marrw21         byte   %8.0g                  marrw2==1. single
marrw22         byte   %8.0g                  marrw2==2. cohabitating
marrw23         byte   %8.0g                  marrw2==3. married
marrw24         byte   %8.0g                  marrw2==4. separated
marrw25         byte   %8.0g                  marrw2==5. divorced
marrw26         byte   %8.0g                  marrw2==6. widowed
inc1w2          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1996
inc2w2          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1996
inc3w2          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1996
```

```
inc4w2            double %15.0g      LABJ       Income allows to comfortably
                                                  afford luxury items in 1996
bf1               float  %9.0g                  bf1 = max(0, kzchorn - 40)
bf4               float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
bf9               float  %9.0g                  bf9= max(0, 30 - shhlw1)
bf11              float  %9.0g                  bf11= max(0, 20 - sufamw1)
bf4m              float  %9.0g                  bf4m = max(0, 32 - BSIsoma)
bf15m             float  %9.0g                  bf15m= max(0, 1 - icdxcnt) * bf2
bf30              float  %9.0g                  bf30 = max(0, neiw1 - 85) * bf20
bf40              float  %9.0g                  bf40 = max(0, icdxcnt -
                                                  1.01635E-007)
Full main model for HP2work for wave= 2

chunk 2 H1 test:Gender= 1  model Wave =  2 for HP2vacatn

i.educ             _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: _Ieduc_4 != 0 predicts failure perfectly
      _Ieduc_4 dropped and 13 obs not used

note: _Ieduc_7 != 0 predicts failure perfectly
      _Ieduc_7 dropped and 4 obs not used

note: _Ieduc_8 != 0 predicts failure perfectly
      _Ieduc_8 dropped and 2 obs not used

note: bf17 != 0 predicts failure perfectly
      bf17 dropped and 5 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 6 obs not used

note: _Ieduc_6 omitted because of collinearity

Logistic regression                                 Number of obs   =        308
                                                    LR chi2(49)     =     125.45
                                                    Prob > chi2     =     0.0000
Log likelihood = -101.11616                         Pseudo R2       =     0.3828
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0178547	.02477	0.72	0.471	-.0306936	.066403
_Ieduc_2	.9615826	1.161557	0.83	0.408	-1.315028	3.238193
_Ieduc_3	.1912036	.4980888	0.38	0.701	-.7850324	1.16744
_Ieduc_4	0	(omitted)				
_Ieduc_5	.2718345	.6506078	0.42	0.676	-1.003333	1.547002
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w2	-1.858647	2.691228	-0.69	0.490	-7.133356	3.416062
occ2w2	-.9190027	2.701749	-0.34	0.734	-6.214333	4.376327
occ3w2	-1.367634	2.744529	-0.50	0.618	-6.746813	4.011544
occ4w2	-1.016435	2.721494	-0.37	0.709	-6.350464	4.317595
occ5w2	-.5999128	2.751196	-0.22	0.827	-5.992157	4.792331
occ6w2	-.5670745	3.449094	-0.16	0.869	-7.327174	6.193025
occ7w2	2.144137	2.835688	0.76	0.450	-3.413709	7.701983
occ8w2	-2.120696	2.805072	-0.76	0.450	-7.618536	3.377144
marrw21	14.38867	1053.846	0.01	0.989	-2051.112	2079.889
marrw22	16.49882	1053.847	0.02	0.988	-2049.002	2082
marrw23	12.83702	1053.846	0.01	0.990	-2052.664	2078.338
marrw25	16.98709	1053.848	0.02	0.987	-2048.516	2082.49
marrw26	10.7478	1053.85	0.01	0.992	-2054.761	2076.257
inc1w2	-1.841061	2.889059	-0.64	0.524	-7.503512	3.82139
inc2w2	-.6970371	2.730495	-0.26	0.799	-6.048709	4.654635
inc3w2	.9384724	2.718417	0.35	0.730	-4.389527	6.266472
inc4w2	-.858635	3.109771	-0.28	0.782	-6.953674	5.236404
radhlw2	.0018692	.0077721	0.24	0.810	-.0133638	.0171022
havmil	.0022022	.0068548	0.32	0.748	-.0112329	.0156372
avgcumdosew2	.070113	.0753046	0.93	0.352	-.0774813	.2177072
bf1	-.0449847	.0685219	-0.66	0.512	-.179285	.0893157
bf4	-.1461292	.1896969	-0.77	0.441	-.5179284	.2256699
bf2	.0001003	.000156	0.64	0.520	-.0002054	.000406
bf4m	-.1398009	.1731245	-0.81	0.419	-.4791186	.1995169
bf5m	.0035939	.0017506	2.05	0.040	.0001629	.0070249
bf7m	.0007449	.0005463	1.36	0.173	-.0003258	.0018155
bf8	-.0001778	.0000525	-3.39	0.001	-.0002807	-.000075
bf15m	.0003329	.0002956	1.13	0.260	-.0002465	.0009123
bf17	0	(omitted)				
bf20	.0339605	.0629951	0.54	0.590	-.0895076	.1574286
bf22	.0001355	.0001659	0.82	0.414	-.0001898	.0004607
bf29	.0000158	.0000126	1.26	0.209	-8.86e-06	.0000405
bf30	-.0008498	.0004225	-2.01	0.044	-.001678	-.0000217
bf40	.2709577	.2293641	1.18	0.237	-.1785876	.720503
deaw2	-.1725628	.3614849	-0.48	0.633	-.8810602	.5359345
dvcew2	.1194741	2.327974	0.05	0.959	-4.44327	4.682218
sepaw2	0	(omitted)				
accdw2	.5158656	.4604363	1.12	0.263	-.3865729	1.418304

movew2	.5486063	.5239018	1.05	0.295	-.4782225	1.575435
illw2	-.3094309	.3968427	-0.78	0.436	-1.087228	.4683664
shfamw2	.0096065	.0075095	1.28	0.201	-.0051119	.0243249
shhlw2	.025216	.0096203	2.62	0.009	.0063606	.0440714
shjobw2	-.0077587	.0087746	-0.88	0.377	-.0249567	.0094392
shrelaw2	-.0309717	.0089502	-3.46	0.001	-.0485137	-.0134296
suprtw2	-.0064843	.0062583	-1.04	0.300	-.0187504	.0057818
suchrw2	.0039898	.0060514	0.66	0.510	-.0078708	.0158504
havmilsq	-3.35e-06	.0000119	-0.28	0.779	-.0000267	.00002
_cons	-13.33296	1053.852	-0.01	0.990	-2078.845	2052.179

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2work

	True		
Classified	D	~D	Total
+	39	14	53
-	30	225	255
Total	69	239	308

Classified + if predicted Pr(D) >= .5
True D defined as HP2work != 0

Sensitivity	Pr(+| D)	56.52%
Specificity	Pr(-|~D)	94.14%
Positive predictive value	Pr(D| +)	73.58%
Negative predictive value	Pr(~D| -)	88.24%
False + rate for true ~D	Pr(+|~D)	5.86%
False - rate for true D	Pr(-| D)	43.48%
False + rate for classified +	Pr(~D| +)	26.42%
False - rate for classified -	Pr(D| -)	11.76%
Correctly classified		85.71%

Logistic model for HP2work, goodness-of-fit test

```
       number of observations =       308
 number of covariate patterns =       308
            Pearson chi2(258) =       291.84
                  Prob > chi2 =         0.0724
```

Measures of Fit for **logistic** of **HP2work**

```
Log-Lik Intercept Only:      -163.843     Log-Lik Full Model:          -101.116
D(252):                       202.232     LR(49):                       125.453
                                          Prob > LR:                      0.000
McFadden's R2:                  0.383     McFadden's Adj R2:              0.041
Maximum Likelihood R2:          0.335     Cragg & Uhler's R2:             0.511
McKelvey and Zavoina's R2:      0.690     Efron's R2:                     0.405
Variance of y*:                10.621     Variance of error:              3.290
Count R2:                       0.857     Adj Count R2:                   0.362
AIC:                            1.020     AIC*n:                        314.232
BIC:                        -1241.753     BIC':                         155.322
Full main model for HP2work for wave= 2

chunk 2 H1 test:Gender= 2  model Wave =  2 for HP2work

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 7 obs not used

note: _Ieduc_8 omitted because of collinearity
note: marrw26 omitted because of collinearity
note: bf17 omitted because of collinearity

Logistic regression                                 Number of obs   =        343
                                                    LR chi2(50)     =     108.12
                                                    Prob > chi2     =     0.0000
Log likelihood = -145.38882                         Pseudo R2       =     0.2710
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0346814	.0173019	2.00	0.045	.0007704	.0685925
_Ieduc_2	-12.41086	627.6909	-0.02	0.984	-1242.662	1217.841
_Ieduc_3	-12.75017	627.6907	-0.02	0.984	-1243.001	1217.501
_Ieduc_4	-11.4477	627.6909	-0.02	0.985	-1241.699	1218.804
_Ieduc_5	-12.87307	627.6909	-0.02	0.984	-1243.125	1217.378
_Ieduc_6	-12.46967	627.6908	-0.02	0.984	-1242.721	1217.782
_Ieduc_7	-13.03665	627.6932	-0.02	0.983	-1243.293	1217.219
_Ieduc_8	0	(omitted)				
occ1w2	-1.438425	1.492752	-0.96	0.335	-4.364164	1.487314
occ2w2	-1.219105	1.521371	-0.80	0.423	-4.200936	1.762727
occ3w2	-.4904819	1.510651	-0.32	0.745	-3.451303	2.470339
occ4w2	-.7947689	1.589999	-0.50	0.617	-3.911109	2.321571
occ5w2	-1.879935	1.884007	-1.00	0.318	-5.572521	1.812651
occ6w2	-1.41539	1.738012	-0.81	0.415	-4.82183	1.991051
occ7w2	-.4577922	1.461285	-0.31	0.754	-3.321858	2.406274
occ8w2	.0350208	1.713285	0.02	0.984	-3.322957	3.392998

marrw21	-1.099109	1.06403	-1.03	0.302	-3.18457	.9863517
marrw22	-.6975171	1.30484	-0.53	0.593	-3.254956	1.859922
marrw23	-.3956567	.7323121	-0.54	0.589	-1.830962	1.039649
marrw25	-.7188967	1.177006	-0.61	0.541	-3.025787	1.587994
marrw26	0	(omitted)				
inc1w2	-.0941374	1.513476	-0.06	0.950	-3.060495	2.872221
inc2w2	.386998	1.46305	0.26	0.791	-2.480528	3.254524
inc3w2	1.121465	1.474278	0.76	0.447	-1.768066	4.010997
inc4w2	-.1060071	1.96548	-0.05	0.957	-3.958277	3.746263
radhlw2	.0065443	.006673	0.98	0.327	-.0065345	.0196232
havmil	-.0029953	.0026107	-1.15	0.251	-.0081121	.0021215
avgcumdosew2	.0909294	.1016445	0.89	0.371	-.1082903	.290149
bf1	.0126789	.0317569	0.40	0.690	-.0495634	.0749212
bf4	-.5949349	.2433538	-2.44	0.014	-1.0719	-.1179702
bf2	.0000735	.0001079	0.68	0.496	-.000138	.0002851
bf4m	.4176215	.2303793	1.81	0.070	-.0339136	.8691567
bf5m	.0024297	.0013344	1.82	0.069	-.0001856	.0050451
bf7m	.0006992	.000527	1.33	0.185	-.0003337	.0017321
bf8	-.0000458	.0000327	-1.40	0.161	-.0001099	.0000182
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0183297	.0268984	-0.68	0.496	-.0710496	.0343903
bf22	-.0000828	.0001199	-0.69	0.490	-.0003178	.0001523
bf29	.0000183	.0000373	0.49	0.624	-.0000549	.0000915
bf30	-.0001261	.0002961	-0.43	0.670	-.0007064	.0004542
bf40	.1798311	.1314097	1.37	0.171	-.0777271	.4373893
deaw2	.2386669	.2047617	1.17	0.244	-.1626586	.6399924
dvcew2	-.6260314	1.520804	-0.41	0.681	-3.606752	2.354689
sepaw2	0	(omitted)				
accdw2	.6391808	.5174116	1.24	0.217	-.3749273	1.653289
movew2	-.2794343	.5405557	-0.52	0.605	-1.338904	.7800355
illw2	.0571776	.1835422	0.31	0.755	-.3025585	.4169137
shfamw2	-.007536	.0064071	-1.18	0.240	-.0200936	.0050216
shhlw2	.0061348	.0064298	0.95	0.340	-.0064673	.0187369
shjobw2	-.0013978	.005787	-0.24	0.809	-.0127401	.0099444
shrelaw2	-.0084778	.0068136	-1.24	0.213	-.0218322	.0048765
suprtw2	-.0040427	.0050205	-0.81	0.421	-.0138827	.0057973
suchrw2	.0071509	.0055885	1.28	0.201	-.0038025	.0181042
havmilsq	5.93e-07	1.54e-06	0.38	0.701	-2.43e-06	3.62e-06
_cons	8.163054	627.6961	0.01	0.990	-1222.099	1238.425

Logistic model for HP2work

Classified	True D	~D	Total
+	**46**	**16**	**62**
-	**46**	**235**	**281**
Total	**92**	**251**	**343**

Classified + if predicted Pr(D) >= .5
True D defined as HP2work != 0

Sensitivity	Pr(+| D)	**50.00%**
Specificity	Pr(-|~D)	**93.63%**
Positive predictive value	Pr(D| +)	**74.19%**
Negative predictive value	Pr(~D| -)	**83.63%**
False + rate for true ~D	Pr(+|~D)	**6.37%**
False - rate for true D	Pr(-| D)	**50.00%**
False + rate for classified +	Pr(~D| +)	**25.81%**
False - rate for classified -	Pr(D| -)	**16.37%**
Correctly classified		**81.92%**

Logistic model for HP2work, goodness-of-fit test

```
       number of observations =       343
 number of covariate patterns =       343
            Pearson chi2(292) =       491.86
                  Prob > chi2 =         0.0000
```

Measures of Fit for **logistic** of **HP2work**

Log-Lik Intercept Only:	**-199.448**	Log-Lik Full Model:	**-145.389**
D(287):	**290.778**	LR(50):	**108.119**
		Prob > LR:	**0.000**
McFadden's R2:	**0.271**	McFadden's Adj R2:	**-0.010**
Maximum Likelihood R2:	**0.270**	Cragg & Uhler's R2:	**0.393**
McKelvey and Zavoina's R2:	**0.502**	Efron's R2:	**0.313**
Variance of y*:	**6.601**	Variance of error:	**3.290**
Count R2:	**0.819**	Adj Count R2:	**0.326**
AIC:	**1.174**	AIC*n:	**402.778**
BIC:	**-1384.651**	BIC':	**183.768**

Full main model for HP2hmcare for wave= 2

chunk 2 H1 test:Gender= 1 model Wave = 2 for HP2work

```
i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
```

```
note: _Ieduc_4 != 0 predicts failure perfectly
      _Ieduc_4 dropped and 13 obs not used

note: _Ieduc_8 != 0 predicts failure perfectly
      _Ieduc_8 dropped and 2 obs not used

note: occ8w2 != 0 predicts failure perfectly
      occ8w2 dropped and 44 obs not used

note: bf17 != 0 predicts failure perfectly
      bf17 dropped and 3 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 6 obs not used

note: _Ieduc_7 omitted because of collinearity

Logistic regression                               Number of obs   =        270
                                                  LR chi2(49)     =     112.39
                                                  Prob > chi2     =     0.0000
Log likelihood = -98.319474                       Pseudo R2       =     0.3637

------------------------------------------------------------------------------
   HP2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0339056   .0231493     1.46   0.143    -.0114661    .0792774
    _Ieduc_2 |  -4.046801    2.06481    -1.96   0.050    -8.093754    .0001521
    _Ieduc_3 |  -2.332961   1.654719    -1.41   0.159    -5.576151    .9102284
    _Ieduc_4 |          0  (omitted)
    _Ieduc_5 |  -2.109138   1.662617    -1.27   0.205    -5.367807    1.149531
    _Ieduc_6 |  -2.575578   1.598895    -1.61   0.107    -5.709355    .5581988
    _Ieduc_7 |          0  (omitted)
    _Ieduc_8 |          0  (omitted)
      occ1w2 |   .2791915   3.076664     0.09   0.928    -5.750959    6.309342
      occ2w2 |  -.2043325   3.082144    -0.07   0.947    -6.245223    5.836559
      occ3w2 |   .5280791   3.097215     0.17   0.865    -5.542352     6.59851
      occ4w2 |   .3530379   3.103258     0.11   0.909    -5.729235    6.435311
      occ5w2 |   1.030726   3.128223     0.33   0.742    -5.100479    7.161931
      occ6w2 |   1.834194   3.454783     0.53   0.595    -4.937056    8.605444
      occ7w2 |   .6310877   3.205439     0.20   0.844    -5.651457    6.913633
      occ8w2 |          0  (omitted)
     marrw21 |  -1.774375   1.681557    -1.06   0.291    -5.070167    1.521417
     marrw22 |  -3.603201   2.051956    -1.76   0.079    -7.624961    .4185589
     marrw23 |  -3.822298   1.717545    -2.23   0.026    -7.188624   -.4559723
     marrw25 |  -.1941937   2.536946    -0.08   0.939    -5.166517     4.77813
     marrw26 |  -3.213845   2.602626    -1.23   0.217    -8.314899    1.887208
      inc1w2 |   2.821191   3.187221     0.89   0.376    -3.425647    9.068029
      inc2w2 |   2.680447   3.109489     0.86   0.389     -3.41404    8.774935
      inc3w2 |     2.9859   3.107015     0.96   0.337    -3.103737    9.075536
```

inc4w2	1.060877	3.414563	0.31	0.756	-5.631544	7.753298
radhlw2	.0009802	.0078741	0.12	0.901	-.0144527	.0164132
havmil	.0033106	.008219	0.40	0.687	-.0127982	.0194195
avgcumdosew2	-.0408898	.0892564	-0.46	0.647	-.2158292	.1340496
bf1	-.0224294	.0411105	-0.55	0.585	-.1030045	.0581457
bf4	-.1579765	.2337949	-0.68	0.499	-.616206	.300253
bf2	.0000992	.0001626	0.61	0.542	-.0002196	.000418
bf4m	-.1739281	.2154639	-0.81	0.420	-.5962296	.2483734
bf5m	.0006314	.0017487	0.36	0.718	-.002796	.0040589
bf7m	.0005115	.000594	0.86	0.389	-.0006527	.0016757
bf8	-.0000403	.0000473	-0.85	0.394	-.0001331	.0000525
bf15m	-.0001301	.0003714	-0.35	0.726	-.000858	.0005979
bf17	0	(omitted)				
bf20	.0027387	.0345917	0.08	0.937	-.0650597	.0705372
bf22	-.0000529	.0001896	-0.28	0.780	-.0004245	.0003187
bf29	2.63e-06	.0000221	0.12	0.905	-.0000407	.0000459
bf30	-.0002608	.0004218	-0.62	0.536	-.0010875	.0005659
bf40	.3296594	.2457937	1.34	0.180	-.1520874	.8114062
deaw2	.0069355	.3395872	0.02	0.984	-.6586432	.6725142
dvcew2	-.8346564	3.597118	-0.23	0.817	-7.884878	6.215565
sepaw2	0	(omitted)				
accdw2	.1481124	.4606844	0.32	0.748	-.7548124	1.051037
movew2	.2192344	.5237343	0.42	0.676	-.807266	1.245735
illw2	-.2794365	.3922624	-0.71	0.476	-1.048257	.4893838
shfamw2	-.0130582	.0087013	-1.50	0.133	-.0301125	.0039961
shhlw2	-.0041104	.0095817	-0.43	0.668	-.0228901	.0146694
shjobw2	.0000993	.009716	0.01	0.992	-.0189438	.0191423
shrelaw2	.0041598	.0074695	0.56	0.578	-.0104802	.0187997
suprtw2	.0129457	.0070817	1.83	0.068	-.0009342	.0268256
suchrw2	-.0024472	.0063512	-0.39	0.700	-.0148953	.010001
havmilsq	-8.45e-06	.000015	-0.56	0.573	-.0000379	.000021
_cons	3.897935	3.960914	0.98	0.325	-3.865314	11.66118

Logistic model for HP2hmcare

Classified	True D	True ~D	Total
+	41	17	58
-	29	183	212
Total	70	200	270

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2hmcare != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   58.57%
Specificity                     Pr( -|~D)   91.50%
Positive predictive value       Pr( D| +)   70.69%
Negative predictive value       Pr(~D| -)   86.32%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    8.50%
False - rate for true D         Pr( -| D)   41.43%
False + rate for classified +   Pr(~D| +)   29.31%
False - rate for classified -   Pr( D| -)   13.68%
--------------------------------------------------
Correctly classified                        82.96%
--------------------------------------------------


Logistic model for HP2hmcare, goodness-of-fit test
--------------------------------------------------

       number of observations =       270
 number of covariate patterns =       270
            Pearson chi2(220) =       227.64
                  Prob > chi2 =         0.3476

Measures of Fit for logistic of HP2hmcare

Log-Lik Intercept Only:     -154.516   Log-Lik Full Model:           -98.319
D(214):                      196.639   LR(49):                       112.393
                                       Prob > LR:                      0.000
McFadden's R2:                 0.364   McFadden's Adj R2:              0.001
Maximum Likelihood R2:         0.340   Cragg & Uhler's R2:             0.500
McKelvey and Zavoina's R2:     0.594   Efron's R2:                     0.390
Variance of y*:                8.112   Variance of error:              3.290
Count R2:                      0.830   Adj Count R2:                   0.343
AIC:                           1.143   AIC*n:                        308.639
BIC:                       -1001.423   BIC':                         161.930
Full main model for HP2hmcare for wave= 2

chunk 2 H1 test:Gender= 2  model Wave =  2 for HP2hmcare

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: bf29 != 0 predicts success perfectly
      bf29 dropped and 4 obs not used

note: _Ieduc_8 omitted because of collinearity
note: marrw26 omitted because of collinearity
convergence not achieved
```

Logistic regression

Number of obs =	358
LR chi2(51) =	177.21
Prob > chi2 =	0.0000
Pseudo R2 =	0.3881

Log likelihood = -139.72732

HP2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0689184	.0184884	3.73	0.000	.0326818	.105155
_Ieduc_2	-17.33023	2.370203	-7.31	0.000	-21.97575	-12.68472
_Ieduc_3	-17.85228	2.271622	-7.86	0.000	-22.30458	-13.39998
_Ieduc_4	-16.22367	2.322199	-6.99	0.000	-20.7751	-11.67225
_Ieduc_5	-17.51753	2.330541	-7.52	0.000	-22.0853	-12.94975
_Ieduc_6	-18.46499	2.320848	-7.96	0.000	-23.01377	-13.91621
_Ieduc_7	-17.72595	3.034199	-5.84	0.000	-23.67287	-11.77903
_Ieduc_8	0	(omitted)				
occ1w2	-2.066459	1.51974	-1.36	0.174	-5.045095	.9121779
occ2w2	-2.243078	1.553998	-1.44	0.149	-5.288858	.8027026
occ3w2	-1.29392	1.568233	-0.83	0.409	-4.367601	1.77976
occ4w2	-3.169244	1.685231	-1.88	0.060	-6.472236	.1337472
occ5w2	-4.174961	1.966604	-2.12	0.034	-8.029433	-.3204881
occ6w2	-5.016961	2.033875	-2.47	0.014	-9.003283	-1.030639
occ7w2	-1.338521	1.557092	-0.86	0.390	-4.390365	1.713323
occ8w2	.0102882	1.823109	0.01	0.995	-3.56294	3.583517
marrw21	-.4364242	1.195764	-0.36	0.715	-2.780078	1.907229
marrw22	.2779117	1.516808	0.18	0.855	-2.694977	3.2508
marrw23	1.982364	.8407589	2.36	0.018	.3345069	3.630221
marrw25	.7265557	1.247315	0.58	0.560	-1.718137	3.171248
marrw26	0	(omitted)				
inc1w2	2.1918	1.615301	1.36	0.175	-.9741308	5.357731
inc2w2	3.722591	1.551917	2.40	0.016	.6808895	6.764292
inc3w2	3.205652	1.561296	2.05	0.040	.1455678	6.265737
inc4w2	3.577016	1.917029	1.87	0.062	-.1802924	7.334325
radhlw2	-.0017814	.0069396	-0.26	0.797	-.0153829	.01182
havmil	.0004744	.0029523	0.16	0.872	-.005312	.0062609
avgcumdosew2	-.232422	.1275125	-1.82	0.068	-.4823419	.017498
bf1	-.0155252	.0283044	-0.55	0.583	-.0710008	.0399503
bf4	-.6331543	.2104116	-3.01	0.003	-1.045553	-.2207551
bf2	.0002047	.0001148	1.78	0.075	-.0000203	.0004296
bf4m	.369727	.1901433	1.94	0.052	-.0029469	.742401
bf5m	-.0009929	.001436	-0.69	0.489	-.0038073	.0018215
bf7m	.0003779	.0005084	0.74	0.457	-.0006186	.0013744
bf8	-5.36e-07	.0000355	-0.02	0.988	-.0000702	.0000691
bf15m	-.0123361	.496536	-0.02	0.980	-.9855287	.9608566
bf17	.0006265	.0248268	0.03	0.980	-.0480332	.0492861
bf20	-.0134138	.0231788	-0.58	0.563	-.0588434	.0320158
bf22	-.0000815	.0001207	-0.67	0.500	-.000318	.0001551
bf29	0	(omitted)				
bf30	-.0000914	.0002999	-0.30	0.760	-.0006791	.0004963

bf40	**.1554702**	**.1284498**	**1.21**	**0.226**	**-.0962868**	**.4072271**
deaw2	**.7476902**	**.2584678**	**2.89**	**0.004**	**.2411026**	**1.254278**
dvcew2	**1.232183**	**1.276036**	**0.97**	**0.334**	**-1.268802**	**3.733168**
sepaw2	**-1.82805**	**1.829743**	**-1.00**	**0.318**	**-5.41428**	**1.75818**
accdw2	**-.7440138**	**.5452818**	**-1.36**	**0.172**	**-1.812746**	**.3247189**
movew2	**-.5229006**	**.4948092**	**-1.06**	**0.291**	**-1.492709**	**.4469077**
illw2	**-.1315546**	**.1759029**	**-0.75**	**0.455**	**-.4763179**	**.2132087**
shfamw2	**-.0038201**	**.0062872**	**-0.61**	**0.543**	**-.0161429**	**.0085027**
shhlw2	**-.0093005**	**.0066582**	**-1.40**	**0.162**	**-.0223502**	**.0037493**
shjobw2	**.0003285**	**.005919**	**0.06**	**0.956**	**-.0112724**	**.0119295**
shrelaw2	**-.0125743**	**.0072115**	**-1.74**	**0.081**	**-.0267086**	**.00156**
suprtw2	**-.0093988**	**.0049637**	**-1.89**	**0.058**	**-.0191275**	**.0003299**
suchrw2	**.0039959**	**.0055359**	**0.72**	**0.470**	**-.0068542**	**.0148461**
havmilsq	**-6.92e-07**	**2.48e-06**	**-0.28**	**0.780**	**-5.56e-06**	**4.18e-06**
_cons	**12.62346**	**.**	**.**	**.**	**.**	**.**

Note: 4 failures and 0 successes completely determined.
Warning: convergence not achieved

Logistic model for HP2hmcare

	True		
Classified	D	~D	Total
+	**86**	**29**	**115**
-	**34**	**209**	**243**
Total	**120**	**238**	**358**

Classified + if predicted Pr(D) >= .5
True D defined as HP2hmcare != 0

Sensitivity	Pr(+| D)	**71.67%**
Specificity	Pr(-|~D)	**87.82%**
Positive predictive value	Pr(D| +)	**74.78%**
Negative predictive value	Pr(~D| -)	**86.01%**
False + rate for true ~D	Pr(+|~D)	**12.18%**
False - rate for true D	Pr(-| D)	**28.33%**
False + rate for classified +	Pr(~D| +)	**25.22%**
False - rate for classified -	Pr(D| -)	**13.99%**
Correctly classified		**82.40%**

Logistic model for HP2hmcare, goodness-of-fit test

```
      number of observations =       358
 number of covariate patterns =       358
           Pearson chi2(305) =       382.80
                 Prob > chi2 =         0.0016

Measures of Fit for logistic of HP2hmcare

Log-Lik Intercept Only:     -228.331    Log-Lik Full Model:          -139.727
D(302):                      279.455    LR(51):                       177.208
                                        Prob > LR:                      0.000
McFadden's R2:                 0.388    McFadden's Adj R2:              0.143
Maximum Likelihood R2:         0.390    Cragg & Uhler's R2:             0.542
McKelvey and Zavoina's R2:     0.930    Efron's R2:                     0.437
Variance of y*:               47.071    Variance of error:              3.290
Count R2:                      0.824    Adj Count R2:                   0.475
AIC:                           1.093    AIC*n:                        391.455
BIC:                       -1496.466    BIC':                         122.699
Full main model for HP2probsoc for wave= 2

chunk 2 H1 test:Gender= 1  model Wave =  2 for HP2hmcare

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: _Ieduc_4 != 0 predicts failure perfectly
      _Ieduc_4 dropped and 13 obs not used

note: _Ieduc_7 != 0 predicts failure perfectly
      _Ieduc_7 dropped and 4 obs not used

note: _Ieduc_8 != 0 predicts failure perfectly
      _Ieduc_8 dropped and 2 obs not used

note: occ6w2 != 0 predicts failure perfectly
      occ6w2 dropped and 5 obs not used

note: occ7w2 != 0 predicts failure perfectly
      occ7w2 dropped and 14 obs not used

note: occ8w2 != 0 predicts failure perfectly
      occ8w2 dropped and 44 obs not used

note: marrw22 != 0 predicts failure perfectly
      marrw22 dropped and 7 obs not used

note: marrw26 != 0 predicts failure perfectly
      marrw26 dropped and 1 obs not used

note: inc4w2 != 0 predicts failure perfectly
      inc4w2 dropped and 10 obs not used
```

```
note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 14 obs not used

note: dvcew2 != 0 predicts failure perfectly
      dvcew2 dropped and 5 obs not used

note: marrw25 != 0 predicts success perfectly
      marrw25 dropped and 1 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 1 obs not used

note: _Ieduc_6 omitted because of collinearity
note: bf17 omitted because of collinearity

Logistic regression                               Number of obs   =        217
                                                  LR chi2(40)     =     113.21
                                                  Prob > chi2     =     0.0000
Log likelihood = -47.096671                       Pseudo R2       =     0.5459
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1159429	.0419803	2.76	0.006	.0336631	.1982228
_Ieduc_2	-.0479004	1.407174	-0.03	0.973	-2.80591	2.710109
_Ieduc_3	-.8284731	.7880615	-1.05	0.293	-2.373045	.716099
_Ieduc_4	0	(omitted)				
_Ieduc_5	.2454375	1.100079	0.22	0.823	-1.910677	2.401552
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w2	-1.3725	16.54078	-0.08	0.934	-33.79183	31.04683
occ2w2	-1.244674	16.53791	-0.08	0.940	-33.65838	31.16903
occ3w2	-.7835828	16.55903	-0.05	0.962	-33.23868	31.67152
occ4w2	-3.862736	16.57719	-0.23	0.816	-36.35344	28.62797
occ5w2	-2.775301	16.58962	-0.17	0.867	-35.29036	29.73976
occ6w2	0	(omitted)				
occ7w2	0	(omitted)				
occ8w2	0	(omitted)				
marrw21	12.58162	1075.856	0.01	0.991	-2096.057	2121.22
marrw22	0	(omitted)				
marrw23	10.03646	1075.856	0.01	0.993	-2098.602	2118.675
marrw25	0	(omitted)				
marrw26	0	(omitted)				
inc1w2	.0757099	16.62358	0.00	0.996	-32.50591	32.65733
inc2w2	2.619578	16.55703	0.16	0.874	-29.83159	35.07075
inc3w2	4.14916	16.572	0.25	0.802	-28.33137	36.62969
inc4w2	0	(omitted)				
radhlw2	.0130005	.0142344	0.91	0.361	-.0148985	.0408995

havmil	-.002818	.0090337	-0.31	0.755	-.0205238	.0148877
avgcumdosew2	.0114306	.0823526	0.14	0.890	-.1499776	.1728387
bf1	.0037783	.0642153	0.06	0.953	-.1220814	.129638
bf4	.016836	.3033169	0.06	0.956	-.5776542	.6113261
bf2	.0006302	.0003126	2.02	0.044	.0000175	.0012428
bf4m	-.5319968	.2823116	-1.88	0.060	-1.085317	.0213237
bf5m	.0058806	.0028091	2.09	0.036	.0003749	.0113862
bf7m	.0013216	.0011466	1.15	0.249	-.0009257	.0035688
bf8	-.0001829	.0000911	-2.01	0.045	-.0003616	-4.31e-06
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0241214	.0536769	-0.45	0.653	-.1293262	.0810833
bf22	.0004188	.0002855	1.47	0.142	-.0001407	.0009783
bf29	-.000073	.0001017	-0.72	0.473	-.0002723	.0001263
bf30	-.0016782	.0007996	-2.10	0.036	-.0032455	-.000111
bf40	-.1773534	.3453449	-0.51	0.608	-.854217	.4995102
deaw2	-.7039739	.7523846	-0.94	0.349	-2.178621	.7706728
dvcew2	0	(omitted)				
sepaw2	0	(omitted)				
accdw2	-.0469037	.8655378	-0.05	0.957	-1.743327	1.649519
movew2	1.585081	.8835966	1.79	0.073	-.1467362	3.316899
illw2	-.6496621	.6161215	-1.05	0.292	-1.857238	.5579138
shfamw2	-.0160373	.0116025	-1.38	0.167	-.0387778	.0067033
shhlw2	-.0105176	.0138341	-0.76	0.447	-.0376321	.0165968
shjobw2	.0250231	.0129193	1.94	0.053	-.0002983	.0503445
shrelaw2	-.0217826	.0114409	-1.90	0.057	-.0442063	.0006412
suprtw2	.0083099	.0108445	0.77	0.444	-.012945	.0295648
suchrw2	.0212997	.0111718	1.91	0.057	-.0005966	.0431959
havmilsq	6.25e-06	.0000101	0.62	0.537	-.0000136	.0000261
_cons	-13.61182	1075.864	-0.01	0.990	-2122.266	2095.042

Note: 2 failures and 0 successes completely determined.

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	26	4	30
-	14	173	187
Total	40	177	217

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   65.00%
Specificity                     Pr( -|~D)   97.74%
Positive predictive value       Pr( D| +)   86.67%
Negative predictive value       Pr(~D| -)   92.51%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    2.26%
False - rate for true D         Pr( -| D)   35.00%
False + rate for classified +   Pr(~D| +)   13.33%
False - rate for classified -   Pr( D| -)    7.49%
--------------------------------------------------
Correctly classified                        91.71%
--------------------------------------------------
```

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       217
 number of covariate patterns =       217
            Pearson chi2(176) =       158.28
                  Prob > chi2 =         0.8270
```

Measures of Fit for **logistic** of **HP2probsoc**

```
Log-Lik Intercept Only:     -103.704    Log-Lik Full Model:            -47.097
D(161):                       94.193    LR(40):                        113.215
                                        Prob > LR:                       0.000
McFadden's R2:                 0.546    McFadden's Adj R2:               0.006
Maximum Likelihood R2:         0.407    Cragg & Uhler's R2:              0.660
McKelvey and Zavoina's R2:     0.840    Efron's R2:                      0.562
Variance of y*:               20.586    Variance of error:               3.290
Count R2:                      0.917    Adj Count R2:                    0.550
AIC:                           0.950    AIC*n:                         206.193
BIC:                        -771.970    BIC':                          101.981
Full main model for HP2probsoc for wave= 2

chunk 2 H1 test:Gender= 2  model Wave =  2 for HP2probsoc

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: occ6w2 != 0 predicts failure perfectly
      occ6w2 dropped and 9 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used
```

```
note: _Ieduc_8 omitted because of collinearity
note: marrw26 omitted because of collinearity
note: bf17 omitted because of collinearity

Logistic regression                             Number of obs   =        341
                                                LR chi2(50)     =     174.30
                                                Prob > chi2     =     0.0000
Log likelihood = -89.934458                     Pseudo R2       =     0.4921
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1034919	.0270041	3.83	0.000	.0505648	.1564191
_Ieduc_2	-13.17654	1236.407	-0.01	0.991	-2436.49	2410.137
_Ieduc_3	-13.38577	1236.407	-0.01	0.991	-2436.699	2409.928
_Ieduc_4	-12.54323	1236.407	-0.01	0.992	-2435.857	2410.771
_Ieduc_5	-12.47221	1236.407	-0.01	0.992	-2435.786	2410.842
_Ieduc_6	-13.80248	1236.407	-0.01	0.991	-2437.116	2409.511
_Ieduc_7	-15.17121	1236.497	-0.01	0.990	-2438.662	2408.319
_Ieduc_8	0	(omitted)				
occ1w2	-1.147886	3.571925	-0.32	0.748	-8.14873	5.852957
occ2w2	-1.271517	3.611241	-0.35	0.725	-8.349419	5.806385
occ3w2	.2117582	3.586153	0.06	0.953	-6.816973	7.24049
occ4w2	-1.534382	3.689834	-0.42	0.678	-8.766324	5.69756
occ5w2	-2.414751	3.8284	-0.63	0.528	-9.918277	5.088775
occ6w2	0	(omitted)				
occ7w2	-.6787306	3.585162	-0.19	0.850	-7.70552	6.348058
occ8w2	2.909649	3.844529	0.76	0.449	-4.625489	10.44479
marrw21	-1.181403	1.729099	-0.68	0.494	-4.570375	2.207569
marrw22	1.066113	1.762045	0.61	0.545	-2.387432	4.519658
marrw23	.6150888	.9283649	0.66	0.508	-1.204473	2.434651
marrw25	.4424041	1.311023	0.34	0.736	-2.127154	3.011962
marrw26	0	(omitted)				
inc1w2	.302891	3.591795	0.08	0.933	-6.736898	7.34268
inc2w2	1.142371	3.560505	0.32	0.748	-5.836091	8.120833
inc3w2	.8314334	3.569583	0.23	0.816	-6.164821	7.827688
inc4w2	.0290561	3.848853	0.01	0.994	-7.514557	7.57267
radhlw2	.0111407	.0096438	1.16	0.248	-.0077607	.0300422
havmil	.0005515	.0077361	0.07	0.943	-.0146109	.0157139
avgcumdosew2	.546822	.23001	2.38	0.017	.0960107	.9976333
bf1	.0275412	.0390831	0.70	0.481	-.0490602	.1041427
bf4	-.4078914	.2433269	-1.68	0.094	-.8848033	.0690205
bf2	.0001427	.0001416	1.01	0.314	-.0001349	.0004204
bf4m	.1372093	.2260724	0.61	0.544	-.3058844	.5803031
bf5m	-.0016005	.0026021	-0.62	0.538	-.0067005	.0034995
bf7m	.0002743	.0007319	0.37	0.708	-.0011601	.0017087
bf8	.0000233	.0000548	0.42	0.671	-.0000841	.0001306
bf15m	0	(omitted)				
bf17	0	(omitted)				

bf20	-.04615	.0319322	-1.45	0.148	-.1087361	.016436
bf22	9.68e-06	.0001672	0.06	0.954	-.000318	.0003374
bf29	-.0000266	.0000488	-0.54	0.586	-.0001221	.000069
bf30	.0001087	.0003798	0.29	0.775	-.0006357	.0008531
bf40	-.0077229	.1716746	-0.04	0.964	-.344199	.3287532
deaw2	-.0328171	.2515674	-0.13	0.896	-.5258803	.460246
dvcew2	1.645199	1.729548	0.95	0.341	-1.744652	5.03505
sepaw2	-.787699	2.185185	-0.36	0.718	-5.070584	3.495186
accdw2	-.7482691	.7741464	-0.97	0.334	-2.265568	.7690299
movew2	-.1983887	.9882329	-0.20	0.841	-2.13529	1.738512
illw2	.037099	.2627647	0.14	0.888	-.4779104	.5521084
shfamw2	-.0189411	.0086476	-2.19	0.028	-.03589	-.0019922
shhlw2	.0013266	.0086367	0.15	0.878	-.0156011	.0182542
shjobw2	-.0022444	.0078272	-0.29	0.774	-.0175855	.0130966
shrelaw2	-.0057107	.0089259	-0.64	0.522	-.0232051	.0117837
suprtw2	.0019185	.0068705	0.28	0.780	-.0115475	.0153845
suchrw2	-.0030114	.0077253	-0.39	0.697	-.0181526	.0121298
havmilsq	-5.64e-06	.0000161	-0.35	0.725	-.0000371	.0000258
_cons	8.438379	1236.411	0.01	0.995	-2414.883	2431.76

Note: 2 failures and 0 successes completely determined.

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	52	13	65
-	21	255	276
Total	73	268	341

Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0

Sensitivity	Pr(+| D)	71.23%
Specificity	Pr(-|~D)	95.15%
Positive predictive value	Pr(D| +)	80.00%
Negative predictive value	Pr(~D| -)	92.39%
False + rate for true ~D	Pr(+|~D)	4.85%
False - rate for true D	Pr(-| D)	28.77%
False + rate for classified +	Pr(~D| +)	20.00%
False - rate for classified -	Pr(D| -)	7.61%
Correctly classified		90.03%

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       341
 number of covariate patterns =       341
            Pearson chi2(290) =       351.64
                  Prob > chi2 =         0.0077
```

Measures of Fit for **logistic** of **HP2probsoc**

Log-Lik Intercept Only:	**-177.084**	Log-Lik Full Model:	**-89.934**
D(285):	**179.869**	LR(50):	**174.299**
		Prob > LR:	**0.000**
McFadden's R2:	**0.492**	McFadden's Adj R2:	**0.176**
Maximum Likelihood R2:	**0.400**	Cragg & Uhler's R2:	**0.619**
McKelvey and Zavoina's R2:	**0.858**	Efron's R2:	**0.531**
Variance of y*:	**23.160**	Variance of error:	**3.290**
Count R2:	**0.900**	Adj Count R2:	**0.534**
AIC:	**0.856**	AIC*n:	**291.869**
BIC:	**-1482.218**	BIC':	**117.295**

```
Full main model for HP2pbfhm for wave= 2

chunk 2 H1 test:Gender= 1  model Wave =  2 for HP2probsoc

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: _Ieduc_2 != 0 predicts failure perfectly
      _Ieduc_2 dropped and 10 obs not used

note: _Ieduc_4 != 0 predicts failure perfectly
      _Ieduc_4 dropped and 13 obs not used

note: _Ieduc_7 != 0 predicts failure perfectly
      _Ieduc_7 dropped and 4 obs not used

note: _Ieduc_8 != 0 predicts failure perfectly
      _Ieduc_8 dropped and 2 obs not used

note: occ5w2 != 0 predicts failure perfectly
      occ5w2 dropped and 17 obs not used

note: occ6w2 != 0 predicts failure perfectly
      occ6w2 dropped and 5 obs not used

note: occ8w2 != 0 predicts failure perfectly
      occ8w2 dropped and 44 obs not used

note: marrw22 != 0 predicts failure perfectly
      marrw22 dropped and 7 obs not used
```

```
note: marrw26 != 0 predicts failure perfectly
      marrw26 dropped and 3 obs not used

note: inc1w2 != 0 predicts failure perfectly
      inc1w2 dropped and 13 obs not used

note: inc4w2 != 0 predicts failure perfectly
      inc4w2 dropped and 10 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: bf29 != 0 predicts failure perfectly
      bf29 dropped and 4 obs not used

note: dvcew2 != 0 predicts failure perfectly
      dvcew2 dropped and 4 obs not used

note: marrw25 != 0 predicts success perfectly
      marrw25 dropped and 1 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 1 obs not used

note: _Ieduc_6 omitted because of collinearity
note: bf17 omitted because of collinearity

Logistic regression                               Number of obs   =        188
                                                  LR chi2(37)     =      54.88
                                                  Prob > chi2     =     0.0294
Log likelihood = -38.373257                       Pseudo R2       =     0.4169
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0444593	.0428518	1.04	0.299	-.0395286	.1284472
_Ieduc_2	0	(omitted)				
_Ieduc_3	-1.216759	1.079528	-1.13	0.260	-3.332594	.8990769
_Ieduc_4	0	(omitted)				
_Ieduc_5	-.8969887	1.218662	-0.74	0.462	-3.285522	1.491544
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w2	-.1675434	7.199614	-0.02	0.981	-14.27853	13.94344
occ2w2	-.7756164	7.209263	-0.11	0.914	-14.90551	13.35428
occ3w2	1.02351	7.214423	0.14	0.887	-13.1165	15.16352
occ4w2	1.180132	7.249556	0.16	0.871	-13.02874	15.389
occ5w2	0	(omitted)				
occ6w2	0	(omitted)				

occ7w2	**-1.331976**	**7.411247**	**-0.18**	**0.857**	**-15.85775**	**13.1938**
occ8w2	**0**	(omitted)				
marrw21	**11.23886**	**2191.219**	**0.01**	**0.996**	**-4283.471**	**4305.948**
marrw22	**0**	(omitted)				
marrw23	**11.19426**	**2191.219**	**0.01**	**0.996**	**-4283.515**	**4305.904**
marrw25	**0**	(omitted)				
marrw26	**0**	(omitted)				
inc1w2	**0**	(omitted)				
inc2w2	**1.591635**	**7.274442**	**0.22**	**0.827**	**-12.66601**	**15.84928**
inc3w2	**2.001132**	**7.228455**	**0.28**	**0.782**	**-12.16638**	**16.16864**
inc4w2	**0**	(omitted)				
radhlw2	**.0450707**	**.0190833**	**2.36**	**0.018**	**.0076681**	**.0824733**
havmil	**-.0149705**	**.0133639**	**-1.12**	**0.263**	**-.0411632**	**.0112223**
avgcumdosew2	**-.0788123**	**.3549706**	**-0.22**	**0.824**	**-.7745419**	**.6169173**
bf1	**-.1607809**	**.1318246**	**-1.22**	**0.223**	**-.4191523**	**.0975906**
bf4	**-.2790034**	**.3019344**	**-0.92**	**0.355**	**-.8707839**	**.3127772**
bf2	**.0006459**	**.0003574**	**1.81**	**0.071**	**-.0000546**	**.0013465**
bf4m	**.1083622**	**.270079**	**0.40**	**0.688**	**-.4209828**	**.6377072**
bf5m	**.0014293**	**.004266**	**0.34**	**0.738**	**-.0069319**	**.0097905**
bf7m	**.0014124**	**.0012328**	**1.15**	**0.252**	**-.0010038**	**.0038286**
bf8	**-.0000455**	**.0000891**	**-0.51**	**0.610**	**-.0002201**	**.0001291**
bf15m	**0**	(omitted)				
bf17	**0**	(omitted)				
bf20	**.0990519**	**.1141451**	**0.87**	**0.386**	**-.1246683**	**.3227721**
bf22	**.0000324**	**.0003377**	**0.10**	**0.924**	**-.0006295**	**.0006943**
bf29	**0**	(omitted)				
bf30	**-.0005162**	**.0007544**	**-0.68**	**0.494**	**-.0019949**	**.0009625**
bf40	**-.3427693**	**.4881552**	**-0.70**	**0.483**	**-1.299536**	**.6139973**
deaw2	**1.277518**	**.6289072**	**2.03**	**0.042**	**.0448826**	**2.510153**
dvcew2	**0**	(omitted)				
sepaw2	**0**	(omitted)				
accdw2	**-.8756107**	**1.266217**	**-0.69**	**0.489**	**-3.35735**	**1.606128**
movew2	**.2828439**	**1.570553**	**0.18**	**0.857**	**-2.795383**	**3.36107**
illw2	**1.383819**	**.6666357**	**2.08**	**0.038**	**.0772372**	**2.690401**
shfamw2	**-.0048065**	**.0139543**	**-0.34**	**0.731**	**-.0321564**	**.0225433**
shhlw2	**-.0126567**	**.0158426**	**-0.80**	**0.424**	**-.0437076**	**.0183942**
shjobw2	**.0113436**	**.0152838**	**0.74**	**0.458**	**-.018612**	**.0412992**
shrelaw2	**-.0154518**	**.0162014**	**-0.95**	**0.340**	**-.047206**	**.0163025**
suprtw2	**-.0271504**	**.0129849**	**-2.09**	**0.037**	**-.0526003**	**-.0017006**
suchrw2	**.0166833**	**.0117501**	**1.42**	**0.156**	**-.0063465**	**.039713**
havmilsq	**.0000156**	**.0000131**	**1.19**	**0.234**	**-.00001**	**.0000412**
_cons	**-21.58182**	**2191.227**	**-0.01**	**0.992**	**-4316.307**	**4273.143**

Logistic model for HP2pbfhm

Classified	True D	~D	Total
+	**8**	**4**	**12**
-	**13**	**163**	**176**
Total	**21**	**167**	**188**

Classified + if predicted Pr(D) >= .5
True D defined as HP2pbfhm != 0

Sensitivity	Pr(+| D)	**38.10%**
Specificity	Pr(-|~D)	**97.60%**
Positive predictive value	Pr(D| +)	**66.67%**
Negative predictive value	Pr(~D| -)	**92.61%**
False + rate for true ~D	Pr(+|~D)	**2.40%**
False - rate for true D	Pr(-| D)	**61.90%**
False + rate for classified +	Pr(~D| +)	**33.33%**
False - rate for classified -	Pr(D| -)	**7.39%**
Correctly classified		**90.96%**

Logistic model for HP2pbfhm, goodness-of-fit test

number of observations = **188**
number of covariate patterns = **188**
Pearson chi2(**150**) = **103.39**
Prob > chi2 = **0.9986**

Measures of Fit for **logistic** of **HP2pbfhm**

Log-Lik Intercept Only:	**-65.811**	Log-Lik Full Model:	**-38.373**
D(132):	**76.747**	LR(37):	**54.876**
		Prob > LR:	**0.029**
McFadden's R2:	**0.417**	McFadden's Adj R2:	**-0.434**
Maximum Likelihood R2:	**0.253**	Cragg & Uhler's R2:	**0.503**
McKelvey and Zavoina's R2:	**0.754**	Efron's R2:	**0.356**
Variance of y*:	**13.351**	Variance of error:	**3.290**
Count R2:	**0.910**	Adj Count R2:	**0.190**
AIC:	**1.004**	AIC*n:	**188.747**
BIC:	**-614.464**	BIC':	**138.873**

Full main model for HP2pbfhm for wave= 2

chunk 2 H1 test:Gender= 2 model Wave = 2 for HP2pbfhm

i.educ   _Ieduc_1-8   (naturally coded; _Ieduc_1 omitted)

```
note: occ6w2 != 0 predicts failure perfectly
      occ6w2 dropped and 9 obs not used

note: marrw22 != 0 predicts failure perfectly
      marrw22 dropped and 8 obs not used

note: inc4w2 != 0 predicts failure perfectly
      inc4w2 dropped and 9 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 5 obs not used

note: movew2 != 0 predicts failure perfectly
      movew2 dropped and 37 obs not used

note: _Ieduc_8 omitted because of collinearity
note: marrw26 omitted because of collinearity
note: bf17 omitted because of collinearity
convergence not achieved

Logistic regression                               Number of obs   =        282
                                                  LR chi2(45)     =     115.64
                                                  Prob > chi2     =     0.0000
Log likelihood = -69.237721                       Pseudo R2       =     0.4551
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0573216	.0276334	2.07	0.038	.0031611	.1114822
_Ieduc_2	24.79783	5.419934	4.58	0.000	14.17495	35.4207
_Ieduc_3	25.40648	5.405293	4.70	0.000	14.8123	36.00065
_Ieduc_4	26.0435	5.498915	4.74	0.000	15.26582	36.82117
_Ieduc_5	25.99152	5.477282	4.75	0.000	15.25625	36.7268
_Ieduc_6	25.22458	5.399044	4.67	0.000	14.64265	35.80651
_Ieduc_7	24.91381	.	.	.	.	.
_Ieduc_8	0	(omitted)				
occ1w2	.1268694	2.741862	0.05	0.963	-5.247082	5.50082
occ2w2	-2.180454	2.943693	-0.74	0.459	-7.949987	3.589079
occ3w2	.8729362	2.776498	0.31	0.753	-4.568899	6.314772
occ4w2	-1.353704	2.942107	-0.46	0.645	-7.120128	4.41272
occ5w2	2.7416	3.183927	0.86	0.389	-3.498782	8.981982
occ6w2	0	(omitted)				
occ7w2	1.723368	2.749238	0.63	0.531	-3.66504	7.111775
occ8w2	1.071406	3.004006	0.36	0.721	-4.816337	6.959149
marrw21	1.363708	1.652619	0.83	0.409	-1.875365	4.602781
marrw22	0	(omitted)				

marrw23	.3462148	1.088773	0.32	0.750	-1.78774	2.48017
marrw25	1.049262	1.686487	0.62	0.534	-2.256193	4.354717
marrw26	0	(omitted)				
inc1w2	-.4454501	2.822154	-0.16	0.875	-5.976771	5.085871
inc2w2	1.223562	2.740806	0.45	0.655	-4.148319	6.595444
inc3w2	.8897543	2.773723	0.32	0.748	-4.546642	6.326151
inc4w2	0	(omitted)				
radhlw2	.0162494	.0128872	1.26	0.207	-.0090091	.0415079
havmil	.0034284	.0174028	0.20	0.844	-.0306804	.0375372
avgcumdosew2	.2841701	.2286177	1.24	0.214	-.1639122	.7322525
bf1	-.0034211	.0428716	-0.08	0.936	-.0874479	.0806057
bf4	-.5482161	.2947147	-1.86	0.063	-1.125846	.0294141
bf2	.0001496	.0001782	0.84	0.401	-.0001996	.0004989
bf4m	.2436517	.2745867	0.89	0.375	-.2945285	.7818318
bf5m	-.0026475	.0036526	-0.72	0.469	-.0098065	.0045114
bf7m	-.0008652	.0008476	-1.02	0.307	-.0025264	.000796
bf8	.0000586	.0000741	0.79	0.429	-.0000867	.0002038
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0232359	.0348214	-0.67	0.505	-.0914845	.0450127
bf22	.0000587	.0002121	0.28	0.782	-.0003569	.0004744
bf29	.0000275	.0000434	0.63	0.527	-.0000576	.0001126
bf30	.0000875	.0005016	0.17	0.862	-.0008956	.0010706
bf40	-.3662342	.2446561	-1.50	0.134	-.8457514	.1132829
deaw2	.0470792	.2393731	0.20	0.844	-.4220834	.5162419
dvcew2	-1.779925	2.445695	-0.73	0.467	-6.573399	3.013549
sepaw2	0	(omitted)				
accdw2	-2.474844	1.428768	-1.73	0.083	-5.275177	.3254891
movew2	0	(omitted)				
illw2	-.2222062	.2628556	-0.85	0.398	-.7373938	.2929813
shfamw2	.0141915	.0093043	1.53	0.127	-.0040446	.0324276
shhlw2	.0087578	.0103731	0.84	0.399	-.0115731	.0290887
shjobw2	-.0066068	.0093228	-0.71	0.479	-.0248791	.0116655
shrelaw2	-.0301632	.0120406	-2.51	0.012	-.0537624	-.0065641
suprtw2	-.0125721	.0077017	-1.63	0.103	-.0276672	.002523
suchrw2	-.0060097	.0083821	-0.72	0.473	-.0224384	.010419
havmilsq	-.0000291	.000055	-0.53	0.597	-.0001368	.0000787
_cons	-27.59558	6.62482	-4.17	0.000	-40.57999	-14.61117

Note: 3 failures and 0 successes completely determined.
Warning: convergence not achieved

Logistic model for HP2pbfhm

Classified	True D	~D	Total
+	**29**	**7**	**36**
-	**18**	**228**	**246**
Total	**47**	**235**	**282**

Classified + if predicted Pr(D) >= .5
True D defined as HP2pbfhm != 0

Sensitivity	Pr(+| D)	**61.70%**
Specificity	Pr(-|~D)	**97.02%**
Positive predictive value	Pr(D| +)	**80.56%**
Negative predictive value	Pr(~D| -)	**92.68%**
False + rate for true ~D	Pr(+|~D)	**2.98%**
False - rate for true D	Pr(-| D)	**38.30%**
False + rate for classified +	Pr(~D| +)	**19.44%**
False - rate for classified -	Pr(D| -)	**7.32%**
Correctly classified		**91.13%**

Logistic model for HP2pbfhm, goodness-of-fit test

```
       number of observations =       282
 number of covariate patterns =       282
            Pearson chi2(235) =       241.50
                  Prob > chi2 =         0.3715
```

Measures of Fit for **logistic** of **HP2pbfhm**

Log-Lik Intercept Only:	**-127.058**	Log-Lik Full Model:	**-69.238**
D(226):	**138.475**	LR(45):	**115.641**
		Prob > LR:	**0.000**
McFadden's R2:	**0.455**	McFadden's Adj R2:	**0.014**
Maximum Likelihood R2:	**0.336**	Cragg & Uhler's R2:	**0.566**
McKelvey and Zavoina's R2:	**0.950**	Efron's R2:	**0.475**
Variance of y*:	**65.351**	Variance of error:	**3.290**
Count R2:	**0.911**	Adj Count R2:	**0.468**
AIC:	**0.888**	AIC*n:	**250.475**
BIC:	**-1136.596**	BIC':	**138.245**

Full main model for HP2sxlife for wave= 2

chunk 2 H1 test:Gender= 1 model Wave = 2 for HP2pbfhm

```
i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
```

```
note: _Ieduc_4 != 0 predicts failure perfectly
      _Ieduc_4 dropped and 13 obs not used

note: _Ieduc_7 != 0 predicts failure perfectly
      _Ieduc_7 dropped and 4 obs not used

note: occ8w2 != 0 predicts failure perfectly
      occ8w2 dropped and 44 obs not used

note: marrw22 != 0 predicts failure perfectly
      marrw22 dropped and 8 obs not used

note: inc4w2 != 0 predicts failure perfectly
      inc4w2 dropped and 10 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 15 obs not used

note: bf29 != 0 predicts failure perfectly
      bf29 dropped and 7 obs not used

note: dvcew2 != 0 predicts failure perfectly
      dvcew2 dropped and 5 obs not used

note: marrw25 != 0 predicts success perfectly
      marrw25 dropped and 1 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 1 obs not used

note: _Ieduc_8 omitted because of collinearity
note: bf17 omitted because of collinearity

Logistic regression                               Number of obs   =        230
                                                  LR chi2(43)     =     118.95
                                                  Prob > chi2     =     0.0000
Log likelihood = -79.289222                       Pseudo R2       =     0.4286
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0432555	.0255157	1.70	0.090	-.0067543	.0932653
_Ieduc_2	.5443827	2.506052	0.22	0.828	-4.367389	5.456154
_Ieduc_3	.1796978	2.28739	0.08	0.937	-4.303504	4.6629
_Ieduc_4	0	(omitted)				
_Ieduc_5	.4368682	2.317398	0.19	0.850	-4.105148	4.978884
_Ieduc_6	.0186117	2.278221	0.01	0.993	-4.446619	4.483842
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w2	-1.105479	2.816517	-0.39	0.695	-6.62575	4.414792
occ2w2	-1.682569	2.827571	-0.60	0.552	-7.224506	3.859369
occ3w2	-1.865477	2.89914	-0.64	0.520	-7.547687	3.816733
occ4w2	-1.59066	2.872678	-0.55	0.580	-7.221004	4.039685
occ5w2	-2.726982	3.04188	-0.90	0.370	-8.688957	3.234994
occ6w2	-.2649406	3.127605	-0.08	0.932	-6.394934	5.865053
occ7w2	-.4867933	2.955714	-0.16	0.869	-6.279885	5.306299
occ8w2	0	(omitted)				
marrw21	12.4944	2424.109	0.01	0.996	-4738.671	4763.66
marrw22	0	(omitted)				
marrw23	12.40066	2424.109	0.01	0.996	-4738.765	4763.566
marrw25	0	(omitted)				
marrw26	11.43457	2424.11	0.00	0.996	-4739.733	4762.602
inc1w2	2.196401	3.02039	0.73	0.467	-3.723454	8.116257
inc2w2	2.746044	2.89601	0.95	0.343	-2.930031	8.422118
inc3w2	2.442664	2.894545	0.84	0.399	-3.23054	8.115869
inc4w2	0	(omitted)				
radhlw2	.017419	.0089507	1.95	0.052	-.000124	.0349621
havmil	-.00067	.0081563	-0.08	0.935	-.0166561	.0153161
avgcumdosew2	.0428691	.0600095	0.71	0.475	-.0747474	.1604856
bf1	.0291477	.0465434	0.63	0.531	-.0620756	.1203711
bf4	-.2016289	.2378115	-0.85	0.397	-.667731	.2644731
bf2	.0001142	.0001714	0.67	0.505	-.0002218	.0004501
bf4m	-.1000095	.2151889	-0.46	0.642	-.5217719	.321753
bf5m	.0017962	.0020545	0.87	0.382	-.0022305	.0058229
bf7m	.0013709	.0007292	1.88	0.060	-.0000582	.0028001
bf8	-.0000501	.0000511	-0.98	0.327	-.0001502	.0000501
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0313008	.0383214	-0.82	0.414	-.1064094	.0438077
bf22	-.0000976	.0002072	-0.47	0.637	-.0005038	.0003085
bf29	0	(omitted)				
bf30	-.000152	.0004096	-0.37	0.711	-.0009547	.0006507
bf40	.4229922	.2840028	1.49	0.136	-.1336431	.9796275
deaw2	-.1048722	.3851952	-0.27	0.785	-.8598409	.6500964
dvcew2	0	(omitted)				
sepaw2	0	(omitted)				
accdw2	-.0405016	.5549457	-0.07	0.942	-1.128175	1.047172

movew2	.116116	.6197485	0.19	0.851	-1.098569	1.330801
illw2	.1039214	.3746121	0.28	0.781	-.6303047	.8381476
shfamw2	-.0104564	.0087383	-1.20	0.231	-.0275832	.0066703
shhlw2	-.0161825	.0102333	-1.58	0.114	-.0362395	.0038744
shjobw2	.018921	.0100999	1.87	0.061	-.0008744	.0387165
shrelaw2	-.008619	.0087825	-0.98	0.326	-.0258323	.0085944
suprtw2	.0043231	.0078499	0.55	0.582	-.0110624	.0197086
suchrw2	.006568	.0072888	0.90	0.368	-.0077177	.0208538
havmilsq	-9.54e-07	.000013	-0.07	0.941	-.0000264	.0000245
_cons	-15.57434	2424.111	-0.01	0.995	-4766.744	4735.596

Logistic model for HP2sxlife

Classified	True D	True ~D	Total
+	46	14	60
-	21	149	170
Total	67	163	230

Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0

Sensitivity	Pr(+| D)	68.66%
Specificity	Pr(-|~D)	91.41%
Positive predictive value	Pr(D| +)	76.67%
Negative predictive value	Pr(~D| -)	87.65%
False + rate for true ~D	Pr(+|~D)	8.59%
False - rate for true D	Pr(-| D)	31.34%
False + rate for classified +	Pr(~D| +)	23.33%
False - rate for classified -	Pr(D| -)	12.35%
Correctly classified		84.78%

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       230
 number of covariate patterns =       230
             Pearson chi2(186) =       248.57
                   Prob > chi2 =         0.0015
```

Measures of Fit for **logistic** of **HP2sxlife**

```
Log-Lik Intercept Only:     -138.763     Log-Lik Full Model:          -79.289
D(174):                      158.578     LR(43):                      118.947
                                         Prob > LR:                     0.000
McFadden's R2:                 0.429     McFadden's Adj R2:             0.025
Maximum Likelihood R2:         0.404     Cragg & Uhler's R2:            0.576
McKelvey and Zavoina's R2:     0.727     Efron's R2:                    0.487
Variance of y*:               12.053     Variance of error:             3.290
Count R2:                      0.848     Adj Count R2:                  0.478
AIC:                           1.176     AIC*n:                       270.578
BIC:                        -787.647     BIC':                        114.891
Full main model for HP2sxlife for wave= 2

chunk 2 H1 test:Gender= 2  model Wave =  2 for HP2sxlife

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: bf29 != 0 predicts success perfectly
      bf29 dropped and 4 obs not used

note: _Ieduc_8 omitted because of collinearity
note: marrw26 omitted because of collinearity
note: bf17 omitted because of collinearity

Logistic regression                                Number of obs   =        346
                                                   LR chi2(50)     =     172.45
                                                   Prob > chi2     =     0.0000
Log likelihood = -111.04151                        Pseudo R2       =     0.4371
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1025465	.0220099	4.66	0.000	.0594079	.145685
_Ieduc_2	-15.48089	5580.75	-0.00	0.998	-10953.55	10922.59
_Ieduc_3	-13.96022	5580.75	-0.00	0.998	-10952.03	10924.11
_Ieduc_4	-13.71505	5580.75	-0.00	0.998	-10951.78	10924.35
_Ieduc_5	-14.90906	5580.75	-0.00	0.998	-10952.98	10923.16
_Ieduc_6	-14.036	5580.75	-0.00	0.998	-10952.1	10924.03
_Ieduc_7	-14.35246	5580.751	-0.00	0.998	-10952.42	10923.72
_Ieduc_8	0	(omitted)				
occ1w2	-1.981003	1.626317	-1.22	0.223	-5.168525	1.20652
occ2w2	-1.199181	1.677697	-0.71	0.475	-4.487407	2.089044
occ3w2	-.7937582	1.670584	-0.48	0.635	-4.068042	2.480526
occ4w2	-.8102305	1.76353	-0.46	0.646	-4.266686	2.646225
occ5w2	-.5056346	1.89785	-0.27	0.790	-4.225353	3.214084
occ6w2	-1.645496	1.931022	-0.85	0.394	-5.430229	2.139237
occ7w2	-1.288749	1.611028	-0.80	0.424	-4.446306	1.868809
occ8w2	-.2492981	1.896994	-0.13	0.895	-3.967338	3.468742

marrw21	-.8001566	1.260909	-0.63	0.526	-3.271493	1.67118
marrw22	-.5650635	1.458662	-0.39	0.698	-3.423989	2.293861
marrw23	-1.064868	.8865967	-1.20	0.230	-2.802566	.6728293
marrw25	-2.27112	1.443829	-1.57	0.116	-5.100972	.5587328
marrw26	0	(omitted)				
inc1w2	.5165366	1.706152	0.30	0.762	-2.82746	3.860533
inc2w2	.9386295	1.604285	0.59	0.558	-2.205712	4.082971
inc3w2	-.0514022	1.646264	-0.03	0.975	-3.27802	3.175215
inc4w2	.0543252	2.074029	0.03	0.979	-4.010697	4.119348
radhlw2	.0162077	.0081749	1.98	0.047	.0001852	.0322303
havmil	-.0014745	.0033419	-0.44	0.659	-.0080244	.0050754
avgcumdosew2	.1675129	.1251712	1.34	0.181	-.0778182	.412844
bf1	-.0006699	.0354295	-0.02	0.985	-.0701104	.0687707
bf4	-.6290339	.2665349	-2.36	0.018	-1.151433	-.1066351
bf2	.0000625	.000131	0.48	0.633	-.0001943	.0003193
bf4m	.4940985	.2505491	1.97	0.049	.0030312	.9851658
bf5m	-.002308	.0018303	-1.26	0.207	-.0058953	.0012792
bf7m	.00018	.0006254	0.29	0.773	-.0010457	.0014058
bf8	6.11e-06	.0000425	0.14	0.886	-.0000772	.0000894
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0009967	.0290168	-0.03	0.973	-.0578686	.0558752
bf22	-.0001321	.0001453	-0.91	0.363	-.0004169	.0001527
bf29	0	(omitted)				
bf30	-.0003317	.0003532	-0.94	0.348	-.001024	.0003605
bf40	.149372	.145042	1.03	0.303	-.1349052	.4336491
deaw2	.0989356	.2231863	0.44	0.658	-.3385014	.5363726
dvcew2	-14.61462	1422.458	-0.01	0.992	-2802.582	2773.353
sepaw2	13.19252	1422.46	0.01	0.993	-2774.778	2801.163
accdw2	-.3607593	.7071147	-0.51	0.610	-1.746679	1.02516
movew2	.2363995	.5198633	0.45	0.649	-.7825137	1.255313
illw2	.5572231	.2374511	2.35	0.019	.0918274	1.022619
shfamw2	.001878	.0072955	0.26	0.797	-.0124209	.0161768
shhlw2	.0092925	.0072946	1.27	0.203	-.0050046	.0235896
shjobw2	-.0069643	.0067203	-1.04	0.300	-.0201358	.0062073
shrelaw2	-.0169606	.0081044	-2.09	0.036	-.032845	-.0010762
suprtw2	-.0129953	.0058047	-2.24	0.025	-.0243723	-.0016183
suchrw2	.0118245	.0068566	1.72	0.085	-.0016142	.0252632
havmilsq	-6.39e-08	2.74e-06	-0.02	0.981	-5.43e-06	5.30e-06
_cons	5.841436	5580.75	0.00	0.999	-10932.23	10943.91

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2sxlife

Classified	True D	~D	Total
+	**57**	**17**	**74**
-	**32**	**240**	**272**
Total	**89**	**257**	**346**

Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0

Sensitivity	Pr(+| D)	**64.04%**
Specificity	Pr(-|~D)	**93.39%**
Positive predictive value	Pr(D| +)	**77.03%**
Negative predictive value	Pr(~D| -)	**88.24%**
False + rate for true ~D	Pr(+|~D)	**6.61%**
False - rate for true D	Pr(-| D)	**35.96%**
False + rate for classified +	Pr(~D| +)	**22.97%**
False - rate for classified -	Pr(D| -)	**11.76%**
Correctly classified		**85.84%**

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       346
 number of covariate patterns =       346
            Pearson chi2(295) =       312.67
                  Prob > chi2 =         0.2294
```

Measures of Fit for **logistic** of **HP2sxlife**

Log-Lik Intercept Only:	**-197.267**	Log-Lik Full Model:	**-111.042**
D(290):	**222.083**	LR(50):	**172.450**
		Prob > LR:	**0.000**
McFadden's R2:	**0.437**	McFadden's Adj R2:	**0.153**
Maximum Likelihood R2:	**0.393**	Cragg & Uhler's R2:	**0.577**
McKelvey and Zavoina's R2:	**0.765**	Efron's R2:	**0.477**
Variance of y*:	**14.018**	Variance of error:	**3.290**
Count R2:	**0.858**	Adj Count R2:	**0.449**
AIC:	**0.966**	AIC*n:	**334.083**
BIC:	**-1473.384**	BIC':	**119.872**

Full main model for HP2inthob for wave= 2

chunk 2 H1 test:Gender= 1 model Wave = 2 for HP2sxlife

```
i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
```

```
note: _Ieduc_4 != 0 predicts failure perfectly
      _Ieduc_4 dropped and 13 obs not used

note: _Ieduc_7 != 0 predicts failure perfectly
      _Ieduc_7 dropped and 4 obs not used

note: _Ieduc_8 != 0 predicts failure perfectly
      _Ieduc_8 dropped and 2 obs not used

note: occ6w2 != 0 predicts failure perfectly
      occ6w2 dropped and 5 obs not used

note: occ8w2 != 0 predicts failure perfectly
      occ8w2 dropped and 44 obs not used

note: marrw22 != 0 predicts failure perfectly
      marrw22 dropped and 7 obs not used

note: marrw26 != 0 predicts failure perfectly
      marrw26 dropped and 3 obs not used

note: inc4w2 != 0 predicts failure perfectly
      inc4w2 dropped and 10 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 14 obs not used

note: bf29 != 0 predicts failure perfectly
      bf29 dropped and 7 obs not used

note: dvcew2 != 0 predicts failure perfectly
      dvcew2 dropped and 5 obs not used

note: marrw25 != 0 predicts success perfectly
      marrw25 dropped and 1 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 1 obs not used

note: _Ieduc_6 omitted because of collinearity
note: bf17 omitted because of collinearity
convergence not achieved

Logistic regression                               Number of obs   =        222
                                                  LR chi2(38)     =      87.92
                                                  Prob > chi2     =     0.0000
Log likelihood = -56.065557                       Pseudo R2       =     0.4395
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0628957	.0331927	1.89	0.058	-.0021608	.1279522
_Ieduc_2	-1.6685	1.649966	-1.01	0.312	-4.902374	1.565374
_Ieduc_3	-1.215713	.7907875	-1.54	0.124	-2.765628	.334202
_Ieduc_4	0	(omitted)				
_Ieduc_5	-.4779232	.8553091	-0.56	0.576	-2.154298	1.198452
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w2	-1.082181	4.607241	-0.23	0.814	-10.11221	7.947846
occ2w2	-2.603476	4.649764	-0.56	0.576	-11.71685	6.509893
occ3w2	-1.004632	4.641	-0.22	0.829	-10.10083	8.091562
occ4w2	-2.019345	4.651526	-0.43	0.664	-11.13617	7.097479
occ5w2	.6122404	4.674482	0.13	0.896	-8.549576	9.774057
occ6w2	0	(omitted)				
occ7w2	-.673024	4.745659	-0.14	0.887	-9.974345	8.628297
occ8w2	0	(omitted)				
marrw21	20.61385	.	.	.	.	.
marrw22	0	(omitted)				
marrw23	18.42435	.9174041	20.08	0.000	16.62627	20.22243
marrw25	0	(omitted)				
marrw26	0	(omitted)				
inc1w2	-2.249864	4.853935	-0.46	0.643	-11.7634	7.263674
inc2w2	-.5178361	4.628216	-0.11	0.911	-9.588972	8.5533
inc3w2	.1239712	4.620272	0.03	0.979	-8.931596	9.179539
inc4w2	0	(omitted)				
radhlw2	.0343977	.012966	2.65	0.008	.0089848	.0598107
havmil	.0008574	.0092743	0.09	0.926	-.01732	.0190348
avgcumdosew2	-.193618	.3161247	-0.61	0.540	-.8132111	.425975
bf1	-1.886122	.0917045	-20.57	0.000	-2.065859	-1.706384
bf4	-.3784715	.2556706	-1.48	0.139	-.8795766	.1226337
bf2	.0000547	.0002055	0.27	0.790	-.0003482	.0004575
bf4m	.0723497	.2259826	0.32	0.749	-.370568	.5152675
bf5m	.001341	.0024956	0.54	0.591	-.0035502	.0062323
bf7m	.0004844	.0009455	0.51	0.608	-.0013686	.0023375
bf8	-.0000611	.0000655	-0.93	0.351	-.0001895	.0000674
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	1.88387	.0868318	21.70	0.000	1.713682	2.054057
bf22	.0002363	.000249	0.95	0.343	-.0002517	.0007243
bf29	0	(omitted)				
bf30	-.0000596	.000538	-0.11	0.912	-.0011141	.0009949
bf40	.1920076	.3256519	0.59	0.555	-.4462584	.8302735
deaw2	.0505905	.5418118	0.09	0.926	-1.011341	1.112522
dvcew2	0	(omitted)				
sepaw2	0	(omitted)				
accdw2	.6361143	.5519575	1.15	0.249	-.4457025	1.717931

movew2	**1.255677**	**.7610419**	**1.65**	**0.099**	**-.2359377**	**2.747292**
illw2	**-.8504102**	**.5855803**	**-1.45**	**0.146**	**-1.998126**	**.2973061**
shfamw2	**-.0084797**	**.0105947**	**-0.80**	**0.423**	**-.029245**	**.0122856**
shhlw2	**-.0041615**	**.0127463**	**-0.33**	**0.744**	**-.0291439**	**.0208209**
shjobw2	**.0098894**	**.0132981**	**0.74**	**0.457**	**-.0161744**	**.0359532**
shrelaw2	**-.0107778**	**.0098723**	**-1.09**	**0.275**	**-.0301272**	**.0085716**
suprtw2	**-.0039714**	**.0091015**	**-0.44**	**0.663**	**-.0218101**	**.0138672**
suchrw2	**.0137146**	**.0086956**	**1.58**	**0.115**	**-.0033283**	**.0307576**
havmilsq	**-2.48e-06**	**.0000157**	**-0.16**	**0.875**	**-.0000333**	**.0000283**
_cons	**-98.68478**	**.**	**.**	**.**	**.**	**.**

Note: 21 failures and 0 successes completely determined.
Warning: convergence not achieved

Logistic model for HP2inthob

Classified	True D	True ~D	Total
+	**20**	**6**	**26**
-	**17**	**179**	**196**
Total	**37**	**185**	**222**

Classified + if predicted Pr(D) >= .5
True D defined as HP2inthob != 0

Sensitivity	Pr(+| D)	**54.05%**
Specificity	Pr(-|~D)	**96.76%**
Positive predictive value	Pr(D| +)	**76.92%**
Negative predictive value	Pr(~D| -)	**91.33%**
False + rate for true ~D	Pr(+|~D)	**3.24%**
False - rate for true D	Pr(-| D)	**45.95%**
False + rate for classified +	Pr(~D| +)	**23.08%**
False - rate for classified -	Pr(D| -)	**8.67%**
Correctly classified		**89.64%**

Logistic model for HP2inthob, goodness-of-fit test

number of observations = **222**
number of covariate patterns = **222**
Pearson chi2(**181**) = **382.48**
Prob > chi2 = **0.0000**

```
Measures of Fit for logistic of HP2inthob

Log-Lik Intercept Only:     -100.025   Log-Lik Full Model:          -56.066
D(166):                      112.131   LR(38):                       87.918
                                       Prob > LR:                     0.000
McFadden's R2:                 0.439   McFadden's Adj R2:            -0.120
Maximum Likelihood R2:         0.327   Cragg & Uhler's R2:            0.551
McKelvey and Zavoina's R2:     0.982   Efron's R2:                    0.466
Variance of y*:              186.924   Variance of error:             3.290
Count R2:                      0.896   Adj Count R2:                  0.378
AIC:                           1.010   AIC*n:                       224.131
BIC:                        -784.713   BIC':                        117.384
Full main model for HP2inthob for wave= 2

chunk 2 H1 test:Gender= 2  model Wave =  2 for HP2inthob

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 7 obs not used

note: _Ieduc_8 omitted because of collinearity
note: marrw26 omitted because of collinearity
note: bf17 omitted because of collinearity

Logistic regression                               Number of obs   =        343
                                                  LR chi2(50)     =     122.71
                                                  Prob > chi2     =     0.0000
Log likelihood = -105.17277                       Pseudo R2       =     0.3684
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0823123	.0222811	3.69	0.000	.0386422	.1259824
_Ieduc_2	-11.49207	1090.325	-0.01	0.992	-2148.489	2125.505
_Ieduc_3	-10.49189	1090.324	-0.01	0.992	-2147.489	2126.505
_Ieduc_4	-9.521531	1090.325	-0.01	0.993	-2146.519	2127.476
_Ieduc_5	-10.03097	1090.325	-0.01	0.993	-2147.028	2126.966
_Ieduc_6	-10.65519	1090.325	-0.01	0.992	-2147.652	2126.342
_Ieduc_7	-10.56771	1090.33	-0.01	0.992	-2147.575	2126.44
_Ieduc_8	0	(omitted)				
occ1w2	-1.444251	1.786645	-0.81	0.419	-4.94601	2.057508
occ2w2	-1.72162	1.86422	-0.92	0.356	-5.375425	1.932185
occ3w2	-.6960307	1.813742	-0.38	0.701	-4.2509	2.858838
occ4w2	-1.340236	1.971898	-0.68	0.497	-5.205085	2.524613
occ5w2	-1.866674	2.177453	-0.86	0.391	-6.134403	2.401055
occ6w2	-.6630026	2.009767	-0.33	0.741	-4.602073	3.276067

occ7w2	-.3132082	1.768051	-0.18	0.859	-3.778525	3.152109
occ8w2	-.4424864	1.980995	-0.22	0.823	-4.325166	3.440193
marrw21	1.198754	1.252366	0.96	0.338	-1.255838	3.653346
marrw22	-.723147	1.45696	-0.50	0.620	-3.578736	2.132442
marrw23	-.1412732	.8614541	-0.16	0.870	-1.829692	1.547146
marrw25	.030411	1.273943	0.02	0.981	-2.466472	2.527294
marrw26	0	(omitted)				
inc1w2	.7639278	1.820866	0.42	0.675	-2.804904	4.33276
inc2w2	1.088119	1.754837	0.62	0.535	-2.351299	4.527537
inc3w2	.8549853	1.806256	0.47	0.636	-2.685212	4.395182
inc4w2	2.107171	2.102907	1.00	0.316	-2.014451	6.228794
radhlw2	.0162662	.0092193	1.76	0.078	-.0018033	.0343356
havmil	.0028568	.0035632	0.80	0.423	-.004127	.0098406
avgcumdosew2	.1191237	.1112746	1.07	0.284	-.0989705	.3372179
bf1	-.0579291	.0444461	-1.30	0.192	-.1450419	.0291837
bf4	-.5134212	.2911522	-1.76	0.078	-1.084069	.0572265
bf2	.0000225	.0001357	0.17	0.868	-.0002436	.0002885
bf4m	.3813738	.2769085	1.38	0.168	-.1613568	.9241045
bf5m	-.0013491	.0018728	-0.72	0.471	-.0050196	.0023214
bf7m	-.0007653	.0006452	-1.19	0.236	-.0020299	.0004993
bf8	.0000124	.0000428	0.29	0.772	-.0000716	.0000964
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.0409398	.0388667	1.05	0.292	-.0352376	.1171172
bf22	.0000496	.0001446	0.34	0.732	-.0002338	.0003329
bf29	.0000147	.0000386	0.38	0.704	-.000061	.0000904
bf30	.0005975	.0003487	1.71	0.087	-.0000859	.0012809
bf40	-.092913	.1571517	-0.59	0.554	-.4009247	.2150987
deaw2	.1650922	.2350487	0.70	0.482	-.2955947	.6257792
dvcew2	-.44027	1.751166	-0.25	0.801	-3.872493	2.991953
sepaw2	0	(omitted)				
accdw2	.3072193	.6191348	0.50	0.620	-.9062626	1.520701
movew2	-.4208456	.8150343	-0.52	0.606	-2.018283	1.176592
illw2	.146668	.2184808	0.67	0.502	-.2815466	.5748825
shfamw2	.0028218	.0077742	0.36	0.717	-.0124154	.018059
shhlw2	.0082475	.0076919	1.07	0.284	-.0068283	.0233233
shjobw2	-.0093426	.0067931	-1.38	0.169	-.0226569	.0039716
shrelaw2	-.0142034	.0081278	-1.75	0.081	-.0301336	.0017268
suprtw2	-.0099735	.0060387	-1.65	0.099	-.021809	.0018621
suchrw2	-.0045113	.0068989	-0.65	0.513	-.0180329	.0090102
havmilsq	-2.60e-06	4.34e-06	-0.60	0.550	-.0000111	5.92e-06
_cons	2.140849	1090.33	0.00	0.998	-2134.867	2139.148

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2inthob

```
              ───────── True ─────────
Classified │          D            ~D  │      Total
───────────┼───────────────────────────┼───────────
     +     │         32            12  │         44
     -     │         33           266  │        299
───────────┼───────────────────────────┼───────────
   Total   │         65           278  │        343

Classified + if predicted Pr(D) >= .5
True D defined as HP2inthob != 0
──────────────────────────────────────────────────
Sensitivity                     Pr( +| D)   49.23%
Specificity                     Pr( -|~D)   95.68%
Positive predictive value       Pr( D| +)   72.73%
Negative predictive value       Pr(~D| -)   88.96%
──────────────────────────────────────────────────
False + rate for true ~D        Pr( +|~D)    4.32%
False - rate for true D         Pr( -| D)   50.77%
False + rate for classified +   Pr(~D| +)   27.27%
False - rate for classified -   Pr( D| -)   11.04%
──────────────────────────────────────────────────
Correctly classified                        86.88%
──────────────────────────────────────────────────
```

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       343
 number of covariate patterns =       343
            Pearson chi2(292) =       307.38
                  Prob > chi2 =         0.2568

Measures of Fit for logistic of HP2inthob

Log-Lik Intercept Only:     -166.528   Log-Lik Full Model:          -105.173
D(287):                      210.346   LR(50):                       122.710
                                       Prob > LR:                      0.000
McFadden's R2:                 0.368   McFadden's Adj R2:              0.032
Maximum Likelihood R2:         0.301   Cragg & Uhler's R2:             0.484
McKelvey and Zavoina's R2:     0.627   Efron's R2:                     0.388
Variance of y*:                8.828   Variance of error:              3.290
Count R2:                      0.869   Adj Count R2:                   0.308
AIC:                           0.940   AIC*n:                        322.346
BIC:                       -1465.083   BIC':                         169.177
Full main model for HP2vacatn for wave= 2

chunk 2 H1 test:Gender= 1  model Wave =  2 for HP2inthob

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
```

```
note: _Ieduc_4 != 0 predicts failure perfectly
      _Ieduc_4 dropped and 13 obs not used

note: _Ieduc_7 != 0 predicts failure perfectly
      _Ieduc_7 dropped and 4 obs not used

note: _Ieduc_8 != 0 predicts failure perfectly
      _Ieduc_8 dropped and 2 obs not used

note: occ6w2 != 0 predicts failure perfectly
      occ6w2 dropped and 5 obs not used

note: occ8w2 != 0 predicts failure perfectly
      occ8w2 dropped and 44 obs not used

note: marrw22 != 0 predicts failure perfectly
      marrw22 dropped and 7 obs not used

note: marrw26 != 0 predicts failure perfectly
      marrw26 dropped and 3 obs not used

note: inc1w2 != 0 predicts failure perfectly
      inc1w2 dropped and 15 obs not used

note: inc4w2 != 0 predicts failure perfectly
      inc4w2 dropped and 10 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 14 obs not used

note: bf29 != 0 predicts failure perfectly
      bf29 dropped and 6 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 3 obs not used

note: marrw25 != 0 predicts success perfectly
      marrw25 dropped and 2 obs not used

note: dvcew2 != 0 predicts failure perfectly
      dvcew2 dropped and 1 obs not used

note: _Ieduc_6 omitted because of collinearity
note: bf17 omitted because of collinearity
```

```
Logistic regression                               Number of obs   =        209
                                                  LR chi2(39)     =     102.98
                                                  Prob > chi2     =     0.0000
Log likelihood = -47.602962                       Pseudo R2       =     0.5196
```

HP2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1088786	.0407817	2.67	0.008	.028948	.1888093
_Ieduc_2	-.9318847	1.583195	-0.59	0.556	-4.034891	2.171121
_Ieduc_3	-.3013966	.8062315	-0.37	0.709	-1.881581	1.278788
_Ieduc_4	0	(omitted)				
_Ieduc_5	.7382214	.9602436	0.77	0.442	-1.143821	2.620264
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w2	.5124208	2.878835	0.18	0.859	-5.129992	6.154834
occ2w2	-.4408554	2.792442	-0.16	0.875	-5.913941	5.03223
occ3w2	-2.00202	3.038272	-0.66	0.510	-7.956923	3.952884
occ4w2	-1.69795	2.828364	-0.60	0.548	-7.241441	3.84554
occ5w2	.7563117	3.026518	0.25	0.803	-5.175555	6.688178
occ6w2	0	(omitted)				
occ7w2	-1.936351	3.240951	-0.60	0.550	-8.288498	4.415797
occ8w2	0	(omitted)				
marrw21	-1.786228	2.087814	-0.86	0.392	-5.878268	2.305811
marrw22	0	(omitted)				
marrw23	-3.710107	2.110606	-1.76	0.079	-7.846818	.4266038
marrw25	0	(omitted)				
marrw26	0	(omitted)				
inc1w2	0	(omitted)				
inc2w2	6.638966	3.131338	2.12	0.034	.5016569	12.77628
inc3w2	6.255863	3.02429	2.07	0.039	.3283623	12.18336
inc4w2	0	(omitted)				
radhlw2	.0154566	.0132775	1.16	0.244	-.0105668	.0414799
havmil	.0154293	.016452	0.94	0.348	-.016816	.0476745
avgcumdosew2	-.0557184	.2274565	-0.24	0.806	-.501525	.3900881
bf1	-.1915136	.1848361	-1.04	0.300	-.5537857	.1707584
bf4	-1.014161	.384844	-2.64	0.008	-1.768442	-.2598809
bf2	.0009651	.0003217	3.00	0.003	.0003345	.0015957
bf4m	.5255255	.2920885	1.80	0.072	-.0469573	1.098008
bf5m	-.0090927	.0046394	-1.96	0.050	-.0181857	3.32e-07
bf7m	.0026491	.0014384	1.84	0.066	-.0001701	.0054684
bf8	-.0000651	.0001057	-0.62	0.538	-.0002723	.0001421
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.1424239	.1725233	0.83	0.409	-.1957155	.4805633
bf22	-.0003108	.0003594	-0.86	0.387	-.0010152	.0003936
bf29	0	(omitted)				
bf30	-.0023793	.0008117	-2.93	0.003	-.0039701	-.0007885

bf40	.9125294	.4548855	2.01	0.045	.0209702	1.804089
deaw2	-.6840264	.6025074	-1.14	0.256	-1.864919	.4968663
dvcew2	0	(omitted)				
sepaw2	0	(omitted)				
accdw2	1.109415	.6826211	1.63	0.104	-.2284975	2.447328
movew2	1.822244	1.095619	1.66	0.096	-.3251288	3.969618
illw2	-.4132514	.5817296	-0.71	0.477	-1.55342	.7269176
shfamw2	.0127979	.0115841	1.10	0.269	-.0099065	.0355022
shhlw2	.0134786	.0158032	0.85	0.394	-.0174951	.0444522
shjobw2	-.038737	.0177181	-2.19	0.029	-.0734639	-.0040101
shrelaw2	-.0185842	.0149559	-1.24	0.214	-.0478973	.0107288
suprtw2	.013763	.0125463	1.10	0.273	-.0108273	.0383533
suchrw2	-.0155904	.0122501	-1.27	0.203	-.0396002	.0084195
havmilsq	-.000036	.0000355	-1.01	0.312	-.0001056	.0000337
_cons	-17.72332	9.218306	-1.92	0.055	-35.79086	.3442328

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2vacatn

Classified	True D	True ~D	Total
+	24	8	32
-	14	163	177
Total	38	171	209

Classified + if predicted Pr(D) >= .5
True D defined as HP2vacatn != 0

Sensitivity	Pr(+| D)	63.16%
Specificity	Pr(-|~D)	95.32%
Positive predictive value	Pr(D| +)	75.00%
Negative predictive value	Pr(~D| -)	92.09%
False + rate for true ~D	Pr(+|~D)	4.68%
False - rate for true D	Pr(-| D)	36.84%
False + rate for classified +	Pr(~D| +)	25.00%
False - rate for classified -	Pr(D| -)	7.91%
Correctly classified		89.47%

Logistic model for HP2vacatn, goodness-of-fit test

```
       number of observations =       209
 number of covariate patterns =       209
            Pearson chi2(169) =       254.11
                  Prob > chi2 =         0.0000

Measures of Fit for logistic of HP2vacatn

Log-Lik Intercept Only:      -99.095     Log-Lik Full Model:           -47.603
D(153):                       95.206     LR(39):                       102.984
                                         Prob > LR:                      0.000
McFadden's R2:                 0.520     McFadden's Adj R2:             -0.045
Maximum Likelihood R2:         0.389     Cragg & Uhler's R2:             0.635
McKelvey and Zavoina's R2:     0.876     Efron's R2:                     0.535
Variance of y*:               26.488     Variance of error:              3.290
Count R2:                      0.895     Adj Count R2:                   0.421
AIC:                           0.991     AIC*n:                        207.206
BIC:                        -722.171     BIC':                         105.367
Full main model for HP2vacatn for wave= 2

chunk 2 H1 test:Gender= 2  model Wave =  2 for HP2vacatn

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 7 obs not used

note: _Ieduc_8 omitted because of collinearity
note: marrw26 omitted because of collinearity
note: bf17 omitted because of collinearity

Logistic regression                               Number of obs   =        343
                                                  LR chi2(50)     =     113.11
                                                  Prob > chi2     =     0.0000
Log likelihood = -105.52458                       Pseudo R2       =     0.3489
```

HP2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0854752	.0223994	3.82	0.000	.0415731	.1293772
_Ieduc_2	-13.44949	933.6235	-0.01	0.989	-1843.318	1816.419
_Ieduc_3	-13.23035	933.6235	-0.01	0.989	-1843.099	1816.638
_Ieduc_4	-11.35201	933.6237	-0.01	0.990	-1841.221	1818.517
_Ieduc_5	-12.71553	933.6236	-0.01	0.989	-1842.584	1817.153
_Ieduc_6	-12.77592	933.6235	-0.01	0.989	-1842.644	1817.093
_Ieduc_7	-13.29025	933.6257	-0.01	0.989	-1843.163	1816.582
_Ieduc_8	0	(omitted)				
occ1w2	-1.13677	2.279208	-0.50	0.618	-5.603935	3.330396

occ2w2	-.2856297	2.305316	-0.12	0.901	-4.803966	4.232706
occ3w2	-.216915	2.29482	-0.09	0.925	-4.714679	4.280849
occ4w2	-.6834035	2.371062	-0.29	0.773	-5.330599	3.963792
occ5w2	-1.371419	2.630896	-0.52	0.602	-6.52788	3.785042
occ6w2	.0514808	2.451681	0.02	0.983	-4.753725	4.856686
occ7w2	-.181635	2.248007	-0.08	0.936	-4.587648	4.224378
occ8w2	.8447418	2.549831	0.33	0.740	-4.152835	5.842319
marrw21	-.3962422	1.357576	-0.29	0.770	-3.057042	2.264558
marrw22	-.7030307	1.344505	-0.52	0.601	-3.338211	1.93215
marrw23	-.2946063	.8362364	-0.35	0.725	-1.933599	1.344387
marrw25	-.3847231	1.312392	-0.29	0.769	-2.956964	2.187518
marrw26	0	(omitted)				
inc1w2	-.1652405	2.308326	-0.07	0.943	-4.689477	4.358996
inc2w2	.5715205	2.259629	0.25	0.800	-3.857271	5.000312
inc3w2	.4239257	2.273462	0.19	0.852	-4.031977	4.879829
inc4w2	-.1023194	2.63109	-0.04	0.969	-5.25916	5.054522
radhlw2	.0311839	.0092957	3.35	0.001	.0129647	.0494031
havmil	.0003102	.0031015	0.10	0.920	-.0057687	.006389
avgcumdosew2	.0845928	.134995	0.63	0.531	-.1799926	.3491782
bf1	-.0293287	.036543	-0.80	0.422	-.1009517	.0422942
bf4	-.0358912	.2239004	-0.16	0.873	-.474728	.4029456
bf2	.0000573	.0001382	0.41	0.678	-.0002135	.0003281
bf4m	-.0145732	.2099542	-0.07	0.945	-.4260759	.3969296
bf5m	-.0005729	.0016599	-0.35	0.730	-.0038263	.0026805
bf7m	-.0009478	.0006252	-1.52	0.130	-.0021731	.0002775
bf8	-.0000327	.0000408	-0.80	0.422	-.0001126	.0000472
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.0039961	.0309743	0.13	0.897	-.0567124	.0647046
bf22	.0000865	.0001546	0.56	0.576	-.0002165	.0003895
bf29	.0000586	.0000394	1.49	0.137	-.0000187	.000136
bf30	-.0003297	.0003684	-0.89	0.371	-.0010518	.0003924
bf40	-.198659	.1714101	-1.16	0.246	-.5346167	.1372987
deaw2	.2948234	.2283214	1.29	0.197	-.1526784	.7423251
dvcew2	1.552638	1.538913	1.01	0.313	-1.463576	4.568851
sepaw2	0	(omitted)				
accdw2	-.6724358	.784314	-0.86	0.391	-2.209663	.8647914
movew2	-.2536718	.8260112	-0.31	0.759	-1.872624	1.36528
illw2	.1943909	.2307856	0.84	0.400	-.2579405	.6467223
shfamw2	.0107227	.0072538	1.48	0.139	-.0034944	.0249399
shhlw2	.0100533	.0078834	1.28	0.202	-.0053979	.0255045
shjobw2	-.0092742	.0068673	-1.35	0.177	-.0227339	.0041855
shrelaw2	-.0224847	.0085804	-2.62	0.009	-.039302	-.0056674
suprtw2	-.0043934	.0060874	-0.72	0.470	-.0163245	.0075377
suchrw2	.0021142	.0069953	0.30	0.762	-.0115964	.0158248
havmilsq	-6.39e-07	2.42e-06	-0.26	0.792	-5.38e-06	4.10e-06
_cons	8.078046	933.628	0.01	0.993	-1821.799	1837.955

```
Logistic model for HP2vacatn

              -------- True --------
Classified |         D            ~D  |      Total
-----------+--------------------------+-----------
     +     |        30            11  |         41
     -     |        32           270  |        302
-----------+--------------------------+-----------
   Total   |        62           281  |        343

Classified + if predicted Pr(D) >= .5
True D defined as HP2vacatn != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   48.39%
Specificity                     Pr( -|~D)   96.09%
Positive predictive value       Pr( D| +)   73.17%
Negative predictive value       Pr(~D| -)   89.40%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    3.91%
False - rate for true D         Pr( -| D)   51.61%
False + rate for classified +   Pr(~D| +)   26.83%
False - rate for classified -   Pr( D| -)   10.60%
--------------------------------------------------
Correctly classified                        87.46%
--------------------------------------------------
```

Logistic model for HP2vacatn, goodness-of-fit test

```
       number of observations =       343
 number of covariate patterns =       343
            Pearson chi2(292) =       331.68
                  Prob > chi2 =         0.0548
```

Measures of Fit for **logistic** of **HP2vacatn**

```
Log-Lik Intercept Only:     -162.082   Log-Lik Full Model:         -105.525
D(287):                      211.049   LR(50):                      113.114
                                       Prob > LR:                     0.000
McFadden's R2:                 0.349   McFadden's Adj R2:             0.003
Maximum Likelihood R2:         0.281   Cragg & Uhler's R2:            0.460
McKelvey and Zavoina's R2:     0.590   Efron's R2:                    0.377
Variance of y*:                8.031   Variance of error:             3.290
Count R2:                      0.875   Adj Count R2:                  0.306
AIC:                           0.942   AIC*n:                       323.049
BIC:                       -1464.379   BIC':                        178.773
```

```
142 .
143 . title4 "trimming male models of dose and HP2work relationship in wave 2 "
    ___________________________________________________________________________

    trimming male models of dose and HP2work relationship in wave 2
    ___________________________________________________________________________


144 . * male models
145 .         forvalues j=2/2 {
  2. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  3. di as input "Gender =1 HP2work model"
  4. di _skip(5)
  5.         logit HP2work age inc1w2-inc4w2 bf2 bf4  bf5m bf30 bf40 illw`j' /
> //
>         shhlw`j' radhlw2 havmilsq ///
>          avgcumdosew`j' if gender==1
  6.                         estat class
  7.                         estat gof
  8.                         fitstat
  9. }
Gender =1 HP2work model


Iteration 0:   log likelihood = -172.87291
Iteration 1:   log likelihood = -142.40034
Iteration 2:   log likelihood = -139.93804
Iteration 3:   log likelihood = -139.91728
Iteration 4:   log likelihood = -139.91728

Logistic regression                               Number of obs   =        340
                                                  LR chi2(15)     =      65.91
                                                  Prob > chi2     =     0.0000
Log likelihood = -139.91728                       Pseudo R2       =     0.1906
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0011282	.0148134	0.08	0.939	-.0279056	.030162
inc1w2	-.9128308	1.006103	-0.91	0.364	-2.884756	1.059095
inc2w2	.2695533	.6709232	0.40	0.688	-1.045432	1.584539
inc3w2	.7986152	.6627163	1.21	0.228	-.5002849	2.097515
inc4w2	-.2811072	1.2809	-0.22	0.826	-2.791626	2.229412
bf2	.0000321	.0000932	0.34	0.730	-.0001506	.0002148
bf4	-.1434674	.0383586	-3.74	0.000	-.2186488	-.0682859
bf5m	-.0001776	.0008906	-0.20	0.842	-.0019232	.0015679
bf30	-.0001426	.0003057	-0.47	0.641	-.0007418	.0004566
bf40	.3375085	.0997566	3.38	0.001	.1419893	.5330278
illw2	-.0213359	.267186	-0.08	0.936	-.5450108	.502339
shhlw2	.0011092	.0043627	0.25	0.799	-.0074416	.00966

radhlw2	.000307	.0058685	0.05	0.958	-.011195	.011809
havmilsq	2.49e-08	1.65e-06	0.02	0.988	-3.21e-06	3.26e-06
avgcumdosew2	.0233352	.0524776	0.44	0.657	-.0795191	.1261894
_cons	-1.06417	1.235654	-0.86	0.389	-3.486007	1.357667

Logistic model for HP2work

	True		
Classified	D	~D	Total
+	19	15	34
-	51	255	306
Total	70	270	340

Classified + if predicted Pr(D) >= .5
True D defined as HP2work != 0

Sensitivity	Pr(+| D)	27.14%
Specificity	Pr(-|~D)	94.44%
Positive predictive value	Pr(D| +)	55.88%
Negative predictive value	Pr(~D| -)	83.33%
False + rate for true ~D	Pr(+|~D)	5.56%
False - rate for true D	Pr(-| D)	72.86%
False + rate for classified +	Pr(~D| +)	44.12%
False - rate for classified -	Pr(D| -)	16.67%
Correctly classified		80.59%

Logistic model for HP2work, goodness-of-fit test

```
      number of observations =       340
 number of covariate patterns =       336
            Pearson chi2(320) =       291.79
                  Prob > chi2 =         0.8693
```

Measures of Fit for **logit** of **HP2work**

```
    Log-Lik Intercept Only:      -172.873     Log-Lik Full Model:          -139.917
    D(324):                       279.835     LR(15):                        65.911
                                              Prob > LR:                      0.000
    McFadden's R2:                  0.191     McFadden's Adj R2:              0.098
    Maximum Likelihood R2:          0.176     Cragg & Uhler's R2:             0.276
    McKelvey and Zavoina's R2:      0.292     Efron's R2:                     0.182
    Variance of y*:                 4.649     Variance of error:              3.290
    Count R2:                       0.806     Adj Count R2:                   0.057
    AIC:                            0.917     AIC*n:                        311.835
    BIC:                        -1608.744     BIC':                          21.523

146 .
147 .
148 . forvalues j=2/2 {
      2. title4 "trimmed HP2work main effects models wave `j' for H1 part 2 with d
    > ose ns"
      3. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      4. di as input "Gender = male HP2work model"
      5.
149 . set more off
      6. forvalues j=2/2 {
      7.                logistic HP2work age bf4 illw`j' shhlw`j' havmilsq ///
    >                avgcumdosew`j' if gender==1, coef nolog
      8.                        estat class
      9.                        estat gof
     10.                        fitstat
     11. }
     12. }
    ------------------------------------------------------------------------------
    trimmed HP2work main effects models wave 2 for H1 part 2 with dose ns
    ------------------------------------------------------------------------------
    Gender = male HP2work model

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(6)      =      46.77
                                                      Prob > chi2     =     0.0000
    Log likelihood = -149.49038                       Pseudo R2       =     0.1353
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0127019	.0133613	0.95	0.342	-.0134858	.0388895
bf4	-.1397142	.0305029	-4.58	0.000	-.1994988	-.0799296
illw2	.2410569	.2214219	1.09	0.276	-.192922	.6750358
shhlw2	.0043743	.0038731	1.13	0.259	-.0032168	.0119654
havmilsq	2.84e-07	1.53e-06	0.19	0.852	-2.71e-06	3.28e-06
avgcumdosew2	.0173789	.0498005	0.35	0.727	-.0802284	.1149862
_cons	-.7234318	.9036114	-0.80	0.423	-2.494478	1.047614

Logistic model for HP2work

	True		
Classified	D	~D	Total
+	15	13	28
-	55	257	312
Total	70	270	340

Classified + if predicted Pr(D) >= .5
True D defined as HP2work != 0

Sensitivity	Pr(+| D)	21.43%
Specificity	Pr(-|~D)	95.19%
Positive predictive value	Pr(D| +)	53.57%
Negative predictive value	Pr(~D| -)	82.37%
False + rate for true ~D	Pr(+|~D)	4.81%
False - rate for true D	Pr(-| D)	78.57%
False + rate for classified +	Pr(~D| +)	46.43%
False - rate for classified -	Pr(D| -)	17.63%
Correctly classified		80.00%

Logistic model for HP2work, goodness-of-fit test

number of observations = 340
number of covariate patterns = 325
Pearson chi2(318) = 310.55
Prob > chi2 = 0.6069

Measures of Fit for **logistic** of **HP2work**

```
Log-Lik Intercept Only:      -172.873    Log-Lik Full Model:          -149.490
D(333):                       298.981    LR(6):                         46.765
                                         Prob > LR:                      0.000
McFadden's R2:                  0.135    McFadden's Adj R2:              0.095
Maximum Likelihood R2:          0.129    Cragg & Uhler's R2:             0.201
McKelvey and Zavoina's R2:      0.196    Efron's R2:                     0.134
Variance of y*:                 4.094    Variance of error:              3.290
Count R2:                       0.800    Adj Count R2:                   0.029
AIC:                            0.921    AIC*n:                        312.981
BIC:                        -1642.058    BIC':                         -11.791

150 .
151 . title4 "Simultaneous trimming"
------------------------------------------------------------------------------
Simultaneous trimming
------------------------------------------------------------------------------

152 . forvalues j=2/2 {
  2.                 logistic HP2work age bf8 illw`j' shhlw`j'  ///
>                 avgcumdosew`j' if gender==1, coef nolog
  3.                         estat class
  4.                         estat gof
  5.                         fitstat
  6. }

Logistic regression                               Number of obs   =        340
                                                  LR chi2(5)      =      26.93
                                                  Prob > chi2     =     0.0001
Log likelihood = -159.40747                       Pseudo R2       =     0.0779
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0348108	.0120851	2.88	0.004	.0111245	.0584972
bf8	-.0000289	.0000207	-1.40	0.163	-.0000694	.0000117
illw2	.4876542	.2119789	2.30	0.021	.0721831	.9031252
shhlw2	.0088288	.0036112	2.44	0.014	.0017511	.0159066
avgcumdosew2	.0118366	.0475514	0.25	0.803	-.0813624	.1050355
_cons	-3.658274	.6492228	-5.63	0.000	-4.930727	-2.385821

Logistic model for HP2work

Classified	True D	True ~D	Total
+	**6**	**5**	**11**
-	**64**	**265**	**329**
Total	**70**	**270**	**340**

Classified + if predicted Pr(D) >= .5
True D defined as HP2work != 0

Sensitivity	Pr(+| D)	**8.57%**
Specificity	Pr(-|~D)	**98.15%**
Positive predictive value	Pr(D| +)	**54.55%**
Negative predictive value	Pr(~D| -)	**80.55%**
False + rate for true ~D	Pr(+|~D)	**1.85%**
False - rate for true D	Pr(-| D)	**91.43%**
False + rate for classified +	Pr(~D| +)	**45.45%**
False - rate for classified -	Pr(D| -)	**19.45%**
Correctly classified		**79.71%**

Logistic model for HP2work, goodness-of-fit test

number of observations =	**340**
number of covariate patterns =	**311**
Pearson chi2(**305**) =	**333.90**
Prob > chi2 =	**0.1226**

Measures of Fit for **logistic** of **HP2work**

Log-Lik Intercept Only:	**-172.873**	Log-Lik Full Model:	**-159.407**
D(334):	**318.815**	LR(5):	**26.931**
		Prob > LR:	**0.000**
McFadden's R2:	**0.078**	McFadden's Adj R2:	**0.043**
Maximum Likelihood R2:	**0.076**	Cragg & Uhler's R2:	**0.119**
McKelvey and Zavoina's R2:	**0.136**	Efron's R2:	**0.088**
Variance of y*:	**3.807**	Variance of error:	**3.290**
Count R2:	**0.797**	Adj Count R2:	**0.014**
AIC:	**0.973**	AIC*n:	**330.815**
BIC:	**-1628.053**	BIC':	**2.214**

```
153 . // HP2work for men washes out   no dose impact
154 .
155 . scalar SigDoseWkFw2 = "no"

156 .
157 .
158 . des bf8

                storage  display     value
  variable name   type   format      label      variable label
  ---------------------------------------------------------------------------------
  bf8             float  %9.0g                  bf8 = max(0, radtlw3 - 40) *
                                                  bf5m

159 . * male sign main effects in main effects model: 4- age, bf8, illw2 shjobw2
160 . * male main effects model avgcumdosew2 was not signif.
161 . * male hp2wk w2  mediators: age illw2 ageXillw2 bf8
162 . * female signif main effects in main effects model
163 . * female hp2wk w2 mediators: radhlw2 age bf1 bf4 bf4m
164 . *  hypothnuym pt dv wave gender signif
165 .
166 .
167 . title4 " 1. Summary matrix construction Paid employment partition: first two
    >  rows"
  ---------------------------------------------------------------------------------
   1. Summary matrix construction Paid employment partition: first two rows
  ---------------------------------------------------------------------------------

168 .
169 .     matrix define HP2wkMw2 = J(1,8, 0)

170 .         matrix define HP2wkFw2 = J(1,8, 0)

171 . matrix colnames HP2wkMw2=  hypnum ptnum wave gender medsig numMAsig numModsi
    > g numMed

172 . matrix colnames HP2wkFw2=  hypnum ptnum wave gender medsig numMAsig numModsi
    > g numMed
```

```
173 .     matrix rownames HP2wkMw2 = workM

174 .     matrix rownames HP2wkFw2 = workF

175 .         matrix define HP2wkMw2= (1, 2, 3, 1, 0 ,4,  0, 4 )

176 .         matrix define HP2wkFw2= (1, 2, 3, 2, 0, 1,  0, 6 )

177 .
178 .         matrix define H1pt2w2 = (HP2wkMw2 \ HP2wkFw2)

179 .     matrix colnames H1pt2w2 =  hypnum ptnum wave  medsig numMAsig numModsig
    > numMed

180 .     matrix rownames H1pt2w2 = HP2wkMw2 WHP2wkFw2

181 .     matlist H1pt2w2

                 |    hypnum      ptnum       wave     medsig   numMAsig  numModsi
    > g     numMed     numMed
    -------------+--------------------------------------------------------------
    > -------------------------
        HP2wkMw2 |         1          2          3          1          0
    > 4          0          4
       WHP2wkFw2 |         1          2          3          2          0
    > 1          0          6

182 .
183 . scalar SigDoseWKMw2 = "no"

184 . scalar MainEffwkMw2 = "workM: age  bf8  illw2  shjobw2"

185 .
186 . scalar list `MainEffwkMw2'
      wkMedMw2 = bf8 age illw2
    VactnMedFw2 = age illw2 radhlw2
    VactnMedMw2 = age illw2
    VacatnModFw2 = none
    MainEffVactnFw2 = age radhlw2 deaw2
    SigDoseVactnFw2 = no
    vactnModMw2 = none
    MainEffVactnMw2 = age bf7m radhlw2
    SigDoseVactnMw2 = no
    sxLifeMedFw2 = age bf4 bf4m
    sxLifeMedMw2 = age illw2
    InthbModFw2 = none
    MainEffInthbFw2 = age radhlw2 bf4
    SigdoseInthbFw2 = no
      InthbMw2 = none
```

```
MainEffInthbMw2 = age radhlw2 shfamw2
SigDoseInthbMw2 = no
sxlifeMedFw2 = age illw2 radhlw2 bf4 bf4m
sxlifeMedMw2 = age illw2
sxlifeModFw2 = none
MainEffsxlifeFw2 = age radhlw2 bf4 bf4m shrelaw2 shfamw2
SigDoseSxlifeFw2 = no
sxlifeModMw2 = none
SigDosesxlifeMw2 = no
MainEffsxlifeMw2 = age bf4 illw2 radhlw2
PrbfmhmMedFw2 = age bf4
PrbfmhmMedMw2 = age
PrbfmhmModFw2 = none
MainEffPrbfmhmFw2 = age bf4 bf40
SigDosePrbfmhmFw2 = no
PrbfmhmModw2 = none
SigDosePrbfmhmMw2 = no
SigDosePrbfhmMw2 = no
MainEffPrbfhmMw2 = bf1 bf4 dvcew2 bf7m
ProbsocMedFw2 = age radhlw2
ProbsocMedMw2 = age
ProbsocModFw2 = none
MainEffProbSocFw2 = age radhlw2 illw2 Shrelaw2 avgcumodsew2
SigDoseProbsocFw2 = yes
ProbSocModMw2 = none
SigDoseProbsocMw2 = no
MainEffPrbsocMw2 = age radhlw2 shjobw2
hmcareMedFw2 = age illw2
hmcareMedMw2 = age illw2
hmcareModFw2 = none
SigDoseWKFw2 =          0
SigdoseHmcareFw2 = no
hmcareModMw2 = none
MainEffhmcareMw2 = none
SigDoseHmcareMw2 = no
  wkMedFw2 = radhlw2 age bf40 bf4m bf1
  wkModFw2 = none
  wkModMw2 = none
MainEffwkFw2 = age
MainEffwkMw2 = workM: age  bf8  illw2  shjobw2
SigDoseWKMw2 = no
SigDoseWkFw2 = no
hmcrMedFw1 = age icdxcnt shjobw1 bf4 BSIsoma WHPpain WHPsleep WHPel
hmcrMedMw1 = age
MainEffhmcrFw1 = illw1 age
SigDosehmcrFw1 = no
hmcrModMw1 = none
MainEffhmcrMw1 = age shjobw1
SigDosehmcrMw1 = no
```

```
      wkMedFw1 = age b4
    MainEffwkFw1 = age
    MainEffwkMw1 = age
      wkMedMw1 = bf40
      WkMedMw1 = none
      WkModFw1 = none
      WKModMw1 = none
    SigDoseWkMw1 = no
    SigDoseWkFw1 = no
    SigDoseFw1 = no
      wkModFw1 = none
      wkModMw1 = none
     medsigFw1 =          1
    prbsocnumMAsig =          8

187 .
188 . * moderator construction
189 . * none ussed because basic dose work relationship washes out
190 .
191 . sem(avgcumdosew2->bf4)(bf4->hp2work) ///
    >   (avgcumdosew2->bf4m)(bf4m->hp2work)(avgcumdosew2->hp2work) if gender==2, n
    > ocapslatent

    Endogenous variables

    Observed:  bf4 hp2work bf4m

    Exogenous variables

    Observed:  avgcumdosew2

    Fitting target model:

    Iteration 0:   log likelihood = -3065.5103
    Iteration 1:   log likelihood = -3065.5103

    Structural equation model                       Number of obs      =       363
    Estimation method  = ml
    Log likelihood     = -3065.5103
```

```
─────────────────┬──────────────────────────────────────────────────────────────
> ────
                 │                 OIM
                 │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Inter
> val]
─────────────────┼──────────────────────────────────────────────────────────────
> ────
Structural       │
  bf4 <-         │
    avgcumdosew2 │   -.595012   .1955294    -3.04   0.002    -.9782426   -.211
> 7813
           _cons │   11.02048    .321487    34.28   0.000     10.39037    11.6
> 5058
  ───────────────┼──────────────────────────────────────────────────────────────
> ────
  hp2work <-     │
             bf4 │  -.1104133   .0240718    -4.59   0.000    -.1575931   -.063
> 2334
            bf4m │   .0772012   .0220571     3.50   0.000       .03397    .120
> 4324
    avgcumdosew2 │   .0267414   .0155054     1.72   0.085    -.0036486    .057
> 1315
           _cons │   -.022371   .1624855    -0.14   0.890    -.3408367    .296
> 0947
  ───────────────┼──────────────────────────────────────────────────────────────
> ────
  bf4m <-        │
    avgcumdosew2 │   -.599311   .2133886    -2.81   0.005    -1.017545   -.181
> 0771
           _cons │   18.83424   .3508508    53.68   0.000     18.14659     19.
> 5219
─────────────────┼──────────────────────────────────────────────────────────────
> ────
Variance         │
           e.bf4 │   26.38663   1.958599                      22.81402    30.5
> 1869
       e.hp2work │   .1612644   .0119702                        .13943    .186
> 5179
          e.bf4m │   31.42693   2.332725                      27.17189    36.3
> 4829
─────────────────┴──────────────────────────────────────────────────────────────
> ────
LR test of model vs. saturated: chi2(1)   =   1284.49, Prob > chi2 = 0.0000
```

```
192 . estat teffects, standardize

Direct effects
──────────────────────────────────────────────────────────────────────────────
> ────
                    │                 OIM
                    │      Coef.   Std. Err.      z    P>|z|              Std. C
> oef.
────────────────────┼─────────────────────────────────────────────────────────
> ────
Structural          │
  bf4 <-            │
    avgcumdosew2    │   -.595012   .1955294    -3.04   0.002                -.157
> 7212
────────────────────┼─────────────────────────────────────────────────────────
> ────
  hp2work <-        │
             bf4    │  -.1104133   .0240718    -4.59   0.000                -.699
> 4476
            bf4m    │   .0772012   .0220571     3.50   0.000                 .532
> 7398
    avgcumdosew2    │   .0267414   .0155054     1.72   0.085                 .044
> 9038
  ──────────────────┼─────────────────────────────────────────────────────────
> ────
  bf4m <-           │
    avgcumdosew2    │   -.599311   .2133886    -2.81   0.005                -.145
> 8343
────────────────────┴─────────────────────────────────────────────────────────
> ────


Indirect effects
──────────────────────────────────────────────────────────────────────────────
> ────
                    │                 OIM
                    │      Coef.   Std. Err.      z    P>|z|              Std. C
> oef.
────────────────────┼─────────────────────────────────────────────────────────
> ────
Structural          │
  bf4 <-            │
    avgcumdosew2    │          0  (no path)
>    0
  ──────────────────┼─────────────────────────────────────────────────────────
> ────
  hp2work <-        │
             bf4    │          0  (no path)
```

```
>    0
             bf4m |          0  (no path)
>    0
     avgcumdosew2 |   .0194297   .0272807     0.71   0.476                     .03
> 2626
  ----------------+----------------------------------------------------------------
> -----
  bf4m <-         |
     avgcumdosew2 |          0  (no path)
>    0
------------------+----------------------------------------------------------------
> -----


Total effects
------------------+----------------------------------------------------------------
> -----
                  |                 OIM
                  |      Coef.   Std. Err.      z    P>|z|                  Std. C
> oef.
------------------+----------------------------------------------------------------
> -----
Structural        |
  bf4 <-          |
     avgcumdosew2 |   -.595012   .1955294    -3.04   0.002                   -.157
> 7212
  ----------------+----------------------------------------------------------------
> -----
  hp2work <-      |
              bf4 |  -.1104133   .0240718    -4.59   0.000                   -.699
> 4476
             bf4m |   .0772012   .0220571     3.50   0.000                    .532
> 7398
     avgcumdosew2 |   .0461711    .031163     1.48   0.138                    .077
> 5298
  ----------------+----------------------------------------------------------------
> -----
  bf4m <-         |
     avgcumdosew2 |   -.599311   .2133886    -2.81   0.005                   -.145
> 8343
------------------+----------------------------------------------------------------
> -----
```

```
193 .
194 .
195 .
196 . title4 "testing female hp2work main effects for hypothesis 1 pt 2 wave 2"
    ──────────────────────────────────────────────────────────────────────────────
    testing female hp2work main effects for hypothesis 1 pt 2 wave 2
    ──────────────────────────────────────────────────────────────────────────────

197 . * Dose work relationship washes out for males in wave 2 also
198 . cap gen hp2hmcare=HP2hmcare

199 . set more off

200 . forvalues j=2/2 {
      2. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      3. di as input "For females HP2work on wave 2 with dose ns"
      4.          des  age occ1w`j'-occ8w`j' inc1w`j'-inc4w`j' avgcumdosew`j' bf8 /
    > //
    >             marrw`j'1-marrw`j'6  `w2bf'
      5.          logistic HP2work marrw`j'3-marrw`j'6 age  havmilsq ///
    >                  avgcumdosew2 bf8 illw`j' shjobw`j' suprtw`j' if gender==2, c
    > oef nolog
      6.          estat gof
      7.          estat class
      8.          fitstat
      9.          }
    For females HP2work on wave 2 with dose ns

                  storage  display     value
    variable name   type   format      label      variable label
    ──────────────────────────────────────────────────────────────────────────────
    age             double %8.0g                * Respondent's age
    occ1w2          double %15.0g      LABJ       profess executive administration
                                                    in 1996
    occ2w2          double %15.0g      LABJ       technical sales admin support in
                                                    1996
    occ3w2          double %15.0g      LABJ       service occup protective
                                                    services in 1996
    occ4w2          double %15.0g      LABJ       precision prod mechan craft
                                                    construction in 1996
    occ5w2          double %15.0g      LABJ       factory laborer machinist transp
                                                    cleaner in 1996
    occ6w2          double %15.0g      LABJ       farming agricul forestry fishing
                                                    trapping logging in 1996
    occ7w2          double %15.0g      LABJ       homemaking caregiving in 1996
    occ8w2          double %15.0g      LABJ       student in 1996
    inc1w2          double %15.0g      LABJ       Income is not sufficient for
                                                    basic neccessities in 1996
```

```
inc2w2          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1996
inc3w2          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1996
inc4w2          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1996
avgcumdosew2    double %8.0g                  Average mean dose CS1337 in mGy
                                                for wave 2
bf8             float  %9.0g                  bf8 = max(0, radtlw3 - 40) *
                                                bf5m
marrw21         byte   %8.0g                  marrw2==1. single
marrw22         byte   %8.0g                  marrw2==2. cohabitating
marrw23         byte   %8.0g                  marrw2==3. married
marrw24         byte   %8.0g                  marrw2==4. separated
marrw25         byte   %8.0g                  marrw2==5. divorced
marrw26         byte   %8.0g                  marrw2==6. widowed
bf1             float  %9.0g                  bf1 = max(0, kzchorn - 40)
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
bf2             float  %9.0g                  bf2 = max(0, efradw3 -
                                                1.61252E-006) * bf1
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)
bf5m            float  %9.0g                  bf5m = max(0, ecprw3 - 75) *
                                                bf4m
bf7m            float  %9.0g                  bf7m = max(0, radtlw3 -
                                                2.12558E-007) * bf4m
bf8             float  %9.0g                  bf8 = max(0, radtlw3 - 40) *
                                                bf5m
bf15m           float  %9.0g                  bf15m= max(0, 1 - icdxcnt) * bf2
bf17            float  %9.0g                  bf17 = max(0, 20 - ecprw3) *
                                                bf15m
bf20            float  %9.0g                  bf20 = max(0, kzchorn -
                                                2.53946E-006)
bf22            float  %9.0g                  bf22 = max(0, icdxcnt -
                                                1.01635E-007) * bf7m
bf29            float  %9.0g                  bf29 = max(0, 18 - CSsocspt) *
                                                bf8
bf30            float  %9.0g                  bf30 = max(0, neiw1 - 85) * bf20
bf40            float  %9.0g                  bf40 = max(0, icdxcnt -
                                                1.01635E-007)
note: marrw24 != 0 predicts success perfectly
      marrw24 dropped and 1 obs not used


Logistic regression                               Number of obs   =        362
                                                  LR chi2(10)     =      48.81
                                                  Prob > chi2     =     0.0000
Log likelihood = -180.79074                       Pseudo R2       =     0.1189
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
marrw23	.3465168	.4485933	0.77	0.440	-.53271	1.225743
marrw24	0	(omitted)				
marrw25	.1476199	.8212357	0.18	0.857	-1.461973	1.757212
marrw26	1.010731	.7069238	1.43	0.153	-.3748139	2.396276
age	.0569149	.0131729	4.32	0.000	.0310966	.0827332
havmilsq	-8.40e-07	1.31e-06	-0.64	0.520	-3.40e-06	1.72e-06
avgcumdosew2	.112931	.0849282	1.33	0.184	-.0535252	.2793872
bf8	-8.51e-07	.0000122	-0.07	0.944	-.0000247	.000023
illw2	.2083243	.1431057	1.46	0.145	-.0721576	.4888063
shjobw2	-.0000502	.0033727	-0.01	0.988	-.0066606	.0065603
suprtw2	.0007776	.0033741	0.23	0.818	-.0058355	.0073907
_cons	-4.607688	.7503726	-6.14	0.000	-6.078391	-3.136985

Logistic model for HP2work, goodness-of-fit test

```
       number of observations =       362
 number of covariate patterns =       360
            Pearson chi2(349) =       381.32
                  Prob > chi2 =         0.1127
```

Logistic model for HP2work

Classified	True D	True ~D	Total
+	21	7	28
-	71	263	334
Total	92	270	362

Classified + if predicted Pr(D) >= .5
True D defined as HP2work != 0

Sensitivity	Pr(+| D)	22.83%
Specificity	Pr(-|~D)	97.41%
Positive predictive value	Pr(D| +)	75.00%
Negative predictive value	Pr(~D| -)	78.74%
False + rate for true ~D	Pr(+|~D)	2.59%
False - rate for true D	Pr(-| D)	77.17%
False + rate for classified +	Pr(~D| +)	25.00%
False - rate for classified -	Pr(D| -)	21.26%
Correctly classified		78.45%

```
Measures of Fit for logistic of HP2work

Log-Lik Intercept Only:      -205.197   Log-Lik Full Model:          -180.791
D(350):                       361.581   LR(10):                        48.812
                                        Prob > LR:                      0.000
McFadden's R2:                  0.119   McFadden's Adj R2:              0.060
Maximum Likelihood R2:          0.126   Cragg & Uhler's R2:             0.186
McKelvey and Zavoina's R2:      0.242   Efron's R2:                     0.149
Variance of y*:                 4.341   Variance of error:              3.290
Count R2:                       0.785   Adj Count R2:                   0.152
AIC:                            1.065   AIC*n:                        385.581
BIC:                        -1700.494   BIC':                          10.104

201 .
202 .
203 . // female wave 2 homcare washes out
204 .
205 .
206 .
207 . scalar MainEffwkFw2 = "age"

208 . scalar SigDoseWKFw2 = 0

209 .
210 .
211 .
212 . forvalues j=2/2 {
  2. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  3. set more off
  4. di as input "For females HP2work on wave 2 with dose ns"
  5.         des  age occ1w`j'-occ8w`j' inc1w`j'-inc4w`j' avgcumdosew`j' bf8 /
> //
>            marrw`j'1-marrw`j'6  `w2bf'
  6.         logistic HP2work marrw`j'3-marrw`j'6 age  havmilsq ///
>                 avgcumdosew2 bf8 illw`j' shjobw`j' suprtw`j' if gender==1, c
> oef nolog
  7.         estat gof
  8.         estat class
  9.         fitstat
 10.         }
For females HP2work on wave 2 with dose ns
```

variable name	storage type	display format	value label		variable label
age	double	%8.0g		*	**Respondent's age**
occ1w2	double	%15.0g	LABJ		**profess executive administration in 1996**
occ2w2	double	%15.0g	LABJ		**technical sales admin support in 1996**
occ3w2	double	%15.0g	LABJ		**service occup protective services in 1996**
occ4w2	double	%15.0g	LABJ		**precision prod mechan craft construction in 1996**
occ5w2	double	%15.0g	LABJ		**factory laborer machinist transp cleaner in 1996**
occ6w2	double	%15.0g	LABJ		**farming agricul forestry fishing trapping logging in 1996**
occ7w2	double	%15.0g	LABJ		**homemaking caregiving in 1996**
occ8w2	double	%15.0g	LABJ		**student in 1996**
inc1w2	double	%15.0g	LABJ		**Income is not sufficient for basic neccessities in 1996**
inc2w2	double	%15.0g	LABJ		**Income is just sufficient for basic neccessities in 1996**
inc3w2	double	%15.0g	LABJ		**Income is sufficient for basics plus extra purchases/savings in 1996**
inc4w2	double	%15.0g	LABJ		**Income allows to comfortably afford luxury items in 1996**
avgcumdosew2	double	%8.0g			**Average mean dose CS1337 in mGy for wave 2**
bf8	float	%9.0g			**bf8 = max(0, radtlw3 - 40) * bf5m**
marrw21	byte	%8.0g			**marrw2==1. single**
marrw22	byte	%8.0g			**marrw2==2. cohabitating**
marrw23	byte	%8.0g			**marrw2==3. married**
marrw24	byte	%8.0g			**marrw2==4. separated**
marrw25	byte	%8.0g			**marrw2==5. divorced**
marrw26	byte	%8.0g			**marrw2==6. widowed**
bf1	float	%9.0g			**bf1 = max(0, kzchorn - 40)**
bf4	float	%9.0g			**bf4 = max(0, 24 - BSIsoma)**
bf2	float	%9.0g			**bf2 = max(0, efradw3 - 1.61252E-006) * bf1**
bf4m	float	%9.0g			**bf4m = max(0, 32 - BSIsoma)**
bf5m	float	%9.0g			**bf5m = max(0, ecprw3 - 75) * bf4m**
bf7m	float	%9.0g			**bf7m = max(0, radtlw3 - 2.12558E-007) * bf4m**
bf8	float	%9.0g			**bf8 = max(0, radtlw3 - 40) * bf5m**
bf15m	float	%9.0g			**bf15m= max(0, 1 - icdxcnt) * bf2**

bf17	float	%9.0g	**bf17 = max(0, 20 - ecprw3) * bf15m**
bf20	float	%9.0g	**bf20 = max(0, kzchorn - 2.53946E-006)**
bf22	float	%9.0g	**bf22 = max(0, icdxcnt - 1.01635E-007) * bf7m**
bf29	float	%9.0g	**bf29 = max(0, 18 - CSsocspt) * bf8**
bf30	float	%9.0g	**bf30 = max(0, neiw1 - 85) * bf20**
bf40	float	%9.0g	**bf40 = max(0, icdxcnt - 1.01635E-007)**

```
note: marrw24 != 0 predicts failure perfectly
      marrw24 dropped and 3 obs not used


Logistic regression                               Number of obs   =        337
                                                  LR chi2(10)     =      28.86
                                                  Prob > chi2     =     0.0013
Log likelihood = -157.74569                       Pseudo R2       =     0.0838
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
marrw23	**-.4766426**	**.3747451**	**-1.27**	**0.203**	**-1.21113**	**.2578444**
marrw24	**0**	(omitted)				
marrw25	**.4073573**	**.955349**	**0.43**	**0.670**	**-1.465092**	**2.279807**
marrw26	**-.9721074**	**1.293416**	**-0.75**	**0.452**	**-3.507156**	**1.562941**
age	**.0477474**	**.0139539**	**3.42**	**0.001**	**.0203982**	**.0750965**
havmilsq	**-2.10e-07**	**1.49e-06**	**-0.14**	**0.888**	**-3.12e-06**	**2.70e-06**
avgcumdosew2	**.0155478**	**.048524**	**0.32**	**0.749**	**-.0795575**	**.1106532**
bf8	**-.0000302**	**.0000209**	**-1.45**	**0.148**	**-.0000712**	**.0000107**
illw2	**.5115257**	**.2184297**	**2.34**	**0.019**	**.0834114**	**.9396399**
shjobw2	**.0088647**	**.0037067**	**2.39**	**0.017**	**.0015997**	**.0161296**
suprtw2	**-.0044167**	**.0036236**	**-1.22**	**0.223**	**-.0115188**	**.0026855**
_cons	**-3.748494**	**.6958591**	**-5.39**	**0.000**	**-5.112352**	**-2.384635**

Logistic model for HP2work, goodness-of-fit test

```
       number of observations =       337
 number of covariate patterns =       332
             Pearson chi2(321) =       336.79
                   Prob > chi2 =         0.2612
```

Logistic model for HP2work

Classified	True D	~D	Total
+	**6**	**3**	**9**
-	**64**	**264**	**328**
Total	**70**	**267**	**337**

Classified + if predicted Pr(D) >= .5
True D defined as HP2work != 0

Sensitivity	Pr(+| D)	**8.57%**
Specificity	Pr(-|~D)	**98.88%**
Positive predictive value	Pr(D| +)	**66.67%**
Negative predictive value	Pr(~D| -)	**80.49%**
False + rate for true ~D	Pr(+|~D)	**1.12%**
False - rate for true D	Pr(-| D)	**91.43%**
False + rate for classified +	Pr(~D| +)	**33.33%**
False - rate for classified -	Pr(D| -)	**19.51%**
Correctly classified		**80.12%**

Measures of Fit for **logistic** of **HP2work**

Log-Lik Intercept Only:	**-172.178**	Log-Lik Full Model:	**-157.746**
D(325):	**315.491**	LR(10):	**28.864**
		Prob > LR:	**0.001**
McFadden's R2:	**0.084**	McFadden's Adj R2:	**0.014**
Maximum Likelihood R2:	**0.082**	Cragg & Uhler's R2:	**0.128**
McKelvey and Zavoina's R2:	**0.142**	Efron's R2:	**0.099**
Variance of y*:	**3.835**	Variance of error:	**3.290**
Count R2:	**0.801**	Adj Count R2:	**0.043**
AIC:	**1.007**	AIC*n:	**339.491**
BIC:	**-1576.036**	BIC':	**29.336**

```
213 . forvalues j=2/2 {
  2. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  3. set more off
  4. di as input "For females trimmed HP2work on wave 2 with dose ns"
  5.         des  age occ1w`j'-occ8w`j' inc1w`j'-inc4w`j' avgcumdosew`j' bf8 /
> //
>            marrw`j'1-marrw`j'6  `w2bf'
  6.         logistic HP2work  age  ///
>                 avgcumdosew2 bf8 illw`j' shjobw`j' radhlw`j' if gender==1, c
> oef nolog
  7.         estat gof
  8.         estat class
  9.         fitstat
 10.         }
For females trimmed HP2work on wave 2 with dose ns

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
age             double %8.0g                * Respondent's age
occ1w2          double %15.0g      LABJ       profess executive administration
                                                in 1996
occ2w2          double %15.0g      LABJ       technical sales admin support in
                                                1996
occ3w2          double %15.0g      LABJ       service occup protective
                                                services in 1996
occ4w2          double %15.0g      LABJ       precision prod mechan craft
                                                construction in 1996
occ5w2          double %15.0g      LABJ       factory laborer machinist transp
                                                cleaner in 1996
occ6w2          double %15.0g      LABJ       farming agricul forestry fishing
                                                trapping logging in 1996
occ7w2          double %15.0g      LABJ       homemaking caregiving in 1996
occ8w2          double %15.0g      LABJ       student in 1996
inc1w2          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1996
inc2w2          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1996
inc3w2          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1996
inc4w2          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1996
avgcumdosew2    double %8.0g                  Average mean dose CS1337 in mGy
                                                for wave 2
bf8             float  %9.0g                  bf8 = max(0, radtlw3 - 40) *
                                                bf5m
marrw21         byte   %8.0g                  marrw2==1. single
```

```
marrw22        byte   %8.0g                 marrw2==2. cohabitating
marrw23        byte   %8.0g                 marrw2==3. married
marrw24        byte   %8.0g                 marrw2==4. separated
marrw25        byte   %8.0g                 marrw2==5. divorced
marrw26        byte   %8.0g                 marrw2==6. widowed
bf1            float  %9.0g                 bf1 = max(0, kzchorn - 40)
bf4            float  %9.0g                 bf4 = max(0, 24 - BSIsoma)
bf2            float  %9.0g                 bf2 = max(0, efradw3 -
                                              1.61252E-006) * bf1
bf4m           float  %9.0g                 bf4m = max(0, 32 - BSIsoma)
bf5m           float  %9.0g                 bf5m = max(0, ecprw3 - 75) *
                                              bf4m
bf7m           float  %9.0g                 bf7m = max(0, radtlw3 -
                                              2.12558E-007) * bf4m
bf8            float  %9.0g                 bf8 = max(0, radtlw3 - 40) *
                                              bf5m
bf15m          float  %9.0g                 bf15m= max(0, 1 - icdxcnt) * bf2
bf17           float  %9.0g                 bf17 = max(0, 20 - ecprw3) *
                                              bf15m
bf20           float  %9.0g                 bf20 = max(0, kzchorn -
                                              2.53946E-006)
bf22           float  %9.0g                 bf22 = max(0, icdxcnt -
                                              1.01635E-007) * bf7m
bf29           float  %9.0g                 bf29 = max(0, 18 - CSsocspt) *
                                              bf8
bf30           float  %9.0g                 bf30 = max(0, neiw1 - 85) * bf20
bf40           float  %9.0g                 bf40 = max(0, icdxcnt -
                                              1.01635E-007)

Logistic regression                             Number of obs   =        340
                                                LR chi2(6)      =      34.24
                                                Prob > chi2     =     0.0000
Log likelihood = -155.75258                     Pseudo R2       =     0.0990
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0279967	.0125982	2.22	0.026	.0033047	.0526886
avgcumdosew2	.0093245	.0489486	0.19	0.849	-.0866129	.1052619
bf8	-.0000433	.0000214	-2.03	0.043	-.0000852	-1.44e-06
illw2	.503088	.2180574	2.31	0.021	.0757033	.9304727
shjobw2	.0054505	.0037374	1.46	0.145	-.0018746	.0127756
radhlw2	.0133173	.0044637	2.98	0.003	.0045685	.022066
_cons	-3.81568	.6836898	-5.58	0.000	-5.155688	-2.475673

Logistic model for HP2work, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       332
            Pearson chi2(325) =       343.93
                  Prob > chi2 =         0.2252
```

Logistic model for HP2work

Classified	True D	True ~D	Total
+	6	5	11
-	64	265	329
Total	70	270	340

Classified + if predicted Pr(D) >= .5
True D defined as HP2work != 0

Sensitivity	Pr(+| D)	8.57%
Specificity	Pr(-|~D)	98.15%
Positive predictive value	Pr(D| +)	54.55%
Negative predictive value	Pr(~D| -)	80.55%
False + rate for true ~D	Pr(+|~D)	1.85%
False - rate for true D	Pr(-| D)	91.43%
False + rate for classified +	Pr(~D| +)	45.45%
False - rate for classified -	Pr(D| -)	19.45%
Correctly classified		79.71%

Measures of Fit for **logistic** of **HP2work**

Log-Lik Intercept Only:	-172.873	Log-Lik Full Model:	-155.753
D(333):	311.505	LR(6):	34.241
		Prob > LR:	0.000
McFadden's R2:	0.099	McFadden's Adj R2:	0.059
Maximum Likelihood R2:	0.096	Cragg & Uhler's R2:	0.150
McKelvey and Zavoina's R2:	0.170	Efron's R2:	0.114
Variance of y*:	3.963	Variance of error:	3.290
Count R2:	0.797	Adj Count R2:	0.014
AIC:	0.957	AIC*n:	325.505
BIC:	-1629.534	BIC':	0.733

```
214 .
215 . //  female trimmed dose work washes out with does not signif.
216 .
217 .
218 .
219 .
220 . forvalues j=2/2 {
  2. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  3. set more off
  4. di as input "Full females HPprobsoc on wave 2 with dose ns"
  5.         des  age occ1w`j'-occ8w`j' inc1w`j'-inc4w`j' avgcumdosew`j' bf8 /
> //
>             marrw`j'1-marrw`j'6 radhlw`j' `w2bf'
  6.         logistic HP2probsoc marrw`j'3-marrw`j'6 age  havmilsq  radhlw2 //
> /
>                  avgcumdosew2 bf8 illw`j' shjobw`j' suprtw`j' if gender==1, c
> oef nolog
  7.         estat gof
  8.         estat class
  9.         fitstat
 10.         }
Full females HPprobsoc on wave 2 with dose ns

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
age             double %8.0g                * Respondent's age
occ1w2          double %15.0g      LABJ       profess executive administration
                                                in 1996
occ2w2          double %15.0g      LABJ       technical sales admin support in
                                                1996
occ3w2          double %15.0g      LABJ       service occup protective
                                                services in 1996
occ4w2          double %15.0g      LABJ       precision prod mechan craft
                                                construction in 1996
occ5w2          double %15.0g      LABJ       factory laborer machinist transp
                                                cleaner in 1996
occ6w2          double %15.0g      LABJ       farming agricul forestry fishing
                                                trapping logging in 1996
occ7w2          double %15.0g      LABJ       homemaking caregiving in 1996
occ8w2          double %15.0g      LABJ       student in 1996
inc1w2          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1996
inc2w2          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1996
inc3w2          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1996
```

```
inc4w2          double %15.0g     LABJ       Income allows to comfortably
                                               afford luxury items in 1996
avgcumdosew2    double %8.0g                 Average mean dose CS1337 in mGy
                                               for wave 2
bf8             float  %9.0g                 bf8 = max(0, radtlw3 - 40) *
                                               bf5m
marrw21         byte   %8.0g                 marrw2==1. single
marrw22         byte   %8.0g                 marrw2==2. cohabitating
marrw23         byte   %8.0g                 marrw2==3. married
marrw24         byte   %8.0g                 marrw2==4. separated
marrw25         byte   %8.0g                 marrw2==5. divorced
marrw26         byte   %8.0g                 marrw2==6. widowed
radhlw2         double %8.0g                 how much believed personal
                                               health is affected by
                                               radiation in 1996
bf1             float  %9.0g                 bf1 = max(0, kzchorn - 40)
bf4             float  %9.0g                 bf4 = max(0, 24 - BSIsoma)
bf2             float  %9.0g                 bf2 = max(0, efradw3 -
                                               1.61252E-006) * bf1
bf4m            float  %9.0g                 bf4m = max(0, 32 - BSIsoma)
bf5m            float  %9.0g                 bf5m = max(0, ecprw3 - 75) *
                                               bf4m
bf7m            float  %9.0g                 bf7m = max(0, radtlw3 -
                                               2.12558E-007) * bf4m
bf8             float  %9.0g                 bf8 = max(0, radtlw3 - 40) *
                                               bf5m
bf15m           float  %9.0g                 bf15m= max(0, 1 - icdxcnt) * bf2
bf17            float  %9.0g                 bf17 = max(0, 20 - ecprw3) *
                                               bf15m
bf20            float  %9.0g                 bf20 = max(0, kzchorn -
                                               2.53946E-006)
bf22            float  %9.0g                 bf22 = max(0, icdxcnt -
                                               1.01635E-007) * bf7m
bf29            float  %9.0g                 bf29 = max(0, 18 - CSsocspt) *
                                               bf8
bf30            float  %9.0g                 bf30 = max(0, neiw1 - 85) * bf20
bf40            float  %9.0g                 bf40 = max(0, icdxcnt -
                                               1.01635E-007)
note: marrw24 != 0 predicts failure perfectly
      marrw24 dropped and 3 obs not used

note: marrw26 != 0 predicts failure perfectly
      marrw26 dropped and 4 obs not used
```

Logistic regression

	Number of obs	=	**333**
	LR chi2(**10**)	=	**62.55**
	Prob > chi2	=	**0.0000**
Log likelihood = **-92.970187**	Pseudo R2	=	**0.2517**

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
marrw23	**-.3736488**	**.5239634**	**-0.71**	**0.476**	**-1.400598**	**.6533007**
marrw24	**0**	(omitted)				
marrw25	**.3178572**	**1.386011**	**0.23**	**0.819**	**-2.398675**	**3.034389**
marrw26	**0**	(omitted)				
age	**.068219**	**.0199083**	**3.43**	**0.001**	**.0291995**	**.1072385**
havmilsq	**-1.61e-06**	**5.43e-06**	**-0.30**	**0.767**	**-.0000122**	**9.03e-06**
radhlw2	**.0237245**	**.0062836**	**3.78**	**0.000**	**.0114089**	**.0360402**
avgcumdosew2	**.0249392**	**.0537004**	**0.46**	**0.642**	**-.0803117**	**.1301901**
bf8	**-.0000369**	**.0000244**	**-1.51**	**0.130**	**-.0000846**	**.0000109**
illw2	**.4654847**	**.2879266**	**1.62**	**0.106**	**-.098841**	**1.02981**
shjobw2	**.013417**	**.0052952**	**2.53**	**0.011**	**.0030386**	**.0237954**
suprtw2	**.0027116**	**.0050363**	**0.54**	**0.590**	**-.0071593**	**.0125825**
_cons	**-7.790191**	**1.174345**	**-6.63**	**0.000**	**-10.09186**	**-5.488517**

Logistic model for HP2probsoc, goodness-of-fit test

number of observations	=	**333**
number of covariate patterns	=	**331**
Pearson chi2(**320**)	=	**376.50**
Prob > chi2	=	**0.0162**

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	**11**	**4**	**15**
-	**30**	**288**	**318**
Total	**41**	**292**	**333**

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   26.83%
Specificity                     Pr( -|~D)   98.63%
Positive predictive value       Pr( D| +)   73.33%
Negative predictive value       Pr(~D| -)   90.57%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    1.37%
False - rate for true D         Pr( -| D)   73.17%
False + rate for classified +   Pr(~D| +)   26.67%
False - rate for classified -   Pr( D| -)    9.43%
--------------------------------------------------
Correctly classified                        89.79%
--------------------------------------------------

Measures of Fit for logistic of HP2probsoc

Log-Lik Intercept Only:     -124.243   Log-Lik Full Model:          -92.970
D(320):                      185.940   LR(10):                       62.545
                                       Prob > LR:                     0.000
McFadden's R2:                 0.252   McFadden's Adj R2:             0.147
Maximum Likelihood R2:         0.171   Cragg & Uhler's R2:            0.326
McKelvey and Zavoina's R2:     0.420   Efron's R2:                    0.243
Variance of y*:                5.673   Variance of error:             3.290
Count R2:                      0.898   Adj Count R2:                  0.171
AIC:                           0.636   AIC*n:                       211.940
BIC:                       -1672.665   BIC':                         -4.464

221 .
222 . forvalues j=2/2 {
  2. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  3. set more off
  4. di as input "females trimmed HP2probsoc on wave 2 with dose ns"
  5.         des  age occ1w`j'-occ8w`j' inc1w`j'-inc4w`j' avgcumdosew`j' bf8 /
> //
>            marrw`j'1-marrw`j'6  `w2bf'
  6.         logistic HP2probsoc  age  ///
>                 avgcumdosew2 bf8 illw`j' shjobw`j' radhlw`j' if gender==1, c
> oef nolog
  7.         estat gof
  8.         estat class
  9.         fitstat
 10.         }
females trimmed HP2probsoc on wave 2 with dose ns
```

variable name	storage type	display format	value label	variable label
age	double	%8.0g		* **Respondent's age**
occ1w2	double	%15.0g	LABJ	**profess executive administration in 1996**
occ2w2	double	%15.0g	LABJ	**technical sales admin support in 1996**
occ3w2	double	%15.0g	LABJ	**service occup protective services in 1996**
occ4w2	double	%15.0g	LABJ	**precision prod mechan craft construction in 1996**
occ5w2	double	%15.0g	LABJ	**factory laborer machinist transp cleaner in 1996**
occ6w2	double	%15.0g	LABJ	**farming agricul forestry fishing trapping logging in 1996**
occ7w2	double	%15.0g	LABJ	**homemaking caregiving in 1996**
occ8w2	double	%15.0g	LABJ	**student in 1996**
inc1w2	double	%15.0g	LABJ	**Income is not sufficient for basic neccessities in 1996**
inc2w2	double	%15.0g	LABJ	**Income is just sufficient for basic neccessities in 1996**
inc3w2	double	%15.0g	LABJ	**Income is sufficient for basics plus extra purchases/savings in 1996**
inc4w2	double	%15.0g	LABJ	**Income allows to comfortably afford luxury items in 1996**
avgcumdosew2	double	%8.0g		**Average mean dose CS1337 in mGy for wave 2**
bf8	float	%9.0g		**bf8 = max(0, radtlw3 - 40) * bf5m**
marrw21	byte	%8.0g		**marrw2==1. single**
marrw22	byte	%8.0g		**marrw2==2. cohabitating**
marrw23	byte	%8.0g		**marrw2==3. married**
marrw24	byte	%8.0g		**marrw2==4. separated**
marrw25	byte	%8.0g		**marrw2==5. divorced**
marrw26	byte	%8.0g		**marrw2==6. widowed**
bf1	float	%9.0g		**bf1 = max(0, kzchorn - 40)**
bf4	float	%9.0g		**bf4 = max(0, 24 - BSIsoma)**
bf2	float	%9.0g		**bf2 = max(0, efradw3 - 1.61252E-006) * bf1**
bf4m	float	%9.0g		**bf4m = max(0, 32 - BSIsoma)**
bf5m	float	%9.0g		**bf5m = max(0, ecprw3 - 75) * bf4m**
bf7m	float	%9.0g		**bf7m = max(0, radtlw3 - 2.12558E-007) * bf4m**
bf8	float	%9.0g		**bf8 = max(0, radtlw3 - 40) * bf5m**
bf15m	float	%9.0g		**bf15m= max(0, 1 - icdxcnt) * bf2**

bf17	float	%9.0g	**bf17 = max(0, 20 - ecprw3) * bf15m**
bf20	float	%9.0g	**bf20 = max(0, kzchorn - 2.53946E-006)**
bf22	float	%9.0g	**bf22 = max(0, icdxcnt - 1.01635E-007) * bf7m**
bf29	float	%9.0g	**bf29 = max(0, 18 - CSsocspt) * bf8**
bf30	float	%9.0g	**bf30 = max(0, neiw1 - 85) * bf20**
bf40	float	%9.0g	**bf40 = max(0, icdxcnt - 1.01635E-007)**

```
Logistic regression                             Number of obs   =        340
                                                LR chi2(6)      =      60.41
                                                Prob > chi2     =     0.0000
Log likelihood = -94.948223                     Pseudo R2       =     0.2413
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0592362**	**.0176148**	**3.36**	**0.001**	**.0247118**	**.0937607**
avgcumdosew2	**.0315514**	**.0525591**	**0.60**	**0.548**	**-.0714626**	**.1345653**
bf8	**-.0000332**	**.0000239**	**-1.39**	**0.165**	**-.0000801**	**.0000136**
illw2	**.5251102**	**.2757549**	**1.90**	**0.057**	**-.0153594**	**1.06558**
shjobw2	**.0135312**	**.0051744**	**2.62**	**0.009**	**.0033897**	**.0236728**
radhlw2	**.0242757**	**.006237**	**3.89**	**0.000**	**.0120514**	**.0365**
_cons	**-7.543673**	**1.131417**	**-6.67**	**0.000**	**-9.76121**	**-5.326137**

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       332
            Pearson chi2(325) =       382.40
                  Prob > chi2 =         0.0155
```

Logistic model for HP2probsoc

Classified	True D	True ~D	Total
+	**12**	**3**	**15**
-	**29**	**296**	**325**
Total	**41**	**299**	**340**

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   29.27%
Specificity                     Pr( -|~D)   99.00%
Positive predictive value       Pr( D| +)   80.00%
Negative predictive value       Pr(~D| -)   91.08%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    1.00%
False - rate for true D         Pr( -| D)   70.73%
False + rate for classified +   Pr(~D| +)   20.00%
False - rate for classified -   Pr( D| -)    8.92%
--------------------------------------------------
Correctly classified                        90.59%
--------------------------------------------------

Measures of Fit for logistic of HP2probsoc

Log-Lik Intercept Only:     -125.152   Log-Lik Full Model:           -94.948
D(333):                      189.896   LR(6):                         60.408
                                       Prob > LR:                      0.000
McFadden's R2:                 0.241   McFadden's Adj R2:              0.185
Maximum Likelihood R2:         0.163   Cragg & Uhler's R2:             0.312
McKelvey and Zavoina's R2:     0.420   Efron's R2:                     0.235
Variance of y*:                5.669   Variance of error:              3.290
Count R2:                      0.906   Adj Count R2:                   0.220
AIC:                           0.600   AIC*n:                        203.896
BIC:                       -1751.142   BIC':                         -25.435

.
. //  female trimmed dose work washes out with does not signif.
.
.
.
.
.
.
```

```
231 . des bf8

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
bf8             float  %9.0g                  bf8 = max(0, radtlw3 - 40) *
                                                bf5m

232 . title4 "bf8 is a male mediator of paid employment"
-------------------------------------------------------------------------------
bf8 is a male mediator of paid employment
-------------------------------------------------------------------------------

233 . local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
> 0

234 . foreach var in `w2bf'{
  2. glm `var' avgcumdosew2 if gender==1, family(gaussian) link(identity)
  3. glm hp2work `var' illw2 avgcumdosew2  if gender==1, family(binomial) ///
>    irls scale(dev) link(probit)
  4. }

Iteration 0:   log likelihood = -1551.9176

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  542.9132
Deviance         =  183504.6626                    (1/df) Deviance =  542.9132
Pearson          =  183504.6626                    (1/df) Pearson  =  542.9132

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  9.140692
Log likelihood   = -1551.917557                    BIC             =  181534.5

------------------------------------------------------------------------------
             |                 OIM
         bf1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |  -.0294245   .5053831    -0.06   0.954    -1.019957    .9611082
       _cons |   32.06654   1.353933    23.68   0.000     29.41288     34.7202
------------------------------------------------------------------------------

Iteration 1:   deviance =  327.3468
Iteration 2:   deviance =  326.8667
Iteration 3:   deviance =  326.8661
Iteration 4:   deviance =  326.8661
```

```
Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        336
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  326.8660563                    (1/df) Deviance =   .9728156
Pearson          =  340.1753181                    (1/df) Pearson  =   1.012427

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             =   -1631.66
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf1	.0109044	.0035032	3.11	0.002	.0040382	.0177705
illw2	.2657677	.1244152	2.14	0.033	.0219184	.509617
avgcumdosew2	.0146157	.0285488	0.51	0.609	-.041339	.0705704
_cons	-1.302985	.1496632	-8.71	0.000	-1.59632	-1.009651

(Standard errors scaled using square root of deviance-based dispersion.)

```
Iteration 0:   log likelihood = -1027.1225

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =    24.7771
Deviance         =  8374.659221                    (1/df) Deviance =    24.7771
Pearson          =  8374.659221                    (1/df) Pearson  =    24.7771

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =   6.053662
Log likelihood   = -1027.122509                    BIC             =   6404.476
```

bf4	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	-.0331637	.1079644	-0.31	0.759	-.2447701	.1784427
_cons	12.52896	.2892393	43.32	0.000	11.96206	13.09586

```
Iteration 1:   deviance =  300.9022
Iteration 2:   deviance =  299.8184
Iteration 3:   deviance =  299.8108
Iteration 4:   deviance =  299.8108
Iteration 5:   deviance =  299.8108

Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        336
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  299.8108296                    (1/df) Deviance =   .8922941
Pearson          =  319.1468848                    (1/df) Pearson  =   .9498419

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             = -1658.715
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	-.0960279	.0152223	-6.31	0.000	-.125863	-.0661928
illw2	.1615525	.1227138	1.32	0.188	-.0789623	.4020672
avgcumdosew2	.0143706	.0276919	0.52	0.604	-.0399044	.0686457
_cons	.2173252	.204472	1.06	0.288	-.1834325	.6180829

```
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -3110.6399

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =    5209030
Deviance         =   1760652206                    (1/df) Deviance =    5209030
Pearson          =   1760652206                    (1/df) Pearson  =    5209030

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =   18.30965
Log likelihood   = -3110.639872                    BIC             =   1.76e+09
```

bf2	Coef. (OIM)	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	**-36.03645**	**49.50328**	**-0.73**	**0.467**	**-133.0611**	**60.9882**
_cons	**1976.708**	**132.6205**	**14.91**	**0.000**	**1716.777**	**2236.64**

```
Iteration 1:   deviance =  326.2564
Iteration 2:   deviance =  326.0185
Iteration 3:   deviance =  326.0184
Iteration 4:   deviance =  326.0184

Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        336
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  326.0184207                    (1/df) Deviance =   .9702929
Pearson          =  340.5103126                    (1/df) Pearson  =   1.013424

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             = -1632.507
```

hp2work	Coef. (EIM)	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf2	**.0001126**	**.0000342**	**3.29**	**0.001**	**.0000456**	**.0001797**
illw2	**.2301304**	**.1264315**	**1.82**	**0.069**	**-.0176708**	**.4779317**
avgcumdosew2	**.0207807**	**.0278478**	**0.75**	**0.456**	**-.0338**	**.0753614**
_cons	**-1.166294**	**.1149488**	**-10.15**	**0.000**	**-1.391589**	**-.9409983**

```
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -1060.7791

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =   30.20174
Deviance         =  10208.18969                    (1/df) Deviance =   30.20174
Pearson          =  10208.18969                    (1/df) Pearson  =   30.20174

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =   6.251642
Log likelihood   = -1060.779096                    BIC             =   8238.006
```

bf4m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	-.0266037	.1191987	-0.22	0.823	-.2602289	.2070215
_cons	20.34324	.3193362	63.70	0.000	19.71735	20.96913

```
Iteration 1:   deviance =  303.3546
Iteration 2:   deviance =  302.5908
Iteration 3:   deviance =   302.587
Iteration 4:   deviance =   302.587
Iteration 5:   deviance =   302.587

Generalized linear models                         No. of obs      =        340
Optimization     : MQL Fisher scoring             Residual df     =        336
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  302.5870341                   (1/df) Deviance =   .9005566
Pearson          =  319.7148309                   (1/df) Pearson  =   .9515322

Variance function: V(u) = u*(1-u)                 [Bernoulli]
Link function    : g(u) = invnorm(u)              [Probit]

                                                  BIC             = -1655.939
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4m	-.0822373	.0137721	-5.97	0.000	-.1092302	-.0552444
illw2	.1770621	.1226767	1.44	0.149	-.0633798	.4175039
avgcumdosew2	.0150542	.0276105	0.55	0.586	-.0390613	.0691697
_cons	.694465	.2897107	2.40	0.017	.1266424	1.262288

```
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -2273.2523

Generalized linear models                         No. of obs      =        340
Optimization     : ML                             Residual df     =        338
                                                  Scale parameter =   37801.15
Deviance         =  12776789.76                   (1/df) Deviance =   37801.15
Pearson          =  12776789.76                   (1/df) Pearson  =   37801.15

Variance function: V(u) = 1                       [Gaussian]
Link function    : g(u) = u                       [Identity]
```

```
                                                  AIC             =  13.38384
Log likelihood   = -2273.252279                   BIC             =  1.28e+07

------------------------------------------------------------------------------
             |                 OIM
        bf5m |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   9.243905   4.217043     2.19   0.028     .9786526    17.50916
       _cons |   104.6228   11.29756     9.26   0.000     82.47996    126.7656
------------------------------------------------------------------------------

Iteration 1:   deviance =  336.3745
Iteration 2:   deviance =  336.2755
Iteration 3:   deviance =  336.2754
Iteration 4:   deviance =  336.2754

Generalized linear models                         No. of obs      =        340
Optimization     : MQL Fisher scoring             Residual df     =        336
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  336.2754021                   (1/df) Deviance =    1.00082
Pearson          =  339.5058665                   (1/df) Pearson  =   1.010434

Variance function: V(u) = u*(1-u)                 [Bernoulli]
Link function    : g(u) = invnorm(u)              [Probit]

                                                  BIC             =   -1622.25

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf5m |  -.0001044    .000414    -0.25   0.801    -.0009159     .000707
       illw2 |   .3706764   .1252132     2.96   0.003     .1252631    .6160898
avgcumdosew2 |   .0147823   .0283632     0.52   0.602    -.0408084    .0703731
       _cons |  -.9460378   .0985679    -9.60   0.000    -1.139227   -.7528483
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -2733.8869

Generalized linear models                         No. of obs      =        340
Optimization     : ML                             Residual df     =        338
                                                  Scale parameter =   567905.6
Deviance         =  191952095.6                   (1/df) Deviance =   567905.6
Pearson          =  191952095.6                   (1/df) Pearson  =   567905.6

Variance function: V(u) = 1                       [Gaussian]
Link function    : g(u) = u                       [Identity]
```

		AIC	= 16.09345
Log likelihood	= -2733.886934	BIC	= 1.92e+08

bf7m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	9.152801	16.34533	0.56	0.576	-22.88345	41.18905
_cons	1025.425	43.78952	23.42	0.000	939.5992	1111.251

```
Iteration 1:   deviance =  336.2763
Iteration 2:   deviance =  336.1772
Iteration 3:   deviance =  336.1772
Iteration 4:   deviance =  336.1772

Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        336
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =   336.177176                    (1/df) Deviance =   1.000527
Pearson          =  339.9627414                    (1/df) Pearson  =   1.011794

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             =  -1622.349
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf7m	-.0000423	.000105	-0.40	0.687	-.0002481	.0001634
illw2	.3607427	.1214759	2.97	0.003	.1226542	.5988312
avgcumdosew2	.014265	.0281752	0.51	0.613	-.0409575	.0694874
_cons	-.910979	.1415067	-6.44	0.000	-1.188327	-.633631

(Standard errors scaled using square root of deviance-based dispersion.)

```
Iteration 0:   log likelihood = -3529.9433

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =   6.14e+07
Deviance         =  2.07423e+10                    (1/df) Deviance =   6.14e+07
Pearson          =  2.07423e+10                    (1/df) Pearson  =   6.14e+07

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]
```

```
                                                  AIC             =  20.77614
Log likelihood   = -3529.943345                   BIC             =  2.07e+10
```

bf8	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	357.2422	169.9126	2.10	0.036	24.2195	690.2648
_cons	2822.831	455.2	6.20	0.000	1930.655	3715.006

```
Iteration 1:   deviance =  335.4034
Iteration 2:   deviance =  335.2271
Iteration 3:   deviance =  335.2265
Iteration 4:   deviance =  335.2265
Iteration 5:   deviance =  335.2265

Generalized linear models                         No. of obs      =        340
Optimization     : MQL Fisher scoring             Residual df     =        336
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  335.2264779                   (1/df) Deviance =   .9976979
Pearson          =   338.675469                   (1/df) Pearson  =   1.007963

Variance function: V(u) = u*(1-u)                 [Bernoulli]
Link function    : g(u) = invnorm(u)              [Probit]

                                                  BIC             = -1623.299
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf8	-.0000115	.0000109	-1.05	0.292	-.0000329	9.89e-06
illw2	.3835488	.1226954	3.13	0.002	.1430703	.6240273
avgcumdosew2	.0178965	.0281831	0.64	0.525	-.0373414	.0731343
_cons	-.9311558	.0948074	-9.82	0.000	-1.116975	-.7453367

```
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -2696.8707

Generalized linear models                         No. of obs      =        340
Optimization     : ML                             Residual df     =        338
                                                  Scale parameter =   456784.9
Deviance         =  154393311.2                   (1/df) Deviance =   456784.9
Pearson          =  154393311.2                   (1/df) Pearson  =   456784.9
```

```
Variance function: V(u) = 1                          [Gaussian]
Link function    : g(u) = u                          [Identity]

                                                     AIC             =  15.87571
Log likelihood   = -2696.870705                      BIC             =  1.54e+08
```

bf15m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	-3.877137	14.65924	-0.26	0.791	-32.60872	24.85444
_cons	115.2001	39.27245	2.93	0.003	38.22751	192.1727

```
Iteration 1:   deviance =  336.3366
Iteration 2:   deviance =  336.2425
Iteration 3:   deviance =  336.2425
Iteration 4:   deviance =  336.2425

Generalized linear models                            No. of obs      =        340
Optimization     : MQL Fisher scoring                Residual df     =        336
                   (IRLS EIM)                        Scale parameter =          1
Deviance         =  336.2424662                      (1/df) Deviance =   1.000722
Pearson          =  339.8130547                      (1/df) Pearson  =   1.011348

Variance function: V(u) = u*(1-u)                    [Bernoulli]
Link function    : g(u) = invnorm(u)                 [Probit]

                                                     BIC             = -1622.283
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf15m	.0000349	.0001107	0.32	0.752	-.000182	.0002518
illw2	.3640012	.1216115	2.99	0.003	.1256471	.6023553
avgcumdosew2	.0139566	.0282099	0.49	0.621	-.0413337	.0692469
_cons	-.9590254	.0937715	-10.23	0.000	-1.142814	-.7752366

```
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -3469.0038

Generalized linear models                            No. of obs      =        340
Optimization     : ML                                Residual df     =        338
                                                     Scale parameter =   4.29e+07
Deviance         =  1.44936e+10                      (1/df) Deviance =   4.29e+07
Pearson          =  1.44936e+10                      (1/df) Pearson  =   4.29e+07
```

```
Variance function: V(u) = 1                          [Gaussian]
Link function    : g(u) = u                          [Identity]

                                                     AIC             =  20.41767
Log likelihood   = -3469.003753                      BIC             =  1.45e+10
```

bf17	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	-16.67211	142.0317	-0.12	0.907	-295.0491	261.7049
_cons	429.2726	380.5063	1.13	0.259	-316.5061	1175.051

```
Iteration 1:   deviance =  336.1233
Iteration 2:   deviance =   335.855
Iteration 3:   deviance =  335.7482
Iteration 4:   deviance =  335.4893
Iteration 5:   deviance =   335.046
Iteration 6:   deviance =  334.8623
Iteration 7:   deviance =  334.7646
Iteration 8:   deviance =  334.7046
Iteration 9:   deviance =  334.6492
Iteration 10:  deviance =  334.5367
Iteration 11:  deviance =   334.466
Iteration 12:  deviance =  334.4424
Iteration 13:  deviance =  334.4338
Iteration 14:  deviance =  334.4305
Iteration 15:  deviance =   334.429
Iteration 16:  deviance =  334.4282
Iteration 17:  deviance =  334.4278
Iteration 18:  deviance =  334.4276
Iteration 19:  deviance =  334.4274
Iteration 20:  deviance =  334.4273
Iteration 21:  deviance =  334.4272
Iteration 22:  deviance =  334.4271
Iteration 23:  deviance =  334.4271
Iteration 24:  deviance =  334.4271
Iteration 25:  deviance =   334.427
Iteration 26:  deviance =   334.427
Iteration 27:  deviance =   334.427
Iteration 28:  deviance =  334.4269
Iteration 29:  deviance =  334.4269
Iteration 30:  deviance =  334.4269
Iteration 31:  deviance =  334.4269
Iteration 32:  deviance =  334.4269
Iteration 33:  deviance =  334.4269
Iteration 34:  deviance =  334.4269
Iteration 35:  deviance =  334.4269
```

```
Iteration 36:  deviance =  334.4269
Iteration 37:  deviance =  334.4269
Iteration 38:  deviance =  334.4268
Iteration 39:  deviance =  334.4268
Iteration 40:  deviance =  334.4268
Iteration 41:  deviance =  334.4268
Iteration 42:  deviance =  334.4268
Iteration 43:  deviance =  334.4268
Iteration 44:  deviance =  334.4268
Iteration 45:  deviance =  334.4268
Iteration 46:  deviance =  334.4268
Iteration 47:  deviance =  334.4268
Iteration 48:  deviance =  334.4268
Iteration 49:  deviance =  334.4268
Iteration 50:  deviance =  334.4268
Iteration 51:  deviance =  334.4268
Iteration 52:  deviance =  334.4268
Iteration 53:  deviance =  334.4268
Iteration 54:  deviance =  334.4268
Iteration 55:  deviance =  334.4268
Iteration 56:  deviance =  334.4268
Iteration 57:  deviance =  334.4268
Iteration 58:  deviance =  334.4268
Iteration 59:  deviance =  334.4268
Iteration 60:  deviance =  334.4268
Iteration 61:  deviance =  334.4268
Iteration 62:  deviance =  334.4268
Iteration 63:  deviance =  334.4268
Iteration 64:  deviance =  334.4268
Iteration 65:  deviance =  334.4268
Iteration 66:  deviance =  334.4268
Iteration 67:  deviance =  334.4268
Iteration 68:  deviance =  334.4268

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       336
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =   334.426778                    (1/df) Deviance =  .9953178
Pearson          =  334.5406031                    (1/df) Pearson  =  .9956566

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             = -1624.099
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf17	**-.0063351**	**.0141649**	**-0.45**	**0.655**	**-.0340978**	**.0214276**
illw2	**.3553446**	**.1212371**	**2.93**	**0.003**	**.1177242**	**.5929649**
avgcumdosew2	**.0135183**	**.02812**	**0.48**	**0.631**	**-.0415959**	**.0686325**
_cons	**-.9421698**	**.0926941**	**-10.16**	**0.000**	**-1.123847**	**-.7604927**

```
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -1596.6381

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =   706.2799
Deviance         =  238722.6207                    (1/df) Deviance =   706.2799
Pearson          =  238722.6207                    (1/df) Pearson  =   706.2799

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =   9.403754
Log likelihood   = -1596.638134                    BIC             =   236752.4
```

bf20	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	**-.1996497**	**.5764265**	**-0.35**	**0.729**	**-1.329425**	**.9301255**
_cons	**70.37734**	**1.54426**	**45.57**	**0.000**	**67.35065**	**73.40404**

```
Iteration 1:   deviance =  326.4244
Iteration 2:   deviance =  325.6691
Iteration 3:   deviance =  325.6663
Iteration 4:   deviance =  325.6663
Iteration 5:   deviance =  325.6663

Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        336
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  325.6663467                    (1/df) Deviance =   .9692451
Pearson          =  338.4324666                    (1/df) Pearson  =   1.007239

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]
```

```
                                                  BIC             = -1632.859

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf20 |   .0104867   .0032097     3.27   0.001     .0041958    .0167776
       illw2 |   .2668849   .1239534     2.15   0.031     .0239406    .5098291
avgcumdosew2 |   .0159959   .0289453     0.55   0.581    -.0407358    .0727275
       _cons |  -1.696899   .2514028    -6.75   0.000    -2.189639   -1.204158
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -3143.8431

Generalized linear models                         No. of obs      =        340
Optimization     : ML                             Residual df     =        338
                                                  Scale parameter =    6332576
Deviance         =   2140410669                   (1/df) Deviance =    6332576
Pearson          =   2140410669                   (1/df) Pearson  =    6332576

Variance function: V(u) = 1                       [Gaussian]
Link function    : g(u) = u                       [Identity]

                                                  AIC             =   18.50496
Log likelihood   =  -3143.84315                   BIC             =   2.14e+09

------------------------------------------------------------------------------
             |                 OIM
        bf22 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   69.44601   54.58153     1.27   0.203    -37.53183    176.4239
       _cons |   2129.507   146.2252    14.56   0.000     1842.911    2416.103
------------------------------------------------------------------------------

Iteration 1:   deviance =   329.663
Iteration 2:   deviance =  329.5329
Iteration 3:   deviance =  329.5327
Iteration 4:   deviance =  329.5327

Generalized linear models                         No. of obs      =        340
Optimization     : MQL Fisher scoring             Residual df     =        336
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  329.5326856                   (1/df) Deviance =    .980752
Pearson          =  336.2324364                   (1/df) Pearson  =   1.000692

Variance function: V(u) = u*(1-u)                 [Bernoulli]
Link function    : g(u) = invnorm(u)              [Probit]
```

```
                                                  BIC             = -1628.993

------------------------------------------------------------------------------
             |                 EIM
    hp2work  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf22 |   .0000783   .0000296     2.64   0.008     .0000202    .0001364
       illw2 |   .3005113   .1241463     2.42   0.015     .0571889    .5438337
avgcumdosew2 |   .0091767   .0283699     0.32   0.746    -.0464273    .0647808
       _cons |  -1.120001   .1128358    -9.93   0.000    -1.341155   -.8988465
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -3683.6132

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  1.52e+08
Deviance         =  5.12192e+10                    (1/df) Deviance =  1.52e+08
Pearson          =  5.12192e+10                    (1/df) Pearson  =  1.52e+08

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  21.68008
Log likelihood   = -3683.613157                    BIC             =  5.12e+10

------------------------------------------------------------------------------
             |                 OIM
        bf29 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   82.80099   267.0015     0.31   0.756    -440.5124    606.1144
       _cons |   1325.352   715.3035     1.85   0.064    -76.61736    2727.321
------------------------------------------------------------------------------

Iteration 1:   deviance =  336.3754
Iteration 2:   deviance =  336.2738
Iteration 3:   deviance =  336.2737
Iteration 4:   deviance =  336.2737

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       336
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =   336.273687                    (1/df) Deviance =  1.000815
Pearson          =   339.164143                    (1/df) Pearson  =  1.009417

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]
```

```
                                                  BIC             = -1622.252

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf29 |   1.48e-06   5.82e-06     0.25   0.799    -9.92e-06    .0000129
       illw2 |   .3622929   .1215962     2.98   0.003     .1239688     .600617
avgcumdosew2 |   .0137461    .028224     0.49   0.626    -.0415719    .0690641
       _cons |  -.9567327    .092818   -10.31   0.000    -1.138653   -.7748128
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -2661.1745

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  370270.9
Deviance         =  125151569.5                    (1/df) Deviance =  370270.9
Pearson          =  125151569.5                    (1/df) Pearson  =  370270.9

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  15.66573
Log likelihood   = -2661.174486                    BIC             =  1.25e+08

------------------------------------------------------------------------------
             |                 OIM
        bf30 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |  -9.387797   13.19822    -0.71   0.477    -35.25583    16.48024
       _cons |   497.7068   35.35834    14.08   0.000     428.4057    567.0079
------------------------------------------------------------------------------

Iteration 1:   deviance =  331.3314
Iteration 2:   deviance =  331.1891
Iteration 3:   deviance =  331.1888
Iteration 4:   deviance =  331.1888

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       336
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  331.1888247                    (1/df) Deviance =   .985681
Pearson          =  342.2972093                    (1/df) Pearson  =  1.018742

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]
```

```
                                                  BIC             = -1627.337

------------------------------------------------------------------------------
             |                 EIM
    hp2work  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf30 |   .0002835   .0001242     2.28   0.022     .0000401    .0005269
       illw2 |   .3537185   .1220211     2.90   0.004     .1145615    .5928754
avgcumdosew2 |   .0172486   .0281673     0.61   0.540    -.0379583    .0724554
       _cons |  -1.105489   .1160104    -9.53   0.000    -1.332866   -.8781133
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -659.07396

Generalized linear models                         No. of obs      =        340
Optimization     : ML                             Residual df     =        338
                                                  Scale parameter =   2.843195
Deviance         =  960.9998238                   (1/df) Deviance =   2.843195
Pearson          =  960.9998238                   (1/df) Pearson  =   2.843195

Variance function: V(u) = 1                       [Gaussian]
Link function    : g(u) = u                       [Identity]

                                                  AIC             =    3.88867
Log likelihood   = -659.0739647                   BIC             = -1009.184

------------------------------------------------------------------------------
             |                 OIM
        bf40 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   .0482004   .0365729     1.32   0.188    -.0234811    .1198818
       _cons |   2.097753   .0979795    21.41   0.000     1.905716    2.289789
------------------------------------------------------------------------------

Iteration 1:   deviance =  315.0711
Iteration 2:   deviance =   314.451
Iteration 3:   deviance =  314.4494
Iteration 4:   deviance =  314.4494

Generalized linear models                         No. of obs      =        340
Optimization     : MQL Fisher scoring             Residual df     =        336
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  314.4493978                   (1/df) Deviance =   .9358613
Pearson          =  332.2461013                   (1/df) Pearson  =   .9888277

Variance function: V(u) = u*(1-u)                 [Bernoulli]
Link function    : g(u) = invnorm(u)              [Probit]
```

```
                                                BIC             = -1644.076

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf40 |   .2308417   .0484278     4.77   0.000     .1359249    .3257585
       illw2 |   .1331906   .1291807     1.03   0.303    -.1199989    .3863801
avgcumdosew2 |   .0062786   .0280086     0.22   0.823    -.0486172    .0611743
       _cons |  -1.427269   .1387712   -10.29   0.000    -1.699256   -1.155283
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

235 .
236 . **** male mediators of dose paid employment: bf8, age, illw2 ageXillw2
237 . scalar wkMedMw2 = "bf8 age illw2 "

238 .
239 . title4 "Female mediator models for dose-paid employment"
------------------------------------------------------------------------------
Female mediator models for dose-paid employment
------------------------------------------------------------------------------


240 . glm radhlw2 avgcumdosew2 if gender==2, fam(gaussian) link(identity)

Iteration 0:   log likelihood = -1791.2233

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  1137.567
Deviance         =  410661.5604                    (1/df) Deviance =  1137.567
Pearson          =  410661.5604                    (1/df) Pearson  =  1137.567

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  9.880018
Log likelihood   = -1791.223306                    BIC             =  408533.7

------------------------------------------------------------------------------
             |                 OIM
     radhlw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   3.302288   1.283833     2.57   0.010     .7860214    5.818555
       _cons |   56.95167   2.110863    26.98   0.000     52.81445    61.08888
------------------------------------------------------------------------------
```

```
241 . glm hp2work radhlw2 if gender==2, fam(binomial) irls scale(dev) link(probit)

    Iteration 1:   deviance =  395.8837
    Iteration 2:   deviance =  395.5308
    Iteration 3:   deviance =  395.5307
    Iteration 4:   deviance =  395.5307

    Generalized linear models                          No. of obs      =        363
    Optimization     : MQL Fisher scoring              Residual df     =        361
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  395.5307336                    (1/df) Deviance =   1.095653
    Pearson          =  363.4160364                    (1/df) Pearson  =   1.006693

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             =  -1732.349

    ------------------------------------------------------------------------------
                 |                 EIM
         hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
         radhlw2 |   .0090691   .0023064     3.93   0.000     .0045487    .0135895
           _cons |  -1.229859   .1685308    -7.30   0.000    -1.560173   -.8995443
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

242 . glm age avgcumdosew2 if gender==2, fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -1406.9403

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =   136.9184
    Deviance         =  49427.52828                    (1/df) Deviance =   136.9184
    Pearson          =  49427.52828                    (1/df) Pearson  =   136.9184

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =   7.762756
    Log likelihood   = -1406.940271                    BIC             =   47299.65
```

```
------------------------------------------------------------------------------
             |                 OIM
         age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   1.502324   .4454009     3.37   0.001     .6293547    2.375294
       _cons |   48.86944   .7323225    66.73   0.000     47.43412    50.30477
------------------------------------------------------------------------------
```

```
243 . glm hp2work age if gender==2, fam(binomial) irls scale(dev) link(probit)

    Iteration 1:   deviance =  372.7391
    Iteration 2:   deviance =  372.3711
    Iteration 3:   deviance =  372.3711
    Iteration 4:   deviance =  372.3711

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  372.3710546                    (1/df) Deviance =  1.031499
    Pearson          =  375.1783727                    (1/df) Pearson  =  1.039275

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             = -1755.508

    ------------------------------------------------------------------------------
                 |                 EIM
         hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             age |   .0398718   .0066503     6.00   0.000     .0268375     .052906
           _cons |  -2.722762   .3594297    -7.58   0.000    -3.427231   -2.018292
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

244 . glm illw2 avgcumdosew2 if gender==2, fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -463.51524

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =   .756881
    Deviance         =  273.2340487                    (1/df) Deviance =   .756881
    Pearson          =  273.2340487                    (1/df) Pearson  =   .756881

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]
```

```
                                                  AIC             =  2.564822
Log likelihood   = -463.5152411                   BIC             = -1854.645

------------------------------------------------------------------------------
             |                 OIM
       illw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   .1249912   .0331157     3.77   0.000     .0600856    .1898968
       _cons |    .301285   .0544484     5.53   0.000      .194568    .4080019
------------------------------------------------------------------------------

245 . glm hp2work illw2 if gender==2, fam(binomial) irls scale(dev) link(probit)

Iteration 1:   deviance =  405.7435
Iteration 2:   deviance =  405.3085
Iteration 3:   deviance =  405.3081
Iteration 4:   deviance =  405.3081
Iteration 5:   deviance =  405.3081

Generalized linear models                         No. of obs      =        363
Optimization     : MQL Fisher scoring             Residual df     =        361
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  405.3080692                   (1/df) Deviance =   1.122737
Pearson          =  363.1923247                   (1/df) Pearson  =   1.006073

Variance function: V(u) = u*(1-u)                 [Bernoulli]
Link function    : g(u) = invnorm(u)              [Probit]

                                                  BIC             = -1722.571

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw2 |   .2093544   .0854065     2.45   0.014     .0419606    .3767481
       _cons |  -.7522712   .0853534    -8.81   0.000    -.9195607   -.5849817
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)
```

```
246 .
247 .
248 . cap gen illw2Xd2=illw2*avgcumdosew2

249 .
250 . * interaction of illw2Xd is not a mediator
251 . glm illw2 avgcumdosew2 if gender==2, fam(gaussian) link(identity) nolog

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =    .756881
    Deviance         =  273.2340487                    (1/df) Deviance =    .756881
    Pearson          =  273.2340487                    (1/df) Pearson  =    .756881

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =   2.564822
    Log likelihood   = -463.5152411                    BIC             =  -1854.645

    ------------------------------------------------------------------------------
                 |                 OIM
           illw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew2 |   .1249912   .0331157     3.77   0.000     .0600856    .1898968
           _cons |    .301285   .0544484     5.53   0.000      .194568    .4080019
    ------------------------------------------------------------------------------

252 . glm hp2work illw2Xd2 illw2 avgcumdosew2 if gender==2, fam(binomial) ///
    >    nolog irls scale(dev) link(probit)

    Generalized linear models                          No. of obs      =        363
    Optimization     : MQL Fisher scoring              Residual df     =        359
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  400.8217749                    (1/df) Deviance =   1.116495
    Pearson          =  360.6634088                    (1/df) Pearson  =   1.004633

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             =  -1715.269
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
illw2Xd2	**-.0002555**	**.0352447**	**-0.01**	**0.994**	**-.0693338**	**.0688228**
illw2	**.1843288**	**.1001774**	**1.84**	**0.066**	**-.0120152**	**.3806729**
avgcumdosew2	**.1074757**	**.0718444**	**1.50**	**0.135**	**-.0333367**	**.2482882**
_cons	**-.8405461**	**.1053904**	**-7.98**	**0.000**	**-1.047107**	**-.6339848**

(Standard errors scaled using square root of deviance-based dispersion.)

```
253 .
254 .
255 .
256 . **** Basis function mediators of paid employment
257 . ** female b4 b4m b40
258 .
259 . title4 "bf8 is a male mediator of paid employment"
```

---

bf8 is a male mediator of paid employment

```
260 . local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

261 . foreach var in `w2bf'{
      2. glm `var' avgcumdosew2 if gender==2, family(gaussian) link(identity)
      3. glm hp2work `var' avgcumdosew2  if gender==2, family(binomial) irls scale
    > (dev) link(probit)
      4. }

    Iteration 0:   log likelihood = -1648.0584

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =    516.905
    Deviance         =  186602.7154                    (1/df) Deviance =    516.905
    Pearson          =  186602.7154                    (1/df) Pearson  =    516.905

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =   9.091231
    Log likelihood   =  -1648.05836                    BIC             =   184474.8
```

```
------------------------------------------------------------------------------
             |                 OIM
         bf1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   1.592699   .8654173     1.84   0.066    -.1034879    3.288886
       _cons |   37.79953   1.422908    26.56   0.000     35.01068    40.58837
------------------------------------------------------------------------------

Iteration 1:   deviance =    400.85
Iteration 2:   deviance =  400.4115
Iteration 3:   deviance =  400.4114
Iteration 4:   deviance =  400.4114

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       360
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  400.4114259                    (1/df) Deviance =  1.112254
Pearson          =  362.4247002                    (1/df) Pearson  =  1.006735

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             = -1721.574

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bf1 |   .0079775   .0034614     2.30   0.021     .0011932    .0147618
avgcumdosew2 |   .1139711   .0531295     2.15   0.032     .0098392    .2181029
       _cons |   -1.08756   .1662101    -6.54   0.000    -1.413326   -.7617939
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -1109.0983

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  26.53281
Deviance         =  9578.344971                    (1/df) Deviance =  26.53281
Pearson          =  9578.344971                    (1/df) Pearson  =  26.53281

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  6.121754
Log likelihood   = -1109.098281                    BIC             =  7450.466
```

```
------------------------------------------------------------------------------
             |                 OIM
         bf4 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   -.595012   .1960703    -3.03   0.002    -.9793027   -.2107212
       _cons |   11.02048   .3223763    34.19   0.000     10.38863    11.65232
------------------------------------------------------------------------------

Iteration 1:   deviance =  368.2526
Iteration 2:   deviance =  367.9545
Iteration 3:   deviance =  367.9542
Iteration 4:   deviance =  367.9542

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       360
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  367.9541653                    (1/df) Deviance =  1.022095
Pearson          =   355.981786                    (1/df) Pearson  =  .9888383

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             = -1754.031

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bf4 |  -.0878252   .0146171    -6.01   0.000    -.1164742   -.0591762
avgcumdosew2 |   .0839548    .051694     1.62   0.104    -.0173635    .1852731
       _cons |   .1183858   .1696362     0.70   0.485    -.2140951    .4508667
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -3335.9882

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =   5653290
Deviance         =   2040837774                    (1/df) Deviance =   5653290
Pearson          =   2040837774                    (1/df) Pearson  =   5653290

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  18.39112
Log likelihood   = -3335.988235                    BIC             =  2.04e+09
```

bf2	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	-6.46457	90.50464	-0.07	0.943	-183.8504	170.9213
_cons	2475.004	148.8066	16.63	0.000	2183.349	2766.66

```
Iteration 1:   deviance =  400.9948
Iteration 2:   deviance =   400.598
Iteration 3:   deviance =   400.598
Iteration 4:   deviance =   400.598

Generalized linear models                         No. of obs      =        363
Optimization     : MQL Fisher scoring             Residual df     =        360
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  400.5979742                   (1/df) Deviance =   1.112772
Pearson          =  362.9767308                   (1/df) Pearson  =   1.008269

Variance function: V(u) = u*(1-u)                 [Bernoulli]
Link function    : g(u) = invnorm(u)              [Probit]

                                                  BIC             =  -1721.387
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf2	.0000727	.0000317	2.29	0.022	.0000106	.0001349
avgcumdosew2	.1275153	.0528818	2.41	0.016	.0238688	.2311617
_cons	-.9638935	.1245337	-7.74	0.000	-1.207975	-.719812

```
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -1140.8259

Generalized linear models                         No. of obs      =        363
Optimization     : ML                             Residual df     =        361
                                                  Scale parameter =   31.60104
Deviance         =  11407.97484                   (1/df) Deviance =   31.60104
Pearson          =  11407.97484                   (1/df) Pearson  =   31.60104

Variance function: V(u) = 1                       [Gaussian]
Link function    : g(u) = u                       [Identity]

                                                  AIC             =   6.296561
Log likelihood   = -1140.825904                   BIC             =   9280.095
```

bf4m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	-.599311	.2139789	-2.80	0.005	-1.018702	-.1799202
_cons	18.83424	.3518214	53.53	0.000	18.14469	19.5238

```
Iteration 1:   deviance =  376.0339
Iteration 2:   deviance =  375.8988
Iteration 3:   deviance =  375.8985
Iteration 4:   deviance =  375.8985

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       360
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  375.8985331                    (1/df) Deviance =  1.044163
Pearson          =  352.5709603                    (1/df) Pearson  =  .9793638

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             = -1746.086
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4m	-.0703561	.013277	-5.30	0.000	-.0963785	-.0443336
avgcumdosew2	.0920064	.0520406	1.77	0.077	-.0099913	.1940041
_cons	.491873	.2531477	1.94	0.052	-.0042874	.9880333

```
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -2474.5823

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  49104.71
Deviance         =  17726801.77                    (1/df) Deviance =  49104.71
Pearson          =  17726801.77                    (1/df) Pearson  =  49104.71

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  13.64508
Log likelihood   = -2474.582345                    BIC             =  1.77e+07
```

bf5m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	**13.38431**	**8.434936**	**1.59**	**0.113**	**-3.147864**	**29.91648**
_cons	**147.9804**	**13.86862**	**10.67**	**0.000**	**120.7984**	**175.1624**

```
Iteration 1:   deviance =  406.9626
Iteration 2:   deviance =  406.4247
Iteration 3:   deviance =  406.4246
Iteration 4:   deviance =  406.4246

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        360
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  406.4245618                    (1/df) Deviance =   1.128957
Pearson          =  362.4207333                    (1/df) Pearson  =   1.006724

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             =   -1715.56
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf5m	**.0000409**	**.0003437**	**0.12**	**0.905**	**-.0006328**	**.0007146**
avgcumdosew2	**.1250263**	**.0533787**	**2.34**	**0.019**	**.020406**	**.2296465**
_cons	**-.7796998**	**.1041776**	**-7.48**	**0.000**	**-.9838841**	**-.5755154**

(Standard errors scaled using square root of deviance-based dispersion.)

```
Iteration 0:   log likelihood = -2919.8439

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   570884.5
Deviance         =  206089311.1                    (1/df) Deviance =   570884.5
Pearson          =  206089311.1                    (1/df) Pearson  =   570884.5

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =   16.09831
Log likelihood   = -2919.843936                    BIC             =   2.06e+08
```

```
------------------------------------------------------------------------------
             |                 OIM
        bf7m |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |  -14.75682   28.76036    -0.51   0.608    -71.12609    41.61245
       _cons |   1193.681   47.28742    25.24   0.000         1101    1286.363
------------------------------------------------------------------------------

Iteration 1:   deviance =  406.5017
Iteration 2:   deviance =  405.9725
Iteration 3:   deviance =  405.9723
Iteration 4:   deviance =  405.9723

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       360
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  405.9722985                    (1/df) Deviance =  1.127701
Pearson          =  362.2389826                    (1/df) Pearson  =  1.006219

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             = -1716.013

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf7m |  -.0000668   .0001013    -0.66   0.509    -.0002652    .0001317
avgcumdosew2 |   .1244811   .0531995     2.34   0.019      .020212    .2287502
       _cons |  -.6947121   .1494363    -4.65   0.000    -.9876019   -.4018223
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -3888.9836

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  1.19e+08
Deviance         =  4.29556e+10                    (1/df) Deviance =  1.19e+08
Pearson          =  4.29556e+10                    (1/df) Pearson  =  1.19e+08

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  21.43793
Log likelihood   = -3888.983569                    BIC             =  4.30e+10
```

bf8	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf. Interval]	
avgcumdosew2	**560.4936**	**415.2182**	**1.35**	**0.177**	**-253.3192**	**1374.306**
_cons	**5567.66**	**682.6966**	**8.16**	**0.000**	**4229.599**	**6905.72**

```
Iteration 1:   deviance =  406.9011
Iteration 2:   deviance =  406.3651
Iteration 3:   deviance =  406.3649
Iteration 4:   deviance =  406.3649

Generalized linear models                         No. of obs      =        363
Optimization     : MQL Fisher scoring             Residual df     =        360
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  406.3649265                   (1/df) Deviance =   1.128791
Pearson          =  362.4412012                   (1/df) Pearson  =   1.006781

Variance function: V(u) = u*(1-u)                 [Bernoulli]
Link function    : g(u) = invnorm(u)              [Probit]

                                                  BIC             =   -1715.62
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf. Interval]	
bf8	**1.81e-06**	**6.92e-06**	**0.26**	**0.793**	**-.0000118**	**.0000154**
avgcumdosew2	**.1246875**	**.0532751**	**2.34**	**0.019**	**.0202703**	**.2291048**
_cons	**-.7839399**	**.0989719**	**-7.92**	**0.000**	**-.9779212**	**-.5899586**

```
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -2865.4285

Generalized linear models                         No. of obs      =        363
Optimization     : ML                             Residual df     =        361
                                                  Scale parameter =   423002.2
Deviance         =  152703798.3                   (1/df) Deviance =   423002.2
Pearson          =  152703798.3                   (1/df) Pearson  =   423002.2

Variance function: V(u) = 1                       [Gaussian]
Link function    : g(u) = u                       [Identity]

                                                  AIC             =    15.7985
Log likelihood   = -2865.428505                   BIC             =   1.53e+08
```

bf15m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf. Interval]	
avgcumdosew2	-20.7721	24.75663	-0.84	0.401	-69.29421	27.75
_cons	118.713	40.70454	2.92	0.004	38.93359	198.4925

```
Iteration 1:   deviance =  403.5605
Iteration 2:   deviance =  401.8807
Iteration 3:   deviance =  401.3347
Iteration 4:   deviance =  400.9492
Iteration 5:   deviance =  400.5446
Iteration 6:   deviance =  400.2059
Iteration 7:   deviance =  400.0413
Iteration 8:   deviance =  399.9425
Iteration 9:   deviance =  399.8645
Iteration 10:  deviance =  399.8166
Iteration 11:  deviance =     399.8
Iteration 12:  deviance =  399.7944
Iteration 13:  deviance =  399.7924
Iteration 14:  deviance =  399.7917
Iteration 15:  deviance =  399.7914
Iteration 16:  deviance =  399.7913
Iteration 17:  deviance =  399.7912
Iteration 18:  deviance =  399.7912
Iteration 19:  deviance =  399.7912
Iteration 20:  deviance =  399.7912
Iteration 21:  deviance =  399.7912
Iteration 22:  deviance =  399.7912
Iteration 23:  deviance =  399.7912
Iteration 24:  deviance =  399.7912
Iteration 25:  deviance =  399.7912
Iteration 26:  deviance =  399.7912
Iteration 27:  deviance =  399.7912
Iteration 28:  deviance =  399.7912
Iteration 29:  deviance =  399.7912

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       360
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  399.7911696                    (1/df) Deviance =  1.110531
Pearson          =  350.5970313                    (1/df) Pearson  =  .9738806

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             = -1722.194
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf15m	**-.0186941**	**.1404434**	**-0.13**	**0.894**	**-.293958**	**.2565699**
avgcumdosew2	**.1198992**	**.0526195**	**2.28**	**0.023**	**.0167668**	**.2230316**
_cons	**-.7426095**	**.0909405**	**-8.17**	**0.000**	**-.9208497**	**-.5643693**

(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0: log likelihood = **-3826.3245**

```
Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   8.43e+07
Deviance         =  3.04151e+10                    (1/df) Deviance =   8.43e+07
Pearson          =  3.04151e+10                    (1/df) Pearson  =   8.43e+07

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =    21.0927
Log likelihood   = -3826.324541                    BIC             =   3.04e+10
```

bf17	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	**-273.4502**	**349.3904**	**-0.78**	**0.434**	**-958.2427**	**411.3423**
_cons	**1275.196**	**574.4633**	**2.22**	**0.026**	**149.269**	**2401.124**

```
Iteration 1:   deviance =  405.2053
Iteration 2:   deviance =  404.0203
Iteration 3:   deviance =  403.6855
Iteration 4:   deviance =  403.4175
Iteration 5:   deviance =  403.1159
Iteration 6:   deviance =  402.9417
Iteration 7:   deviance =  402.8368
Iteration 8:   deviance =  402.7416
Iteration 9:   deviance =  402.6786
Iteration 10:  deviance =  402.6575
Iteration 11:  deviance =  402.6503
Iteration 12:  deviance =  402.6478
Iteration 13:  deviance =   402.647
Iteration 14:  deviance =  402.6466
Iteration 15:  deviance =  402.6465
Iteration 16:  deviance =  402.6465
Iteration 17:  deviance =  402.6465
```

```
Iteration 18:  deviance =  402.6464
Iteration 19:  deviance =  402.6464
Iteration 20:  deviance =  402.6464
Iteration 21:  deviance =  402.6464
Iteration 22:  deviance =  402.6464
Iteration 23:  deviance =  402.6464
Iteration 24:  deviance =  402.6464
Iteration 25:  deviance =  402.6464

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       360
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  402.6464206                    (1/df) Deviance =  1.118462
Pearson          =  355.5597944                    (1/df) Pearson  =  .9876661

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             = -1719.339

------------------------------------------------------------------------------
             |                 EIM
    hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf17 |  -.0009496   .0098579    -0.10   0.923    -.0202707    .0183715
avgcumdosew2 |   .1218174   .0528492     2.30   0.021     .0182348    .2253999
       _cons |   -.755413   .0909044    -8.31   0.000    -.9335823   -.5772436
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -1709.1559

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  723.7781
Deviance         =  261283.9058                    (1/df) Deviance =  723.7781
Pearson          =  261283.9058                    (1/df) Pearson  =  723.7781

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  9.427856
Log likelihood   = -1709.155932                    BIC             =    259156
```

bf20	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	**1.580896**	**1.024054**	**1.54**	**0.123**	**-.4262136**	**3.588005**
_cons	**75.9561**	**1.683737**	**45.11**	**0.000**	**72.65604**	**79.25616**

```
Iteration 1:   deviance =  400.9593
Iteration 2:   deviance =  400.4773
Iteration 3:   deviance =  400.4772
Iteration 4:   deviance =  400.4772

Generalized linear models                         No. of obs      =        363
Optimization     : MQL Fisher scoring             Residual df     =        360
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  400.4771542                   (1/df) Deviance =   1.112437
Pearson          =  362.8420021                   (1/df) Pearson  =   1.007894

Variance function: V(u) = u*(1-u)                 [Bernoulli]
Link function    : g(u) = invnorm(u)              [Probit]

                                                  BIC             =  -1721.508
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf20	**.0068438**	**.0030242**	**2.26**	**0.024**	**.0009166**	**.012771**
avgcumdosew2	**.1159481**	**.0531408**	**2.18**	**0.029**	**.011794**	**.2201022**
_cons	**-1.306413**	**.2554428**	**-5.11**	**0.000**	**-1.807072**	**-.8057543**

```
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood =  -3441.897

Generalized linear models                         No. of obs      =        363
Optimization     : ML                             Residual df     =        361
                                                  Scale parameter =   1.01e+07
Deviance         =   3657865066                   (1/df) Deviance =   1.01e+07
Pearson          =   3657865066                   (1/df) Pearson  =   1.01e+07

Variance function: V(u) = 1                       [Gaussian]
Link function    : g(u) = u                       [Identity]

                                                  AIC             =   18.97464
Log likelihood   = -3441.896981                   BIC             =   3.66e+09
```

bf22	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	220.8529	121.1659	1.82	0.068	-16.62788	458.3337
_cons	3140.533	199.2195	15.76	0.000	2750.07	3530.996

```
Iteration 1:   deviance =  405.124
Iteration 2:   deviance = 404.6331
Iteration 3:   deviance = 404.6329
Iteration 4:   deviance = 404.6329

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        360
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  404.6329168                    (1/df) Deviance =    1.12398
Pearson          =  360.9276967                    (1/df) Pearson  =   1.002577

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             =  -1717.352
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf22	.0000304	.0000232	1.31	0.191	-.0000151	.0000759
avgcumdosew2	.1199526	.0533515	2.25	0.025	.0153855	.2245196
_cons	-.8734808	.1187957	-7.35	0.000	-1.106316	-.6406455

```
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -3484.9777

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   1.28e+07
Deviance         =   4637795801                    (1/df) Deviance =   1.28e+07
Pearson          =   4637795801                    (1/df) Pearson  =   1.28e+07

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =     19.212
Log likelihood   = -3484.977739                    BIC             =   4.64e+09
```

bf29	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	52.50345	136.4339	0.38	0.700	-214.9022	319.909
_cons	267.0292	224.323	1.19	0.234	-172.6358	706.6941

```
Iteration 1:   deviance =  406.0224
Iteration 2:   deviance =  405.5022
Iteration 3:   deviance =  405.5021
Iteration 4:   deviance =  405.5021

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       360
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  405.5020775                    (1/df) Deviance =  1.126395
Pearson          =   362.236176                    (1/df) Pearson  =  1.006212

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             = -1716.483
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf29	.0000177	.0000198	0.89	0.371	-.0000211	.0000564
avgcumdosew2	.1248052	.0530425	2.35	0.019	.0208439	.2287666
_cons	-.7795525	.0909171	-8.57	0.000	-.9577467	-.6013582

```
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -2855.8596

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  401278.8
Deviance         =  144861628.9                    (1/df) Deviance =  401278.8
Pearson          =  144861628.9                    (1/df) Pearson  =  401278.8

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  15.74578
Log likelihood   = -2855.859629                    BIC             =  1.45e+08
```

bf30	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
avgcumdosew2	58.2065	24.11256	2.41	0.016	10.94675	105.4662
_cons	476.5581	39.64556	12.02	0.000	398.8542	554.2619

```
Iteration 1:   deviance =  404.5558
Iteration 2:   deviance =  404.0864
Iteration 3:   deviance =  404.0863
Iteration 4:   deviance =  404.0863

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        360
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  404.0863003                    (1/df) Deviance =   1.122462
Pearson          =  361.7532879                    (1/df) Pearson  =    1.00487

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             =  -1717.899
```

hp2work	EIM Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
bf30	.0001722	.0001187	1.45	0.147	-.0000605	.0004048
avgcumdosew2	.116572	.0537488	2.17	0.030	.0112264	.2219177
_cons	-.8607769	.1094838	-7.86	0.000	-1.075361	-.6461925

```
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -818.51169

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   5.351378
Deviance         =  1931.847477                    (1/df) Deviance =   5.351378
Pearson          =  1931.847477                    (1/df) Pearson  =   5.351378

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =   4.520726
Log likelihood   = -818.5116931                    BIC             =  -196.0319
```

bf40	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	**.1794903**	**.0880548**	**2.04**	**0.042**	**.0069061**	**.3520745**
_cons	**3.004543**	**.1447786**	**20.75**	**0.000**	**2.720783**	**3.288304**

```
Iteration 1:   deviance =  400.9844
Iteration 2:   deviance =  400.6024
Iteration 3:   deviance =  400.6022
Iteration 4:   deviance =  400.6022

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        360
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  400.6022459                    (1/df) Deviance =   1.112784
Pearson          =  359.7424008                    (1/df) Pearson  =   .9992844

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             =  -1721.383
```

hp2work	EIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf40	**.0741875**	**.0318129**	**2.33**	**0.020**	**.0118353**	**.1365397**
avgcumdosew2	**.1139391**	**.0533719**	**2.13**	**0.033**	**.009332**	**.2185461**
_cons	**-1.008205**	**.1365187**	**-7.39**	**0.000**	**-1.275776**	**-.740633**

```
(Standard errors scaled using square root of deviance-based dispersion.)

262 . * Saving mediators as scalars for Dose=work relationship
263 . **** female mediators of dose-paid employment: radhlw2, age,b40, bf4m, bf4,
    > bf1
```

```
264 . scalar wkMedFw2 = "radhlw2 age bf40 bf4m bf1"

265 . scalar list
      wkMedMw2 = bf8 age illw2
    VactnMedFw2 = age illw2 radhlw2
    VactnMedMw2 = age illw2
    VacatnModFw2 = none
    MainEffVactnFw2 = age radhlw2 deaw2
    SigDoseVactnFw2 = no
    vactnModMw2 = none
    MainEffVactnMw2 = age bf7m radhlw2
    SigDoseVactnMw2 = no
    sxLifeMedFw2 = age bf4 bf4m
    sxLifeMedMw2 = age illw2
    InthbModFw2 = none
    MainEffInthbFw2 = age radhlw2 bf4
    SigdoseInthbFw2 = no
      InthbMw2 = none
    MainEffInthbMw2 = age radhlw2 shfamw2
    SigDoseInthbMw2 = no
    sxlifeMedFw2 = age illw2 radhlw2 bf4 bf4m
    sxlifeMedMw2 = age illw2
    sxlifeModFw2 = none
    MainEffsxlifeFw2 = age radhlw2 bf4 bf4m shrelaw2 shfamw2
    SigDoseSxlifeFw2 = no
    sxlifeModMw2 = none
    SigDosesxlifeMw2 = no
    MainEffsxlifeMw2 = age bf4 illw2 radhlw2
    PrbfmhmMedFw2 = age bf4
    PrbfmhmMedMw2 = age
    PrbfmhmModFw2 = none
    MainEffPrbfmhmFw2 = age bf4 bf40
    SigDosePrbfmhmFw2 = no
    PrbfmhmModw2 = none
    SigDosePrbfmhmMw2 = no
    SigDosePrbfhmMw2 = no
    MainEffPrbfhmMw2 = bf1 bf4 dvcew2 bf7m
    ProbsocMedFw2 = age radhlw2
    ProbsocMedMw2 = age
    ProbsocModFw2 = none
    MainEffProbSocFw2 = age radhlw2 illw2 Shrelaw2 avgcumodsew2
    SigDoseProbsocFw2 = yes
    ProbSocModMw2 = none
    SigDoseProbsocMw2 = no
    MainEffPrbsocMw2 = age radhlw2 shjobw2
    hmcareMedFw2 = age illw2
    hmcareMedMw2 = age illw2
    hmcareModFw2 = none
    SigDoseWKFw2 =          0
```

```
    SigdoseHmcareFw2 = no
    hmcareModMw2 = none
    MainEffhmcareMw2 = none
    SigDoseHmcareMw2 = no
      wkMedFw2 = radhlw2 age bf40 bf4m bf1
      wkModFw2 = none
      wkModMw2 = none
    MainEffwkFw2 = age
    MainEffwkMw2 = workM: age  bf8  illw2  shjobw2
    SigDoseWKMw2 = no
    SigDoseWkFw2 = no
    hmcrMedFw1 = age icdxcnt shjobw1 bf4 BSIsoma WHPpain WHPsleep WHPel
    hmcrMedMw1 = age
    MainEffhmcrFw1 = illw1 age
    SigDosehmcrFw1 = no
    hmcrModMw1 = none
    MainEffhmcrMw1 = age shjobw1
    SigDosehmcrMw1 = no
      wkMedFw1 = age b4
    MainEffwkFw1 = age
    MainEffwkMw1 = age
      wkMedMw1 = bf40
      WkMedMw1 = none
      WkModFw1 = none
      WKModMw1 = none
    SigDoseWkMw1 = no
    SigDoseWkFw1 = no
    SigDoseFw1 = no
      wkModFw1 = none
      wkModMw1 = none
     medsigFw1 =          1
    prbsocnumMAsig =          8

266 .
267 . set linesize 100

268 .
```

```
269 . ***************************************************************************
    > ****
270 . ******* We summarize the main effects models that were supposed to be signif
    > icant
271 . ***************************************************************************
    > ****
272 . set linesize 100

273 . est clear

274 .
275 .
276 .    * work
277 . forvalues j=2/2 {
      2. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      3. set more off
      4. di as input "For females trimmed HP2work on wave 2 with dose ns"
      5.          des  age occ1w`j'-occ8w`j' inc1w`j'-inc4w`j' avgcumdosew`j' bf8 /
    > //
    >             marrw`j'1-marrw`j'6  `w2bf'
      6.          logistic HP2work  age  ///
    >                  avgcumdosew2 bf8 illw`j' shjobw`j' radhlw`j' if gender==1, c
    > oef nolog
      7.
278 . eststo paidwk
      8.         }
    For females trimmed HP2work on wave 2 with dose ns

                  storage  display     value
    variable name   type   format      label      variable label
    -------------------------------------------------------------------------------

    age             double %8.0g                * Respondent's age
    occ1w2          double %15.0g      LABJ       profess executive administration
                                                    in 1996
    occ2w2          double %15.0g      LABJ       technical sales admin support in
                                                    1996
    occ3w2          double %15.0g      LABJ       service occup protective
                                                    services in 1996
    occ4w2          double %15.0g      LABJ       precision prod mechan craft
                                                    construction in 1996
    occ5w2          double %15.0g      LABJ       factory laborer machinist transp
                                                    cleaner in 1996
    occ6w2          double %15.0g      LABJ       farming agricul forestry fishing
                                                    trapping logging in 1996
    occ7w2          double %15.0g      LABJ       homemaking caregiving in 1996
    occ8w2          double %15.0g      LABJ       student in 1996
    inc1w2          double %15.0g      LABJ       Income is not sufficient for
                                                    basic neccessities in 1996
```

inc2w2	double	%15.0g	LABJ	**Income is just sufficient for basic neccessities in 1996**
inc3w2	double	%15.0g	LABJ	**Income is sufficient for basics plus extra purchases/savings in 1996**
inc4w2	double	%15.0g	LABJ	**Income allows to comfortably afford luxury items in 1996**
avgcumdosew2	double	%8.0g		**Average mean dose CS1337 in mGy for wave 2**
bf8	float	%9.0g		**bf8 = max(0, radtlw3 - 40) * bf5m**
marrw21	byte	%8.0g		**marrw2==1. single**
marrw22	byte	%8.0g		**marrw2==2. cohabitating**
marrw23	byte	%8.0g		**marrw2==3. married**
marrw24	byte	%8.0g		**marrw2==4. separated**
marrw25	byte	%8.0g		**marrw2==5. divorced**
marrw26	byte	%8.0g		**marrw2==6. widowed**
bf1	float	%9.0g		**bf1 = max(0, kzchorn - 40)**
bf4	float	%9.0g		**bf4 = max(0, 24 - BSIsoma)**
bf2	float	%9.0g		**bf2 = max(0, efradw3 - 1.61252E-006) * bf1**
bf4m	float	%9.0g		**bf4m = max(0, 32 - BSIsoma)**
bf5m	float	%9.0g		**bf5m = max(0, ecprw3 - 75) * bf4m**
bf7m	float	%9.0g		**bf7m = max(0, radtlw3 - 2.12558E-007) * bf4m**
bf8	float	%9.0g		**bf8 = max(0, radtlw3 - 40) * bf5m**
bf15m	float	%9.0g		**bf15m= max(0, 1 - icdxcnt) * bf2**
bf17	float	%9.0g		**bf17 = max(0, 20 - ecprw3) * bf15m**
bf20	float	%9.0g		**bf20 = max(0, kzchorn - 2.53946E-006)**
bf22	float	%9.0g		**bf22 = max(0, icdxcnt - 1.01635E-007) * bf7m**
bf29	float	%9.0g		**bf29 = max(0, 18 - CSsocspt) * bf8**
bf30	float	%9.0g		**bf30 = max(0, neiw1 - 85) * bf20**
bf40	float	%9.0g		**bf40 = max(0, icdxcnt - 1.01635E-007)**

```
Logistic regression                               Number of obs   =        340
                                                  LR chi2(6)      =      34.24
                                                  Prob > chi2     =     0.0000
Log likelihood = -155.75258                       Pseudo R2       =     0.0990
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0279967	.0125982	2.22	0.026	.0033047	.0526886
avgcumdosew2	.0093245	.0489486	0.19	0.849	-.0866129	.1052619
bf8	-.0000433	.0000214	-2.03	0.043	-.0000852	-1.44e-06
illw2	.503088	.2180574	2.31	0.021	.0757033	.9304727
shjobw2	.0054505	.0037374	1.46	0.145	-.0018746	.0127756
radhlw2	.0133173	.0044637	2.98	0.003	.0045685	.022066
_cons	-3.81568	.6836898	-5.58	0.000	-5.155688	-2.475673

```
279 .
280 .
281 . *  social life
282 . forvalues j=2/2 {
  2. set more off
  3. di as input "females trimmed HP2probsoc on wave 2 with dose ns"
  4.         des  age occ1w`j'-occ8w`j' inc1w`j'-inc4w`j' avgcumdosew`j' bf8 /
> //
>            marrw`j'1-marrw`j'6  `w2bf'
  5.         logistic HP2probsoc  age  ///
>                 avgcumdosew2 bf8 illw`j' shjobw`j' radhlw`j' if gender==1, c
> oef nolog
  6. eststo socprobs
  7.         }
females trimmed HP2probsoc on wave 2 with dose ns
```

variable name	storage type	display format	value label	variable label
age	double	%8.0g		* **Respondent's age**
occ1w2	double	%15.0g	LABJ	**profess executive administration in 1996**
occ2w2	double	%15.0g	LABJ	**technical sales admin support in 1996**
occ3w2	double	%15.0g	LABJ	**service occup protective services in 1996**
occ4w2	double	%15.0g	LABJ	**precision prod mechan craft construction in 1996**
occ5w2	double	%15.0g	LABJ	**factory laborer machinist transp cleaner in 1996**
occ6w2	double	%15.0g	LABJ	**farming agricul forestry fishing trapping logging in 1996**
occ7w2	double	%15.0g	LABJ	**homemaking caregiving in 1996**
occ8w2	double	%15.0g	LABJ	**student in 1996**
inc1w2	double	%15.0g	LABJ	**Income is not sufficient for basic neccessities in 1996**
inc2w2	double	%15.0g	LABJ	**Income is just sufficient for**

				basic neccessities in 1996
inc3w2	double	%15.0g	LABJ	**Income is sufficient for basics plus extra purchases/savings in 1996**
inc4w2	double	%15.0g	LABJ	**Income allows to comfortably afford luxury items in 1996**
avgcumdosew2	double	%8.0g		**Average mean dose CS1337 in mGy for wave 2**
bf8	float	%9.0g		**bf8 = max(0, radtlw3 - 40) * bf5m**
marrw21	byte	%8.0g		**marrw2==1. single**
marrw22	byte	%8.0g		**marrw2==2. cohabitating**
marrw23	byte	%8.0g		**marrw2==3. married**
marrw24	byte	%8.0g		**marrw2==4. separated**
marrw25	byte	%8.0g		**marrw2==5. divorced**
marrw26	byte	%8.0g		**marrw2==6. widowed**
bf1	float	%9.0g		**bf1 = max(0, kzchorn - 40)**
bf4	float	%9.0g		**bf4 = max(0, 24 - BSIsoma)**
bf2	float	%9.0g		**bf2 = max(0, efradw3 - 1.61252E-006) * bf1**
bf4m	float	%9.0g		**bf4m = max(0, 32 - BSIsoma)**
bf5m	float	%9.0g		**bf5m = max(0, ecprw3 - 75) * bf4m**
bf7m	float	%9.0g		**bf7m = max(0, radtlw3 - 2.12558E-007) * bf4m**
bf8	float	%9.0g		**bf8 = max(0, radtlw3 - 40) * bf5m**
bf15m	float	%9.0g		**bf15m= max(0, 1 - icdxcnt) * bf2**
bf17	float	%9.0g		**bf17 = max(0, 20 - ecprw3) * bf15m**
bf20	float	%9.0g		**bf20 = max(0, kzchorn - 2.53946E-006)**
bf22	float	%9.0g		**bf22 = max(0, icdxcnt - 1.01635E-007) * bf7m**
bf29	float	%9.0g		**bf29 = max(0, 18 - CSsocspt) * bf8**
bf30	float	%9.0g		**bf30 = max(0, neiw1 - 85) * bf20**
bf40	float	%9.0g		**bf40 = max(0, icdxcnt - 1.01635E-007)**

```
Logistic regression                               Number of obs   =        340
                                                  LR chi2(6)      =      60.41
                                                  Prob > chi2     =     0.0000
Log likelihood = -94.948223                       Pseudo R2       =     0.2413
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0592362**	**.0176148**	**3.36**	**0.001**	**.0247118**	**.0937607**
avgcumdosew2	**.0315514**	**.0525591**	**0.60**	**0.548**	**-.0714626**	**.1345653**
bf8	**-.0000332**	**.0000239**	**-1.39**	**0.165**	**-.0000801**	**.0000136**
illw2	**.5251102**	**.2757549**	**1.90**	**0.057**	**-.0153594**	**1.06558**
shjobw2	**.0135312**	**.0051744**	**2.62**	**0.009**	**.0033897**	**.0236728**
radhlw2	**.0242757**	**.006237**	**3.89**	**0.000**	**.0120514**	**.0365**
_cons	**-7.543673**	**1.131417**	**-6.67**	**0.000**	**-9.76121**	**-5.326137**

```
283 .
284 . * sex life
285 . title "Chunk 7 trimmed male model of dose and HP2sxlife relationship in wave
    >  2"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****Chunk 7 trimmed male model of dose and HP2sxlife relationship in wave 2**
    > ***
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                          1 Jul 2012    15:01:04     ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
286 . * male models
287 .         forvalues j=2/2 {
      2. set more off
      3. di as input  "trimmed HP2sexlife main effects models wave 1 for H1 part 2
    >  with dose ns"
      4. di as input  "wave 2 male dose avgcumdosew`j' main effect not signif"
      5.         logit HP2sxlife age  bf4  illw`j' ///
    >          avgcumdosew`j' radhlw`j' if gender==1
      6.
288 .         eststo sexlife
      7. }
    trimmed HP2sexlife main effects models wave 1 for H1 part 2 with dose ns
    wave 2 male dose avgcumdosew2 main effect not signif

    Iteration 0:   log likelihood = -171.51396
    Iteration 1:   log likelihood = -121.56573
    Iteration 2:   log likelihood = -115.51071
    Iteration 3:   log likelihood = -115.37175
    Iteration 4:   log likelihood =  -115.3714
    Iteration 5:   log likelihood =  -115.3714

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(5)      =     112.29
                                                      Prob > chi2     =     0.0000
    Log likelihood =  -115.3714                       Pseudo R2       =     0.3273
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0668709	.0154805	4.32	0.000	.0365295	.0972122
bf4	-.1650598	.0368511	-4.48	0.000	-.2372867	-.0928329
illw2	.3077459	.2454954	1.25	0.210	-.1734162	.788908
avgcumdosew2	.0621309	.0473611	1.31	0.190	-.0306951	.1549569
radhlw2	.010562	.0054615	1.93	0.053	-.0001422	.0212663
_cons	-3.881348	1.050876	-3.69	0.000	-5.941027	-1.82167

```
289 .
290 .
291 .
292 .
293 .
294 . * inthob
295 .
296 . forvalues j=2/2 {
  2. set more off
  3.
297 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
>   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
  4.
298 .   foreach var in HP2inthob  {
  5.       forvalues k=2/2 {
  6. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  7.
299 . di as input "trimmed main model for `var' for wave= `j' "
  8. di _skip(4)
  9. di as input  "chunk 8 H1 test:Gender= `k'  model Wave =  `j' for `e(depva
> r)' "
 10. di _skip(4)
 11. title "Full Nottingham Part 2 subscale models for male and then females"
 12. di as input "Model for gender==`k' and wave == `j'"
 13. di _skip(2)
 14.      logit `var' age   ///
>                  avgcumdosew`j' bf4 bf30  ///
>                  shrelaw`j' suprtw`j'  ///
>                 radhlw2 if gender==2,  difficult iterate(50)  nolog
 15.
300 .                 eststo inthobbies
 16.  }
 17. }
 18. }

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
age             double %8.0g                * Respondent's age
educ1           byte   %8.0g                  educ==1. did not graduate high
                                                school
educ2           byte   %8.0g                  educ==2. graduated high school
educ3           byte   %8.0g                  educ==3. technical degree
educ4           byte   %8.0g                  educ==4. did not finish
                                                college/bachelor's
educ5           byte   %8.0g                  educ==5. graduated
                                                college/bachelor's
educ6           byte   %8.0g                  educ==6. finished
```

```
                                           specialist/master's degree
educ7            byte   %8.0g              educ==7. doctor of science/phd
marrw21          byte   %8.0g              marrw2==1. single
marrw22          byte   %8.0g              marrw2==2. cohabitating
marrw23          byte   %8.0g              marrw2==3. married
marrw24          byte   %8.0g              marrw2==4. separated
marrw25          byte   %8.0g              marrw2==5. divorced
marrw26          byte   %8.0g              marrw2==6. widowed
inc1w2           double %15.0g      LABJ   Income is not sufficient for
                                           basic neccessities in 1996
inc2w2           double %15.0g      LABJ   Income is just sufficient for
                                           basic neccessities in 1996
inc3w2           double %15.0g      LABJ   Income is sufficient for basics
                                           plus extra purchases/savings
                                           in 1996
inc4w2           double %15.0g      LABJ   Income allows to comfortably
                                           afford luxury items in 1996
bf1              float  %9.0g              bf1 = max(0, kzchorn - 40)
bf4              float  %9.0g              bf4 = max(0, 24 - BSIsoma)
bf9              float  %9.0g              bf9= max(0, 30 - shhlw1)
bf11             float  %9.0g              bf11= max(0, 20 - sufamw1)
bf4m             float  %9.0g              bf4m = max(0, 32 - BSIsoma)
bf15m            float  %9.0g              bf15m= max(0, 1 - icdxcnt) * bf2
bf30             float  %9.0g              bf30 = max(0, neiw1 - 85) * bf20
bf40             float  %9.0g              bf40 = max(0, icdxcnt -
                                           1.01635E-007)
trimmed main model for HP2inthob for wave= 2

chunk 8 H1 test:Gender= 2  model Wave =  2 for HP2sxlife



******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females   ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                           1 Jul 2012    15:01:05    ****
> *
******************************************************************************
```

```
> *
******************************************************************************
> *
```

Model for gender==2 and wave == 2

Logistic regression		Number of obs =	363
		LR chi2(7) =	101.28
		Prob > chi2 =	0.0000
Log likelihood = -121.47255		Pseudo R2 =	0.2942

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0729699	.016233	4.50	0.000	.0411537	.104786
avgcumdosew2	.0713471	.0870475	0.82	0.412	-.0992629	.2419571
bf4	-.12277	.0348875	-3.52	0.000	-.1911482	-.0543918
bf30	.0005237	.0002568	2.04	0.041	.0000204	.001027
shrelaw2	-.0121549	.0056037	-2.17	0.030	-.0231379	-.001172
suprtw2	-.0103307	.0040941	-2.52	0.012	-.018355	-.0023065
radhlw2	.0119091	.0056652	2.10	0.036	.0008055	.0230128
_cons	-4.716583	1.190104	-3.96	0.000	-7.049144	-2.384021

```
301 .
302 .
303 .
304 . * vacation plans
305 .
306 . di _skip(1)


307 . di as input "For females trimmed vacation plans model on wave2 and d2 is not
    >  signif "
    For females trimmed vacation plans model on wave2 and d2 is not signif
```

```
308 . di _skip(1)


309 .   logistic hp2vacatn age  deaw2 shjobw2 bf7m havmil  ///
    >   radhlw2 avgcumdosew2 if ///
    >    gender==2, coef nolog

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(7)      =      76.69
                                                      Prob > chi2     =     0.0000
    Log likelihood = -129.17206                       Pseudo R2       =     0.2289

    ------------------------------------------------------------------------------
       hp2vacatn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             age |    .079348   .0155749     5.09   0.000     .0488217    .1098742
           deaw2 |   .1646231   .1715933     0.96   0.337    -.1716935    .5009397
         shjobw2 |  -.0056137   .0041432    -1.35   0.175    -.0137341    .0025068
            bf7m |  -.0006133     .00025    -2.45   0.014    -.0011032   -.0001234
          havmil |  -.0001958   .0011139    -0.18   0.860    -.0023791    .0019875
         radhlw2 |   .0233367    .005861     3.98   0.000     .0118494     .034824
    avgcumdosew2 |   .0651649   .0909818     0.72   0.474    -.1131561     .243486
           _cons |  -6.606305   1.018983    -6.48   0.000    -8.603475   -4.609135
    ------------------------------------------------------------------------------

310 .    eststo vacatn

311 .
312 .
313 . estout  *,      cells(b(star fmt(%9.3f)) se(par) t p)                ///
    >                 stats(r2_p bic N, fmt(%9.3f %9.0g) )    ///
    >                 legend collabels(none) varlabels(_cons Constant)  ///
    >                 mlabels(workw2  socprobsw2 sexlifew2 inthobw2 vactnw2) ///
    >                                 title("main effects regression coefficients"
    >  ///
    >                  "of reconstructed dose for females in wave 2")

    main effects regression coefficients of reconstructed dose for females in wave
    >  2
    ------------------------------------------------------------------------------
    > --------------
                         workw2      socprobsw2       sexlifew2        inthobw2
    >     vactnw2
    ------------------------------------------------------------------------------
    > --------------
    main
    >
    age                  0.028*        0.059***        0.067***        0.073***
    >       0.079***
```

```
                 (0.013)         (0.018)         (0.015)         (0.016)
>      (0.016)
                   2.222           3.363           4.320           4.495
>        5.095
                   0.026           0.001           0.000           0.000
>        0.000
avgcumdosew2       0.009           0.032           0.062           0.071
>        0.065
                 (0.049)         (0.053)         (0.047)         (0.087)
>      (0.091)
                   0.190           0.600           1.312           0.820
>        0.716
                   0.849           0.548           0.190           0.412
>        0.474
bf8               -0.000*         -0.000
>
                 (0.000)         (0.000)
>
                  -2.028          -1.389
>
                   0.043           0.165
>
illw2              0.503*          0.525           0.308
>
                 (0.218)         (0.276)         (0.245)
>
                   2.307           1.904           1.254
>
                   0.021           0.057           0.210
>
shjobw2            0.005           0.014**
>       -0.006
                 (0.004)         (0.005)
>      (0.004)
                   1.458           2.615
>       -1.355
                   0.145           0.009
>        0.175
radhlw2            0.013**         0.024***        0.011           0.012*
>        0.023***
                 (0.004)         (0.006)         (0.005)         (0.006)
>      (0.006)
                   2.983           3.892           1.934           2.102
>        3.982
                   0.003           0.000           0.053           0.036
>        0.000
bf4                                               -0.165***       -0.123***
>
                                                 (0.037)         (0.035)
```

```
>
                                                       -4.479         -3.519
>
                                                        0.000          0.000
>
bf30                                                                   0.001*
>
                                                                      (0.000)
>
                                                                       2.039
>
                                                                       0.041
>
shrelaw2                                                              -0.012*
>
                                                                      (0.006)
>
                                                                      -2.169
>
                                                                       0.030
>
suprtw2                                                               -0.010*
>
                                                                      (0.004)
>
                                                                      -2.523
>
                                                                       0.012
>
deaw2
>        0.165
>      (0.172)
>        0.959
>        0.337
bf7m
>       -0.001*
>      (0.000)
>       -2.454
>        0.014
havmil
>       -0.000
>      (0.001)
```

```
>      -0.176

>       0.860
Constant            -3.816***       -7.544***       -3.881***       -4.717***
>      -6.606***
                   (0.684)         (1.131)         (1.051)         (1.190)
>     (1.019)
                    -5.581          -6.667          -3.693          -3.963
>      -6.483
                     0.000           0.000           0.000           0.000
>       0.000
------------------------------------------------------------------------------
> --------------
r2_p                 0.099           0.241           0.327           0.294
>       0.229
bic               352.3078        230.6991        265.7165        290.1003
>    305.4993
N                      340             340             340             363
>         363
------------------------------------------------------------------------------
> --------------
* p<0.05, ** p<0.01, *** p<0.001

.
.
.
.
.
.
.
.
. *xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
> xxxx
. *------  Chunk 3    Dose=> hp2hmcare impact for males and females
. *xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
> xxxx
```

```
325 .
326 . title "2.  wave 2 part2  H1: dose home care relationship " ///
    >  " wave 2 Dose -  HP2home care Main effects identification"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****         2.  wave 2 part2  H1: dose home care relationship          ****
    > *
    *****       wave 2 Dose -  HP2home care Main effects identification      ****
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                      1 Jul 2012    15:01:08  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *



327 .
328 . *  review of general model for men and women
329 .
330 . forvalues j=2/2 {
      2.  set more off
      3.
331 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
```

```
332 .   foreach var in HP2hmcare  {
  5.
333 .         forvalues k=1/2 {
  6.   local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf3
> 0 bf40
  7.    title  "chunk 3 H1 test pt 2 :Gender= `k'  model Wave =  `j' for `e(de
> pvar)' "
  8.                 di _skip(4)
  9.
334 .
335 .       xi: logistic `var' age i.educ occ1w`j'-occ8w`j' ///
>                 marrw`j'1- marrw`j'3 marrw`j'5-marrw`j'6 inc1w`j'-inc4w`j' /
> //
>                 radhlw`j' havmil avgcumdosew`j' `w`j'bf'  ///
>                  deaw`j' dvcew`j' sepaw`j' accdw`j' movew`j' ///
>                 illw2 shfamw`j' shhlw`j' shjobw`j' shrelaw`j' suprtw`j' such
> rw`j' ///
>                  havmilsq if gender==`k', coef nolog  difficult iterate(50)
 10.                         estat class
 11.                         estat gof
 12.                         fitstat
 13. }
 14. }
 15. }
```

variable name	storage type	display format	value label	variable label
age	double	%8.0g		* **Respondent's age**
educ1	byte	%8.0g		**educ==1. did not graduate high school**
educ2	byte	%8.0g		**educ==2. graduated high school**
educ3	byte	%8.0g		**educ==3. technical degree**
educ4	byte	%8.0g		**educ==4. did not finish college/bachelor's**
educ5	byte	%8.0g		**educ==5. graduated college/bachelor's**
educ6	byte	%8.0g		**educ==6. finished specialist/master's degree**
educ7	byte	%8.0g		**educ==7. doctor of science/phd**
marrw21	byte	%8.0g		**marrw2==1. single**
marrw22	byte	%8.0g		**marrw2==2. cohabitating**
marrw23	byte	%8.0g		**marrw2==3. married**
marrw24	byte	%8.0g		**marrw2==4. separated**
marrw25	byte	%8.0g		**marrw2==5. divorced**
marrw26	byte	%8.0g		**marrw2==6. widowed**
inc1w2	double	%15.0g	LABJ	**Income is not sufficient for basic neccessities in 1996**
inc2w2	double	%15.0g	LABJ	**Income is just sufficient for**

```
                                               basic neccessities in 1996
inc3w2          double %15.0g      LABJ        Income is sufficient for basics
                                                 plus extra purchases/savings
                                                 in 1996
inc4w2          double %15.0g      LABJ        Income allows to comfortably
                                                 afford luxury items in 1996
bf1             float  %9.0g                   bf1 = max(0, kzchorn - 40)
bf4             float  %9.0g                   bf4 = max(0, 24 - BSIsoma)
bf9             float  %9.0g                   bf9= max(0, 30 - shhlw1)
bf11            float  %9.0g                   bf11= max(0, 20 - sufamw1)
bf4m            float  %9.0g                   bf4m = max(0, 32 - BSIsoma)
bf15m           float  %9.0g                   bf15m= max(0, 1 - icdxcnt) * bf2
bf30            float  %9.0g                   bf30 = max(0, neiwl - 85) * bf20
bf40            float  %9.0g                   bf40 = max(0, icdxcnt -
                                                 1.01635E-007)


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****  chunk 3 H1 test pt 2 :Gender= 1  model Wave =  2 for hp2vacatn     ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                              1 Jul 2012    15:01:08  ****
> *
******************************************************************************
> *
******************************************************************************
> *



i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: _Ieduc_4 != 0 predicts failure perfectly
      _Ieduc_4 dropped and 13 obs not used

note: _Ieduc_8 != 0 predicts failure perfectly
      _Ieduc_8 dropped and 2 obs not used
```

```
note: occ8w2 != 0 predicts failure perfectly
      occ8w2 dropped and 44 obs not used

note: bf17 != 0 predicts failure perfectly
      bf17 dropped and 3 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 6 obs not used

note: _Ieduc_7 omitted because of collinearity

Logistic regression                               Number of obs   =        270
                                                  LR chi2(49)     =     112.39
                                                  Prob > chi2     =     0.0000
Log likelihood = -98.319474                       Pseudo R2       =     0.3637
```

HP2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0339056	.0231493	1.46	0.143	-.0114661	.0792774
_Ieduc_2	-4.046801	2.06481	-1.96	0.050	-8.093754	.0001521
_Ieduc_3	-2.332961	1.654719	-1.41	0.159	-5.576151	.9102284
_Ieduc_4	0	(omitted)				
_Ieduc_5	-2.109138	1.662617	-1.27	0.205	-5.367807	1.149531
_Ieduc_6	-2.575578	1.598895	-1.61	0.107	-5.709355	.5581988
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w2	.2791915	3.076664	0.09	0.928	-5.750959	6.309342
occ2w2	-.2043325	3.082144	-0.07	0.947	-6.245223	5.836559
occ3w2	.5280791	3.097215	0.17	0.865	-5.542352	6.59851
occ4w2	.3530379	3.103258	0.11	0.909	-5.729235	6.435311
occ5w2	1.030726	3.128223	0.33	0.742	-5.100479	7.161931
occ6w2	1.834194	3.454783	0.53	0.595	-4.937056	8.605444
occ7w2	.6310877	3.205439	0.20	0.844	-5.651457	6.913633
occ8w2	0	(omitted)				
marrw21	-1.774375	1.681557	-1.06	0.291	-5.070167	1.521417
marrw22	-3.603201	2.051956	-1.76	0.079	-7.624961	.4185589
marrw23	-3.822298	1.717545	-2.23	0.026	-7.188624	-.4559723
marrw25	-.1941937	2.536946	-0.08	0.939	-5.166517	4.77813
marrw26	-3.213845	2.602626	-1.23	0.217	-8.314899	1.887208
inc1w2	2.821191	3.187221	0.89	0.376	-3.425647	9.068029
inc2w2	2.680447	3.109489	0.86	0.389	-3.41404	8.774935
inc3w2	2.9859	3.107015	0.96	0.337	-3.103737	9.075536
inc4w2	1.060877	3.414563	0.31	0.756	-5.631544	7.753298
radhlw2	.0009802	.0078741	0.12	0.901	-.0144527	.0164132
havmil	.0033106	.008219	0.40	0.687	-.0127982	.0194195
avgcumdosew2	-.0408898	.0892564	-0.46	0.647	-.2158292	.1340496
bf1	-.0224294	.0411105	-0.55	0.585	-.1030045	.0581457
bf4	-.1579765	.2337949	-0.68	0.499	-.616206	.300253

bf2	.0000992	.0001626	0.61	0.542	-.0002196	.000418
bf4m	-.1739281	.2154639	-0.81	0.420	-.5962296	.2483734
bf5m	.0006314	.0017487	0.36	0.718	-.002796	.0040589
bf7m	.0005115	.000594	0.86	0.389	-.0006527	.0016757
bf8	-.0000403	.0000473	-0.85	0.394	-.0001331	.0000525
bf15m	-.0001301	.0003714	-0.35	0.726	-.000858	.0005979
bf17	0	(omitted)				
bf20	.0027387	.0345917	0.08	0.937	-.0650597	.0705372
bf22	-.0000529	.0001896	-0.28	0.780	-.0004245	.0003187
bf29	2.63e-06	.0000221	0.12	0.905	-.0000407	.0000459
bf30	-.0002608	.0004218	-0.62	0.536	-.0010875	.0005659
bf40	.3296594	.2457937	1.34	0.180	-.1520874	.8114062
deaw2	.0069355	.3395872	0.02	0.984	-.6586432	.6725142
dvcew2	-.8346564	3.597118	-0.23	0.817	-7.884878	6.215565
sepaw2	0	(omitted)				
accdw2	.1481124	.4606844	0.32	0.748	-.7548124	1.051037
movew2	.2192344	.5237343	0.42	0.676	-.807266	1.245735
illw2	-.2794365	.3922624	-0.71	0.476	-1.048257	.4893838
shfamw2	-.0130582	.0087013	-1.50	0.133	-.0301125	.0039961
shhlw2	-.0041104	.0095817	-0.43	0.668	-.0228901	.0146694
shjobw2	.0000993	.009716	0.01	0.992	-.0189438	.0191423
shrelaw2	.0041598	.0074695	0.56	0.578	-.0104802	.0187997
suprtw2	.0129457	.0070817	1.83	0.068	-.0009342	.0268256
suchrw2	-.0024472	.0063512	-0.39	0.700	-.0148953	.010001
havmilsq	-8.45e-06	.000015	-0.56	0.573	-.0000379	.000021
_cons	3.897935	3.960914	0.98	0.325	-3.865314	11.66118

Logistic model for HP2hmcare

	True		
Classified	D	~D	Total
+	41	17	58
-	29	183	212
Total	70	200	270

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2hmcare != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   58.57%
Specificity                     Pr( -|~D)   91.50%
Positive predictive value       Pr( D| +)   70.69%
Negative predictive value       Pr(~D| -)   86.32%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    8.50%
False - rate for true D         Pr( -| D)   41.43%
False + rate for classified +   Pr(~D| +)   29.31%
False - rate for classified -   Pr( D| -)   13.68%
--------------------------------------------------
Correctly classified                        82.96%
--------------------------------------------------
```

Logistic model for HP2hmcare, goodness-of-fit test

```
       number of observations =       270
 number of covariate patterns =       270
            Pearson chi2(220) =       227.64
                  Prob > chi2 =         0.3476
```

Measures of Fit for **logistic** of **HP2hmcare**

```
Log-Lik Intercept Only:     -154.516   Log-Lik Full Model:            -98.319
D(214):                      196.639   LR(49):                        112.393
                                       Prob > LR:                       0.000
McFadden's R2:                 0.364   McFadden's Adj R2:               0.001
Maximum Likelihood R2:         0.340   Cragg & Uhler's R2:              0.500
McKelvey and Zavoina's R2:     0.594   Efron's R2:                      0.390
Variance of y*:                8.112   Variance of error:               3.290
Count R2:                      0.830   Adj Count R2:                    0.343
AIC:                           1.143   AIC*n:                         308.639
BIC:                       -1001.423   BIC':                          161.930
```

```
********************************************************************************
> *
********************************************************************************
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****  chunk 3 H1 test pt 2 :Gender= 2  model Wave =  2 for HP2hmcare      ****
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****                                              1 Jul 2012    15:01:10  ****
> *
********************************************************************************
> *
********************************************************************************
> *


i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: bf29 != 0 predicts success perfectly
      bf29 dropped and 4 obs not used

note: _Ieduc_8 omitted because of collinearity
note: marrw26 omitted because of collinearity
convergence not achieved

Logistic regression                               Number of obs   =        358
                                                  LR chi2(51)     =     177.21
                                                  Prob > chi2     =     0.0000
Log likelihood = -139.72732                       Pseudo R2       =     0.3881
```

HP2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0689184	.0184884	3.73	0.000	.0326818	.105155
_Ieduc_2	-17.33023	2.370203	-7.31	0.000	-21.97575	-12.68472
_Ieduc_3	-17.85228	2.271622	-7.86	0.000	-22.30458	-13.39998
_Ieduc_4	-16.22367	2.322199	-6.99	0.000	-20.7751	-11.67225
_Ieduc_5	-17.51753	2.330541	-7.52	0.000	-22.0853	-12.94975
_Ieduc_6	-18.46499	2.320848	-7.96	0.000	-23.01377	-13.91621
_Ieduc_7	-17.72595	3.034199	-5.84	0.000	-23.67287	-11.77903
_Ieduc_8	0	(omitted)				
occ1w2	-2.066459	1.51974	-1.36	0.174	-5.045095	.9121779
occ2w2	-2.243078	1.553998	-1.44	0.149	-5.288858	.8027026

occ3w2	-1.29392	1.568233	-0.83	0.409	-4.367601	1.77976
occ4w2	-3.169244	1.685231	-1.88	0.060	-6.472236	.1337472
occ5w2	-4.174961	1.966604	-2.12	0.034	-8.029433	-.3204881
occ6w2	-5.016961	2.033875	-2.47	0.014	-9.003283	-1.030639
occ7w2	-1.338521	1.557092	-0.86	0.390	-4.390365	1.713323
occ8w2	.0102882	1.823109	0.01	0.995	-3.56294	3.583517
marrw21	-.4364242	1.195764	-0.36	0.715	-2.780078	1.907229
marrw22	.2779117	1.516808	0.18	0.855	-2.694977	3.2508
marrw23	1.982364	.8407589	2.36	0.018	.3345069	3.630221
marrw25	.7265557	1.247315	0.58	0.560	-1.718137	3.171248
marrw26	0	(omitted)				
inc1w2	2.1918	1.615301	1.36	0.175	-.9741308	5.357731
inc2w2	3.722591	1.551917	2.40	0.016	.6808895	6.764292
inc3w2	3.205652	1.561296	2.05	0.040	.1455678	6.265737
inc4w2	3.577016	1.917029	1.87	0.062	-.1802924	7.334325
radhlw2	-.0017814	.0069396	-0.26	0.797	-.0153829	.01182
havmil	.0004744	.0029523	0.16	0.872	-.005312	.0062609
avgcumdosew2	-.232422	.1275125	-1.82	0.068	-.4823419	.017498
bf1	-.0155252	.0283044	-0.55	0.583	-.0710008	.0399503
bf4	-.6331543	.2104116	-3.01	0.003	-1.045553	-.2207551
bf2	.0002047	.0001148	1.78	0.075	-.0000203	.0004296
bf4m	.369727	.1901433	1.94	0.052	-.0029469	.742401
bf5m	-.0009929	.001436	-0.69	0.489	-.0038073	.0018215
bf7m	.0003779	.0005084	0.74	0.457	-.0006186	.0013744
bf8	-5.36e-07	.0000355	-0.02	0.988	-.0000702	.0000691
bf15m	-.0123361	.496536	-0.02	0.980	-.9855287	.9608566
bf17	.0006265	.0248268	0.03	0.980	-.0480332	.0492861
bf20	-.0134138	.0231788	-0.58	0.563	-.0588434	.0320158
bf22	-.0000815	.0001207	-0.67	0.500	-.000318	.0001551
bf29	0	(omitted)				
bf30	-.0000914	.0002999	-0.30	0.760	-.0006791	.0004963
bf40	.1554702	.1284498	1.21	0.226	-.0962868	.4072271
deaw2	.7476902	.2584678	2.89	0.004	.2411026	1.254278
dvcew2	1.232183	1.276036	0.97	0.334	-1.268802	3.733168
sepaw2	-1.82805	1.829743	-1.00	0.318	-5.41428	1.75818
accdw2	-.7440138	.5452818	-1.36	0.172	-1.812746	.3247189
movew2	-.5229006	.4948092	-1.06	0.291	-1.492709	.4469077
illw2	-.1315546	.1759029	-0.75	0.455	-.4763179	.2132087
shfamw2	-.0038201	.0062872	-0.61	0.543	-.0161429	.0085027
shhlw2	-.0093005	.0066582	-1.40	0.162	-.0223502	.0037493
shjobw2	.0003285	.005919	0.06	0.956	-.0112724	.0119295
shrelaw2	-.0125743	.0072115	-1.74	0.081	-.0267086	.00156
suprtw2	-.0093988	.0049637	-1.89	0.058	-.0191275	.0003299
suchrw2	.0039959	.0055359	0.72	0.470	-.0068542	.0148461
havmilsq	-6.92e-07	2.48e-06	-0.28	0.780	-5.56e-06	4.18e-06
_cons	12.62346	.	.	.	.	.

Note: 4 failures and 0 successes completely determined.
Warning: convergence not achieved

Logistic model for HP2hmcare

Classified	True D	~D	Total
+	**86**	**29**	**115**
-	**34**	**209**	**243**
Total	**120**	**238**	**358**

Classified + if predicted Pr(D) >= .5
True D defined as HP2hmcare != 0

Sensitivity	Pr(+| D)	**71.67%**
Specificity	Pr(-|~D)	**87.82%**
Positive predictive value	Pr(D| +)	**74.78%**
Negative predictive value	Pr(~D| -)	**86.01%**
False + rate for true ~D	Pr(+|~D)	**12.18%**
False - rate for true D	Pr(-| D)	**28.33%**
False + rate for classified +	Pr(~D| +)	**25.22%**
False - rate for classified -	Pr(D| -)	**13.99%**
Correctly classified		**82.40%**

Logistic model for HP2hmcare, goodness-of-fit test

```
      number of observations =       358
 number of covariate patterns =       358
            Pearson chi2(305) =       382.80
                  Prob > chi2 =         0.0016
```

Measures of Fit for **logistic** of **HP2hmcare**

Log-Lik Intercept Only:	**-228.331**	Log-Lik Full Model:	**-139.727**
D(302):	**279.455**	LR(51):	**177.208**
		Prob > LR:	**0.000**
McFadden's R2:	**0.388**	McFadden's Adj R2:	**0.143**
Maximum Likelihood R2:	**0.390**	Cragg & Uhler's R2:	**0.542**
McKelvey and Zavoina's R2:	**0.930**	Efron's R2:	**0.437**
Variance of y*:	**47.071**	Variance of error:	**3.290**
Count R2:	**0.824**	Adj Count R2:	**0.475**
AIC:	**1.093**	AIC*n:	**391.455**
BIC:	**-1496.466**	BIC':	**122.699**

```
336 .
337 .   title4 "Male Main effects model for dose=> homcare wave 2"
```

Male Main effects model for dose=> homcare wave 2

```
338 .   logit hp2hmcare age radhlw2 avgcumdosew2 bf4 bf4m bf40 if gender==1

Iteration 0:   log likelihood = -172.87291
Iteration 1:   log likelihood = -133.32556
Iteration 2:   log likelihood = -130.68368
Iteration 3:   log likelihood = -130.58803
Iteration 4:   log likelihood = -130.58773
Iteration 5:   log likelihood = -130.58773

Logistic regression                               Number of obs   =        340
                                                  LR chi2(6)      =      84.57
                                                  Prob > chi2     =     0.0000
Log likelihood = -130.58773                       Pseudo R2       =     0.2446
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0212175	.0144823	1.47	0.143	-.0071673	.0496022
radhlw2	.0004287	.0051507	0.08	0.934	-.0096666	.0105239
avgcumdosew2	.0002129	.0577761	0.00	0.997	-.1130262	.113452
bf4	-.0235753	.2097912	-0.11	0.911	-.4347586	.3876079
bf4m	-.1707442	.1936458	-0.88	0.378	-.5502831	.2087946
bf40	.141308	.0923159	1.53	0.126	-.0396278	.3222439
_cons	.6763131	1.703403	0.40	0.691	-2.662295	4.014921

```
339 .
340 .
341 .   // male main effects dose-work model washes out
342 .
343 . di as input "Male trimmed model for dose-home care impact in wv 3: dose not
> signif"
Male trimmed model for dose-home care impact in wv 3: dose not signif
```

```
344 . di as input " male dose is not signif as main effect in dose - homecare impa
    > ct "
     male dose is not signif as main effect in dose - homecare impact

345 . di as input  " no male moderate interactions for dose-homecare impact"
     no male moderate interactions for dose-homecare impact

346 .
347 . scalar SigDoseHmcareMw2 = "no"

348 . scalar MainEffhmcareMw2= "none"

349 . scalar list
      wkMedMw2 = bf8 age illw2
    VactnMedFw2 = age illw2 radhlw2
    VactnMedMw2 = age illw2
    VacatnModFw2 = none
    MainEffVactnFw2 = age radhlw2 deaw2
    SigDoseVactnFw2 = no
    vactnModMw2 = none
    MainEffVactnMw2 = age bf7m radhlw2
    SigDoseVactnMw2 = no
    sxLifeMedFw2 = age bf4 bf4m
    sxLifeMedMw2 = age illw2
    InthbModFw2 = none
    MainEffInthbFw2 = age radhlw2 bf4
    SigdoseInthbFw2 = no
      InthbMw2 = none
    MainEffInthbMw2 = age radhlw2 shfamw2
    SigDoseInthbMw2 = no
    sxlifeMedFw2 = age illw2 radhlw2 bf4 bf4m
    sxlifeMedMw2 = age illw2
    sxlifeModFw2 = none
    MainEffsxlifeFw2 = age radhlw2 bf4 bf4m shrelaw2 shfamw2
    SigDoseSxlifeFw2 = no
    sxlifeModMw2 = none
    SigDosesxlifeMw2 = no
    MainEffsxlifeMw2 = age bf4 illw2 radhlw2
    PrbfmhmMedFw2 = age bf4
    PrbfmhmMedMw2 = age
    PrbfmhmModFw2 = none
    MainEffPrbfmhmFw2 = age bf4 bf40
    SigDosePrbfmhmFw2 = no
    PrbfmhmModw2 = none
    SigDosePrbfmhmMw2 = no
    SigDosePrbfhmMw2 = no
    MainEffPrbfhmMw2 = bf1 bf4 dvcew2 bf7m
    ProbsocMedFw2 = age radhlw2
    ProbsocMedMw2 = age
```

```
ProbsocModFw2 = none
MainEffProbSocFw2 = age radhlw2 illw2 Shrelaw2 avgcumodsew2
SigDoseProbsocFw2 = yes
ProbSocModMw2 = none
SigDoseProbsocMw2 = no
MainEffPrbsocMw2 = age radhlw2 shjobw2
hmcareMedFw2 = age illw2
hmcareMedMw2 = age illw2
hmcareModFw2 = none
SigDoseWKFw2 =          0
SigdoseHmcareFw2 = no
hmcareModMw2 = none
MainEffhmcareMw2 = none
SigDoseHmcareMw2 = no
  wkMedFw2 = radhlw2 age bf40 bf4m bf1
  wkModFw2 = none
  wkModMw2 = none
MainEffwkFw2 = age
MainEffwkMw2 = workM: age  bf8  illw2  shjobw2
SigDoseWKMw2 = no
SigDoseWkFw2 = no
hmcrMedFw1 = age icdxcnt shjobw1 bf4 BSIsoma WHPpain WHPsleep WHPel
hmcrMedMw1 = age
MainEffhmcrFw1 = illw1 age
SigDosehmcrFw1 = no
hmcrModMw1 = none
MainEffhmcrMw1 = age shjobw1
SigDosehmcrMw1 = no
  wkMedFw1 = age b4
MainEffwkFw1 = age
MainEffwkMw1 = age
  wkMedMw1 = bf40
  WkMedMw1 = none
  WkModFw1 = none
  WKModMw1 = none
SigDoseWkMw1 = no
SigDoseWkFw1 = no
SigDoseFw1 = no
  wkModFw1 = none
  wkModMw1 = none
 medsigFw1 =          1
prbsocnumMAsig =          8
```

```
350 .
351 . title4 "male main effect plus interaction model"
--------------------------------------------------------------------------------
    male main effect plus interaction model
--------------------------------------------------------------------------------

352 . logit hp2hmcare age radhlw2 avgcumdosew2 ageXd3 illw2 if gender==1

    Iteration 0:   log likelihood = -172.87291
    Iteration 1:   log likelihood = -151.63199
    Iteration 2:   log likelihood = -150.23873
    Iteration 3:   log likelihood = -150.14009
    Iteration 4:   log likelihood = -150.13472
    Iteration 5:   log likelihood = -150.13471

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(5)      =      45.48
                                                      Prob > chi2     =     0.0000
    Log likelihood = -150.13471                       Pseudo R2       =     0.1315

    ------------------------------------------------------------------------------
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             age |   .0283791   .0164052     1.73   0.084    -.0037745    .0605327
         radhlw2 |   .0154894   .0043054     3.60   0.000      .007051    .0239279
    avgcumdosew2 |  -1.218369   1.156272    -1.05   0.292     -3.48462    1.047882
          ageXd3 |   .0170005   .0151684     1.12   0.262     -.012729    .0467301
           illw2 |   .3201382   .2199825     1.46   0.146    -.1110197     .751296
           _cons |  -3.730027   .9027785    -4.13   0.000     -5.49944   -1.960613
    ------------------------------------------------------------------------------

353 . cap gen radhlw2Xillw2 = radhlw2*illw2

354 . cap drop radhlw2Xd1

355 . cap gen radhlw2Xd3 = radhlw2*avgcumdosew2
```

```
356 . cap drop illw2Xd1

357 . cap gen illw2Xd3 = illw2*avgcumdosew2

358 .
359 .
360 . * there are no significant moderators for male dose=hmcare relationship
361 . scalar hmcareModMw2 = "none"

362 .
363 . *---------   Male moderator tests for Dose-Hmcare in wave 2: ---------------
    > -----
364 .
365 . title "Dose-home care impact relationship reveals no male moderators"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****    Dose-home care impact relationship reveals no male moderators     ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                             1 Jul 2012    15:01:15  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
366 . logit hp2hmcare radhlw2 avgcumdosew2 illw2 radhlw2Xillw2 radhlw2Xd3 illw2Xd3
    >  ///
    >    if gender==1, nolog

    Logistic regression                              Number of obs   =        340
                                                     LR chi2(6)      =      34.02
                                                     Prob > chi2     =     0.0000
    Log likelihood =  -155.8647                      Pseudo R2       =     0.0984

    ------------------------------------------------------------------------------
    > -
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
    > ]
    -------------+----------------------------------------------------------------
    > -
         radhlw2 |   .0124854    .006471     1.93   0.054    -.0001976    .025168
    > 3
     avgcumdosew2 |  -.6591079    .694783    -0.95   0.343    -2.020858    .702641
    > 8
           illw2 |  -.0271833   .4678058    -0.06   0.954    -.9440659    .889699
    > 3
    radhlw2Xillw2 |   .0076663   .0070763     1.08   0.279     -.006203    .021535
    > 7
      radhlw2Xd3 |   .0069713   .0070473     0.99   0.323    -.0068412    .020783
    > 9
        illw2Xd3 |   .0895034   .2486877     0.36   0.719    -.3979155    .576922
    > 3
           _cons |  -2.001833    .530832    -3.77   0.000    -3.042245   -.961421
    > 6
    ------------------------------------------------------------------------------
    > -

367 .
368 . fitstat

    Measures of Fit for logit of hp2hmcare

    Log-Lik Intercept Only:     -172.873   Log-Lik Full Model:           -155.865
    D(333):                      311.729   LR(6):                          34.016
                                           Prob > LR:                       0.000
    McFadden's R2:                 0.098   McFadden's Adj R2:               0.058
    Maximum Likelihood R2:         0.095   Cragg & Uhler's R2:              0.149
    McKelvey and Zavoina's R2:     0.259   Efron's R2:                      0.109
    Variance of y*:                4.438   Variance of error:               3.290
    Count R2:                      0.806   Adj Count R2:                    0.057
    AIC:                           0.958   AIC*n:                         325.729
    BIC:                       -1629.309   BIC':                            0.957
```

```
369 .
370 .
371 . title "testing female moderators for hp2hmcare"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****              testing female moderators for hp2hmcare               ****
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                          1 Jul 2012    15:01:16    ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *



372 . local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

373 . * Dose work relationship for females in wave 2 washes out also
374 . set more off

375 . forvalues j=2/2 {
      2. di _skip(4)
      3. di as input "For females hp2hmcare on wave 1 with dose ns"
      4. des  age   avgcumdosew`j' `w2bf'
      5. logistic HP2work  age havmilsq  radhlw2 ///
    >    avgcumdosew2 shhlw`j' shjobw`j' shrelaw`j' suprtw`j' if gender==2, coef n
    > olog
      6.
```

```
376 . }

    For females hp2hmcare on wave 1 with dose ns

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------
    age             double %8.0g                * Respondent's age
    avgcumdosew2    double %8.0g                  Average mean dose CS1337 in mGy
                                                    for wave 2
    bf1             float  %9.0g                  bf1 = max(0, kzchorn - 40)
    bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
    bf2             float  %9.0g                  bf2 = max(0, efradw3 -
                                                    1.61252E-006) * bf1
    bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)
    bf5m            float  %9.0g                  bf5m = max(0, ecprw3 - 75) *
                                                    bf4m
    bf7m            float  %9.0g                  bf7m = max(0, radtlw3 -
                                                    2.12558E-007) * bf4m
    bf8             float  %9.0g                  bf8 = max(0, radtlw3 - 40) *
                                                    bf5m
    bf15m           float  %9.0g                  bf15m= max(0, 1 - icdxcnt) * bf2
    bf17            float  %9.0g                  bf17 = max(0, 20 - ecprw3) *
                                                    bf15m
    bf20            float  %9.0g                  bf20 = max(0, kzchorn -
                                                    2.53946E-006)
    bf22            float  %9.0g                  bf22 = max(0, icdxcnt -
                                                    1.01635E-007) * bf7m
    bf29            float  %9.0g                  bf29 = max(0, 18 - CSsocspt) *
                                                    bf8
    bf30            float  %9.0g                  bf30 = max(0, neiw1 - 85) * bf20
    bf40            float  %9.0g                  bf40 = max(0, icdxcnt -
                                                    1.01635E-007)

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(8)      =      60.77
                                                      Prob > chi2     =     0.0000
    Log likelihood = -176.17616                       Pseudo R2       =     0.1471
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0605771	.012257	4.94	0.000	.0365537	.0846004
havmilsq	-6.47e-07	1.17e-06	-0.55	0.579	-2.93e-06	1.64e-06
radhlw2	.0108128	.0042449	2.55	0.011	.0024929	.0191327
avgcumdosew2	.1024263	.084282	1.22	0.224	-.0627633	.2676159
shhlw2	.0099394	.0048118	2.07	0.039	.0005085	.0193703
shjobw2	-.00289	.0045988	-0.63	0.530	-.0119035	.0061234
shrelaw2	-.0105367	.0047951	-2.20	0.028	-.019935	-.0011384
suprtw2	.0029696	.0033321	0.89	0.373	-.0035611	.0095003
_cons	-5.319428	.7716311	-6.89	0.000	-6.831797	-3.807059

```
.
. scalar SigdoseHmcareFw2="no"

.
. * capturing significant vars to test as moderators
. local cn4: colnames(e(b))

. di "`cn4'"
age havmilsq radhlw2 avgcumdosew2 shhlw2 shjobw2 shrelaw2 suprtw2 _cons

. local leng4 = length( "`cn4'")

. di `leng4'
71

. local leng4b `leng4'-6

. di `leng3b'


. local nuvlist4 = substr("`cn4'",4,`leng4b')

. di "`nuvlist4'"
havmilsq radhlw2 avgcumdosew2 shhlw2 shjobw2 shrelaw2 suprtw2 _c
```

```
389 . local rhsvars4 = "`nuvlist4'"

390 . local nuvlist4= "`nuvlist4'"

391 . local nuvlist4= substr("`cn4'",1,`leng4b')

392 . di "`nuvlist4'"
    age havmilsq radhlw2 avgcumdosew2 shhlw2 shjobw2 shrelaw2 suprtw2

393 .
394 . cap gen shhlw2Xd3 = shhlw2*avgcumdosew2

395 .
396 . title "No sig female moderators for dose-hmcare impact are found here"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****   No sig female moderators for dose-hmcare impact are found here    ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                               1 Jul 2012    15:01:18  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
397 . logit hp2hmcare age shhlw2  avgcumdosew2 ageXd3 shhlw2Xd3 if gender==2

    Iteration 0:   log likelihood = -233.72859
    Iteration 1:   log likelihood = -195.05719
    Iteration 2:   log likelihood = -194.19863
    Iteration 3:   log likelihood = -194.19128
    Iteration 4:   log likelihood = -194.19128

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(5)      =      79.07
                                                      Prob > chi2     =     0.0000
    Log likelihood = -194.19128                       Pseudo R2       =     0.1692

    ------------------------------------------------------------------------------
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             age |    .084796   .0149038     5.69   0.000     .0555851    .1140068
          shhlw2 |   -.000082    .004448    -0.02   0.985    -.0087999    .0086358
    avgcumdosew2 |  -.7437036   .8125992    -0.92   0.360    -2.336369    .8489616
          ageXd3 |   .0110146   .0113714     0.97   0.333    -.0112729     .033302
       shhlw2Xd3 |  -.0030423   .0040693    -0.75   0.455     -.011018    .0049333
           _cons |  -4.921691   .7788456    -6.32   0.000    -6.448201   -3.395182
    ------------------------------------------------------------------------------

398 .
399 . set more off

400 . *---------- Mediator relationships for home care are tested below: ---------
    > ----
401 . title "Mediator relationships of Dose - home care impact are tested"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****    Mediator relationships of Dose - home care impact are tested     ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                             1 Jul 2012    15:01:19  ****
    > *
    ******************************************************************************
```

```
> *
******************************************************************************
> *



402 . forvalues k=1/2 {
  2. forvalues j=2/2 {
  3. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  4. di _skip(2)
  5. di as input "Trimmed gender=`k' hp2hmcare impact of dose in wave `j' "
  6. des  age occ1w`j'-occ8w`j' inc1w`j'-inc4w`j' avgcumdosew`j' `w2bf'
  7. sw, pr(.1): logistic hp2hmcare  age  havmilsq ///
>    avgcumdosew2  ageXd3 illw`j' shjobw`j' suprtw`j' if gender==`k', coef nol
> og
  8. estat gof
  9. estat class
 10. fitstat
 11. }
 12. }

Trimmed gender=1 hp2hmcare impact of dose in wave 2

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
age             double %8.0g                * Respondent's age
occ1w2          double %15.0g      LABJ       profess executive administration
                                                in 1996
occ2w2          double %15.0g      LABJ       technical sales admin support in
                                                1996
occ3w2          double %15.0g      LABJ       service occup protective
                                                services in 1996
occ4w2          double %15.0g      LABJ       precision prod mechan craft
                                                construction in 1996
occ5w2          double %15.0g      LABJ       factory laborer machinist transp
                                                cleaner in 1996
occ6w2          double %15.0g      LABJ       farming agricul forestry fishing
                                                trapping logging in 1996
occ7w2          double %15.0g      LABJ       homemaking caregiving in 1996
occ8w2          double %15.0g      LABJ       student in 1996
inc1w2          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1996
inc2w2          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1996
inc3w2          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1996
```

```
inc4w2          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1996
avgcumdosew2    double %8.0g                  Average mean dose CS1337 in mGy
                                                for wave 2
bf1             float  %9.0g                  bf1 = max(0, kzchorn - 40)
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
bf2             float  %9.0g                  bf2 = max(0, efradw3 -
                                                1.61252E-006) * bf1
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)
bf5m            float  %9.0g                  bf5m = max(0, ecprw3 - 75) *
                                                bf4m
bf7m            float  %9.0g                  bf7m = max(0, radtlw3 -
                                                2.12558E-007) * bf4m
bf8             float  %9.0g                  bf8 = max(0, radtlw3 - 40) *
                                                bf5m
bf15m           float  %9.0g                  bf15m= max(0, 1 - icdxcnt) * bf2
bf17            float  %9.0g                  bf17 = max(0, 20 - ecprw3) *
                                                bf15m
bf20            float  %9.0g                  bf20 = max(0, kzchorn -
                                                2.53946E-006)
bf22            float  %9.0g                  bf22 = max(0, icdxcnt -
                                                1.01635E-007) * bf7m
bf29            float  %9.0g                  bf29 = max(0, 18 - CSsocspt) *
                                                bf8
bf30            float  %9.0g                  bf30 = max(0, neiw1 - 85) * bf20
bf40            float  %9.0g                  bf40 = max(0, icdxcnt -
                                                1.01635E-007)
                      begin with full model
p = 0.4827 >= 0.1000  removing havmilsq
p = 0.4147 >= 0.1000  removing suprtw2
p = 0.2849 >= 0.1000  removing shjobw2
p = 0.2522 >= 0.1000  removing avgcumdosew2
p = 0.9715 >= 0.1000  removing ageXd3

Logistic regression                               Number of obs   =        340
                                                  LR chi2(2)      =      28.54
                                                  Prob > chi2     =     0.0000
Log likelihood = -158.60117                       Pseudo R2       =     0.0826
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0538093	.0119121	4.52	0.000	.030462	.0771566
illw2	.347449	.2097345	1.66	0.098	-.063623	.7585211
_cons	-4.244759	.6492495	-6.54	0.000	-5.517264	-2.972253

Logistic model for hp2hmcare, goodness-of-fit test

number of observations =	**340**
number of covariate patterns =	**91**
Pearson chi2(**88**) =	**90.18**
Prob > chi2 =	**0.4155**

Logistic model for hp2hmcare

Classified	True D	True ~D	Total
+	**3**	**2**	**5**
-	**67**	**268**	**335**
Total	**70**	**270**	**340**

Classified + if predicted Pr(D) >= .5
True D defined as hp2hmcare != 0

Sensitivity	Pr(+| D)	**4.29%**
Specificity	Pr(-|~D)	**99.26%**
Positive predictive value	Pr(D| +)	**60.00%**
Negative predictive value	Pr(~D| -)	**80.00%**
False + rate for true ~D	Pr(+|~D)	**0.74%**
False - rate for true D	Pr(-| D)	**95.71%**
False + rate for classified +	Pr(~D| +)	**40.00%**
False - rate for classified -	Pr(D| -)	**20.00%**
Correctly classified		**79.71%**

Measures of Fit for **logistic** of **hp2hmcare**

Log-Lik Intercept Only:	**-172.873**	Log-Lik Full Model:	**-158.601**
D(337):	**317.202**	LR(2):	**28.543**
		Prob > LR:	**0.000**
McFadden's R2:	**0.083**	McFadden's Adj R2:	**0.065**
Maximum Likelihood R2:	**0.081**	Cragg & Uhler's R2:	**0.126**
McKelvey and Zavoina's R2:	**0.140**	Efron's R2:	**0.094**
Variance of y*:	**3.826**	Variance of error:	**3.290**
Count R2:	**0.797**	Adj Count R2:	**0.014**
AIC:	**0.951**	AIC*n:	**323.202**
BIC:	**-1647.152**	BIC':	**-16.886**

Trimmed gender=2 hp2hmcare impact of dose in wave 2

variable name	storage type	display format	value label	variable label
age	double	%8.0g		* **Respondent's age**
occ1w2	double	%15.0g	LABJ	**profess executive administration in 1996**
occ2w2	double	%15.0g	LABJ	**technical sales admin support in 1996**
occ3w2	double	%15.0g	LABJ	**service occup protective services in 1996**
occ4w2	double	%15.0g	LABJ	**precision prod mechan craft construction in 1996**
occ5w2	double	%15.0g	LABJ	**factory laborer machinist transp cleaner in 1996**
occ6w2	double	%15.0g	LABJ	**farming agricul forestry fishing trapping logging in 1996**
occ7w2	double	%15.0g	LABJ	**homemaking caregiving in 1996**
occ8w2	double	%15.0g	LABJ	**student in 1996**
inc1w2	double	%15.0g	LABJ	**Income is not sufficient for basic neccessities in 1996**
inc2w2	double	%15.0g	LABJ	**Income is just sufficient for basic neccessities in 1996**
inc3w2	double	%15.0g	LABJ	**Income is sufficient for basics plus extra purchases/savings in 1996**
inc4w2	double	%15.0g	LABJ	**Income allows to comfortably afford luxury items in 1996**
avgcumdosew2	double	%8.0g		**Average mean dose CS1337 in mGy for wave 2**
bf1	float	%9.0g		**bf1 = max(0, kzchorn - 40)**
bf4	float	%9.0g		**bf4 = max(0, 24 - BSIsoma)**
bf2	float	%9.0g		**bf2 = max(0, efradw3 - 1.61252E-006) * bf1**
bf4m	float	%9.0g		**bf4m = max(0, 32 - BSIsoma)**
bf5m	float	%9.0g		**bf5m = max(0, ecprw3 - 75) * bf4m**
bf7m	float	%9.0g		**bf7m = max(0, radtlw3 - 2.12558E-007) * bf4m**
bf8	float	%9.0g		**bf8 = max(0, radtlw3 - 40) * bf5m**
bf15m	float	%9.0g		**bf15m= max(0, 1 - icdxcnt) * bf2**
bf17	float	%9.0g		**bf17 = max(0, 20 - ecprw3) * bf15m**
bf20	float	%9.0g		**bf20 = max(0, kzchorn - 2.53946E-006)**
bf22	float	%9.0g		**bf22 = max(0, icdxcnt - 1.01635E-007) * bf7m**
bf29	float	%9.0g		**bf29 = max(0, 18 - CSsocspt) * bf8**

```
bf30            float  %9.0g                 bf30 = max(0, neiw1 - 85) * bf20
bf40            float  %9.0g                 bf40 = max(0, icdxcnt -
                                               1.01635E-007)
                      begin with full model
p = 0.7388 >= 0.1000  removing suprtw2
p = 0.7127 >= 0.1000  removing illw2
p = 0.7000 >= 0.1000  removing shjobw2
p = 0.4326 >= 0.1000  removing havmilsq
p = 0.4184 >= 0.1000  removing ageXd3
p = 0.1321 >= 0.1000  removing avgcumdosew2

Logistic regression                               Number of obs   =        363
                                                  LR chi2(1)      =      74.63
                                                  Prob > chi2     =     0.0000
Log likelihood = -196.41342                       Pseudo R2       =     0.1597
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0907219	.0119185	7.61	0.000	.0673621	.1140817
_cons	-5.350036	.6457493	-8.29	0.000	-6.615682	-4.084391

Logistic model for hp2hmcare, goodness-of-fit test

```
       number of observations =       363
 number of covariate patterns =        49
             Pearson chi2(47) =        39.93
                  Prob > chi2 =         0.7580
```

Logistic model for hp2hmcare

Classified	True D	True ~D	Total
+	62	33	95
-	63	205	268
Total	125	238	363

```
    Classified + if predicted Pr(D) >= .5
    True D defined as hp2hmcare != 0
    --------------------------------------------------
    Sensitivity                     Pr( +| D)   49.60%
    Specificity                     Pr( -|~D)   86.13%
    Positive predictive value       Pr( D| +)   65.26%
    Negative predictive value       Pr(~D| -)   76.49%
    --------------------------------------------------
    False + rate for true ~D        Pr( +|~D)   13.87%
    False - rate for true D         Pr( -| D)   50.40%
    False + rate for classified +   Pr(~D| +)   34.74%
    False - rate for classified -   Pr( D| -)   23.51%
    --------------------------------------------------
    Correctly classified                        73.55%
    --------------------------------------------------

    Measures of Fit for logistic of hp2hmcare

    Log-Lik Intercept Only:     -233.729   Log-Lik Full Model:         -196.413
    D(361):                      392.827   LR(1):                        74.630
                                           Prob > LR:                     0.000
    McFadden's R2:                 0.160   McFadden's Adj R2:             0.151
    Maximum Likelihood R2:         0.186   Cragg & Uhler's R2:            0.257
    McKelvey and Zavoina's R2:     0.261   Efron's R2:                    0.204
    Variance of y*:                4.449   Variance of error:             3.290
    Count R2:                      0.736   Adj Count R2:                  0.232
    AIC:                           1.093   AIC*n:                       396.827
    BIC:                       -1735.053   BIC':                        -68.736

. 
. scalar hmcareModFw2 = "none"

. 
. 
. 
. * age and illw2 are a female mediators of dose - home care impact
. 
```

```
410 . * age is a male and female mediator with impact on home care
411 . glm age avgcumdosew2 if gender==1,  fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -1330.6004

    Generalized linear models                         No. of obs      =        340
    Optimization     : ML                             Residual df     =        338
                                                      Scale parameter =   147.6853
    Deviance         =  49917.64009                   (1/df) Deviance =   147.6853
    Pearson          =  49917.64009                   (1/df) Pearson  =   147.6853

    Variance function: V(u) = 1                       [Gaussian]
    Link function    : g(u) = u                       [Identity]

                                                      AIC             =   7.838826
    Log likelihood   =   -1330.6004                   BIC             =   47947.46

    ------------------------------------------------------------------------------
                 |                 OIM
             age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew2 |   .5832314   .2635871     2.21   0.027     .0666101    1.099853
           _cons |   48.62133   .7061562    68.85   0.000     47.23729    50.00537
    ------------------------------------------------------------------------------

412 . glm hp2hmcare age if gender==1, fam(binomial) irls scale(dev) link(probit)

    Iteration 1:   deviance =  320.8295
    Iteration 2:   deviance =  320.0337
    Iteration 3:   deviance =  320.0328
    Iteration 4:   deviance =  320.0328

    Generalized linear models                         No. of obs      =        340
    Optimization     : MQL Fisher scoring             Residual df     =        338
                       (IRLS EIM)                     Scale parameter =          1
    Deviance         =  320.0327771                   (1/df) Deviance =   .9468425
    Pearson          =   341.699231                   (1/df) Pearson  =   1.010944

    Variance function: V(u) = u*(1-u)                 [Bernoulli]
    Link function    : g(u) = invnorm(u)              [Probit]

                                                      BIC             =  -1650.151
```

```
-------------------------------------------------------------------------------
             |                 EIM
   hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+-----------------------------------------------------------------
         age |    .032545    .0064212     5.07   0.000     .0199596    .0451304
       _cons |  -2.483665    .3435565    -7.23   0.000    -3.157023   -1.810306
-------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

413 .
414 . glm age avgcumdosew2 if gender==2,  fam(gaussian) link(identity)

Iteration 0:   log likelihood = -1406.9403

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  136.9184
Deviance         =  49427.52828                    (1/df) Deviance =  136.9184
Pearson          =  49427.52828                    (1/df) Pearson  =  136.9184

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  7.762756
Log likelihood   = -1406.940271                    BIC             =  47299.65

-------------------------------------------------------------------------------
             |                 OIM
         age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+-----------------------------------------------------------------
avgcumdosew2 |   1.502324    .4454009     3.37   0.001     .6293547    2.375294
       _cons |   48.86944    .7323225    66.73   0.000     47.43412    50.30477
-------------------------------------------------------------------------------

415 . glm hp2hmcare age if gender==2 , fam(binomial) irls scale(dev) link(probit)

Iteration 1:   deviance =  393.7958
Iteration 2:   deviance =  393.6955
Iteration 3:   deviance =  393.6955
Iteration 4:   deviance =  393.6955

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       361
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  393.6954976                    (1/df) Deviance =  1.090569
Pearson          =  375.4421438                    (1/df) Pearson  =  1.040006
```

```
Variance function: V(u) = u*(1-u)                 [Bernoulli]
Link function    : g(u) = invnorm(u)              [Probit]

                                                  BIC             = -1734.184

------------------------------------------------------------------------------
             |                 EIM
   hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0533501   .0069587     7.67   0.000     .0397113    .0669889
       _cons |  -3.144653   .3710751    -8.47   0.000    -3.871946   -2.417359
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

. 
. 
. * illw2 is a male mediator wrt dose home care impact
. glm illw2 avgcumdosew2 if gender==1, fam(gaussian) link(identity)

Iteration 0:   log likelihood = -303.59609

Generalized linear models                         No. of obs      =        340
Optimization     : ML                             Residual df     =        338
                                                  Scale parameter =   .3512988
Deviance         =  118.7390083                   (1/df) Deviance =   .3512988
Pearson          =  118.7390083                   (1/df) Pearson  =   .3512988

Variance function: V(u) = 1                       [Gaussian]
Link function    : g(u) = u                       [Identity]

                                                  AIC             =   1.797624
Log likelihood   = -303.5960853                   BIC             =  -1851.445

------------------------------------------------------------------------------
             |                 OIM
       illw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   .0085423   .0128556     0.66   0.506    -.0166543    .0337389
       _cons |   .2741359   .0344406     7.96   0.000     .2066336    .3416382
------------------------------------------------------------------------------
```

```
420 . glm hp2hmcare illw2 if gender==1, fam(binomial) irls scale(dev) link(probit)

    Iteration 1:   deviance =   338.889
    Iteration 2:   deviance =  338.7479
    Iteration 3:   deviance =  338.7478
    Iteration 4:   deviance =  338.7478

    Generalized linear models                          No. of obs      =       340
    Optimization     : MQL Fisher scoring              Residual df     =       338
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  338.7478085                    (1/df) Deviance =  1.002212
    Pearson          =  338.1071125                    (1/df) Pearson  =  1.000317

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             = -1631.436

    ------------------------------------------------------------------------------
                 |                 EIM
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
           illw2 |   .3223509   .1214283     2.65   0.008     .0843558     .560346
           _cons |   -.926217   .0878912   -10.54   0.000    -1.098481   -.7539535
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

421 .
422 . glm illw2 avgcumdosew2 if gender==2, fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -463.51524

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =   .756881
    Deviance         =  273.2340487                    (1/df) Deviance =   .756881
    Pearson          =  273.2340487                    (1/df) Pearson  =   .756881

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =  2.564822
    Log likelihood   = -463.5152411                    BIC             = -1854.645
```

illw2	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	**.1249912**	**.0331157**	**3.77**	**0.000**	**.0600856**	**.1898968**
_cons	**.301285**	**.0544484**	**5.53**	**0.000**	**.194568**	**.4080019**

```
423 . glm hp2hmcare illw2 if gender==2, fam(binomial) irls scale(dev) link(probit)

    Iteration 1:   deviance =  466.1156
    Iteration 2:   deviance =  465.4957
    Iteration 3:   deviance =  465.4956
    Iteration 4:   deviance =  465.4956

    Generalized linear models                          No. of obs      =        363
    Optimization     : MQL Fisher scoring              Residual df     =        361
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  465.4955997                    (1/df) Deviance =   1.289461
    Pearson          =   362.823507                    (1/df) Pearson  =   1.005051

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             =  -1662.384
```

hp2hmcare	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
illw2	**.1070451**	**.0863777**	**1.24**	**0.215**	**-.0622522**	**.2763423**
_cons	**-.4461214**	**.0854256**	**-5.22**	**0.000**	**-.6135525**	**-.2786904**

```
    (Standard errors scaled using square root of deviance-based dispersion.)

424 .
425 .
```

```
426 .
427 . scalar hmcareMedMw2 = "age illw2"

428 . scalar hmcareMedFw2 = "age illw2"

429 . scalar list
      wkMedMw2 = bf8 age illw2
    VactnMedFw2 = age illw2 radhlw2
    VactnMedMw2 = age illw2
    VacatnModFw2 = none
    MainEffVactnFw2 = age radhlw2 deaw2
    SigDoseVactnFw2 = no
    vactnModMw2 = none
    MainEffVactnMw2 = age bf7m radhlw2
    SigDoseVactnMw2 = no
    sxLifeMedFw2 = age bf4 bf4m
    sxLifeMedMw2 = age illw2
    InthbModFw2 = none
    MainEffInthbFw2 = age radhlw2 bf4
    SigdoseInthbFw2 = no
      InthbMw2 = none
    MainEffInthbMw2 = age radhlw2 shfamw2
    SigDoseInthbMw2 = no
    sxlifeMedFw2 = age illw2 radhlw2 bf4 bf4m
    sxlifeMedMw2 = age illw2
    sxlifeModFw2 = none
    MainEffsxlifeFw2 = age radhlw2 bf4 bf4m shrelaw2 shfamw2
    SigDoseSxlifeFw2 = no
    sxlifeModMw2 = none
    SigDosesxlifeMw2 = no
    MainEffsxlifeMw2 = age bf4 illw2 radhlw2
    PrbfmhmMedFw2 = age bf4
    PrbfmhmMedMw2 = age
    PrbfmhmModFw2 = none
    MainEffPrbfmhmFw2 = age bf4 bf40
    SigDosePrbfmhmFw2 = no
    PrbfmhmModw2 = none
    SigDosePrbfmhmMw2 = no
    SigDosePrbfhmMw2 = no
    MainEffPrbfhmMw2 = bf1 bf4 dvcew2 bf7m
    ProbsocMedFw2 = age radhlw2
    ProbsocMedMw2 = age
    ProbsocModFw2 = none
    MainEffProbSocFw2 = age radhlw2 illw2 Shrelaw2 avgcumodsew2
    SigDoseProbsocFw2 = yes
    ProbSocModMw2 = none
    SigDoseProbsocMw2 = no
    MainEffPrbsocMw2 = age radhlw2 shjobw2
    hmcareMedFw2 = age illw2
```

```
    hmcareMedMw2 = age illw2
    hmcareModFw2 = none
    SigDoseWKFw2 =          0
    SigdoseHmcareFw2 = no
    hmcareModMw2 = none
    MainEffhmcareMw2 = none
    SigDoseHmcareMw2 = no
      wkMedFw2 = radhlw2 age bf40 bf4m bf1
      wkModFw2 = none
      wkModMw2 = none
    MainEffwkFw2 = age
    MainEffwkMw2 = workM: age  bf8  illw2  shjobw2
    SigDoseWKMw2 = no
    SigDoseWkFw2 = no
    hmcrMedFw1 = age icdxcnt shjobw1 bf4 BSIsoma WHPpain WHPsleep WHPel
    hmcrMedMw1 = age
    MainEffhmcrFw1 = illw1 age
    SigDosehmcrFw1 = no
    hmcrModMw1 = none
    MainEffhmcrMw1 = age shjobw1
    SigDosehmcrMw1 = no
      wkMedFw1 = age b4
    MainEffwkFw1 = age
    MainEffwkMw1 = age
      wkMedMw1 = bf40
      WkMedMw1 = none
      WkModFw1 = none
      WKModMw1 = none
    SigDoseWkMw1 = no
    SigDoseWkFw1 = no
    SigDoseFw1 = no
      wkModFw1 = none
      wkModMw1 = none
     medsigFw1 =          1
    prbsocnumMAsig =          8

430 .
```

```
431 . * conclusion "age & illw2 are main effects as possible male & female mediato
    > rs"
432 . * conclusion title "their interaction is not a mediator"
433 .
434 .
435 .
436 .
437 . * Other non-signif test results for mediators of the dose-homecare impact
438 .
439 . glm illw2Xd3 illw2 avgcumdosew2 if gender==1, fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -561.33689

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       337
                                                       Scale parameter =  1.604749
    Deviance         =  540.8004038                    (1/df) Deviance =  1.604749
    Pearson          =  540.8004038                    (1/df) Pearson  =  1.604749

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =  3.319629
    Log likelihood   = -561.3368924                    BIC             = -1423.554

    ------------------------------------------------------------------------------
                 |                 OIM
        illw2Xd3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
           illw2 |   .6995256   .1162537     6.02   0.000     .4716726    .9273787
    avgcumdosew2 |   .5560421   .0274943    20.22   0.000     .5021543    .6099299
           _cons |  -.4073759   .0802126    -5.08   0.000    -.5645897   -.2501622
    ------------------------------------------------------------------------------

440 . glm hp2hmcare illw2Xd3 illw2 avgcumdosew2 if gender==1, fam(binomial) ///
    >   irls scale(dev) link(probit)

    Iteration 1:   deviance =  338.5042
    Iteration 2:   deviance =  338.3318
    Iteration 3:   deviance =  338.3296
    Iteration 4:   deviance =  338.3295
    Iteration 5:   deviance =  338.3295
    Iteration 6:   deviance =  338.3295
```

```
Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        336
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  338.3295375                    (1/df) Deviance =   1.006933
Pearson          =  337.9090682                    (1/df) Pearson  =   1.005682

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             =  -1620.196

------------------------------------------------------------------------------
             |                 EIM
   hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    illw2Xd3 |    .043344   .0744303     0.58   0.560    -.1025368    .1892247
       illw2 |   .2934865   .1303698     2.25   0.024     .0379663    .5490066
 avgcumdosew2 |    -.02475   .0655641    -0.38   0.706    -.1532532    .1037532
       _cons |  -.9097069   .1011012    -9.00   0.000    -1.107862   -.7115522
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

441 . glm illw2Xd3 illw2 avgcumdosew2 if gender==2, fam(gaussian) link(identity)

Iteration 0:   log likelihood = -802.15873

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        360
                                                   Scale parameter =   4.903891
Deviance         =  1765.400887                    (1/df) Deviance =   4.903891
Pearson          =  1765.400887                    (1/df) Pearson  =   4.903891

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =   4.436136
Log likelihood   = -802.1587263                    BIC             =  -356.5841

------------------------------------------------------------------------------
             |                 OIM
    illw2Xd3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw2 |   1.477942   .1339686    11.03   0.000     1.215369    1.740516
 avgcumdosew2 |    1.48752   .0859399    17.31   0.000     1.319081    1.655959
       _cons |  -1.335179   .1443511    -9.25   0.000    -1.618101   -1.052256
------------------------------------------------------------------------------
```

```
442 . glm hp2hmcare illw2Xd3 illw2 avgcumdosew2 if gender==2, fam(binomial) ///
    >    irls scale(dev) link(probit)

    Iteration 1:   deviance =  463.5448
    Iteration 2:   deviance =  462.9346
    Iteration 3:   deviance =   462.934
    Iteration 4:   deviance =   462.934
    Iteration 5:   deviance =   462.934

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       359
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =    462.93402                    (1/df) Deviance =   1.28951
    Pearson          =  361.7870308                    (1/df) Pearson  =  1.007763

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             = -1653.157

    ------------------------------------------------------------------------------
                 |                 EIM
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
        illw2Xd3 |  -.0539164   .0417648    -1.29   0.197    -.1357739    .0279411
           illw2 |   .1869825   .1045198     1.79   0.074    -.0178725    .3918376
    avgcumdosew2 |   .0522197   .0762058     0.69   0.493     -.097141    .2015804
           _cons |  -.4961458    .106924    -4.64   0.000    -.7057129   -.2865786
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

443 .
444 .
445 . glm havmilsq avgcumdosew2 if gender==1, fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -4357.4808

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  7.98e+09
    Deviance         =  2.69740e+12                    (1/df) Deviance =  7.98e+09
    Pearson          =  2.69740e+12                    (1/df) Pearson  =  7.98e+09

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =    25.644
    Log likelihood   = -4357.480823                    BIC             =  2.70e+12
```

havmilsq	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	**-1562.571**	**1937.625**	**-0.81**	**0.420**	**-5360.246**	**2235.104**
_cons	**18476.58**	**5190.943**	**3.56**	**0.000**	**8302.515**	**28650.64**

```
446 . glm hp2hmcare havmilsq if gender==1, fam(binomial) irls scale(dev) link(prob
> it)

Iteration 1:   deviance =   345.527
Iteration 2:   deviance =  345.1721
Iteration 3:   deviance =  345.1646
Iteration 4:   deviance =  345.1644
Iteration 5:   deviance =  345.1644
Iteration 6:   deviance =  345.1644

Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        338
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  345.1644251                    (1/df) Deviance =   1.021197
Pearson          =  339.1838387                    (1/df) Pearson  =   1.003502

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             =  -1625.019
```

hp2hmcare	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
havmilsq	**-9.19e-07**	**1.39e-06**	**-0.66**	**0.509**	**-3.65e-06**	**1.81e-06**
_cons	**-.8078353**	**.0797621**	**-10.13**	**0.000**	**-.9641661**	**-.6515045**

(Standard errors scaled using square root of deviance-based dispersion.)

```
447 . glm havmilsq avgcumdosew2 if gender==2, fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -5315.5316

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =  3.08e+11
    Deviance         =  1.11295e+14                    (1/df) Deviance =  3.08e+11
    Pearson          =  1.11295e+14                    (1/df) Pearson  =  3.08e+11

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =  29.29769
    Log likelihood   =  -5315.53158                    BIC             =  1.11e+14

    ------------------------------------------------------------------------------
                 |                 OIM
        havmilsq |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew2 |  -2103.378   21135.06    -0.10   0.921    -43527.34    39320.58
           _cons |   62705.69      34750     1.80   0.071    -5403.056    130814.4
    ------------------------------------------------------------------------------

448 . glm hp2hmcare havmilsq if gender==2, fam(binomial) irls scale(dev) link(prob
    > it)

    Iteration 1:   deviance =  466.1751
    Iteration 2:   deviance =  465.0334
    Iteration 3:   deviance =    464.73
    Iteration 4:   deviance =  464.6076
    Iteration 5:   deviance =  464.5797
    Iteration 6:   deviance =  464.5779
    Iteration 7:   deviance =  464.5779
    Iteration 8:   deviance =  464.5779

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  464.5778963                    (1/df) Deviance =  1.286919
    Pearson          =  360.2475414                    (1/df) Pearson  =  .9979156

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             = -1663.302
```

```
------------------------------------------------------------------------------
             |                 EIM
   hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    havmilsq |  -7.46e-07   1.04e-06    -0.72   0.475    -2.79e-06    1.30e-06
       _cons |  -.3815177   .0787742    -4.84   0.000    -.5359124    -.227123
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

449 .
450 . glm radhlw2 avgcumdosew2 if gender==1, fam(gaussian) link(identity)

Iteration 0:   log likelihood = -1693.4076

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  1247.933
Deviance         =  421801.4584                    (1/df) Deviance =  1247.933
Pearson          =  421801.4584                    (1/df) Pearson  =  1247.933

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  9.972986
Log likelihood   = -1693.407647                    BIC             =  419831.3

------------------------------------------------------------------------------
             |                 OIM
     radhlw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   1.220373    .766216     1.59   0.111    -.2813831    2.722128
       _cons |   45.63198   2.052711    22.23   0.000     41.60874    49.65522
------------------------------------------------------------------------------

451 . glm hp2hmcare radhlw2 if gender==1, fam(binomial) irls scale(dev) link(probi
    > t)

Iteration 1:   deviance =  320.2142
Iteration 2:   deviance =  319.4143
Iteration 3:   deviance =  319.4134
Iteration 4:   deviance =  319.4134

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       338
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  319.4134212                    (1/df) Deviance =  .9450101
Pearson          =  343.7631942                    (1/df) Pearson  =  1.017051
```

```
Variance function: V(u) = u*(1-u)                    [Bernoulli]
Link function    : g(u) = invnorm(u)                 [Probit]

                                                     BIC             =  -1650.77

------------------------------------------------------------------------------
             |                 EIM
   hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     radhlw2 |   .0113273   .0022041     5.14   0.000     .0070074    .0156472
       _cons |  -1.415444   .1449647    -9.76   0.000     -1.69957   -1.131318
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

452 . glm radhlw2 avgcumdosew2 if gender==2, fam(gaussian) link(identity)

Iteration 0:   log likelihood = -1791.2233

Generalized linear models                            No. of obs      =       363
Optimization     : ML                                Residual df     =       361
                                                     Scale parameter =  1137.567
Deviance         =  410661.5604                      (1/df) Deviance =  1137.567
Pearson          =  410661.5604                      (1/df) Pearson  =  1137.567

Variance function: V(u) = 1                          [Gaussian]
Link function    : g(u) = u                          [Identity]

                                                     AIC             =  9.880018
Log likelihood   = -1791.223306                      BIC             =  408533.7

------------------------------------------------------------------------------
             |                 OIM
     radhlw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   3.302288   1.283833     2.57   0.010     .7860214    5.818555
       _cons |   56.95167   2.110863    26.98   0.000     52.81445    61.08888
------------------------------------------------------------------------------
```

```
453 . glm hp2hmcare radhlw2 if gender==2, fam(binomial) irls scale(dev) link(probi
    > t)

    Iteration 1:   deviance =  465.9397
    Iteration 2:   deviance =   465.344
    Iteration 3:   deviance =  465.3439
    Iteration 4:   deviance =  465.3439

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  465.3438602                    (1/df) Deviance =  1.289041
    Pearson          =  362.9626143                    (1/df) Pearson  =  1.005437

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             = -1662.536

    ------------------------------------------------------------------------------
                 |                 EIM
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
         radhlw2 |   .0029148   .0022776     1.28   0.201    -.0015493    .0073789
           _cons |  -.5772317   .1586961    -3.64   0.000    -.8882703    -.266193
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

454 .
455 . title4 "*------- summary matrix construction for dose home care"
    ------------------------------------------------------------------------------
    *------- summary matrix construction for dose home care
    ------------------------------------------------------------------------------

456 .
457 .  matrix define HP2hmcrMw2 = J(1,8, 0)
```

```
458 .         matrix define HP2hmcrFw2 = J(1,8, 0)

459 . matrix colnames HP2hmcrMw2=  hypnum ptnum wave gender medsig numMAsig numMod
    > sig ///
    >     numMed

460 . matrix colnames HP2hmcrFw2=  hypnum ptnum wave gender medsig numMAsig numMod
    > sig ///
    >     numMed

461 .     matrix rownames HP2hmcrMw2 = hmcareM

462 .     matrix rownames HP2hmcrFw2 = hmcareF

463 .     matrix define HP2hmcrFw2= (1, 2, 3, 2, 0 ,2,  0  , 2 )

464 .         matrix define HP2hmcrMw2= (1, 2, 3, 1, 0 , 4,  0  , 2 )

465 .         matrix define H1pt2w2 = (HP2wkMw2 \ HP2wkFw2 \ HP2hmcrMw2 \HP2hmcrFw
    > 2)

466 .     matrix colnames H1pt2w2 =  hypnum ptnum wave gender medsig numMAsig numM
    > odsig numMed

467 .     matrix colnames H1pt2w2 =  hypnum ptnum wave gender medsig numMAsig numM
    > odsig numMed

468 .     matrix rownames H1pt2w2 = HP2wkMw2 WHP2wkFw2 HP2hmcrMw2 HP2hmcrFw2

469 .         matrix H1pt2w2

             |    hypnum      ptnum       wave     gender     medsig   numMAsi
    > g  numModsig
-------------+---------------------------------------------------------------
    > -------------
      HP2wkMw2 |         1          2          3          1          0
    > 4          0
     WHP2wkFw2 |         1          2          3          2          0
    > 1          0
    HP2hmcrMw2 |         1          2          3          1          0
    > 4          0
    HP2hmcrFw2 |         1          2          3          2          0
    > 2          0
```

	numMed
HP2wkMw2	**4**
WHP2wkFw2	**6**
HP2hmcrMw2	**2**
HP2hmcrFw2	**2**

```
. 
. * see scalar list for names of variables
. 
. 
. * X * missing the number of main effects in the trimmed models
. 
. /////////////////////////////////////////////////////////////////////////
> *--------- Chunk 4  Dose prob soc impact relationship HP2probsoc
. *---------------------------------------------------------------------------
> ----
. *      General model for all part 2 of Nottingham Health Profile
. 
. title " 3. wave 2 part2   H1: Test of hypothesis 1 Part 2 "


*******************************************************************************
> *
*******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****          3. wave 2 part2   H1: Test of hypothesis 1 Part 2          ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                       1 Jul 2012    15:02:07        ****
> *
*******************************************************************************
> *
*******************************************************************************
> *
```

```
481 . title " wave 2 Dose - HP2probsoc Main effects identification"


    ****************************************************************************
    > *
    ****************************************************************************
    > *
    *****                                                                   ****
    > *
    *****                                                                   ****
    > *
    *****        wave 2 Dose - HP2probsoc Main effects identification       ****
    > *
    *****                                                                   ****
    > *
    *****                                                                   ****
    > *
    *****                                     1 Jul 2012    15:02:07        ****
    > *
    ****************************************************************************
    > *
    ****************************************************************************
    > *



482 . forvalues j=2/2 {
      2. set more off
      3.
483 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
484 .   foreach var in HP2probsoc {
      5.        forvalues k=1/2 {
      6. di as input "Full main model for `var' for wave= `j' "
      7. di _skip(4)
      8. di as input  "chunk 4 H1 test:Gender= `k'  model Wave =  `j' for `e(depva
    > r)' "
      9. di _skip(4)
     10. title "Full Nottingham Part 2 subscale models for male and then females"
     11.
```

```
485 .       xi: logistic `var' age i.educ occ1w`j'-occ8w`j' ///
    >               marrw`j'1- marrw`j'3 marrw`j'5-marrw`j'6 inc1w`j'-inc4w`j' /
    > //
    >               radhlw`j' havmil avgcumdosew`j' `w`j'bf'  ///
    >                deaw`j' dvcew`j' sepaw`j' accdw`j' movew`j' ///
    >               illw`j' shfamw`j' shhlw`j' shjobw`j' shrelaw`j' suprtw`j' su
    > chrw`j' ///
    >                havmilsq if gender==`k', coef nolog  difficult iterate(50)
     12.                        estat class
     13.                        estat gof
     14.                        fitstat
     15. }
     16. }
     17. }
```

```
              storage  display     value
variable name   type   format      label      variable label
----------------------------------------------------------------------------
age             double %8.0g                * Respondent's age
educ1           byte   %8.0g                  educ==1. did not graduate high
                                                school
educ2           byte   %8.0g                  educ==2. graduated high school
educ3           byte   %8.0g                  educ==3. technical degree
educ4           byte   %8.0g                  educ==4. did not finish
                                                college/bachelor's
educ5           byte   %8.0g                  educ==5. graduated
                                                college/bachelor's
educ6           byte   %8.0g                  educ==6. finished
                                                specialist/master's degree
educ7           byte   %8.0g                  educ==7. doctor of science/phd
marrw21         byte   %8.0g                  marrw2==1. single
marrw22         byte   %8.0g                  marrw2==2. cohabitating
marrw23         byte   %8.0g                  marrw2==3. married
marrw24         byte   %8.0g                  marrw2==4. separated
marrw25         byte   %8.0g                  marrw2==5. divorced
marrw26         byte   %8.0g                  marrw2==6. widowed
inc1w2          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1996
inc2w2          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1996
inc3w2          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1996
inc4w2          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1996
bf1             float  %9.0g                  bf1 = max(0, kzchorn - 40)
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
bf9             float  %9.0g                  bf9= max(0, 30 - shhlw1)
bf11            float  %9.0g                  bf11= max(0, 20 - sufamw1)
```

```
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)
bf15m           float  %9.0g                  bf15m= max(0, 1 - icdxcnt) * bf2
bf30            float  %9.0g                  bf30 = max(0, neiw1 - 85) * bf20
bf40            float  %9.0g                  bf40 = max(0, icdxcnt -
                                                1.01635E-007)
Full main model for HP2probsoc for wave= 2

chunk 4 H1 test:Gender= 1  model Wave =  2 for hp2hmcare



******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females   ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                             1 Jul 2012    15:02:07  ****
> *
******************************************************************************
> *
******************************************************************************
> *


i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: _Ieduc_4 != 0 predicts failure perfectly
      _Ieduc_4 dropped and 13 obs not used

note: _Ieduc_7 != 0 predicts failure perfectly
      _Ieduc_7 dropped and 4 obs not used

note: _Ieduc_8 != 0 predicts failure perfectly
      _Ieduc_8 dropped and 2 obs not used

note: occ6w2 != 0 predicts failure perfectly
      occ6w2 dropped and 5 obs not used

note: occ7w2 != 0 predicts failure perfectly
      occ7w2 dropped and 14 obs not used
```

```
note: occ8w2 != 0 predicts failure perfectly
      occ8w2 dropped and 44 obs not used

note: marrw22 != 0 predicts failure perfectly
      marrw22 dropped and 7 obs not used

note: marrw26 != 0 predicts failure perfectly
      marrw26 dropped and 1 obs not used

note: inc4w2 != 0 predicts failure perfectly
      inc4w2 dropped and 10 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 14 obs not used

note: dvcew2 != 0 predicts failure perfectly
      dvcew2 dropped and 5 obs not used

note: marrw25 != 0 predicts success perfectly
      marrw25 dropped and 1 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 1 obs not used

note: _Ieduc_6 omitted because of collinearity
note: bf17 omitted because of collinearity

Logistic regression                               Number of obs   =        217
                                                  LR chi2(40)     =     113.21
                                                  Prob > chi2     =     0.0000
Log likelihood = -47.096671                       Pseudo R2       =     0.5459
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1159429	.0419803	2.76	0.006	.0336631	.1982228
_Ieduc_2	-.0479004	1.407174	-0.03	0.973	-2.80591	2.710109
_Ieduc_3	-.8284731	.7880615	-1.05	0.293	-2.373045	.716099
_Ieduc_4	0	(omitted)				
_Ieduc_5	.2454375	1.100079	0.22	0.823	-1.910677	2.401552
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w2	-1.3725	16.54078	-0.08	0.934	-33.79183	31.04683
occ2w2	-1.244674	16.53791	-0.08	0.940	-33.65838	31.16903
occ3w2	-.7835828	16.55903	-0.05	0.962	-33.23868	31.67152
occ4w2	-3.862736	16.57719	-0.23	0.816	-36.35344	28.62797
occ5w2	-2.775301	16.58962	-0.17	0.867	-35.29036	29.73976
occ6w2	0	(omitted)				

occ7w2	0	(omitted)				
occ8w2	0	(omitted)				
marrw21	12.58162	1075.856	0.01	0.991	-2096.057	2121.22
marrw22	0	(omitted)				
marrw23	10.03646	1075.856	0.01	0.993	-2098.602	2118.675
marrw25	0	(omitted)				
marrw26	0	(omitted)				
inc1w2	.0757099	16.62358	0.00	0.996	-32.50591	32.65733
inc2w2	2.619578	16.55703	0.16	0.874	-29.83159	35.07075
inc3w2	4.14916	16.572	0.25	0.802	-28.33137	36.62969
inc4w2	0	(omitted)				
radhlw2	.0130005	.0142344	0.91	0.361	-.0148985	.0408995
havmil	-.002818	.0090337	-0.31	0.755	-.0205238	.0148877
avgcumdosew2	.0114306	.0823526	0.14	0.890	-.1499776	.1728387
bf1	.0037783	.0642153	0.06	0.953	-.1220814	.129638
bf4	.016836	.3033169	0.06	0.956	-.5776542	.6113261
bf2	.0006302	.0003126	2.02	0.044	.0000175	.0012428
bf4m	-.5319968	.2823116	-1.88	0.060	-1.085317	.0213237
bf5m	.0058806	.0028091	2.09	0.036	.0003749	.0113862
bf7m	.0013216	.0011466	1.15	0.249	-.0009257	.0035688
bf8	-.0001829	.0000911	-2.01	0.045	-.0003616	-4.31e-06
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0241214	.0536769	-0.45	0.653	-.1293262	.0810833
bf22	.0004188	.0002855	1.47	0.142	-.0001407	.0009783
bf29	-.000073	.0001017	-0.72	0.473	-.0002723	.0001263
bf30	-.0016782	.0007996	-2.10	0.036	-.0032455	-.000111
bf40	-.1773534	.3453449	-0.51	0.608	-.854217	.4995102
deaw2	-.7039739	.7523846	-0.94	0.349	-2.178621	.7706728
dvcew2	0	(omitted)				
sepaw2	0	(omitted)				
accdw2	-.0469037	.8655378	-0.05	0.957	-1.743327	1.649519
movew2	1.585081	.8835966	1.79	0.073	-.1467362	3.316899
illw2	-.6496621	.6161215	-1.05	0.292	-1.857238	.5579138
shfamw2	-.0160373	.0116025	-1.38	0.167	-.0387778	.0067033
shhlw2	-.0105176	.0138341	-0.76	0.447	-.0376321	.0165968
shjobw2	.0250231	.0129193	1.94	0.053	-.0002983	.0503445
shrelaw2	-.0217826	.0114409	-1.90	0.057	-.0442063	.0006412
suprtw2	.0083099	.0108445	0.77	0.444	-.012945	.0295648
suchrw2	.0212997	.0111718	1.91	0.057	-.0005966	.0431959
havmilsq	6.25e-06	.0000101	0.62	0.537	-.0000136	.0000261
_cons	-13.61182	1075.864	-0.01	0.990	-2122.266	2095.042

Note: 2 failures and 0 successes completely determined.

Logistic model for HP2probsoc

Classified	True D	~D	Total
+	**26**	**4**	**30**
-	**14**	**173**	**187**
Total	**40**	**177**	**217**

Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0

Sensitivity	Pr(+| D)	**65.00%**
Specificity	Pr(-|~D)	**97.74%**
Positive predictive value	Pr(D| +)	**86.67%**
Negative predictive value	Pr(~D| -)	**92.51%**
False + rate for true ~D	Pr(+|~D)	**2.26%**
False - rate for true D	Pr(-| D)	**35.00%**
False + rate for classified +	Pr(~D| +)	**13.33%**
False - rate for classified -	Pr(D| -)	**7.49%**
Correctly classified		**91.71%**

Logistic model for HP2probsoc, goodness-of-fit test

number of observations = **217**
number of covariate patterns = **217**
Pearson chi2(**176**) = **158.28**
Prob > chi2 = **0.8270**

Measures of Fit for **logistic** of **HP2probsoc**

Log-Lik Intercept Only:	**-103.704**	Log-Lik Full Model:	**-47.097**
D(161):	**94.193**	LR(40):	**113.215**
		Prob > LR:	**0.000**
McFadden's R2:	**0.546**	McFadden's Adj R2:	**0.006**
Maximum Likelihood R2:	**0.407**	Cragg & Uhler's R2:	**0.660**
McKelvey and Zavoina's R2:	**0.840**	Efron's R2:	**0.562**
Variance of y*:	**20.586**	Variance of error:	**3.290**
Count R2:	**0.917**	Adj Count R2:	**0.550**
AIC:	**0.950**	AIC*n:	**206.193**
BIC:	**-771.970**	BIC':	**101.981**

Full main model for HP2probsoc for wave= 2

chunk 4 H1 test:Gender= 2 model Wave = 2 for HP2probsoc

```
*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females   ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                              1 Jul 2012    15:02:08  ****
> *
*****************************************************************************
> *
*****************************************************************************
> *


i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: occ6w2 != 0 predicts failure perfectly
      occ6w2 dropped and 9 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: _Ieduc_8 omitted because of collinearity
note: marrw26 omitted because of collinearity
note: bf17 omitted because of collinearity

Logistic regression                               Number of obs   =        341
                                                  LR chi2(50)     =     174.30
                                                  Prob > chi2     =     0.0000
Log likelihood = -89.934458                       Pseudo R2       =     0.4921
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1034919	.0270041	3.83	0.000	.0505648	.1564191
_Ieduc_2	-13.17654	1236.407	-0.01	0.991	-2436.49	2410.137
_Ieduc_3	-13.38577	1236.407	-0.01	0.991	-2436.699	2409.928
_Ieduc_4	-12.54323	1236.407	-0.01	0.992	-2435.857	2410.771
_Ieduc_5	-12.47221	1236.407	-0.01	0.992	-2435.786	2410.842
_Ieduc_6	-13.80248	1236.407	-0.01	0.991	-2437.116	2409.511
_Ieduc_7	-15.17121	1236.497	-0.01	0.990	-2438.662	2408.319
_Ieduc_8	0	(omitted)				
occ1w2	-1.147886	3.571925	-0.32	0.748	-8.14873	5.852957
occ2w2	-1.271517	3.611241	-0.35	0.725	-8.349419	5.806385
occ3w2	.2117582	3.586153	0.06	0.953	-6.816973	7.24049
occ4w2	-1.534382	3.689834	-0.42	0.678	-8.766324	5.69756
occ5w2	-2.414751	3.8284	-0.63	0.528	-9.918277	5.088775
occ6w2	0	(omitted)				
occ7w2	-.6787306	3.585162	-0.19	0.850	-7.70552	6.348058
occ8w2	2.909649	3.844529	0.76	0.449	-4.625489	10.44479
marrw21	-1.181403	1.729099	-0.68	0.494	-4.570375	2.207569
marrw22	1.066113	1.762045	0.61	0.545	-2.387432	4.519658
marrw23	.6150888	.9283649	0.66	0.508	-1.204473	2.434651
marrw25	.4424041	1.311023	0.34	0.736	-2.127154	3.011962
marrw26	0	(omitted)				
inc1w2	.302891	3.591795	0.08	0.933	-6.736898	7.34268
inc2w2	1.142371	3.560505	0.32	0.748	-5.836091	8.120833
inc3w2	.8314334	3.569583	0.23	0.816	-6.164821	7.827688
inc4w2	.0290561	3.848853	0.01	0.994	-7.514557	7.57267
radhlw2	.0111407	.0096438	1.16	0.248	-.0077607	.0300422
havmil	.0005515	.0077361	0.07	0.943	-.0146109	.0157139
avgcumdosew2	.546822	.23001	2.38	0.017	.0960107	.9976333
bf1	.0275412	.0390831	0.70	0.481	-.0490602	.1041427
bf4	-.4078914	.2433269	-1.68	0.094	-.8848033	.0690205
bf2	.0001427	.0001416	1.01	0.314	-.0001349	.0004204
bf4m	.1372093	.2260724	0.61	0.544	-.3058844	.5803031
bf5m	-.0016005	.0026021	-0.62	0.538	-.0067005	.0034995
bf7m	.0002743	.0007319	0.37	0.708	-.0011601	.0017087
bf8	.0000233	.0000548	0.42	0.671	-.0000841	.0001306
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.04615	.0319322	-1.45	0.148	-.1087361	.016436
bf22	9.68e-06	.0001672	0.06	0.954	-.000318	.0003374
bf29	-.0000266	.0000488	-0.54	0.586	-.0001221	.000069
bf30	.0001087	.0003798	0.29	0.775	-.0006357	.0008531
bf40	-.0077229	.1716746	-0.04	0.964	-.344199	.3287532
deaw2	-.0328171	.2515674	-0.13	0.896	-.5258803	.460246
dvcew2	1.645199	1.729548	0.95	0.341	-1.744652	5.03505
sepaw2	-.787699	2.185185	-0.36	0.718	-5.070584	3.495186
accdw2	-.7482691	.7741464	-0.97	0.334	-2.265568	.7690299

movew2	-.1983887	.9882329	-0.20	0.841	-2.13529	1.738512
illw2	.037099	.2627647	0.14	0.888	-.4779104	.5521084
shfamw2	-.0189411	.0086476	-2.19	0.028	-.03589	-.0019922
shhlw2	.0013266	.0086367	0.15	0.878	-.0156011	.0182542
shjobw2	-.0022444	.0078272	-0.29	0.774	-.0175855	.0130966
shrelaw2	-.0057107	.0089259	-0.64	0.522	-.0232051	.0117837
suprtw2	.0019185	.0068705	0.28	0.780	-.0115475	.0153845
suchrw2	-.0030114	.0077253	-0.39	0.697	-.0181526	.0121298
havmilsq	-5.64e-06	.0000161	-0.35	0.725	-.0000371	.0000258
_cons	8.438379	1236.411	0.01	0.995	-2414.883	2431.76

Note: 2 failures and 0 successes completely determined.

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	52	13	65
-	21	255	276
Total	73	268	341

Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0

Sensitivity	Pr(+| D)	71.23%
Specificity	Pr(-|~D)	95.15%
Positive predictive value	Pr(D| +)	80.00%
Negative predictive value	Pr(~D| -)	92.39%
False + rate for true ~D	Pr(+|~D)	4.85%
False - rate for true D	Pr(-| D)	28.77%
False + rate for classified +	Pr(~D| +)	20.00%
False - rate for classified -	Pr(D| -)	7.61%
Correctly classified		90.03%

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       341
 number of covariate patterns =       341
             Pearson chi2(290) =       351.64
                   Prob > chi2 =         0.0077
```

Measures of Fit for **logistic** of **HP2probsoc**

```
    Log-Lik Intercept Only:     -177.084     Log-Lik Full Model:           -89.934
    D(285):                      179.869     LR(50):                       174.299
                                             Prob > LR:                      0.000
    McFadden's R2:                 0.492     McFadden's Adj R2:              0.176
    Maximum Likelihood R2:         0.400     Cragg & Uhler's R2:             0.619
    McKelvey and Zavoina's R2:     0.858     Efron's R2:                     0.531
    Variance of y*:               23.160     Variance of error:              3.290
    Count R2:                      0.900     Adj Count R2:                   0.534
    AIC:                           0.856     AIC*n:                        291.869
    BIC:                       -1482.218     BIC':                         117.295

486 .
487 . *-----Chunk 4 dose3 social problem impact--------------no sig dose main effe
    > ct--
488 . title4 "Chunk 4 trimmed models of dose and HP2work relationship in wave 2"
    ------------------------------------------------------------------------------
    Chunk 4 trimmed models of dose and HP2work relationship in wave 2
    ------------------------------------------------------------------------------

489 . * male models
490 . set more off

491 .         forvalues j=2/2 {
      2. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      3. title3 "trimmed HP2probsoc main effects models wave 2 for H1 part 2 with
    > dose ns"
      4. title "wave 2 dose HP2probsoc relationship but avgcumdosew`j': Dose not s
    > ignif"
      5. xi:logit HP2probsoc age i.educ radhlw2 accdw`j' bf8  shjobw`j' suchrw2 ha
    > vmilsq ///
    >     avgcumdosew`j' if gender==1
      6.                         estat class
      7.                         estat gof
      8.                         fitstat
      9. }
    ------------------------------------------------------------------------------
    title3 : trimmed HP2probsoc main effects models wave 2 for H1 part 2 with dose
    >  ns
     1 Jul 2012
    15:02:10
    computer  Macintosh (Intel 64-bit)
    folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests
    > /h1pt2
    Data file  chwide1jul2012.dta  currrently has  2395  variables and  703  obser
    > vations
```

```
******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****wave 2 dose HP2probsoc relationship but avgcumdosew2: Dose not signif****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                              1 Jul 2012    15:02:10  ****
> *
******************************************************************************
> *
******************************************************************************
> *


i.educ           _Ieduc_1-8         (naturally coded; _Ieduc_1 omitted)

note: _Ieduc_4 != 0 predicts failure perfectly
      _Ieduc_4 dropped and 14 obs not used

note: _Ieduc_7 != 0 predicts failure perfectly
      _Ieduc_7 dropped and 4 obs not used

note: _Ieduc_8 != 0 predicts failure perfectly
      _Ieduc_8 dropped and 2 obs not used

note: _Ieduc_6 omitted because of collinearity
Iteration 0:   log likelihood = -122.49818
Iteration 1:   log likelihood = -97.278367
Iteration 2:   log likelihood = -91.419426
Iteration 3:   log likelihood = -91.263695
Iteration 4:   log likelihood = -91.263586
Iteration 5:   log likelihood = -91.263586

Logistic regression                               Number of obs   =        320
                                                  LR chi2(11)     =      62.47
                                                  Prob > chi2     =     0.0000
Log likelihood = -91.263586                       Pseudo R2       =     0.2550
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0708065	.0177532	3.99	0.000	.0360108	.1056021
_Ieduc_2	.0385275	.9109987	0.04	0.966	-1.746997	1.824052
_Ieduc_3	-.5726249	.461212	-1.24	0.214	-1.476584	.3313341
_Ieduc_4	0	(omitted)				
_Ieduc_5	-.2324702	.5513297	-0.42	0.673	-1.313057	.8481161
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
radhlw2	.0254018	.006594	3.85	0.000	.0124778	.0383257
accdw2	-.5083029	.6480971	-0.78	0.433	-1.77855	.7619441
bf8	-.0000267	.0000244	-1.09	0.274	-.0000745	.0000212
shjobw2	.0157373	.0055054	2.86	0.004	.0049469	.0265278
suchrw2	.00109	.0046549	0.23	0.815	-.0080334	.0102134
havmilsq	-1.25e-06	5.36e-06	-0.23	0.815	-.0000118	9.25e-06
avgcumdosew2	.0268182	.0517674	0.52	0.604	-.0746441	.1282805
_cons	-7.869049	1.225988	-6.42	0.000	-10.27194	-5.466157

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	12	2	14
-	29	277	306
Total	41	279	320

Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0

Sensitivity	Pr(+| D)	29.27%
Specificity	Pr(-|~D)	99.28%
Positive predictive value	Pr(D| +)	85.71%
Negative predictive value	Pr(~D| -)	90.52%
False + rate for true ~D	Pr(+|~D)	0.72%
False - rate for true D	Pr(-| D)	70.73%
False + rate for classified +	Pr(~D| +)	14.29%
False - rate for classified -	Pr(D| -)	9.48%
Correctly classified		90.31%

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       320
 number of covariate patterns =       317
            Pearson chi2(305) =       353.85
                  Prob > chi2 =         0.0282

Measures of Fit for logit of HP2probsoc

Log-Lik Intercept Only:     -122.498    Log-Lik Full Model:           -91.264
D(304):                      182.527    LR(11):                        62.469
                                        Prob > LR:                      0.000
McFadden's R2:                 0.255    McFadden's Adj R2:              0.124
Maximum Likelihood R2:         0.177    Cragg & Uhler's R2:             0.332
McKelvey and Zavoina's R2:     0.447    Efron's R2:                     0.255
Variance of y*:                5.948    Variance of error:              3.290
Count R2:                      0.903    Adj Count R2:                   0.244
AIC:                           0.670    AIC*n:                        214.527
BIC:                       -1571.042    BIC':                           0.982
```

```
492 .
493 .
494 . forvalues j=2/2 {
  2. title "trimmed HP2probsoc main effects models wave `j'" " for H1 part 2 w
> ith dose ns"
  3. title2 "Wave `j dose HP2work relationship but avgcumdosew`j': Dose not si
> gnif"
  4. }


****************************************************************************
> *
****************************************************************************
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****          trimmed HP2probsoc main effects models wave 2            ****
> *
*****                    for H1 part 2 with dose ns                     ****
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****                                       1 Jul 2012    15:02:12      ****
> *
```

```
********************************************************************************
> *
********************************************************************************
> *
```

---

title2: Wave `j dose HP2work relationship but avgcumdosew2: Dose not signif

```
                                       Date and time:   1 Jul 2012    15:02:12
                                       Working directory:  /Users/robertyaffee
> /Documents/data/research/chwk/phase3/Htests/H1tests/h1pt2
                                       Stata data file:  chwide1jul2012.dta  h
> as  2395  variables and  703  observations
```

Wave `j dose HP2work relationship but avgcumdosew2: Dose not signif

---

```
495 .
496 . foreach var in suchrw2 radhlw2 shjobw2 {
  2.  cap gen `var'Xd3= `var'*avgcumdosew2
  3.  }

497 .
498 . forvalues j=2/2 {
  2.   title "Main effects Dose ProbSoc model for males"
  3.   logit HP2probsoc age avgcumdosew2 radhlw2 shjobw`j' if gender==1
  4.                        estat class
  5.                        estat gof
  6.                        fitstat
  7. }


********************************************************************************
> *
********************************************************************************
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****              Main effects Dose ProbSoc model for males               ****
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****                                          1 Jul 2012    15:02:12     ****
> *
********************************************************************************
```

```
> *
********************************************************************************
> *
```

```
Iteration 0:   log likelihood = -125.15243
Iteration 1:   log likelihood = -102.49803
Iteration 2:   log likelihood = -97.612007
Iteration 3:   log likelihood = -97.514638
Iteration 4:   log likelihood = -97.514623
Iteration 5:   log likelihood = -97.514623

Logistic regression                               Number of obs   =        340
                                                  LR chi2(4)      =      55.28
                                                  Prob > chi2     =     0.0000
Log likelihood = -97.514623                       Pseudo R2       =     0.2208
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0650468	.0171243	3.80	0.000	.0314838	.0986098
avgcumdosew2	.0250528	.0516618	0.48	0.628	-.0762025	.1263081
radhlw2	.0217043	.0059664	3.64	0.000	.0100104	.0333982
shjobw2	.0153749	.0050929	3.02	0.003	.0053929	.0253569
_cons	-7.726421	1.13381	-6.81	0.000	-9.948647	-5.504194

Logistic model for HP2probsoc

Classified	True D	True ~D	Total
+	9	1	10
-	32	298	330
Total	41	299	340

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   21.95%
Specificity                     Pr( -|~D)   99.67%
Positive predictive value       Pr( D| +)   90.00%
Negative predictive value       Pr(~D| -)   90.30%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    0.33%
False - rate for true D         Pr( -| D)   78.05%
False + rate for classified +   Pr(~D| +)   10.00%
False - rate for classified -   Pr( D| -)    9.70%
--------------------------------------------------
Correctly classified                        90.29%
--------------------------------------------------
```

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       327
            Pearson chi2(322) =       384.78
                  Prob > chi2 =         0.0093
```

Measures of Fit for **logit** of **HP2probsoc**

```
Log-Lik Intercept Only:     -125.152    Log-Lik Full Model:            -97.515
D(335):                      195.029    LR(4):                          55.276
                                        Prob > LR:                       0.000
McFadden's R2:                 0.221    McFadden's Adj R2:               0.181
Maximum Likelihood R2:         0.150    Cragg & Uhler's R2:              0.288
McKelvey and Zavoina's R2:     0.411    Efron's R2:                      0.210
Variance of y*:                5.584    Variance of error:               3.290
Count R2:                      0.903    Adj Count R2:                    0.195
AIC:                           0.603    AIC*n:                         205.029
BIC:                       -1757.668    BIC':                          -31.960
```

```
499 .
500 . scalar MainEffPrbsocMw2 = "age radhlw2 shjobw2"

501 .
502 .
503 . forvalues j=2/2 {
  2.   logit HP2probsoc age  radhlw2 shjobw`j'  ///
>        avgcumdosew`j' ///
>         shjobw2Xd3 if gender==1
  3.                         estat class
  4.                         estat gof
  5.                         fitstat
  6. }

Iteration 0:   log likelihood = -125.15243
Iteration 1:   log likelihood = -102.40367
Iteration 2:   log likelihood = -97.802085
Iteration 3:   log likelihood = -96.367187
Iteration 4:   log likelihood = -96.245667
Iteration 5:   log likelihood = -96.239265
Iteration 6:   log likelihood = -96.239247
Iteration 7:   log likelihood = -96.239247

Logistic regression                               Number of obs   =        340
                                                  LR chi2(5)      =      57.83
                                                  Prob > chi2     =     0.0000
Log likelihood = -96.239247                       Pseudo R2       =     0.2310
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0645913	.0169521	3.81	0.000	.0313658	.0978168
radhlw2	.0222475	.0060296	3.69	0.000	.0104297	.0340653
shjobw2	.0092759	.0068028	1.36	0.173	-.0040574	.0226091
avgcumdosew2	-.7357041	.6602672	-1.11	0.265	-2.029804	.5583958
shjobw2Xd3	.0081692	.0068728	1.19	0.235	-.0053013	.0216397
_cons	-7.172995	1.201125	-5.97	0.000	-9.527157	-4.818833

```
Note: 1 failure and 0 successes completely determined.

Logistic model for HP2probsoc
```

Classified	True D	~D	Total
+	**10**	**2**	**12**
-	**31**	**297**	**328**
Total	**41**	**299**	**340**

Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0

Sensitivity	Pr(+| D)	**24.39%**
Specificity	Pr(-|~D)	**99.33%**
Positive predictive value	Pr(D| +)	**83.33%**
Negative predictive value	Pr(~D| -)	**90.55%**
False + rate for true ~D	Pr(+|~D)	**0.67%**
False - rate for true D	Pr(-| D)	**75.61%**
False + rate for classified +	Pr(~D| +)	**16.67%**
False - rate for classified -	Pr(D| -)	**9.45%**
Correctly classified		**90.29%**

Logistic model for HP2probsoc, goodness-of-fit test

number of observations = **340**
number of covariate patterns = **327**
Pearson chi2(**321**) = **353.15**
Prob > chi2 = **0.1047**

Measures of Fit for **logit** of **HP2probsoc**

Log-Lik Intercept Only:	**-125.152**	Log-Lik Full Model:	**-96.239**
D(334):	**192.478**	LR(5):	**57.826**
		Prob > LR:	**0.000**
McFadden's R2:	**0.231**	McFadden's Adj R2:	**0.183**
Maximum Likelihood R2:	**0.156**	Cragg & Uhler's R2:	**0.300**
McKelvey and Zavoina's R2:	**0.495**	Efron's R2:	**0.219**
Variance of y*:	**6.518**	Variance of error:	**3.290**
Count R2:	**0.903**	Adj Count R2:	**0.195**
AIC:	**0.601**	AIC*n:	**204.478**
BIC:	**-1754.389**	BIC':	**-28.682**

```
504 . scalar SigDoseProbsocMw2 = "no"

505 . * xx  no signific radhwl3 by dose effect
506 . * xx  for males no signif dose social problem effect
507 . * xx  for males no significant moderator in dose social problem effect
508 . scalar ProbSocModMw2 = "none"

509 .
510 .
511 . ***************************************************************************
    > ****
512 . * female dose social problems wave 2 models
513 .
514 . forvalues j=2/2 {
      2. set more off
      3. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      4. title3 "partly trimmed HP2probsoc main effects models wave 2 for H1 part
    > 2 with dose ns"
      5. title "wave 2 dose HP2probsoc relationship but avgcumdosew`j': Dose signi
    > f here"
      6.  logit HP2probsoc age radhlw2 accdw`j' sepaw`j' illw`j' shjobw`j' ////
    >   shrelaw`j' suchrw2 havmilsq avgcumdosew`j' if gender==2, nolog
      7.                          estat class
      8.                          estat gof
      9.                          fitstat
     10. }
    ------------------------------------------------------------------------------
    title3 : partly trimmed HP2probsoc main effects models wave 2 for H1 part 2 wi
    > th dose ns
     1 Jul 2012
    15:02:14
    computer  Macintosh (Intel 64-bit)
    folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests
    > /h1pt2
    Data file  chwide1jul2012.dta  currrently has  2397  variables and  703  obser
    > vations
```

```
*****************************************************************************
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*****                                                                    ****
> *
*****                                                                    ****
> *
*****wave 2 dose HP2probsoc relationship but avgcumdosew2: Dose signif here***
> **
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                              1 Jul 2012    15:02:14  ****
> *
*****************************************************************************
> *
*****************************************************************************
> *
```

```
Logistic regression                               Number of obs   =        363
                                                  LR chi2(10)     =     125.06
                                                  Prob > chi2     =     0.0000
Log likelihood = -121.03832                       Pseudo R2       =     0.3406
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1153677	.0182285	6.33	0.000	.0796406	.1510948
radhlw2	.0186525	.0056295	3.31	0.001	.0076189	.0296861
accdw2	-.4572324	.6196198	-0.74	0.461	-1.671665	.7572
sepaw2	-.2264106	1.149974	-0.20	0.844	-2.480318	2.027497
illw2	.2070637	.1818612	1.14	0.255	-.1493778	.5635051
shjobw2	-.0011404	.0044896	-0.25	0.799	-.0099399	.007659
shrelaw2	-.0074957	.0057617	-1.30	0.193	-.0187885	.003797
suchrw2	.0002657	.0041153	0.06	0.949	-.0078001	.0083315
havmilsq	-6.22e-06	6.94e-06	-0.90	0.370	-.0000198	7.38e-06
avgcumdosew2	.4048448	.1418923	2.85	0.004	.1267411	.6829486
_cons	-9.109529	1.208597	-7.54	0.000	-11.47834	-6.740722

Note: 3 failures and 0 successes completely determined.

Logistic model for HP2probsoc

Classified	True D	~D	Total
+	37	11	48
-	37	278	315
Total	74	289	363

Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0

Sensitivity	Pr(+| D)	50.00%
Specificity	Pr(-|~D)	96.19%
Positive predictive value	Pr(D| +)	77.08%
Negative predictive value	Pr(~D| -)	88.25%
False + rate for true ~D	Pr(+|~D)	3.81%
False - rate for true D	Pr(-| D)	50.00%
False + rate for classified +	Pr(~D| +)	22.92%
False - rate for classified -	Pr(D| -)	11.75%
Correctly classified		86.78%

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       363
 number of covariate patterns =       362
           Pearson chi2(351) =       479.72
                 Prob > chi2 =         0.0000
```

Measures of Fit for **logit** of **HP2probsoc**

Log-Lik Intercept Only:	-183.570	Log-Lik Full Model:	-121.038
D(352):	242.077	LR(10):	125.064
		Prob > LR:	0.000
McFadden's R2:	0.341	McFadden's Adj R2:	0.281
Maximum Likelihood R2:	0.291	Cragg & Uhler's R2:	0.458
McKelvey and Zavoina's R2:	0.831	Efron's R2:	0.386
Variance of y*:	19.413	Variance of error:	3.290
Count R2:	0.868	Adj Count R2:	0.351
AIC:	0.727	AIC*n:	264.077
BIC:	-1832.753	BIC':	-66.120

```
515 .
516 . scalar SigDoseProbsocFw2 = "yes"

517 . scalar MainEffProbSocFw2 = "age radhlw2 illw2 Shrelaw2 avgcumodsew2"

518 .
519 . * trimmed female model with basis functions
520 . forvalues j=2/2 {
      2. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      3. title "trimmed HP2probsoc main effects models wave 2 for H1 part 2 " "Dos
    > e is signif Females"
      4. title "wave 2 dose HP2probsoc relationship but avgcumdosew`j':"
      5. title "Dose is signif but this trimming is too path dependent"
      6. sw, pr(.1): logit HP2probsoc age radhlw2  illw`j' `w2bf' ////
    >   shrelaw`j' avgcumdosew`j' if gender==2
      7.                          estat class
      8.                          estat gof
      9.                          fitstat
     10. }


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****    trimmed HP2probsoc main effects models wave 2 for H1 part 2      ****
    > *
    *****                         Dose is signif Females                      ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                             1 Jul 2012    15:02:16  ****
    > *
    ******************************************************************************
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```

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> *
*****       wave 2 dose HP2probsoc relationship but avgcumdosew2:         ****
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*****                                             1 Jul 2012    15:02:16  ****
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> *
*****       Dose is signif but this trimming is too path dependent        ****
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*****                                                                     ****
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*****                                             1 Jul 2012    15:02:16  ****
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```

```
note: bf15m dropped because of estimability
note: bf17 dropped because of estimability
note: o.bf15m dropped because of estimability
note: o.bf17 dropped because of estimability
note: 12 obs. dropped because of estimability
                      begin with full model
p = 0.9612 >= 0.1000  removing bf40
p = 0.9509 >= 0.1000  removing bf29
p = 0.7921 >= 0.1000  removing illw2
p = 0.7993 >= 0.1000  removing bf8
p = 0.6044 >= 0.1000  removing bf22
p = 0.5736 >= 0.1000  removing bf2
p = 0.5392 >= 0.1000  removing bf30
p = 0.3501 >= 0.1000  removing bf7m
p = 0.2282 >= 0.1000  removing bf5m
p = 0.2737 >= 0.1000  removing bf1
p = 0.2645 >= 0.1000  removing bf20
p = 0.2181 >= 0.1000  removing bf4m

Logistic regression                               Number of obs   =        351
                                                  LR chi2(5)      =     143.75
                                                  Prob > chi2     =     0.0000
Log likelihood = -108.90897                       Pseudo R2       =     0.3976
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0962607	.0184725	5.21	0.000	.0600553	.1324662
radhlw2	.0145499	.005748	2.53	0.011	.003284	.0258158
avgcumdosew2	.4041686	.1517163	2.66	0.008	.1068102	.7015271
shrelaw2	-.0146954	.0058729	-2.50	0.012	-.0262061	-.0031847
bf4	-.1767354	.0368357	-4.80	0.000	-.2489321	-.1045388
_cons	-6.140261	1.256194	-4.89	0.000	-8.602356	-3.678166

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	45	10	55
-	29	267	296
Total	74	277	351

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0
```

Sensitivity	Pr(+| D)	**60.81%**
Specificity	Pr(-|~D)	**96.39%**
Positive predictive value	Pr(D| +)	**81.82%**
Negative predictive value	Pr(~D| -)	**90.20%**
False + rate for true ~D	Pr(+|~D)	**3.61%**
False - rate for true D	Pr(-| D)	**39.19%**
False + rate for classified +	Pr(~D| +)	**18.18%**
False - rate for classified -	Pr(D| -)	**9.80%**
Correctly classified		**88.89%**

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       351
 number of covariate patterns =       350
            Pearson chi2(344) =       405.23
                  Prob > chi2 =         0.0127
```

Measures of Fit for **logit** of **HP2probsoc**

Log-Lik Intercept Only:	**-180.782**	Log-Lik Full Model:	**-108.909**
D(345):	**217.818**	LR(5):	**143.747**
		Prob > LR:	**0.000**
McFadden's R2:	**0.398**	McFadden's Adj R2:	**0.364**
Maximum Likelihood R2:	**0.336**	Cragg & Uhler's R2:	**0.523**
McKelvey and Zavoina's R2:	**0.578**	Efron's R2:	**0.445**
Variance of y*:	**7.801**	Variance of error:	**3.290**
Count R2:	**0.889**	Adj Count R2:	**0.473**
AIC:	**0.655**	AIC*n:	**229.818**
BIC:	**-1804.153**	BIC':	**-114.443**

```
521 .
522 .
523 . * trimmed female model with basis functions
524 . forvalues j=2/2 {
  2. set more off
  3. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  4. title "partly trimmed HP2probsoc main effects models wave 2 for H1 part 2
>  " "Dose is signif Females"
  5. title "wave 2 dose HP2probsoc relationship but avgcumdosew`j':"
  6. title "Dose is not signif when fully trimmed "
  7. title "Dose significance is too path dependent to be stable"
  8. logit HP2probsoc age radhlw2  illw`j' `w2bf' ////
>   shrelaw`j' avgcumdosew`j' if gender==2, nolog
  9.                          estat class
 10.                          estat gof
 11.                          fitstat
 12. }


*******************************************************************************
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*******************************************************************************
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*****                                                                      ****
> *
*****                                                                      ****
> *
*****partly trimmed HP2probsoc main effects models wave 2 for H1 part 2   ****
> *
*****                       Dose is signif Females                         ****
> *
*****                                                                      ****
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*****                                                                      ****
> *
*****                                          1 Jul 2012    15:02:35     ****
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> *
*****       wave 2 dose HP2probsoc relationship but avgcumdosew2:         ****
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*****                                                                     ****
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> *
*****                                         1 Jul 2012    15:02:35      ****
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> *
*****               Dose is not signif when fully trimmed                 ****
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> *
*****                                         1 Jul 2012    15:02:35      ****
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> *
```

```
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*****                                                                   ****
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*****                                                                   ****
> *
*****        Dose significance is too path dependent to be stable       ****
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****                                           1 Jul 2012    15:02:35  ****
> *
*****************************************************************************
> *
*****************************************************************************
> *


note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: bf17 omitted because of collinearity

Logistic regression                               Number of obs   =        351
                                                  LR chi2(17)     =     151.27
                                                  Prob > chi2     =     0.0000
Log likelihood = -105.14863                       Pseudo R2       =     0.4184

------------------------------------------------------------------------------
  HP2probsoc |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0968128   .0198903     4.87   0.000     .0578286    .1357971
     radhlw2 |   .0131268   .0081938     1.60   0.109    -.0029327    .0291864
       illw2 |   .0512501   .1902124     0.27   0.788    -.3215593    .4240595
         bf1 |   .0297711   .0318436     0.93   0.350    -.0326412    .0921834
         bf4 |  -.3702467   .1933363    -1.92   0.055    -.7491789    .0086855
         bf2 |   .0000552   .0001012     0.54   0.586    -.0001433    .0002536
        bf4m |   .1574353   .1794504     0.88   0.380     -.194281    .5091516
        bf5m |  -.0017729   .0021884    -0.81   0.418     -.006062    .0025162
        bf7m |   .0004786   .0006133     0.78   0.435    -.0007234    .0016805
         bf8 |    .000013   .0000438     0.30   0.767    -.0000729    .0000989
       bf15m |          0  (omitted)
        bf17 |          0  (omitted)
        bf20 |  -.0360318   .0249913    -1.44   0.149    -.0850139    .0129503
        bf22 |  -.0000485   .0001411    -0.34   0.731    -.0003252    .0002281
```

bf29	-2.02e-06	.0000345	-0.06	0.953	-.0000697	.0000656
bf30	.0001996	.0003187	0.63	0.531	-.0004251	.0008243
bf40	.0074913	.1539797	0.05	0.961	-.2943034	.309286
shrelaw2	-.0131188	.0063308	-2.07	0.038	-.025527	-.0007106
avgcumdosew2	.4534463	.1712457	2.65	0.008	.1178109	.7890817
_cons	-5.944128	2.135376	-2.78	0.005	-10.12939	-1.758869

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	47	12	59
-	27	265	292
Total	74	277	351

Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0

Sensitivity	Pr(+| D)	63.51%
Specificity	Pr(-|~D)	95.67%
Positive predictive value	Pr(D| +)	79.66%
Negative predictive value	Pr(~D| -)	90.75%
False + rate for true ~D	Pr(+|~D)	4.33%
False - rate for true D	Pr(-| D)	36.49%
False + rate for classified +	Pr(~D| +)	20.34%
False - rate for classified -	Pr(D| -)	9.25%
Correctly classified		88.89%

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       351
 number of covariate patterns =       351
             Pearson chi2(333) =       432.31
                   Prob > chi2 =         0.0002
```

Measures of Fit for **logit** of **HP2probsoc**

```
    Log-Lik Intercept Only:     -180.782     Log-Lik Full Model:          -105.149
    D(331):                      210.297     LR(17):                       151.267
                                             Prob > LR:                      0.000
    McFadden's R2:                 0.418     McFadden's Adj R2:              0.308
    Maximum Likelihood R2:         0.350     Cragg & Uhler's R2:             0.544
    McKelvey and Zavoina's R2:     0.610     Efron's R2:                     0.465
    Variance of y*:                8.437     Variance of error:              3.290
    Count R2:                      0.889     Adj Count R2:                   0.473
    AIC:                           0.713     AIC*n:                        250.297
    BIC:                       -1729.623     BIC':                         -51.634

525 .
526 .
527 . * trimmed female model with basis functions
528 . forvalues j=2/2 {
  2. set more off
  3. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  4. title "fully trimmed HP2probsoc main effects models wave 2 for H1 part 2
> " "Dose is not signif for Females"
  5. title "wave 2 dose HP2probsoc relationship but avgcumdosew`j':"
  6. title "Dose is not signif "
  7. logit HP2probsoc age radhlw2   b4 ////
>   shrelaw`j' avgcumdosew`j' if gender==2, nolog
  8.                          estat class
  9.                          estat gof
 10.                          fitstat
 11. }


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
***** fully trimmed HP2probsoc main effects models wave 2 for H1 part 2   ****
> *
*****                  Dose is not signif for Females                     ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                               1 Jul 2012  15:02:36  ****
> *
******************************************************************************
```

```
> *
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*******************************************************************************
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> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****       wave 2 dose HP2probsoc relationship but avgcumdosew2:         ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                           1 Jul 2012    15:02:36    ****
> *
*******************************************************************************
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> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                       Dose is not signif                            ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                           1 Jul 2012    15:02:36    ****
> *
*******************************************************************************
> *
```

```
******************************************************************************
> *
```

```
Logistic regression                               Number of obs   =        363
                                                  LR chi2(5)      =     121.71
                                                  Prob > chi2     =     0.0000
Log likelihood = -122.71719                       Pseudo R2       =     0.3315
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.111496	.0203766	5.47	0.000	.0715586	.1514333
radhlw2	.0196292	.0053673	3.66	0.000	.0091095	.030149
b4Xd3	.0068784	.0106999	0.64	0.520	-.0140931	.0278498
shrelaw2	-.0088391	.0053365	-1.66	0.098	-.0192985	.0016202
avgcumdosew2	-.0685999	.7594291	-0.09	0.928	-1.557053	1.419854
_cons	-9.015948	1.232733	-7.31	0.000	-11.43206	-6.599837

Logistic model for HP2probsoc

Classified	True D	True ~D	Total
+	38	10	48
-	36	279	315
Total	74	289	363

Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0

Sensitivity	Pr(+| D)	51.35%
Specificity	Pr(-|~D)	96.54%
Positive predictive value	Pr(D| +)	79.17%
Negative predictive value	Pr(~D| -)	88.57%
False + rate for true ~D	Pr(+|~D)	3.46%
False - rate for true D	Pr(-| D)	48.65%
False + rate for classified +	Pr(~D| +)	20.83%
False - rate for classified -	Pr(D| -)	11.43%
Correctly classified		87.33%

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       363
 number of covariate patterns =       357
            Pearson chi2(351) =       464.33
                  Prob > chi2 =         0.0000
```

Measures of Fit for **logit** of **HP2probsoc**

```
Log-Lik Intercept Only:     -183.570    Log-Lik Full Model:         -122.717
D(357):                      245.434    LR(5):                       121.706
                                        Prob > LR:                     0.000
McFadden's R2:                 0.331    McFadden's Adj R2:             0.299
Maximum Likelihood R2:         0.285    Cragg & Uhler's R2:            0.448
McKelvey and Zavoina's R2:     0.521    Efron's R2:                    0.377
Variance of y*:                6.863    Variance of error:             3.290
Count R2:                      0.873    Adj Count R2:                  0.378
AIC:                           0.709    AIC*n:                       257.434
BIC:                       -1858.867    BIC':                        -92.234
```

```
529 .
530 .
531 .
532 .
533 .
534 .
535 . foreach var in b4 shrelaw2  {
  2.  cap   gen `var'Xd3 = age*avgcumdosew2
  3. }

536 .
537 . * testing the female moderator model with basis functions
538 . forvalues j=2/2 {
  2. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  3. title "trimmed HP2socprob main effects  wv 3 for Hyp1 pt 2" "dose is sign
> if for females"
  4. title "wave 2 dose HP2socprob relationship but avgcumdosew`j'" " Dose is
> signif for females"
  5. title "problem is that stepwise backward is too path dependent" "and shou
> ld be checked by simultaneous trim"
  6. sw, pr(.1): logit HP2probsoc age radhlw2  illw`j' `w2bf' ////
>   shrelaw`j' avgcumdosew`j' b4Xd3 ///
>     if gender==2
  7.                          estat class
  8.                          estat gof
  9.                          fitstat
 10. }
```

```
*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****       trimmed HP2socprob main effects  wv 3 for Hyp1 pt 2          ****
> *
*****                   dose is signif for females                       ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                         1 Jul 2012    15:02:38     ****
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```

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> *
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> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****       wave 2 dose HP2socprob relationship but avgcumdosew2         ****
> *
*****                   Dose is signif for females                       ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                         1 Jul 2012    15:02:38     ****
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```

```
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*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****     problem is that stepwise backward is too path dependent       ****
> *
*****            and should be checked by simultaneous trim             ****
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****                                         1 Jul 2012    15:02:38   ****
> *
*****************************************************************************
> *
*****************************************************************************
> *


note: bf15m dropped because of estimability
note: bf17 dropped because of estimability
note: o.bf15m dropped because of estimability
note: o.bf17 dropped because of estimability
note: 12 obs. dropped because of estimability
                      begin with full model
p = 0.9383 >= 0.1000  removing bf29
p = 0.9284 >= 0.1000  removing bf40
p = 0.7417 >= 0.1000  removing illw2
p = 0.7055 >= 0.1000  removing bf8
p = 0.6496 >= 0.1000  removing avgcumdosew2
p = 0.5938 >= 0.1000  removing bf2
p = 0.5881 >= 0.1000  removing bf22
p = 0.5207 >= 0.1000  removing bf30
p = 0.3390 >= 0.1000  removing bf7m
p = 0.2342 >= 0.1000  removing bf1
p = 0.2810 >= 0.1000  removing bf20
p = 0.2334 >= 0.1000  removing bf5m
p = 0.2198 >= 0.1000  removing bf4m
```

Logistic regression

Number of obs =	**351**
LR chi2(**5**) =	**144.26**
Prob > chi2 =	**0.0000**
Pseudo R2 =	**0.3990**

Log likelihood = **-108.65463**

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0909062**	**.018443**	**4.93**	**0.000**	**.0547586**	**.1270537**
radhlw2	**.0146177**	**.0057691**	**2.53**	**0.011**	**.0033105**	**.025925**
shrelaw2	**-.0146099**	**.0058727**	**-2.49**	**0.013**	**-.0261202**	**-.0030996**
b4Xd3	**.005736**	**.0020674**	**2.77**	**0.006**	**.0016839**	**.009788**
bf4	**-.1769505**	**.0368092**	**-4.81**	**0.000**	**-.2490952**	**-.1048059**
_cons	**-5.869429**	**1.246027**	**-4.71**	**0.000**	**-8.311597**	**-3.427261**

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	**45**	**9**	**54**
-	**29**	**268**	**297**
Total	**74**	**277**	**351**

Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0

Sensitivity	Pr(+| D)	**60.81%**
Specificity	Pr(-|~D)	**96.75%**
Positive predictive value	Pr(D| +)	**83.33%**
Negative predictive value	Pr(~D| -)	**90.24%**
False + rate for true ~D	Pr(+|~D)	**3.25%**
False - rate for true D	Pr(-| D)	**39.19%**
False + rate for classified +	Pr(~D| +)	**16.67%**
False - rate for classified -	Pr(D| -)	**9.76%**
Correctly classified		**89.17%**

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       351
 number of covariate patterns =       350
            Pearson chi2(344) =       405.40
                  Prob > chi2 =         0.0126

Measures of Fit for logit of HP2probsoc

Log-Lik Intercept Only:     -180.782    Log-Lik Full Model:          -108.655
D(345):                      217.309    LR(5):                        144.255
                                        Prob > LR:                      0.000
McFadden's R2:                 0.399    McFadden's Adj R2:              0.366
Maximum Likelihood R2:         0.337    Cragg & Uhler's R2:             0.524
McKelvey and Zavoina's R2:     0.579    Efron's R2:                     0.447
Variance of y*:                7.808    Variance of error:              3.290
Count R2:                      0.892    Adj Count R2:                   0.486
AIC:                           0.653    AIC*n:                        229.309
BIC:                       -1804.662    BIC':                        -114.951

539 .
540 . scalar ProbsocModFw2 = "none"

541 .
542 . title4 " testing for male and female dose probsoc mediators"
--------------------------------------------------------------------------------
 testing for male and female dose probsoc mediators
--------------------------------------------------------------------------------

543 . * Male mediator dose social problem response models
544 .
545 .
546 .
547 . // age is a male mediator
548 . glm age avgcumdosew2 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1330.6004

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  147.6853
Deviance         =  49917.64009                    (1/df) Deviance =  147.6853
Pearson          =  49917.64009                    (1/df) Pearson  =  147.6853

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  7.838826
Log likelihood   =   -1330.6004                    BIC             =  47947.46
```

age	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	**.5832314**	**.2635871**	**2.21**	**0.027**	**.0666101**	**1.099853**
_cons	**48.62133**	**.7061562**	**68.85**	**0.000**	**47.23729**	**50.00537**

```
549 . glm HP2probsoc age if gender==1, fam(bin) irls link(probit) scale(dev)

Iteration 1:   deviance =  230.0069
Iteration 2:   deviance =  223.5454
Iteration 3:   deviance =  223.2469
Iteration 4:   deviance =  223.2456
Iteration 5:   deviance =  223.2456

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       338
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  223.2456447                    (1/df) Deviance =  .6604901
Pearson          =  331.0340472                    (1/df) Pearson  =  .9793907

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             = -1746.938
```

HP2probsoc	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0392343**	**.0064286**	**6.10**	**0.000**	**.0266344**	**.0518342**
_cons	**-3.234772**	**.3587306**	**-9.02**	**0.000**	**-3.937871**	**-2.531673**

(Standard errors scaled using square root of deviance-based dispersion.)

550 .

```
551 . glm radhlw2 avgcumdosew2 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1693.4076

    Generalized linear models                         No. of obs      =        340
    Optimization     : ML                             Residual df     =        338
                                                      Scale parameter =   1247.933
    Deviance         =  421801.4584                   (1/df) Deviance =   1247.933
    Pearson          =  421801.4584                   (1/df) Pearson  =   1247.933

    Variance function: V(u) = 1                       [Gaussian]
    Link function    : g(u) = u                       [Identity]

                                                      AIC             =   9.972986
    Log likelihood   = -1693.407647                   BIC             =   419831.3

    ------------------------------------------------------------------------------
                 |                 OIM
         radhlw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew2 |   1.220373    .766216     1.59   0.111    -.2813831    2.722128
           _cons |   45.63198   2.052711    22.23   0.000     41.60874    49.65522
    ------------------------------------------------------------------------------

552 . glm HP2probsoc radhlw2 if gender==1,fam(bin) irls link(probit) scale(dev)

    Iteration 1:   deviance =  226.5911
    Iteration 2:   deviance =  218.8478
    Iteration 3:   deviance =  218.3822
    Iteration 4:   deviance =  218.3787
    Iteration 5:   deviance =  218.3787

    Generalized linear models                         No. of obs      =        340
    Optimization     : MQL Fisher scoring             Residual df     =        338
                       (IRLS EIM)                     Scale parameter =          1
    Deviance         =   218.378733                   (1/df) Deviance =   .6460909
    Pearson          =  326.2667817                   (1/df) Pearson  =   .9652863

    Variance function: V(u) = u*(1-u)                 [Bernoulli]
    Link function    : g(u) = invnorm(u)              [Probit]

                                                      BIC             =  -1751.805
```

```
--------------------------------------------------------------------------------
             |                 EIM
  HP2probsoc |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+------------------------------------------------------------------
     radhlw2 |   .0149459   .0022581     6.62   0.000     .0105201    .0193717
       _cons |  -2.034921   .1640547   -12.40   0.000    -2.356462    -1.71338
--------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

553 .
554 . glm shjobw2 avgcumdosew2 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1730.3274

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  1550.634
Deviance         =  524114.2615                    (1/df) Deviance =  1550.634
Pearson          =  524114.2615                    (1/df) Pearson  =  1550.634

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  10.19016
Log likelihood   = -1730.327396                    BIC             =  522144.1

--------------------------------------------------------------------------------
             |                 OIM
     shjobw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+------------------------------------------------------------------
avgcumdosew2 |   .7146559   .8541028     0.84   0.403    -.9593549    2.388667
       _cons |   49.09491   2.288162    21.46   0.000     44.61019    53.57962
--------------------------------------------------------------------------------

555 . glm HP2probsoc shjobw2 if gender==1,fam(bin) irls link(probit) scale(dev)

Iteration 1:   deviance =  241.5668
Iteration 2:   deviance =  238.4954
Iteration 3:   deviance =   238.438
Iteration 4:   deviance =   238.438
Iteration 5:   deviance =   238.438

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       338
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  238.4379517                    (1/df) Deviance =  .7054377
Pearson          =  344.7520389                    (1/df) Pearson  =  1.019976
```

```
Variance function: V(u) = u*(1-u)                [Bernoulli]
Link function    : g(u) = invnorm(u)             [Probit]

                                                 BIC             = -1731.746

------------------------------------------------------------------------------
             |                 EIM
 HP2probsoc  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     shjobw2 |   .0079142   .0019981     3.96   0.000      .003998    .0118303
       _cons |  -1.622345   .1436613   -11.29   0.000    -1.903915   -1.340774
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

556 .
557 . // shjobw2Xd3 is almost significant but not quite
558 . glm radhlw2 shjobw2 avgcumdosew2 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1684.8126

Generalized linear models                        No. of obs      =        340
Optimization     : ML                            Residual df     =        337
                                                 Scale parameter =   1189.928
Deviance         =  401005.7796                  (1/df) Deviance =   1189.928
Pearson          =  401005.7796                  (1/df) Pearson  =   1189.928

Variance function: V(u) = 1                      [Gaussian]
Link function    : g(u) = u                      [Identity]

                                                 AIC             =    9.92831
Log likelihood   = -1684.812637                  BIC             =   399041.4

------------------------------------------------------------------------------
             |                 OIM
     radhlw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     shjobw2 |   .1991928   .0476483     4.18   0.000     .1058038    .2925817
avgcumdosew2 |   1.078018   .7489714     1.44   0.150    -.3899386    2.545975
       _cons |   35.85263   3.080591    11.64   0.000     29.81478    41.89047
------------------------------------------------------------------------------
```

```
559 . glm HP2probsoc shjobw2 avgcumdosew2 shjobw2Xd3  if gender==1,fam(bin) ///
    >   irls scale(dev) link(probit)

    Iteration 1:   deviance =  238.9844
    Iteration 2:   deviance =  235.7842
    Iteration 3:   deviance =  235.5578
    Iteration 4:   deviance =  235.4233
    Iteration 5:   deviance =  235.4108
    Iteration 6:   deviance =  235.4106
    Iteration 7:   deviance =  235.4106
    Iteration 8:   deviance =  235.4106

    Generalized linear models                          No. of obs      =       340
    Optimization     : MQL Fisher scoring              Residual df     =       336
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  235.4106098                    (1/df) Deviance =  .7006268
    Pearson          =  342.9227819                    (1/df) Pearson  =  1.020604

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             = -1723.115
```

HP2probsoc	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
shjobw2	.005567	.0027192	2.05	0.041	.0002374	.0108965
avgcumdosew2	-.2189419	.2705013	-0.81	0.418	-.7491148	.311231
shjobw2Xd3	.002944	.0028701	1.03	0.305	-.0026813	.0085693
_cons	-1.466051	.2263255	-6.48	0.000	-1.909641	-1.022461

```
    (Standard errors scaled using square root of deviance-based dispersion.)

560 .
561 . scalar ProbsocMedMw2 = "age"
```

```
562 .
563 . * female mediator tests
564 .
565 . // age is a female mediator
566 . glm age avgcumdosew2 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1406.9403

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =  136.9184
    Deviance         =  49427.52828                    (1/df) Deviance =  136.9184
    Pearson          =  49427.52828                    (1/df) Pearson  =  136.9184

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =  7.762756
    Log likelihood   = -1406.940271                    BIC             =  47299.65

    ------------------------------------------------------------------------------
                 |                 OIM
             age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew2 |   1.502324   .4454009     3.37   0.001     .6293547    2.375294
           _cons |   48.86944   .7323225    66.73   0.000     47.43412    50.30477
    ------------------------------------------------------------------------------

567 . glm HP2probsoc age if gender==2, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  289.3253
    Iteration 2:   deviance =  280.9528
    Iteration 3:   deviance =  280.5176
    Iteration 4:   deviance =  280.5162
    Iteration 5:   deviance =  280.5162

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  280.5161869                    (1/df) Deviance =  .7770531
    Pearson          =  406.2926804                    (1/df) Pearson  =  1.125464

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             = -1847.363
```

```
------------------------------------------------------------------------------
             |                 EIM
  HP2probsoc |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0683554    .007474     9.15   0.000     .0537067     .083004
       _cons |  -4.505136    .424587   -10.61   0.000    -5.337311   -3.672961
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

568 .
569 . // radhlw2 is a female mediator
570 . glm radhlw2 avgcumdosew2 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1791.2233

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  1137.567
Deviance         =  410661.5604                    (1/df) Deviance =  1137.567
Pearson          =  410661.5604                    (1/df) Pearson  =  1137.567

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  9.880018
Log likelihood   = -1791.223306                    BIC             =  408533.7

------------------------------------------------------------------------------
             |                 OIM
     radhlw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   3.302288   1.283833     2.57   0.010     .7860214    5.818555
       _cons |   56.95167   2.110863    26.98   0.000     52.81445    61.08888
------------------------------------------------------------------------------

571 . glm HP2probsoc radhlw2 if gender==2,fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =   335.706
Iteration 2:   deviance =  333.7569
Iteration 3:   deviance =  333.7467
Iteration 4:   deviance =  333.7467
Iteration 5:   deviance =  333.7467

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       361
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  333.7467432                    (1/df) Deviance =  .9245062
Pearson          =  373.5069806                    (1/df) Pearson  =  1.034645
```

```
Variance function: V(u) = u*(1-u)                    [Bernoulli]
Link function    : g(u) = invnorm(u)                 [Probit]

                                                     BIC             = -1794.133

------------------------------------------------------------------------------
             |                 EIM
 HP2probsoc  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    radhlw2  |   .0135849    .002393     5.68   0.000     .0088947    .0182751
      _cons  |  -1.729418   .1840212    -9.40   0.000    -2.090093   -1.368743
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

572 .
573 . glm bf4 avgcumdosew2 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1027.1225

Generalized linear models                            No. of obs      =       340
Optimization     : ML                                Residual df     =       338
                                                     Scale parameter =   24.7771
Deviance         =  8374.659221                      (1/df) Deviance =   24.7771
Pearson          =  8374.659221                      (1/df) Pearson  =   24.7771

Variance function: V(u) = 1                          [Gaussian]
Link function    : g(u) = u                          [Identity]

                                                     AIC             =  6.053662
Log likelihood   = -1027.122509                      BIC             =  6404.476

------------------------------------------------------------------------------
             |                 OIM
        bf4  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |  -.0331637   .1079644    -0.31   0.759    -.2447701    .1784427
       _cons |   12.52896   .2892393    43.32   0.000     12.96206    13.09586
------------------------------------------------------------------------------
```

```
574 . glm HP2probsoc bf4 if gender==1,fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  194.8196
    Iteration 2:   deviance =   182.741
    Iteration 3:   deviance =  181.7875
    Iteration 4:   deviance =  181.7753
    Iteration 5:   deviance =  181.7753
    Iteration 6:   deviance =  181.7753

    Generalized linear models                          No. of obs      =       340
    Optimization     : MQL Fisher scoring              Residual df     =       338
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  181.7752898                    (1/df) Deviance =  .5377967
    Pearson          =  293.1088357                    (1/df) Pearson  =  .8671859

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             = -1788.408
```

HP2probsoc	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	-.1440261	.0137935	-10.44	0.000	-.1710608	-.1169913
_cons	.3344471	.1497689	2.23	0.026	.0409054	.6279887

```
    (Standard errors scaled using square root of deviance-based dispersion.)

575 .
576 .
577 . scalar ProbsocMedFw2 = "age radhlw2"

578 .
579 . title4  "summary matrix for dose Hp2probsoc impact in wave 2"

    summary matrix for dose Hp2probsoc impact in wave 2
```

```
580 . * male hp2spM w2  mediators: age
581 . * dose is not significant main effect for males
582 . * female hp2spF w2 mediators: age radhlw2
583 . * dose is not sig main effect for males
584 .
585 . scalar SigDoseProbsocMw2 = "no"

586 .
587 .     matrix define HP2spMw2 = J(1,8, 0)

588 .         matrix define HP2spFw2 = J(1,8, 0)

589 . matrix colnames HP2spMw2=  hypnum ptnum wave gender medsig numMAsig numModsi
    > g numMed

590 . matrix colnames HP2spFw2=  hypnum ptnum wave gender medsig numMAsig numModsi
    > g numMed

591 .     matrix define HP2spFw2= (1, 2, 3, 2, 1, 5, 5, 2 )

592 .         matrix define HP2spMw2= (1, 2, 3, 1, 0, 2, 0, 1 )

593 .         matrix rowname HP2spMw2 = HP2spMw2

594 .         matrix rowname HP2spFw2 = HP2spFw2

595 .         matlist HP2spMw2

                 |        c1         c2         c3         c4         c5          c
    > 6         c7
    -------------+--------------------------------------------------------------------
    > ------------
        HP2spMw2 |         1          2          3          1          0
    > 2          0

                 |        c8
    -------------+-------------
        HP2spMw2 |         1
```

```
596 .         matlist HP2spFw2

             |         c1          c2          c3          c4          c5           c
> 6          c7
-------------+------------------------------------------------------------------------------
> -------------
    HP2spFw2 |          1           2           3           2           1
> 5           5

             |         c8
-------------+-------------
    HP2spFw2 |          2

597 .         matrix define H1pt2w2 = ( HP2wkMw2 \ HP2wkFw2 \ HP2hmcrMw2 \ HP2hmcr
> Fw2 \ HP2spMw2 \ HP2spFw2 )

598 .
599 .         matlist H1pt2w2

             |         c1          c2          c3          c4          c5           c
> 6          c7
-------------+------------------------------------------------------------------------------
> -------------
          r1 |          1           2           3           1           0
> 4           0
          r1 |          1           2           3           2           0
> 1           0
          r1 |          1           2           3           1           0
> 4           0
          r1 |          1           2           3           2           0
> 2           0
    HP2spMw2 |          1           2           3           1           0
> 2           0
    HP2spFw2 |          1           2           3           2           1
> 5           5

             |         c8
-------------+-------------
          r1 |          4
          r1 |          6
          r1 |          2
          r1 |          2
    HP2spMw2 |          1
    HP2spFw2 |          2
```

```
600 .     matrix colnames H1pt2w2 =  hypnum ptnum wave gender medsig numMAsig numM
    > odsig numMed

601 .     matrix rownames H1pt2w2 =   HP2wkMw2 HP2wkFw2 HP2hmcrMw2 HP2hmcrFw2 HP2s
    > ocprbMw2 HP2socprbFw2

602 .     matlist H1pt2w2

                 |    hypnum      ptnum       wave     gender     medsig   numMAsi
    > g  numModsig
    -------------+--------------------------------------------------------------
    > -------------
        HP2wkMw2 |         1          2          3          1          0
    > 4          0
        HP2wkFw2 |         1          2          3          2          0
    > 1          0
      HP2hmcrMw2 |         1          2          3          1          0
    > 4          0
      HP2hmcrFw2 |         1          2          3          2          0
    > 2          0
    HP2socprbMw2 |         1          2          3          1          0
    > 2          0
    HP2socprbFw2 |         1          2          3          2          1
    > 5          5

                 |    numMed
    -------------+-----------
        HP2wkMw2 |         4
        HP2wkFw2 |         6
      HP2hmcrMw2 |         2
      HP2hmcrFw2 |         2
    HP2socprbMw2 |         1
    HP2socprbFw2 |         2

603 .
604 .
605 . *xx  significant dose effect for females
```

```
606 . scalar ProbsocModFw2 = "none"

607 . *xx  no female moderators for Dose Social problem impact relationship
608 . scalar list
      wkMedMw2 = bf8 age illw2
    VactnMedFw2 = age illw2 radhlw2
    VactnMedMw2 = age illw2
    VacatnModFw2 = none
    MainEffVactnFw2 = age radhlw2 deaw2
    SigDoseVactnFw2 = no
    vactnModMw2 = none
    MainEffVactnMw2 = age bf7m radhlw2
    SigDoseVactnMw2 = no
    sxLifeMedFw2 = age bf4 bf4m
    sxLifeMedMw2 = age illw2
    InthbModFw2 = none
    MainEffInthbFw2 = age radhlw2 bf4
    SigdoseInthbFw2 = no
      InthbMw2 = none
    MainEffInthbMw2 = age radhlw2 shfamw2
    SigDoseInthbMw2 = no
    sxlifeMedFw2 = age illw2 radhlw2 bf4 bf4m
    sxlifeMedMw2 = age illw2
    sxlifeModFw2 = none
    MainEffsxlifeFw2 = age radhlw2 bf4 bf4m shrelaw2 shfamw2
    SigDoseSxlifeFw2 = no
    sxlifeModMw2 = none
    SigDosesxlifeMw2 = no
    MainEffsxlifeMw2 = age bf4 illw2 radhlw2
    PrbfmhmMedFw2 = age bf4
    PrbfmhmMedMw2 = age
    PrbfmhmModFw2 = none
    MainEffPrbfmhmFw2 = age bf4 bf40
    SigDosePrbfmhmFw2 = no
    PrbfmhmModw2 = none
    SigDosePrbfmhmMw2 = no
    SigDosePrbfhmMw2 = no
    MainEffPrbfhmMw2 = bf1 bf4 dvcew2 bf7m
    ProbsocMedFw2 = age radhlw2
    ProbsocMedMw2 = age
    ProbsocModFw2 = none
    MainEffProbSocFw2 = age radhlw2 illw2 Shrelaw2 avgcumodsew2
    SigDoseProbsocFw2 = yes
    ProbSocModMw2 = none
    SigDoseProbsocMw2 = no
    MainEffPrbsocMw2 = age radhlw2 shjobw2
    hmcareMedFw2 = age illw2
    hmcareMedMw2 = age illw2
    hmcareModFw2 = none
```

```
    SigDoseWKFw2 =          0
    SigdoseHmcareFw2 = no
    hmcareModMw2 = none
    MainEffhmcareMw2 = none
    SigDoseHmcareMw2 = no
      wkMedFw2 = radhlw2 age bf40 bf4m bf1
      wkModFw2 = none
      wkModMw2 = none
    MainEffwkFw2 = age
    MainEffwkMw2 = workM: age  bf8  illw2  shjobw2
    SigDoseWKMw2 = no
    SigDoseWkFw2 = no
    hmcrMedFw1 = age icdxcnt shjobw1 bf4 BSIsoma WHPpain WHPsleep WHPel
    hmcrMedMw1 = age
    MainEffhmcrFw1 = illw1 age
    SigDosehmcrFw1 = no
    hmcrModMw1 = none
    MainEffhmcrMw1 = age shjobw1
    SigDosehmcrMw1 = no
      wkMedFw1 = age b4
    MainEffwkFw1 = age
    MainEffwkMw1 = age
      wkMedMw1 = bf40
      WkMedMw1 = none
      WkModFw1 = none
      WKModMw1 = none
    SigDoseWkMw1 = no
    SigDoseWkFw1 = no
    SigDoseFw1 = no
      wkModFw1 = none
      wkModMw1 = none
     medsigFw1 =          1
    prbsocnumMAsig =          8

. 
. *----------- Chunk 5   Dose => Problems with the Family at home Impact
. * this washes out in the trimmed models
```

```
612 .
613 .
614 . title "4.  wave 2 part2 hypothesis 1 Pt2 Probs with Fam at home"


    *******************************************************************************
    > *
    *******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****      4.  wave 2 part2 hypothesis 1 Pt2 Probs with Fam at home       ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                          1 Jul 2012    15:03:18     ****
    > *
    *******************************************************************************
    > *
    *******************************************************************************
    > *



615 . forvalues j=2/2 {
      2. set more off
      3.
616 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
617 .   foreach var in  HP2pbfhm  {
      5.       forvalues k=1/2 {
      6. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      7.
```

```
618 . di as input "Full main model for `var' for wave= `j' "
      8. di _skip(4)
      9. di as input  "chunk 5 H1 test:Gender= `k'  model Wave =  `j' for `e(depva
    > r)' "
     10. di _skip(4)
     11. title "Full Nottingham Part 2 subscale models for male and then females"
     12.
619 .       xi: logistic `var' age i.educ occ1w`j'-occ8w`j' ///
    >                marrw`j'1- marrw`j'3 marrw`j'5-marrw`j'6 inc1w`j'-inc4w`j' /
    > //
    >                radhlw`j' havmil avgcumdosew`j' `w`j'bf'  ///
    >                 deaw`j' dvcew`j' sepaw`j' accdw`j' movew`j' ///
    >                illw`j' shfamw`j' shhlw`j' shjobw`j' shrelaw`j' suprtw`j' su
    > chrw`j' ///
    >                 havmilsq if gender==`k', coef nolog  difficult iterate(50)
     13.                          estat class
     14.                          estat gof
     15.                          fitstat
     16. }
     17. }
     18. }

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
age             double %8.0g                * Respondent's age
educ1           byte   %8.0g                  educ==1. did not graduate high
                                                school
educ2           byte   %8.0g                  educ==2. graduated high school
educ3           byte   %8.0g                  educ==3. technical degree
educ4           byte   %8.0g                  educ==4. did not finish
                                                college/bachelor's
educ5           byte   %8.0g                  educ==5. graduated
                                                college/bachelor's
educ6           byte   %8.0g                  educ==6. finished
                                                specialist/master's degree
educ7           byte   %8.0g                  educ==7. doctor of science/phd
marrw21         byte   %8.0g                  marrw2==1. single
marrw22         byte   %8.0g                  marrw2==2. cohabitating
marrw23         byte   %8.0g                  marrw2==3. married
marrw24         byte   %8.0g                  marrw2==4. separated
marrw25         byte   %8.0g                  marrw2==5. divorced
marrw26         byte   %8.0g                  marrw2==6. widowed
inc1w2          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1996
inc2w2          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1996
inc3w2          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
```

```
                                                        in 1996
inc4w2          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1996
bf1             float  %9.0g                  bf1 = max(0, kzchorn - 40)
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
bf9             float  %9.0g                  bf9= max(0, 30 - shhlw1)
bf11            float  %9.0g                  bf11= max(0, 20 - sufamw1)
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)
bf15m           float  %9.0g                  bf15m= max(0, 1 - icdxcnt) * bf2
bf30            float  %9.0g                  bf30 = max(0, neiw1 - 85) * bf20
bf40            float  %9.0g                  bf40 = max(0, icdxcnt -
                                                1.01635E-007)
Full main model for HP2pbfhm for wave= 2

chunk 5 H1 test:Gender= 1  model Wave =  2 for HP2probsoc



******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females   ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                               1 Jul 2012    15:03:18  ****
> *
******************************************************************************
> *
******************************************************************************
> *


i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: _Ieduc_2 != 0 predicts failure perfectly
      _Ieduc_2 dropped and 10 obs not used

note: _Ieduc_4 != 0 predicts failure perfectly
      _Ieduc_4 dropped and 13 obs not used
```

```
note: _Ieduc_7 != 0 predicts failure perfectly
      _Ieduc_7 dropped and 4 obs not used

note: _Ieduc_8 != 0 predicts failure perfectly
      _Ieduc_8 dropped and 2 obs not used

note: occ5w2 != 0 predicts failure perfectly
      occ5w2 dropped and 17 obs not used

note: occ6w2 != 0 predicts failure perfectly
      occ6w2 dropped and 5 obs not used

note: occ8w2 != 0 predicts failure perfectly
      occ8w2 dropped and 44 obs not used

note: marrw22 != 0 predicts failure perfectly
      marrw22 dropped and 7 obs not used

note: marrw26 != 0 predicts failure perfectly
      marrw26 dropped and 3 obs not used

note: inc1w2 != 0 predicts failure perfectly
      inc1w2 dropped and 13 obs not used

note: inc4w2 != 0 predicts failure perfectly
      inc4w2 dropped and 10 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: bf29 != 0 predicts failure perfectly
      bf29 dropped and 4 obs not used

note: dvcew2 != 0 predicts failure perfectly
      dvcew2 dropped and 4 obs not used

note: marrw25 != 0 predicts success perfectly
      marrw25 dropped and 1 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 1 obs not used

note: _Ieduc_6 omitted because of collinearity
note: bf17 omitted because of collinearity
```

```
Logistic regression                               Number of obs   =        188
                                                  LR chi2(37)     =      54.88
                                                  Prob > chi2     =     0.0294
Log likelihood = -38.373257                       Pseudo R2       =     0.4169
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0444593	.0428518	1.04	0.299	-.0395286	.1284472
_Ieduc_2	0	(omitted)				
_Ieduc_3	-1.216759	1.079528	-1.13	0.260	-3.332594	.8990769
_Ieduc_4	0	(omitted)				
_Ieduc_5	-.8969887	1.218662	-0.74	0.462	-3.285522	1.491544
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w2	-.1675434	7.199614	-0.02	0.981	-14.27853	13.94344
occ2w2	-.7756164	7.209263	-0.11	0.914	-14.90551	13.35428
occ3w2	1.02351	7.214423	0.14	0.887	-13.1165	15.16352
occ4w2	1.180132	7.249556	0.16	0.871	-13.02874	15.389
occ5w2	0	(omitted)				
occ6w2	0	(omitted)				
occ7w2	-1.331976	7.411247	-0.18	0.857	-15.85775	13.1938
occ8w2	0	(omitted)				
marrw21	11.23886	2191.219	0.01	0.996	-4283.471	4305.948
marrw22	0	(omitted)				
marrw23	11.19426	2191.219	0.01	0.996	-4283.515	4305.904
marrw25	0	(omitted)				
marrw26	0	(omitted)				
inc1w2	0	(omitted)				
inc2w2	1.591635	7.274442	0.22	0.827	-12.66601	15.84928
inc3w2	2.001132	7.228455	0.28	0.782	-12.16638	16.16864
inc4w2	0	(omitted)				
radhlw2	.0450707	.0190833	2.36	0.018	.0076681	.0824733
havmil	-.0149705	.0133639	-1.12	0.263	-.0411632	.0112223
avgcumdosew2	-.0788123	.3549706	-0.22	0.824	-.7745419	.6169173
bf1	-.1607809	.1318246	-1.22	0.223	-.4191523	.0975906
bf4	-.2790034	.3019344	-0.92	0.355	-.8707839	.3127772
bf2	.0006459	.0003574	1.81	0.071	-.0000546	.0013465
bf4m	.1083622	.270079	0.40	0.688	-.4209828	.6377072
bf5m	.0014293	.004266	0.34	0.738	-.0069319	.0097905
bf7m	.0014124	.0012328	1.15	0.252	-.0010038	.0038286
bf8	-.0000455	.0000891	-0.51	0.610	-.0002201	.0001291
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.0990519	.1141451	0.87	0.386	-.1246683	.3227721
bf22	.0000324	.0003377	0.10	0.924	-.0006295	.0006943
bf29	0	(omitted)				
bf30	-.0005162	.0007544	-0.68	0.494	-.0019949	.0009625

bf40	-.3427693	.4881552	-0.70	0.483	-1.299536	.6139973
deaw2	1.277518	.6289072	2.03	0.042	.0448826	2.510153
dvcew2	0	(omitted)				
sepaw2	0	(omitted)				
accdw2	-.8756107	1.266217	-0.69	0.489	-3.35735	1.606128
movew2	.2828439	1.570553	0.18	0.857	-2.795383	3.36107
illw2	1.383819	.6666357	2.08	0.038	.0772372	2.690401
shfamw2	-.0048065	.0139543	-0.34	0.731	-.0321564	.0225433
shhlw2	-.0126567	.0158426	-0.80	0.424	-.0437076	.0183942
shjobw2	.0113436	.0152838	0.74	0.458	-.018612	.0412992
shrelaw2	-.0154518	.0162014	-0.95	0.340	-.047206	.0163025
suprtw2	-.0271504	.0129849	-2.09	0.037	-.0526003	-.0017006
suchrw2	.0166833	.0117501	1.42	0.156	-.0063465	.039713
havmilsq	.0000156	.0000131	1.19	0.234	-.00001	.0000412
_cons	-21.58182	2191.227	-0.01	0.992	-4316.307	4273.143

Logistic model for HP2pbfhm

Classified	True D	True ~D	Total
+	8	4	12
-	13	163	176
Total	21	167	188

Classified + if predicted Pr(D) >= .5
True D defined as HP2pbfhm != 0

Sensitivity	Pr(+| D)	38.10%
Specificity	Pr(-|~D)	97.60%
Positive predictive value	Pr(D| +)	66.67%
Negative predictive value	Pr(~D| -)	92.61%
False + rate for true ~D	Pr(+|~D)	2.40%
False - rate for true D	Pr(-| D)	61.90%
False + rate for classified +	Pr(~D| +)	33.33%
False - rate for classified -	Pr(D| -)	7.39%
Correctly classified		90.96%

Logistic model for HP2pbfhm, goodness-of-fit test

```
      number of observations =       188
number of covariate patterns =       188
           Pearson chi2(150) =       103.39
                 Prob > chi2 =         0.9986

Measures of Fit for logistic of HP2pbfhm

Log-Lik Intercept Only:      -65.811    Log-Lik Full Model:           -38.373
D(132):                       76.747    LR(37):                        54.876
                                        Prob > LR:                      0.029
McFadden's R2:                 0.417    McFadden's Adj R2:             -0.434
Maximum Likelihood R2:         0.253    Cragg & Uhler's R2:             0.503
McKelvey and Zavoina's R2:     0.754    Efron's R2:                     0.356
Variance of y*:               13.351    Variance of error:              3.290
Count R2:                      0.910    Adj Count R2:                   0.190
AIC:                           1.004    AIC*n:                        188.747
BIC:                        -614.464    BIC':                         138.873
Full main model for HP2pbfhm for wave= 2

chunk 5 H1 test:Gender= 2  model Wave =  2 for HP2pbfhm


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females   ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                                 1 Jul 2012    15:03:20  ****
> *
******************************************************************************
> *
******************************************************************************
> *


i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: occ6w2 != 0 predicts failure perfectly
      occ6w2 dropped and 9 obs not used
```

```
note: marrw22 != 0 predicts failure perfectly
      marrw22 dropped and 8 obs not used

note: inc4w2 != 0 predicts failure perfectly
      inc4w2 dropped and 9 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 5 obs not used

note: movew2 != 0 predicts failure perfectly
      movew2 dropped and 37 obs not used

note: _Ieduc_8 omitted because of collinearity
note: marrw26 omitted because of collinearity
note: bf17 omitted because of collinearity
convergence not achieved

Logistic regression                               Number of obs   =        282
                                                  LR chi2(45)     =     115.64
                                                  Prob > chi2     =     0.0000
Log likelihood = -69.237721                       Pseudo R2       =     0.4551
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0573216	.0276334	2.07	0.038	.0031611	.1114822
_Ieduc_2	24.79783	5.419934	4.58	0.000	14.17495	35.4207
_Ieduc_3	25.40648	5.405293	4.70	0.000	14.8123	36.00065
_Ieduc_4	26.0435	5.498915	4.74	0.000	15.26582	36.82117
_Ieduc_5	25.99152	5.477282	4.75	0.000	15.25625	36.7268
_Ieduc_6	25.22458	5.399044	4.67	0.000	14.64265	35.80651
_Ieduc_7	24.91381	.	.	.	.	.
_Ieduc_8	0	(omitted)				
occ1w2	.1268694	2.741862	0.05	0.963	-5.247082	5.50082
occ2w2	-2.180454	2.943693	-0.74	0.459	-7.949987	3.589079
occ3w2	.8729362	2.776498	0.31	0.753	-4.568899	6.314772
occ4w2	-1.353704	2.942107	-0.46	0.645	-7.120128	4.41272
occ5w2	2.7416	3.183927	0.86	0.389	-3.498782	8.981982
occ6w2	0	(omitted)				
occ7w2	1.723368	2.749238	0.63	0.531	-3.66504	7.111775
occ8w2	1.071406	3.004006	0.36	0.721	-4.816337	6.959149
marrw21	1.363708	1.652619	0.83	0.409	-1.875365	4.602781
marrw22	0	(omitted)				
marrw23	.3462148	1.088773	0.32	0.750	-1.78774	2.48017
marrw25	1.049262	1.686487	0.62	0.534	-2.256193	4.354717
marrw26	0	(omitted)				

inc1w2	-.4454501	2.822154	-0.16	0.875	-5.976771	5.085871
inc2w2	1.223562	2.740806	0.45	0.655	-4.148319	6.595444
inc3w2	.8897543	2.773723	0.32	0.748	-4.546642	6.326151
inc4w2	0	(omitted)				
radhlw2	.0162494	.0128872	1.26	0.207	-.0090091	.0415079
havmil	.0034284	.0174028	0.20	0.844	-.0306804	.0375372
avgcumdosew2	.2841701	.2286177	1.24	0.214	-.1639122	.7322525
bf1	-.0034211	.0428716	-0.08	0.936	-.0874479	.0806057
bf4	-.5482161	.2947147	-1.86	0.063	-1.125846	.0294141
bf2	.0001496	.0001782	0.84	0.401	-.0001996	.0004989
bf4m	.2436517	.2745867	0.89	0.375	-.2945285	.7818318
bf5m	-.0026475	.0036526	-0.72	0.469	-.0098065	.0045114
bf7m	-.0008652	.0008476	-1.02	0.307	-.0025264	.000796
bf8	.0000586	.0000741	0.79	0.429	-.0000867	.0002038
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0232359	.0348214	-0.67	0.505	-.0914845	.0450127
bf22	.0000587	.0002121	0.28	0.782	-.0003569	.0004744
bf29	.0000275	.0000434	0.63	0.527	-.0000576	.0001126
bf30	.0000875	.0005016	0.17	0.862	-.0008956	.0010706
bf40	-.3662342	.2446561	-1.50	0.134	-.8457514	.1132829
deaw2	.0470792	.2393731	0.20	0.844	-.4220834	.5162419
dvcew2	-1.779925	2.445695	-0.73	0.467	-6.573399	3.013549
sepaw2	0	(omitted)				
accdw2	-2.474844	1.428768	-1.73	0.083	-5.275177	.3254891
movew2	0	(omitted)				
illw2	-.2222062	.2628556	-0.85	0.398	-.7373938	.2929813
shfamw2	.0141915	.0093043	1.53	0.127	-.0040446	.0324276
shhlw2	.0087578	.0103731	0.84	0.399	-.0115731	.0290887
shjobw2	-.0066068	.0093228	-0.71	0.479	-.0248791	.0116655
shrelaw2	-.0301632	.0120406	-2.51	0.012	-.0537624	-.0065641
suprtw2	-.0125721	.0077017	-1.63	0.103	-.0276672	.002523
suchrw2	-.0060097	.0083821	-0.72	0.473	-.0224384	.010419
havmilsq	-.0000291	.000055	-0.53	0.597	-.0001368	.0000787
_cons	-27.59558	6.62482	-4.17	0.000	-40.57999	-14.61117

Note: 3 failures and 0 successes completely determined.
Warning: convergence not achieved

Logistic model for HP2pbfhm

	True		
Classified	D	~D	Total
+	29	7	36
-	18	228	246
Total	47	235	282

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2pbfhm != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   61.70%
Specificity                     Pr( -|~D)   97.02%
Positive predictive value       Pr( D| +)   80.56%
Negative predictive value       Pr(~D| -)   92.68%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    2.98%
False - rate for true D         Pr( -| D)   38.30%
False + rate for classified +   Pr(~D| +)   19.44%
False - rate for classified -   Pr( D| -)    7.32%
--------------------------------------------------
Correctly classified                        91.13%
--------------------------------------------------
```

Logistic model for HP2pbfhm, goodness-of-fit test

```
       number of observations =       282
 number of covariate patterns =       282
            Pearson chi2(235) =       241.50
                  Prob > chi2 =         0.3715
```

Measures of Fit for **logistic** of **HP2pbfhm**

```
Log-Lik Intercept Only:     -127.058    Log-Lik Full Model:           -69.238
D(226):                      138.475    LR(45):                       115.641
                                        Prob > LR:                      0.000
McFadden's R2:                 0.455    McFadden's Adj R2:              0.014
Maximum Likelihood R2:         0.336    Cragg & Uhler's R2:             0.566
McKelvey and Zavoina's R2:     0.950    Efron's R2:                     0.475
Variance of y*:               65.351    Variance of error:              3.290
Count R2:                      0.911    Adj Count R2:                   0.468
AIC:                           0.888    AIC*n:                        250.475
BIC:                       -1136.596    BIC':                         138.245
```

```
620 .
621 .
622 . title "Partly Trimmed male wave 2  Dose => Problems with Family at home mode
    > ls"

    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****Partly Trimmed male wave 2  Dose => Problems with Family at home models**
    > ***
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                                 1 Jul 2012    15:03:22  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *


623 . local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

624 . logit HP2pbfhm age sepaw2 dvcew2 radhlw2 avgcumdosew2 suprtw2 ///
    >    havmilsq illw2 `w2bf' if gender==1, iterate(50)

    note: sepaw2 != 0 predicts failure perfectly
          sepaw2 dropped and 6 obs not used

    note: dvcew2 != 0 predicts failure perfectly
          dvcew2 dropped and 4 obs not used

    note: bf15m != 0 predicts failure perfectly
          bf15m dropped and 20 obs not used

    note: bf29 != 0 predicts failure perfectly
          bf29 dropped and 8 obs not used
```

```
note: bf17 omitted because of collinearity
Iteration 0:   log likelihood = -78.804936
Iteration 1:   log likelihood = -67.490685
Iteration 2:   log likelihood = -61.940594
Iteration 3:   log likelihood = -61.733617
Iteration 4:   log likelihood = -61.732595
Iteration 5:   log likelihood = -61.732594

Logistic regression                               Number of obs   =        302
                                                  LR chi2(17)     =      34.14
                                                  Prob > chi2     =     0.0080
Log likelihood = -61.732594                       Pseudo R2       =     0.2166
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0292956	.0235579	1.24	0.214	-.016877	.0754681
sepaw2	0	(omitted)				
dvcew2	0	(omitted)				
radhlw2	.0182205	.0109536	1.66	0.096	-.0032483	.0396892
avgcumdosew2	-.090545	.2561457	-0.35	0.724	-.5925814	.4114914
suprtw2	-.0052645	.0059622	-0.88	0.377	-.0169502	.0064212
havmilsq	-1.61e-06	7.15e-06	-0.23	0.822	-.0000156	.0000124
illw2	.7307941	.4092131	1.79	0.074	-.0712488	1.532837
bf1	-.0825023	.0733724	-1.12	0.261	-.2263094	.0613049
bf4	-.1790987	.2180029	-0.82	0.411	-.6063764	.2481791
bf2	.0002682	.0002153	1.25	0.213	-.0001537	.0006901
bf4m	.0150156	.1990066	0.08	0.940	-.3750301	.4050613
bf5m	.0001665	.0028981	0.06	0.954	-.0055136	.0058466
bf7m	.0013857	.000794	1.75	0.081	-.0001704	.0029419
bf8	-.0000382	.0000618	-0.62	0.537	-.0001593	.0000829
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.0450852	.0634467	0.71	0.477	-.0792681	.1694385
bf22	-.0000253	.0002352	-0.11	0.914	-.0004863	.0004357
bf29	0	(omitted)				
bf30	-.0003567	.0004856	-0.73	0.463	-.0013085	.0005951
bf40	-.229251	.3317905	-0.69	0.490	-.8795485	.4210465
_cons	-5.211948	3.446845	-1.51	0.131	-11.96764	1.543744

```
625 .
626 . estat class

    Logistic model for HP2pbfhm

                  -------- True --------
    Classified |         D            ~D  |      Total
    -----------+--------------------------+-----------
         +     |         0             1  |          1
         -     |        22           279  |        301
    -----------+--------------------------+-----------
       Total   |        22           280  |        302

    Classified + if predicted Pr(D) >= .5
    True D defined as HP2pbfhm != 0
    --------------------------------------------------
    Sensitivity                     Pr( +| D)    0.00%
    Specificity                     Pr( -|~D)   99.64%
    Positive predictive value       Pr( D| +)    0.00%
    Negative predictive value       Pr(~D| -)   92.69%
    --------------------------------------------------
    False + rate for true ~D        Pr( +|~D)    0.36%
    False - rate for true D         Pr( -| D)  100.00%
    False + rate for classified +   Pr(~D| +)  100.00%
    False - rate for classified -   Pr( D| -)    7.31%
    --------------------------------------------------
    Correctly classified                        92.38%
    --------------------------------------------------

627 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    -------------------------------------------------

           number of observations =       302
     number of covariate patterns =       301
                Pearson chi2(283) =       231.95
                      Prob > chi2 =         0.9882
```

```
628 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:      -78.805     Log-Lik Full Model:           -61.733
    D(279):                      123.465     LR(17):                        34.145
                                             Prob > LR:                      0.008
    McFadden's R2:                 0.217     McFadden's Adj R2:             -0.075
    Maximum Likelihood R2:         0.107     Cragg & Uhler's R2:             0.263
    McKelvey and Zavoina's R2:     0.433     Efron's R2:                     0.127
    Variance of y*:                5.806     Variance of error:              3.290
    Count R2:                      0.924     Adj Count R2:                  -0.045
    AIC:                           0.561     AIC*n:                        169.465
    BIC:                       -1469.744     BIC':                          62.933

629 .
630 . title "fully Trimmed male main effects wv 3" " Dose => Problems with Family
    > at home models"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                fully Trimmed male main effects wv 3                 ****
    > *
    *****             Dose => Problems with Family at home models             ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                         1 Jul 2012    15:03:24      ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
631 . local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

632 . sw, pr(.1):logit HP2pbfhm age sepaw2 dvcew2 radhlw2 avgcumdosew2 suprtw2 ///
    >    havmilsq illw2 `w2bf' if gender==1, iterate(50)
    note: sepaw2 dropped because of estimability
    note: dvcew2 dropped because of estimability
    note: bf15m dropped because of estimability
    note: bf17 dropped because of estimability
    note: bf29 dropped because of estimability
    note: o.sepaw2 dropped because of estimability
    note: o.dvcew2 dropped because of estimability
    note: o.bf15m dropped because of estimability
    note: o.bf17 dropped because of estimability
    note: o.bf29 dropped because of estimability
    note: 38 obs. dropped because of estimability
                          begin with full model
    p = 0.9542 >= 0.1000  removing bf5m
    p = 0.9265 >= 0.1000  removing bf4m
    p = 0.9130 >= 0.1000  removing bf22
    p = 0.8252 >= 0.1000  removing havmilsq
    p = 0.7278 >= 0.1000  removing avgcumdosew2
    p = 0.4697 >= 0.1000  removing bf20
    p = 0.4787 >= 0.1000  removing bf30
    p = 0.3553 >= 0.1000  removing bf8
    p = 0.3688 >= 0.1000  removing suprtw2
    p = 0.3130 >= 0.1000  removing age
    p = 0.3217 >= 0.1000  removing bf40
    p = 0.2872 >= 0.1000  removing bf2
    p = 0.1449 >= 0.1000  removing bf1
    p = 0.2454 >= 0.1000  removing radhlw2
    p = 0.1939 >= 0.1000  removing illw2

    Logistic regression                               Number of obs   =        302
                                                      LR chi2(2)      =      22.57
                                                      Prob > chi2     =     0.0000
    Log likelihood = -67.522012                       Pseudo R2       =     0.1432
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	-.2376169	.0586559	-4.05	0.000	-.3525804	-.1226534
bf7m	.0012872	.0004582	2.81	0.005	.0003891	.0021853
_cons	-1.530756	.4468865	-3.43	0.001	-2.406637	-.6548742

```
633 .
634 . estat class

    Logistic model for HP2pbfhm

                  -------- True --------
    Classified |         D            ~D  |      Total
    -----------+--------------------------+-----------
         +     |         0             0  |          0
         -     |        22           280  |        302
    -----------+--------------------------+-----------
       Total   |        22           280  |        302

    Classified + if predicted Pr(D) >= .5
    True D defined as HP2pbfhm != 0
    --------------------------------------------------
    Sensitivity                     Pr( +| D)    0.00%
    Specificity                     Pr( -|~D)  100.00%
    Positive predictive value       Pr( D| +)       .%
    Negative predictive value       Pr(~D| -)   92.72%
    --------------------------------------------------
    False + rate for true ~D        Pr( +|~D)    0.00%
    False - rate for true D         Pr( -| D)  100.00%
    False + rate for classified +   Pr(~D| +)       .%
    False - rate for classified -   Pr( D| -)    7.28%
    --------------------------------------------------
    Correctly classified                        92.72%
    --------------------------------------------------

635 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    -------------------------------------------------

           number of observations =       302
     number of covariate patterns =       117
               Pearson chi2(114) =       146.75
                     Prob > chi2 =         0.0210
```

```
636 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:      -78.805     Log-Lik Full Model:           -67.522
    D(299):                      135.044     LR(2):                         22.566
                                             Prob > LR:                      0.000
    McFadden's R2:                 0.143     McFadden's Adj R2:              0.105
    Maximum Likelihood R2:         0.072     Cragg & Uhler's R2:             0.177
    McKelvey and Zavoina's R2:     0.333     Efron's R2:                     0.089
    Variance of y*:                4.936     Variance of error:              3.290
    Count R2:                      0.927     Adj Count R2:                   0.000
    AIC:                           0.467     AIC*n:                        141.044
    BIC:                       -1572.374     BIC':                         -11.145

637 .
638 . scalar MainEffPrbfhmMw2 = "bf1 bf4 dvcew2 bf7m"

639 . scalar SigDosePrbfhmMw2 = "no"

640 . // construction of moderators for male model
641 .
642 . foreach var in bf1 bf4 dvcew2 bf2 bf7m {
      2.  cap gen `var'Xd3 = `var'*avgcumdosew2
      3.   }

643 .
644 .
645 .
646 .
647 . ************************************************************************
    > **
648 . *-------chunk 6  continued -testing moderators and none found for males
649 . local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

650 .
```

```
651 .
652 . title "fully Trimmed male main effects wv 3" ///
    >   "Dose => Problems with Family at home models"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                fully Trimmed male main effects wv 3                ****
    > *
    *****            Dose => Problems with Family at home models             ****
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                         1 Jul 2012    15:03:48     ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *



653 . local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

654 . sw, pr(.1):logit HP2pbfhm age sepaw2 dvcew2 radhlw2 avgcumdosew2 suprtw2 ///
    >    havmilsq illw2 `w2bf' bf1Xd3 bf4Xd3  bf2Xd3 bf7mXd3 dvcew2Xd3 if ///
    >     gender==1, iterate(50)
    note: sepaw2 dropped because of estimability
    note: dvcew2 dropped because of estimability
    note: bf15m dropped because of estimability
    note: bf17 dropped because of estimability
    note: bf29 dropped because of estimability
    note: dvcew2Xd3 dropped because of estimability
    note: o.sepaw2 dropped because of estimability
    note: o.dvcew2 dropped because of estimability
    note: o.bf15m dropped because of estimability
    note: o.bf17 dropped because of estimability
    note: o.bf29 dropped because of estimability
    note: o.dvcew2Xd3 dropped because of estimability
    note: 38 obs. dropped because of estimability
```

```
                         begin with full model
p = 0.9625 >= 0.1000  removing bf22
p = 0.9571 >= 0.1000  removing bf4m
p = 0.8570 >= 0.1000  removing bf5m
p = 0.8130 >= 0.1000  removing havmilsq
p = 0.7588 >= 0.1000  removing bf2Xd3
p = 0.6682 >= 0.1000  removing bf7mXd3
p = 0.7871 >= 0.1000  removing bf1Xd3
p = 0.4970 >= 0.1000  removing avgcumdosew2
p = 0.7875 >= 0.1000  removing bf4Xd3
p = 0.4697 >= 0.1000  removing bf20
p = 0.4787 >= 0.1000  removing bf30
p = 0.3553 >= 0.1000  removing bf8
p = 0.3688 >= 0.1000  removing suprtw2
p = 0.3130 >= 0.1000  removing age
p = 0.3217 >= 0.1000  removing bf40
p = 0.2872 >= 0.1000  removing bf2
p = 0.1449 >= 0.1000  removing bf1
p = 0.2454 >= 0.1000  removing radhlw2
p = 0.1939 >= 0.1000  removing illw2

Logistic regression                               Number of obs   =        302
                                                  LR chi2(2)      =      22.57
                                                  Prob > chi2     =     0.0000
Log likelihood = -67.522012                       Pseudo R2       =     0.1432
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	-.2376169	.0586559	-4.05	0.000	-.3525804	-.1226534
bf7m	.0012872	.0004582	2.81	0.005	.0003891	.0021853
_cons	-1.530756	.4468865	-3.43	0.001	-2.406637	-.6548742

```
655 .
656 . estat class

Logistic model for HP2pbfhm
```

Classified	True D	True ~D	Total
+	0	0	0
-	22	280	302
Total	22	280	302

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2pbfhm != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)    0.00%
Specificity                     Pr( -|~D)  100.00%
Positive predictive value       Pr( D| +)       .%
Negative predictive value       Pr(~D| -)   92.72%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    0.00%
False - rate for true D         Pr( -| D)  100.00%
False + rate for classified +   Pr(~D| +)       .%
False - rate for classified -   Pr( D| -)    7.28%
--------------------------------------------------
Correctly classified                        92.72%
--------------------------------------------------
```

```
657 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    -------------------------------------------------

           number of observations =       302
     number of covariate patterns =       117
                Pearson chi2(114) =       146.75
                      Prob > chi2 =         0.0210
```

```
658 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:      -78.805   Log-Lik Full Model:          -67.522
    D(299):                      135.044   LR(2):                        22.566
                                           Prob > LR:                     0.000
    McFadden's R2:                 0.143   McFadden's Adj R2:             0.105
    Maximum Likelihood R2:         0.072   Cragg & Uhler's R2:            0.177
    McKelvey and Zavoina's R2:     0.333   Efron's R2:                    0.089
    Variance of y*:                4.936   Variance of error:             3.290
    Count R2:                      0.927   Adj Count R2:                  0.000
    AIC:                           0.467   AIC*n:                       141.044
    BIC:                       -1572.374   BIC':                        -11.145
```

```
659 .
660 . scalar SigDosePrbfmhmMw2 = "no"

661 . scalar PrbfmhmModw2 = "none"

662 .
663 . * 3 main effects signif   no main effect for dose  for males
664 .
665 .
666 . ****************************************************************************
    > ****
667 . title4 "Chunk 6  continued -testing meditors for females"
    ------------------------------------------------------------------------------
    Chunk 6  continued -testing meditors for females
    ------------------------------------------------------------------------------


668 . title4 "Partly Trimmed female wave 2"  "Dose => Problems with Family at home
    >  models"
    ------------------------------------------------------------------------------
    Partly Trimmed female wave 2 Dose => Problems with Family at home models
    ------------------------------------------------------------------------------


669 . local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

670 . logit HP2pbfhm age sepaw2 dvcew2 radhlw2 avgcumdosew2 bf4 bf8 bf40 ///
    >    shrelaw2 suchrw2 suprtw2 ///
    >    havmilsq illw2 `w2bf' if gender==2, iterate(50)

    note: sepaw2 != 0 predicts failure perfectly
          sepaw2 dropped and 8 obs not used

    note: bf15m != 0 predicts failure perfectly
          bf15m dropped and 11 obs not used

    note: bf4 omitted because of collinearity
    note: bf8 omitted because of collinearity
    note: bf17 omitted because of collinearity
    note: bf40 omitted because of collinearity
    Iteration 0:   log likelihood = -137.18535
    Iteration 1:   log likelihood = -103.93355
    Iteration 2:   log likelihood = -95.703442
    Iteration 3:   log likelihood =  -95.15807
    Iteration 4:   log likelihood = -94.770663
    Iteration 5:   log likelihood =  -94.32988
    Iteration 6:   log likelihood = -94.321437
    Iteration 7:   log likelihood = -94.321422
    Iteration 8:   log likelihood = -94.321422
```

```
Logistic regression                               Number of obs   =        344
                                                  LR chi2(21)     =      85.73
                                                  Prob > chi2     =     0.0000
Log likelihood = -94.321422                       Pseudo R2       =     0.3125
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0495582	.0188768	2.63	0.009	.0125605	.086556
sepaw2	0	(omitted)				
dvcew2	.1260682	1.324676	0.10	0.924	-2.470249	2.722386
radhlw2	.0105681	.0093019	1.14	0.256	-.0076632	.0287993
avgcumdosew2	.0737234	.1141614	0.65	0.518	-.1500289	.2974756
bf4	-.4430413	.2263763	-1.96	0.050	-.8867306	.000648
bf8	.0000574	.0000561	1.02	0.306	-.0000524	.0001673
bf40	-.1754276	.1875146	-0.94	0.350	-.5429494	.1920941
shrelaw2	-.0156329	.0070882	-2.21	0.027	-.0295256	-.0017402
suchrw2	-.0041523	.0059924	-0.69	0.488	-.0158972	.0075927
suprtw2	-.007471	.0054359	-1.37	0.169	-.0181252	.0031831
havmilsq	-.000013	.0000109	-1.19	0.233	-.0000344	8.39e-06
illw2	-.0615734	.1862759	-0.33	0.741	-.4266675	.3035207
bf1	.007936	.0350726	0.23	0.821	-.060805	.0766769
bf4	0	(omitted)				
bf2	-.0000527	.0001277	-0.41	0.680	-.0003031	.0001977
bf4m	.1913739	.2129046	0.90	0.369	-.2259115	.6086594
bf5m	-.0025742	.0029442	-0.87	0.382	-.0083446	.0031963
bf7m	-.0002656	.0006721	-0.40	0.693	-.0015828	.0010516
bf8	0	(omitted)				
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0160588	.0276726	-0.58	0.562	-.0702962	.0381785
bf22	.0000785	.0001703	0.46	0.645	-.0002554	.0004124
bf29	.000024	.0000382	0.63	0.529	-.0000508	.0000989
bf30	-.0003425	.0003633	-0.94	0.346	-.0010546	.0003696
bf40	0	(omitted)				
_cons	-1.808076	2.335383	-0.77	0.439	-6.385343	2.76919

Note: 3 failures and 0 successes completely determined.

```
671 .
672 . estat class

    Logistic model for HP2pbfhm

                  ──────── True ────────
    Classified │         D            ~D  │      Total
    ───────────┼──────────────────────────┼───────────
         +     │        17             8  │         25
         -     │        30           289  │        319
    ───────────┼──────────────────────────┼───────────
       Total   │        47           297  │        344

    Classified + if predicted Pr(D) >= .5
    True D defined as HP2pbfhm != 0
    ──────────────────────────────────────────────────
    Sensitivity                     Pr( +| D)   36.17%
    Specificity                     Pr( -|~D)   97.31%
    Positive predictive value       Pr( D| +)   68.00%
    Negative predictive value       Pr(~D| -)   90.60%
    ──────────────────────────────────────────────────
    False + rate for true ~D        Pr( +|~D)    2.69%
    False - rate for true D         Pr( -| D)   63.83%
    False + rate for classified +   Pr(~D| +)   32.00%
    False - rate for classified -   Pr( D| -)    9.40%
    ──────────────────────────────────────────────────
    Correctly classified                        88.95%
    ──────────────────────────────────────────────────

673 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    ─────────────────────────────────────────────────

           number of observations =       344
     number of covariate patterns =       344
                Pearson chi2(322) =       324.25
                      Prob > chi2 =         0.4544
```

```
674 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:      -137.185     Log-Lik Full Model:            -94.321
    D(316):                       188.643     LR(21):                         85.728
                                              Prob > LR:                       0.000
    McFadden's R2:                  0.312     McFadden's Adj R2:               0.108
    Maximum Likelihood R2:          0.221     Cragg & Uhler's R2:              0.401
    McKelvey and Zavoina's R2:      0.947     Efron's R2:                      0.303
    Variance of y*:                61.833     Variance of error:               3.290
    Count R2:                       0.890     Adj Count R2:                    0.191
    AIC:                            0.711     AIC*n:                         244.643
    BIC:                        -1657.000     BIC':                           36.926

675 .
676 . *-------Chunk 6  continued -testing meditors for females
677 . title "More partly female Trimmed wave 2"  "Dose => Problems with Family at
    > home models"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                 More partly female Trimmed wave 2                   ****
    > *
    *****            Dose => Problems with Family at home models              ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                             1 Jul 2012    15:04:19  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
678 . local w2bf bf1 bf4 bf2 bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf40

679 . logit HP2pbfhm age  bf4 bf40  if gender==2, iterate(50)

    Iteration 0:   log likelihood = -139.89675
    Iteration 1:   log likelihood = -112.36921
    Iteration 2:   log likelihood = -106.24923
    Iteration 3:   log likelihood = -106.12137
    Iteration 4:   log likelihood = -106.12091
    Iteration 5:   log likelihood = -106.12091

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(3)      =      67.55
                                                      Prob > chi2     =     0.0000
    Log likelihood = -106.12091                       Pseudo R2       =     0.2414
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0636233	.017269	3.68	0.000	.0297767	.0974699
bf4	-.2029758	.0392585	-5.17	0.000	-.2799211	-.1260305
bf40	-.1942568	.091411	-2.13	0.034	-.373419	-.0150946
_cons	-3.085643	1.113267	-2.77	0.006	-5.267607	-.9036792

```
680 .
681 . estat class

    Logistic model for HP2pbfhm
```

Classified	True D	True ~D	Total
+	12	3	15
-	35	313	348
Total	47	316	363

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2pbfhm != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   25.53%
Specificity                     Pr( -|~D)   99.05%
Positive predictive value       Pr( D| +)   80.00%
Negative predictive value       Pr(~D| -)   89.94%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    0.95%
False - rate for true D         Pr( -| D)   74.47%
False + rate for classified +   Pr(~D| +)   20.00%
False - rate for classified -   Pr( D| -)   10.06%
--------------------------------------------------
Correctly classified                        89.53%
--------------------------------------------------
```

```
682 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    -------------------------------------------------

           number of observations =       363
     number of covariate patterns =       341
                Pearson chi2(337) =       366.00
                      Prob > chi2 =         0.1331

683 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:     -139.897   Log-Lik Full Model:         -106.121
    D(359):                      212.242   LR(3):                        67.552
                                           Prob > LR:                     0.000
    McFadden's R2:                 0.241   McFadden's Adj R2:             0.213
    Maximum Likelihood R2:         0.170   Cragg & Uhler's R2:            0.316
    McKelvey and Zavoina's R2:     0.399   Efron's R2:                    0.224
    Variance of y*:                5.470   Variance of error:             3.290
    Count R2:                      0.895   Adj Count R2:                  0.191
    AIC:                           0.607   AIC*n:                       220.242
    BIC:                       -1903.849   BIC':                        -49.868
```

```
684 .
685 . scalar SigDosePrbfmhmFw2 = "no"

686 . scalar MainEffPrbfmhmFw2 = "age bf4 bf40"

687 . * 3 significant main effects for females
688 . * no significant main effect for dose
689 .
690 . * constructing moderators
691 .
692 . foreach var in bf4 bf40 {
      2. cap  gen `var'Xd3 = `var'*avgcumdosew2
      3.  }

693 .
694 .
695 . *- testing female moderator effects:  no moderator effects for females
696 .
697 . sw, pr(.1): logit HP2pbfhm age bf4 bf40 ageXd3 bf4Xd3 bf40Xd3 if gender==2,
    > iterate(50)
                          begin with full model
    p = 0.7256 >= 0.1000  removing bf4Xd3
    p = 0.5514 >= 0.1000  removing bf40

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(4)      =      69.05
                                                      Prob > chi2     =     0.0000
    Log likelihood = -105.37103                       Pseudo R2       =     0.2468
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0553962	.0175151	3.16	0.002	.0210671	.0897253
bf4	-.1901097	.0380586	-5.00	0.000	-.2647032	-.1155163
bf40Xd3	-.1318421	.0668537	-1.97	0.049	-.262873	-.0008113
ageXd3	.0078148	.0040047	1.95	0.051	-.0000342	.0156639
_cons	-3.363212	1.084085	-3.10	0.002	-5.487979	-1.238446

```
698 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    -------------------------------------------------

           number of observations =       363
     number of covariate patterns =       359
                Pearson chi2(354) =       358.75
                      Prob > chi2 =         0.4197

699 . estat class

    Logistic model for HP2pbfhm

                  -------- True --------
    Classified |         D            ~D  |      Total
    -----------+--------------------------+-----------
         +     |        12             4  |         16
         -     |        35           312  |        347
    -----------+--------------------------+-----------
       Total   |        47           316  |        363

    Classified + if predicted Pr(D) >= .5
    True D defined as HP2pbfhm != 0
    --------------------------------------------------
    Sensitivity                     Pr( +| D)   25.53%
    Specificity                     Pr( -|~D)   98.73%
    Positive predictive value       Pr( D| +)   75.00%
    Negative predictive value       Pr(~D| -)   89.91%
    --------------------------------------------------
    False + rate for true ~D        Pr( +|~D)    1.27%
    False - rate for true D         Pr( -| D)   74.47%
    False + rate for classified +   Pr(~D| +)   25.00%
    False - rate for classified -   Pr( D| -)   10.09%
    --------------------------------------------------
    Correctly classified                        89.26%
    --------------------------------------------------
```

```
700 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:     -139.897     Log-Lik Full Model:          -105.371
    D(358):                      210.742     LR(4):                         69.051
                                             Prob > LR:                      0.000
    McFadden's R2:                 0.247     McFadden's Adj R2:              0.211
    Maximum Likelihood R2:         0.173     Cragg & Uhler's R2:             0.322
    McKelvey and Zavoina's R2:     0.417     Efron's R2:                     0.228
    Variance of y*:                5.645     Variance of error:              3.290
    Count R2:                      0.893     Adj Count R2:                   0.170
    AIC:                           0.608     AIC*n:                        220.742
    BIC:                       -1899.454     BIC':                         -45.474

701 .
702 . scalar PrbfmhmModFw2="none"

703 .
704 . ***********************************************************************
    > ****
705 . *---------Chunk 6 continued testing mediating effects for Problems with fami
    > ly
706 .  *  at home
707 .
708 . * age is a mediating effect for males for Dose=> problems with family at hom
    > e
709 . des bf4 bf40

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------

    bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
    bf40            float  %9.0g                  bf40 = max(0, icdxcnt -
                                                    1.01635E-007)

710 . glm age avgcumdosew2 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1330.6004

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  147.6853
    Deviance         =  49917.64009                    (1/df) Deviance =  147.6853
    Pearson          =  49917.64009                    (1/df) Pearson  =  147.6853

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]
```

```
                                                  AIC             =  7.838826
Log likelihood   =   -1330.6004                   BIC             =  47947.46
```

age	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	.5832314	.2635871	2.21	0.027	.0666101	1.099853
_cons	48.62133	.7061562	68.85	0.000	47.23729	50.00537

```
711 . glm HP2pbfhm age  if gender==1, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  163.1004
Iteration 2:   deviance =  152.8997
Iteration 3:   deviance =  151.9532
Iteration 4:   deviance =  151.9347
Iteration 5:   deviance =  151.9347
Iteration 6:   deviance =  151.9347

Generalized linear models                         No. of obs      =        340
Optimization     : MQL Fisher scoring             Residual df     =        338
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  151.9346518                   (1/df) Deviance =   .4495108
Pearson          =  324.8005072                   (1/df) Pearson  =   .9609482

Variance function: V(u) = u*(1-u)                 [Bernoulli]
Link function    : g(u) = invnorm(u)              [Probit]

                                                  BIC             = -1818.249
```

HP2pbfhm	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0296385	.0061334	4.83	0.000	.0176173	.0416597
_cons	-3.073816	.3430721	-8.96	0.000	-3.746225	-2.401407

(Standard errors scaled using square root of deviance-based dispersion.)

```
712 . glm bf4  avgcumdosew2 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1027.1225

    Generalized linear models                          No. of obs      =        340
    Optimization     : ML                              Residual df     =        338
                                                       Scale parameter =    24.7771
    Deviance         =  8374.659221                    (1/df) Deviance =    24.7771
    Pearson          =  8374.659221                    (1/df) Pearson  =    24.7771

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =   6.053662
    Log likelihood   = -1027.122509                    BIC             =   6404.476

    ------------------------------------------------------------------------------
                 |                 OIM
             bf4 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew2 |  -.0331637   .1079644    -0.31   0.759    -.2447701    .1784427
           _cons |   12.52896   .2892393    43.32   0.000     11.96206    13.09586
    ------------------------------------------------------------------------------

713 . glm HP2pbfhm bf4  if gender==1, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  160.0024
    Iteration 2:   deviance =  148.9095
    Iteration 3:   deviance =  148.0472
    Iteration 4:   deviance =  148.0358
    Iteration 5:   deviance =  148.0358
    Iteration 6:   deviance =  148.0358

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        338
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  148.0358223                    (1/df) Deviance =   .4379758
    Pearson          =  318.8927909                    (1/df) Pearson  =   .9434698

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             =  -1822.148
```

```
------------------------------------------------------------------------------
             |                 EIM
    HP2pbfhm |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bf4 |  -.0752171   .0127773    -5.89   0.000    -.1002602   -.0501741
       _cons |  -.6910419   .1483563    -4.66   0.000    -.9818149    -.400269
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

714 .
715 . * age is a mediating effect for females for Dose=> Problems with family at h
> ome
716 . glm age avgcumdosew2 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1406.9403

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  136.9184
Deviance         =  49427.52828                    (1/df) Deviance =  136.9184
Pearson          =  49427.52828                    (1/df) Pearson  =  136.9184

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  7.762756
Log likelihood   = -1406.940271                    BIC             =  47299.65

------------------------------------------------------------------------------
             |                 OIM
         age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   1.502324   .4454009     3.37   0.001     .6293547    2.375294
       _cons |   48.86944   .7323225    66.73   0.000     47.43412    50.30477
------------------------------------------------------------------------------

717 . glm HP2pbfhm age  if gender==2, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  252.4902
Iteration 2:   deviance =  245.4181
Iteration 3:   deviance =  245.1325
Iteration 4:   deviance =  245.1321
Iteration 5:   deviance =  245.1321
```

```
Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        361
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  245.1320769                    (1/df) Deviance =   .6790362
Pearson          =  382.7456824                    (1/df) Pearson  =   1.060237

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             = -1882.747
```

HP2pbfhm	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.043836	.0066445	6.60	0.000	.030813	.056859
_cons	-3.477625	.3761287	-9.25	0.000	-4.214824	-2.740426

```
(Standard errors scaled using square root of deviance-based dispersion.)

718 .
719 . * bf4 is a mediting effect for females for Dose=> Problems with family at ho
    > me
720 . glm bf4  avgcumdosew2 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1109.0983

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   26.53281
Deviance         =  9578.344971                    (1/df) Deviance =   26.53281
Pearson          =  9578.344971                    (1/df) Pearson  =   26.53281

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =   6.121754
Log likelihood   = -1109.098281                    BIC             =   7450.466
```

bf4	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	-.595012	.1960703	-3.03	0.002	-.9793027	-.2107212
_cons	11.02048	.3223763	34.19	0.000	10.38863	11.65232

```
721 . glm HP2pbfhm bf4  if gender==2, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  240.0481
    Iteration 2:   deviance =  229.4916
    Iteration 3:   deviance =  228.6166
    Iteration 4:   deviance =  228.5986
    Iteration 5:   deviance =  228.5985
    Iteration 6:   deviance =  228.5985

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  228.5985175                    (1/df) Deviance =  .6332369
    Pearson          =  299.6186696                    (1/df) Pearson  =  .8299686

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             = -1899.281

    ------------------------------------------------------------------------------
                 |                 EIM
        HP2pbfhm |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             bf4 |  -.1229375   .0145262    -8.46   0.000    -.1514083   -.0944667
           _cons |  -.0739521   .1322299    -0.56   0.576    -.3331179    .1852138
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

722 .
723 .
724 . glm bf40  avgcumdosew2 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -818.51169

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =  5.351378
    Deviance         =  1931.847477                    (1/df) Deviance =  5.351378
    Pearson          =  1931.847477                    (1/df) Pearson  =  5.351378

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =  4.520726
    Log likelihood   = -818.5116931                    BIC             = -196.0319
```

bf40	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	.1794903	.0880548	2.04	0.042	.0069061	.3520745
_cons	3.004543	.1447786	20.75	0.000	2.720783	3.288304

```
725 . glm HP2pbfhm bf40  if gender==2, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  280.0603
    Iteration 2:   deviance =  279.7443
    Iteration 3:   deviance =  279.7441
    Iteration 4:   deviance =  279.7441

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  279.7440687                    (1/df) Deviance =  .7749143
    Pearson          =  362.9453702                    (1/df) Pearson  =  1.005389

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             = -1848.135
```

HP2pbfhm	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf40	.0081494	.0313367	0.26	0.795	-.0532693	.0695682
_cons	-1.154869	.1244365	-9.28	0.000	-1.398761	-.9109783

```
    (Standard errors scaled using square root of deviance-based dispersion.)

726 .
727 . scalar PrbfmhmMedMw2 = "age"
```

```
728 . scalar PrbfmhmMedFw2 = "age bf4"

729 .
730 . title4 " Summary of dose=problems with family at home  mediating effects "
    ---------------------------------------------------------------------------
     Summary of dose=problems with family at home  mediating effects
    ---------------------------------------------------------------------------

731 . * males mediators age 1
732 . * females mediators age and BSIsoma rescaled (bf4) 2
733 .
734 .    matrix define HP2prbfamMw2 = J(1,8, 0)

735 .         matrix define HP2prbfamFw2 = J(1,8, 0)

736 . matrix colnames HP2prbfamMw2 =  hypnum ptnum wave gender medsig numMAsig num
    > Modsig numMed

737 .         matrix colnames HP2prbfamFw2=  hypnum ptnum wave gender medsig numMA
    > sig numModsig numMed

738 .     matrix define HP2prbfamMw2= (1, 2, 3, 1, 0, 5, 0, 1 )

739 .         matrix define HP2prbfamFw2= (1, 2, 3, 2, 0, 2, 2, 2)

740 .         matrix rowname HP2prbfamMw2 = HP2prbfamM

741 .         matrix rowname HP2prbfamFw2 = HP2prbfamF

742 .         matlist HP2prbfamMw2

             |        c1          c2          c3          c4          c5          c
    > 6         c7
    ---------+-----------------------------------------------------------------------
    > -------------
  HP2prbfamM |         1           2           3           1           0
    > 5          0

             |        c8
    ---------+-----------
  HP2prbfamM |         1
```

```
743 .         matlist HP2prbfamFw2

                 |        c1          c2          c3          c4          c5           c
> 6          c7
 ----------------+--------------------------------------------------------------------
> ---------------
   HP2prbfamF |          1           2           3           2           0
> 2          2

                 |        c8
 ----------------+------------
   HP2prbfamF |          2

744 .         matrix define H1pt2w2 = ( HP2wkMw2 \ HP2wkFw2 \ HP2hmcrMw2 \ HP2hmcr
> Fw2 \HP2spMw2 \HP2spFw2 \ HP2prbfamMw2 \ HP2prbfamFw2 )

745 .
746 .         matlist H1pt2w2

                 |        c1          c2          c3          c4          c5           c
> 6          c7
 ----------------+--------------------------------------------------------------------
> ---------------
            r1 |          1           2           3           1           0
> 4          0
            r1 |          1           2           3           2           0
> 1          0
            r1 |          1           2           3           1           0
> 4          0
            r1 |          1           2           3           2           0
> 2          0
      HP2spMw2 |          1           2           3           1           0
> 2          0
      HP2spFw2 |          1           2           3           2           1
> 5          5
   HP2prbfamM |          1           2           3           1           0
> 5          0
   HP2prbfamF |          1           2           3           2           0
> 2          2
```

```
             |         c8
-------------+------------
          r1 |          4
          r1 |          6
          r1 |          2
          r1 |          2
     HP2spMw2 |          1
     HP2spFw2 |          2
   HP2prbfamM |          1
   HP2prbfamF |          2

747 .     matrix colnames H1pt2w2 =  hypnum ptnum wave gender medsig numMAsig numM
    > odsig numMed

748 .     matrix rownames H1pt2w2 =   HP2wkMw2 HP2wkFw2 HP2hmcrMw2 HP2hmcrFw2 HP2p
    > rbfhmMw2 HP2prbfhmFw2

749 .     matlist H1pt2w2

             |    hypnum      ptnum       wave     gender     medsig   numMAsi
    > g  numModsig
-------------+------------------------------------------------------------------
    > -------------
    HP2wkMw2 |         1          2          3          1          0
    > 4          0
    HP2wkFw2 |         1          2          3          2          0
    > 1          0
  HP2hmcrMw2 |         1          2          3          1          0
    > 4          0
  HP2hmcrFw2 |         1          2          3          2          0
    > 2          0
HP2prbfhmMw2 |         1          2          3          1          0
    > 2          0
HP2prbfhmFw2 |         1          2          3          2          1
    > 5          5
HP2prbfhmFw2 |         1          2          3          1          0
    > 5          0
HP2prbfhmFw2 |         1          2          3          2          0
    > 2          2
```

	numMed
HP2wkMw2	**4**
HP2wkFw2	**6**
HP2hmcrMw2	**2**
HP2hmcrFw2	**2**
HP2prbfhmMw2	**1**
HP2prbfhmFw2	**2**
HP2prbfhmFw2	**1**
HP2prbfhmFw2	**2**

```
750 .
751 .
752 . *--------------------------------------------------------------------------
    > ----
753 . ****************************************************************************
    > ****
754 . *-------Chunk 7   Dose==> problems with sex life impact
755 . * Chunk 7  General model for all part 2 of Nottingham Health Profile
756 . * washes out for men
757 . * female main effects wash out in trimmed model
758 . title "5.  wave 2 part2 H1: Test of hypothesis 1 with Male and Female Respon
    > dents" ///
    >      " wave 2 Main effects Dose=> sexlife impact identification"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****5.  wave 2 part2 H1: Test of hypothesis 1 with Male and Female Respondent
    > s*****
    *****      wave 2 Main effects Dose=> sexlife impact identification      ****
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                          1 Jul 2012    15:04:41   ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
759 . forvalues j=2/2 {
      2. set more off
      3.
760 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
761 .   foreach var in HP2sxlife  {
      5.       forvalues k=2/2 {
      6. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      7. title "Full Nottingham Part 2 subscale models for male & females" ///
    >  "Full main model for `var' for wave= `j' " ///
    >    "chunk 7 H1 test:Gender= `k'  model Wave =  `j' for `e(depvar)' "
      8. di _skip(4)
      9.
762 . di _skip(4)
     10.
763 .
764 .       xi: logistic `var' age i.educ occ1w`j'-occ8w`j' ///
    >                 marrw`j'1- marrw`j'3 marrw`j'5-marrw`j'6 inc1w`j'-inc4w`j' /
    > //
    >                 radhlw`j' havmil avgcumdosew`j' `w`j'bf'  ///
    >                  deaw`j' dvcew`j' sepaw`j' accdw`j' movew`j' ///
    >                 illw`j' shfamw`j' shhlw`j' shjobw`j' shrelaw`j' suprtw`j' su
    > chrw`j' ///
    >                  havmilsq radhlw2 if gender==`k', coef nolog  difficult iter
    > ate(50)
     11.                          estat class
     12.                          estat gof
     13.                          fitstat
     14. }
     15. }
     16. }

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
age             double %8.0g                * Respondent's age
educ1           byte   %8.0g                  educ==1. did not graduate high
                                                school
educ2           byte   %8.0g                  educ==2. graduated high school
educ3           byte   %8.0g                  educ==3. technical degree
educ4           byte   %8.0g                  educ==4. did not finish
                                                college/bachelor's
educ5           byte   %8.0g                  educ==5. graduated
                                                college/bachelor's
educ6           byte   %8.0g                  educ==6. finished
```

```
                                        specialist/master's degree
educ7           byte   %8.0g           educ==7. doctor of science/phd
marrw21         byte   %8.0g           marrw2==1. single
marrw22         byte   %8.0g           marrw2==2. cohabitating
marrw23         byte   %8.0g           marrw2==3. married
marrw24         byte   %8.0g           marrw2==4. separated
marrw25         byte   %8.0g           marrw2==5. divorced
marrw26         byte   %8.0g           marrw2==6. widowed
inc1w2          double %15.0g   LABJ   Income is not sufficient for
                                         basic neccessities in 1996
inc2w2          double %15.0g   LABJ   Income is just sufficient for
                                         basic neccessities in 1996
inc3w2          double %15.0g   LABJ   Income is sufficient for basics
                                         plus extra purchases/savings
                                         in 1996
inc4w2          double %15.0g   LABJ   Income allows to comfortably
                                         afford luxury items in 1996
bf1             float  %9.0g           bf1 = max(0, kzchorn - 40)
bf4             float  %9.0g           bf4 = max(0, 24 - BSIsoma)
bf9             float  %9.0g           bf9= max(0, 30 - shhlw1)
bf11            float  %9.0g           bf11= max(0, 20 - sufamw1)
bf4m            float  %9.0g           bf4m = max(0, 32 - BSIsoma)
bf15m           float  %9.0g           bf15m= max(0, 1 - icdxcnt) * bf2
bf30            float  %9.0g           bf30 = max(0, neiw1 - 85) * bf20
bf40            float  %9.0g           bf40 = max(0, icdxcnt -
                                         1.01635E-007)


*******************************************************************************
> *
*******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****     Full Nottingham Part 2 subscale models for male & females       ****
> *
*****             Full main model for HP2sxlife for wave= 2               ****
> *
*****      chunk 7 H1 test:Gender= 2  model Wave =  2 for HP2pbfhm        ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                       1 Jul 2012    15:04:41  ****
> *
*******************************************************************************
```

```
> *
*****************************************************************************
> *
```

```
i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: bf29 != 0 predicts success perfectly
      bf29 dropped and 4 obs not used

note: _Ieduc_8 omitted because of collinearity
note: marrw26 omitted because of collinearity
note: bf17 omitted because of collinearity
note: radhlw2 omitted because of collinearity

Logistic regression                               Number of obs   =        346
                                                  LR chi2(50)     =     172.45
                                                  Prob > chi2     =     0.0000
Log likelihood = -111.04151                       Pseudo R2       =     0.4371
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1025465	.0220099	4.66	0.000	.0594079	.145685
_Ieduc_2	-15.48089	5580.75	-0.00	0.998	-10953.55	10922.59
_Ieduc_3	-13.96022	5580.75	-0.00	0.998	-10952.03	10924.11
_Ieduc_4	-13.71505	5580.75	-0.00	0.998	-10951.78	10924.35
_Ieduc_5	-14.90906	5580.75	-0.00	0.998	-10952.98	10923.16
_Ieduc_6	-14.036	5580.75	-0.00	0.998	-10952.1	10924.03
_Ieduc_7	-14.35246	5580.751	-0.00	0.998	-10952.42	10923.72
_Ieduc_8	0	(omitted)				
occ1w2	-1.981003	1.626317	-1.22	0.223	-5.168525	1.20652
occ2w2	-1.199181	1.677697	-0.71	0.475	-4.487407	2.089044
occ3w2	-.7937582	1.670584	-0.48	0.635	-4.068042	2.480526
occ4w2	-.8102305	1.76353	-0.46	0.646	-4.266686	2.646225
occ5w2	-.5056346	1.89785	-0.27	0.790	-4.225353	3.214084
occ6w2	-1.645496	1.931022	-0.85	0.394	-5.430229	2.139237
occ7w2	-1.288749	1.611028	-0.80	0.424	-4.446306	1.868809
occ8w2	-.2492981	1.896994	-0.13	0.895	-3.967338	3.468742
marrw21	-.8001566	1.260909	-0.63	0.526	-3.271493	1.67118
marrw22	-.5650635	1.458662	-0.39	0.698	-3.423989	2.293861
marrw23	-1.064868	.8865967	-1.20	0.230	-2.802566	.6728293
marrw25	-2.27112	1.443829	-1.57	0.116	-5.100972	.5587328
marrw26	0	(omitted)				
inc1w2	.5165366	1.706152	0.30	0.762	-2.82746	3.860533

inc2w2	.9386295	1.604285	0.59	0.558	-2.205712	4.082971
inc3w2	-.0514022	1.646264	-0.03	0.975	-3.27802	3.175215
inc4w2	.0543252	2.074029	0.03	0.979	-4.010697	4.119348
radhlw2	.0162077	.0081749	1.98	0.047	.0001852	.0322303
havmil	-.0014745	.0033419	-0.44	0.659	-.0080244	.0050754
avgcumdosew2	.1675129	.1251712	1.34	0.181	-.0778182	.412844
bf1	-.0006699	.0354295	-0.02	0.985	-.0701104	.0687707
bf4	-.6290339	.2665349	-2.36	0.018	-1.151433	-.1066351
bf2	.0000625	.000131	0.48	0.633	-.0001943	.0003193
bf4m	.4940985	.2505491	1.97	0.049	.0030312	.9851658
bf5m	-.002308	.0018303	-1.26	0.207	-.0058953	.0012792
bf7m	.00018	.0006254	0.29	0.773	-.0010457	.0014058
bf8	6.11e-06	.0000425	0.14	0.886	-.0000772	.0000894
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0009967	.0290168	-0.03	0.973	-.0578686	.0558752
bf22	-.0001321	.0001453	-0.91	0.363	-.0004169	.0001527
bf29	0	(omitted)				
bf30	-.0003317	.0003532	-0.94	0.348	-.001024	.0003605
bf40	.149372	.145042	1.03	0.303	-.1349052	.4336491
deaw2	.0989356	.2231863	0.44	0.658	-.3385014	.5363726
dvcew2	-14.61462	1422.458	-0.01	0.992	-2802.582	2773.353
sepaw2	13.19252	1422.46	0.01	0.993	-2774.778	2801.163
accdw2	-.3607593	.7071147	-0.51	0.610	-1.746679	1.02516
movew2	.2363995	.5198633	0.45	0.649	-.7825137	1.255313
illw2	.5572231	.2374511	2.35	0.019	.0918274	1.022619
shfamw2	.001878	.0072955	0.26	0.797	-.0124209	.0161768
shhlw2	.0092925	.0072946	1.27	0.203	-.0050046	.0235896
shjobw2	-.0069643	.0067203	-1.04	0.300	-.0201358	.0062073
shrelaw2	-.0169606	.0081044	-2.09	0.036	-.032845	-.0010762
suprtw2	-.0129953	.0058047	-2.24	0.025	-.0243723	-.0016183
suchrw2	.0118245	.0068566	1.72	0.085	-.0016142	.0252632
havmilsq	-6.39e-08	2.74e-06	-0.02	0.981	-5.43e-06	5.30e-06
radhlw2	0	(omitted)				
_cons	5.841436	5580.75	0.00	0.999	-10932.23	10943.91

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	57	17	74
-	32	240	272
Total	89	257	346

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   64.04%
Specificity                     Pr( -|~D)   93.39%
Positive predictive value       Pr( D| +)   77.03%
Negative predictive value       Pr(~D| -)   88.24%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    6.61%
False - rate for true D         Pr( -| D)   35.96%
False + rate for classified +   Pr(~D| +)   22.97%
False - rate for classified -   Pr( D| -)   11.76%
--------------------------------------------------
Correctly classified                        85.84%
--------------------------------------------------
```

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       346
 number of covariate patterns =       346
            Pearson chi2(295) =       312.67
                  Prob > chi2 =         0.2294
```

Measures of Fit for **logistic** of **HP2sxlife**

```
Log-Lik Intercept Only:     -197.267   Log-Lik Full Model:          -111.042
D(289):                      222.083   LR(50):                       172.450
                                       Prob > LR:                      0.000
McFadden's R2:                 0.437   McFadden's Adj R2:              0.148
Maximum Likelihood R2:         0.393   Cragg & Uhler's R2:             0.577
McKelvey and Zavoina's R2:     0.765   Efron's R2:                     0.477
Variance of y*:               14.018   Variance of error:              3.290
Count R2:                      0.858   Adj Count R2:                   0.449
AIC:                           0.971   AIC*n:                        336.083
BIC:                       -1467.538   BIC':                         119.872
```

```
765 . // full model washes out
766 .
767 . title "5.  wave 2 part2 H1: Test of hypothesis 1 with Male and Female Respon
    > dents" ///
    >      " wave 2 Main effects Dose=> sexlife impact identification"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****5.  wave 2 part2 H1: Test of hypothesis 1 with Male and Female Respondent
    > s*****
    *****      wave 2 Main effects Dose=> sexlife impact identification       ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                             1 Jul 2012    15:04:43  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *



768 . forvalues j=2/2 {
      2. set more off
      3.
769 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
```

```
770 .   foreach var in HP2sxlife  {
  5.       forvalues k=2/2 {
  6. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  7. title "Full Nottingham Part 2 subscale models for male & females" ///
>  "Full main model for `var' for wave= `j' " ///
>    "chunk 7 H1 test:Gender= `k'  model Wave =  `j' for `e(depvar)' "
  8. di _skip(4)
  9.
771 . di _skip(4)
 10.
772 .
773 .       xi: logistic `var' age i.educ occ1w`j'-occ8w`j' ///
>                 marrw`j'1- marrw`j'3 marrw`j'5-marrw`j'6 inc1w`j'-inc4w`j' /
> //
>                 radhlw`j' havmil avgcumdosew`j' `w`j'bf'  ///
>                  deaw`j' dvcew`j' sepaw`j' accdw`j' movew`j' ///
>                 illw`j' shfamw`j' shhlw`j' shjobw`j' shrelaw`j' suprtw`j' su
> chrw`j' ///
>                  havmilsq radhlw2 if gender==`k', coef nolog  difficult iter
> ate(50)
 11.                         estat class
 12.                         estat gof
 13.                         fitstat
 14. }
 15. }
 16. }
```

variable name	storage type	display format	value label	variable label
age	double	%8.0g		* **Respondent's age**
educ1	byte	%8.0g		**educ==1. did not graduate high school**
educ2	byte	%8.0g		**educ==2. graduated high school**
educ3	byte	%8.0g		**educ==3. technical degree**
educ4	byte	%8.0g		**educ==4. did not finish college/bachelor's**
educ5	byte	%8.0g		**educ==5. graduated college/bachelor's**
educ6	byte	%8.0g		**educ==6. finished specialist/master's degree**
educ7	byte	%8.0g		**educ==7. doctor of science/phd**
marrw21	byte	%8.0g		**marrw2==1. single**
marrw22	byte	%8.0g		**marrw2==2. cohabitating**
marrw23	byte	%8.0g		**marrw2==3. married**
marrw24	byte	%8.0g		**marrw2==4. separated**
marrw25	byte	%8.0g		**marrw2==5. divorced**
marrw26	byte	%8.0g		**marrw2==6. widowed**

```
inc1w2          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1996
inc2w2          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1996
inc3w2          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1996
inc4w2          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1996
bf1             float  %9.0g                  bf1 = max(0, kzchorn - 40)
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
bf9             float  %9.0g                  bf9= max(0, 30 - shhlw1)
bf11            float  %9.0g                  bf11= max(0, 20 - sufamw1)
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)
bf15m           float  %9.0g                  bf15m= max(0, 1 - icdxcnt) * bf2
bf30            float  %9.0g                  bf30 = max(0, neiwl - 85) * bf20
bf40            float  %9.0g                  bf40 = max(0, icdxcnt -
                                                1.01635E-007)


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****     Full Nottingham Part 2 subscale models for male & females       ****
> *
*****             Full main model for HP2sxlife for wave= 2               ****
> *
*****     chunk 7 H1 test:Gender= 2  model Wave =  2 for HP2sxlife        ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                        1 Jul 2012    15:04:43  ****
> *
******************************************************************************
> *
******************************************************************************
> *
```

```
i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: bf29 != 0 predicts success perfectly
      bf29 dropped and 4 obs not used

note: _Ieduc_8 omitted because of collinearity
note: marrw26 omitted because of collinearity
note: bf17 omitted because of collinearity
note: radhlw2 omitted because of collinearity

Logistic regression                               Number of obs   =        346
                                                  LR chi2(50)     =     172.45
                                                  Prob > chi2     =     0.0000
Log likelihood = -111.04151                       Pseudo R2       =     0.4371
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1025465	.0220099	4.66	0.000	.0594079	.145685
_Ieduc_2	-15.48089	5580.75	-0.00	0.998	-10953.55	10922.59
_Ieduc_3	-13.96022	5580.75	-0.00	0.998	-10952.03	10924.11
_Ieduc_4	-13.71505	5580.75	-0.00	0.998	-10951.78	10924.35
_Ieduc_5	-14.90906	5580.75	-0.00	0.998	-10952.98	10923.16
_Ieduc_6	-14.036	5580.75	-0.00	0.998	-10952.1	10924.03
_Ieduc_7	-14.35246	5580.751	-0.00	0.998	-10952.42	10923.72
_Ieduc_8	0	(omitted)				
occ1w2	-1.981003	1.626317	-1.22	0.223	-5.168525	1.20652
occ2w2	-1.199181	1.677697	-0.71	0.475	-4.487407	2.089044
occ3w2	-.7937582	1.670584	-0.48	0.635	-4.068042	2.480526
occ4w2	-.8102305	1.76353	-0.46	0.646	-4.266686	2.646225
occ5w2	-.5056346	1.89785	-0.27	0.790	-4.225353	3.214084
occ6w2	-1.645496	1.931022	-0.85	0.394	-5.430229	2.139237
occ7w2	-1.288749	1.611028	-0.80	0.424	-4.446306	1.868809
occ8w2	-.2492981	1.896994	-0.13	0.895	-3.967338	3.468742
marrw21	-.8001566	1.260909	-0.63	0.526	-3.271493	1.67118
marrw22	-.5650635	1.458662	-0.39	0.698	-3.423989	2.293861
marrw23	-1.064868	.8865967	-1.20	0.230	-2.802566	.6728293
marrw25	-2.27112	1.443829	-1.57	0.116	-5.100972	.5587328
marrw26	0	(omitted)				
inc1w2	.5165366	1.706152	0.30	0.762	-2.82746	3.860533
inc2w2	.9386295	1.604285	0.59	0.558	-2.205712	4.082971
inc3w2	-.0514022	1.646264	-0.03	0.975	-3.27802	3.175215
inc4w2	.0543252	2.074029	0.03	0.979	-4.010697	4.119348
radhlw2	.0162077	.0081749	1.98	0.047	.0001852	.0322303
havmil	-.0014745	.0033419	-0.44	0.659	-.0080244	.0050754

avgcumdosew2	.1675129	.1251712	1.34	0.181	-.0778182	.412844
bf1	-.0006699	.0354295	-0.02	0.985	-.0701104	.0687707
bf4	-.6290339	.2665349	-2.36	0.018	-1.151433	-.1066351
bf2	.0000625	.000131	0.48	0.633	-.0001943	.0003193
bf4m	.4940985	.2505491	1.97	0.049	.0030312	.9851658
bf5m	-.002308	.0018303	-1.26	0.207	-.0058953	.0012792
bf7m	.00018	.0006254	0.29	0.773	-.0010457	.0014058
bf8	6.11e-06	.0000425	0.14	0.886	-.0000772	.0000894
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0009967	.0290168	-0.03	0.973	-.0578686	.0558752
bf22	-.0001321	.0001453	-0.91	0.363	-.0004169	.0001527
bf29	0	(omitted)				
bf30	-.0003317	.0003532	-0.94	0.348	-.001024	.0003605
bf40	.149372	.145042	1.03	0.303	-.1349052	.4336491
deaw2	.0989356	.2231863	0.44	0.658	-.3385014	.5363726
dvcew2	-14.61462	1422.458	-0.01	0.992	-2802.582	2773.353
sepaw2	13.19252	1422.46	0.01	0.993	-2774.778	2801.163
accdw2	-.3607593	.7071147	-0.51	0.610	-1.746679	1.02516
movew2	.2363995	.5198633	0.45	0.649	-.7825137	1.255313
illw2	.5572231	.2374511	2.35	0.019	.0918274	1.022619
shfamw2	.001878	.0072955	0.26	0.797	-.0124209	.0161768
shhlw2	.0092925	.0072946	1.27	0.203	-.0050046	.0235896
shjobw2	-.0069643	.0067203	-1.04	0.300	-.0201358	.0062073
shrelaw2	-.0169606	.0081044	-2.09	0.036	-.032845	-.0010762
suprtw2	-.0129953	.0058047	-2.24	0.025	-.0243723	-.0016183
suchrw2	.0118245	.0068566	1.72	0.085	-.0016142	.0252632
havmilsq	-6.39e-08	2.74e-06	-0.02	0.981	-5.43e-06	5.30e-06
radhlw2	0	(omitted)				
_cons	5.841436	5580.75	0.00	0.999	-10932.23	10943.91

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	57	17	74
-	32	240	272
Total	89	257	346

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   64.04%
Specificity                     Pr( -|~D)   93.39%
Positive predictive value       Pr( D| +)   77.03%
Negative predictive value       Pr(~D| -)   88.24%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    6.61%
False - rate for true D         Pr( -| D)   35.96%
False + rate for classified +   Pr(~D| +)   22.97%
False - rate for classified -   Pr( D| -)   11.76%
--------------------------------------------------
Correctly classified                        85.84%
--------------------------------------------------
```

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       346
 number of covariate patterns =       346
            Pearson chi2(295) =       312.67
                  Prob > chi2 =         0.2294
```

Measures of Fit for **logistic** of **HP2sxlife**

```
Log-Lik Intercept Only:     -197.267   Log-Lik Full Model:           -111.042
D(289):                      222.083   LR(50):                        172.450
                                       Prob > LR:                       0.000
McFadden's R2:                 0.437   McFadden's Adj R2:               0.148
Maximum Likelihood R2:         0.393   Cragg & Uhler's R2:              0.577
McKelvey and Zavoina's R2:     0.765   Efron's R2:                      0.477
Variance of y*:               14.018   Variance of error:               3.290
Count R2:                      0.858   Adj Count R2:                    0.449
AIC:                           0.971   AIC*n:                         336.083
BIC:                       -1467.538   BIC':                          119.872
```

```
774 .
775 . *-----Chunk 7 female dose2  => sex life impact----------------------------
776 . *  wash out in the trimmed model
777 . title "Chunk 7 trimmed male model of dose and HP2sxlife relationship in wave
    >  2"


    *******************************************************************************
    > *
    *******************************************************************************
    > *
    *****                                                                      ****
    > *
    *****                                                                      ****
    > *
    *****Chunk 7 trimmed male model of dose and HP2sxlife relationship in wave 2**
    > ***
    *****                                                                      ****
    > *
    *****                                                                      ****
    > *
    *****                                                   1 Jul 2012    15:04:44  ****
    > *
    *******************************************************************************
    > *
    *******************************************************************************
    > *



778 . * male models
779 .         forvalues j=2/2 {
      2. di as input  "trimmed HP2sexlife main effects models wave 1 for H1 part 2
    >  with dose ns"
      3. di as input  "wave 2 male dose avgcumdosew`j' main effect not signif"
      4.         logit HP2sxlife age marrw21-marrw26 bf4 bf4m dvcew`j' illw`j' shh
    > lw`j' ///
    >           havmilsq shrelaw`j'  suchrw2 ///
    >           avgcumdosew`j' radhlw`j' if gender==1
      5.                          estat class
      6.                          estat gof
      7.                          fitstat
      8. }
    trimmed HP2sexlife main effects models wave 1 for H1 part 2 with dose ns
    wave 2 male dose avgcumdosew2 main effect not signif

    note: marrw22 != 0 predicts failure perfectly
          marrw22 dropped and 11 obs not used
```

```
note: marrw24 != 0 predicts failure perfectly
      marrw24 dropped and 3 obs not used

note: dvcew2 != 0 predicts failure perfectly
      dvcew2 dropped and 8 obs not used

Iteration 0:   log likelihood = -166.08818
Iteration 1:   log likelihood = -113.32233
Iteration 2:   log likelihood = -107.02172
Iteration 3:   log likelihood = -106.73421
Iteration 4:   log likelihood = -106.72877
Iteration 5:   log likelihood = -106.72753
Iteration 6:   log likelihood = -106.72723
Iteration 7:   log likelihood = -106.72717
Iteration 8:   log likelihood = -106.72716

Logistic regression                               Number of obs   =        317
                                                  LR chi2(14)     =     118.72
                                                  Prob > chi2     =     0.0000
Log likelihood = -106.72716                       Pseudo R2       =     0.3574
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0644457	.0181912	3.54	0.000	.0287916	.1000998
marrw21	8.652724	607.7898	0.01	0.989	-1182.593	1199.899
marrw22	0	(omitted)				
marrw23	8.99536	607.7899	0.01	0.988	-1182.251	1200.242
marrw24	0	(omitted)				
marrw25	10.60048	607.791	0.02	0.986	-1180.648	1201.849
marrw26	8.365677	607.7915	0.01	0.989	-1182.884	1199.615
bf4	-.2024234	.1925354	-1.05	0.293	-.5797859	.174939
bf4m	.0200376	.172285	0.12	0.907	-.3176348	.35771
dvcew2	0	(omitted)				
illw2	.3945351	.2569746	1.54	0.125	-.1091258	.8981961
shhlw2	.0030985	.0058298	0.53	0.595	-.0083277	.0145248
havmilsq	-2.23e-06	4.62e-06	-0.48	0.630	-.0000113	6.84e-06
shrelaw2	-.010479	.006183	-1.69	0.090	-.0225974	.0016394
suchrw2	.0070631	.0045745	1.54	0.123	-.0019027	.0160288
avgcumdosew2	.0643464	.0493461	1.30	0.192	-.0323701	.161063
radhlw2	.0146535	.0060343	2.43	0.015	.0028265	.0264806
_cons	-13.11105	607.7916	-0.02	0.983	-1204.361	1178.139

Logistic model for HP2sxlife

Classified	True D	True ~D	Total
+	**35**	**15**	**50**
-	**34**	**233**	**267**
Total	**69**	**248**	**317**

Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0

Sensitivity	Pr(+| D)	**50.72%**
Specificity	Pr(-|~D)	**93.95%**
Positive predictive value	Pr(D| +)	**70.00%**
Negative predictive value	Pr(~D| -)	**87.27%**
False + rate for true ~D	Pr(+|~D)	**6.05%**
False - rate for true D	Pr(-| D)	**49.28%**
False + rate for classified +	Pr(~D| +)	**30.00%**
False - rate for classified -	Pr(D| -)	**12.73%**
Correctly classified		**84.54%**

Logistic model for HP2sxlife, goodness-of-fit test

number of observations =	**317**
number of covariate patterns =	**312**
Pearson chi2(**297**) =	**255.20**
Prob > chi2 =	**0.9621**

Measures of Fit for **logit** of **HP2sxlife**

Log-Lik Intercept Only:	**-166.088**	Log-Lik Full Model:	**-106.727**
D(299):	**213.454**	LR(14):	**118.722**
		Prob > LR:	**0.000**
McFadden's R2:	**0.357**	McFadden's Adj R2:	**0.249**
Maximum Likelihood R2:	**0.312**	Cragg & Uhler's R2:	**0.481**
McKelvey and Zavoina's R2:	**0.539**	Efron's R2:	**0.374**
Variance of y*:	**7.131**	Variance of error:	**3.290**
Count R2:	**0.845**	Adj Count R2:	**0.290**
AIC:	**0.787**	AIC*n:	**249.454**
BIC:	**-1508.457**	BIC':	**-38.097**

```
780 . title "Chunk 7 trimmed male model of dose and HP2sxlife relationship in wave
    >  2"


    ********************************************************************************
    > *
    ********************************************************************************
    > *
    *****                                                                      ****
    > *
    *****                                                                      ****
    > *
    *****Chunk 7 trimmed male model of dose and HP2sxlife relationship in wave 2**
    > ***
    *****                                                                      ****
    > *
    *****                                                                      ****
    > *
    *****                                                1 Jul 2012    15:04:46  ****
    > *
    ********************************************************************************
    > *
    ********************************************************************************
    > *



781 . * male models
782 .         forvalues j=2/2 {
      2. set more off
      3. di as input  "trimmed HP2sexlife main effects models wave 1 for H1 part 2
    >  with dose ns"
      4. di as input  "wave 2 male dose avgcumdosew`j' main effect not signif"
      5.         logit HP2sxlife age  bf4  illw`j' ///
    >           avgcumdosew`j' radhlw`j' if gender==1
      6.                         estat class
      7.                         estat gof
      8.                         fitstat
      9. }
    trimmed HP2sexlife main effects models wave 1 for H1 part 2 with dose ns
    wave 2 male dose avgcumdosew2 main effect not signif

    Iteration 0:   log likelihood = -171.51396
    Iteration 1:   log likelihood = -121.56573
    Iteration 2:   log likelihood = -115.51071
    Iteration 3:   log likelihood = -115.37175
    Iteration 4:   log likelihood =  -115.3714
    Iteration 5:   log likelihood =  -115.3714
```

```
Logistic regression                               Number of obs   =        340
                                                  LR chi2(5)      =     112.29
                                                  Prob > chi2     =     0.0000
Log likelihood =  -115.3714                       Pseudo R2       =     0.3273
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0668709	.0154805	4.32	0.000	.0365295	.0972122
bf4	-.1650598	.0368511	-4.48	0.000	-.2372867	-.0928329
illw2	.3077459	.2454954	1.25	0.210	-.1734162	.788908
avgcumdosew2	.0621309	.0473611	1.31	0.190	-.0306951	.1549569
radhlw2	.010562	.0054615	1.93	0.053	-.0001422	.0212663
_cons	-3.881348	1.050876	-3.69	0.000	-5.941027	-1.82167

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	32	15	47
-	37	256	293
Total	69	271	340

Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0

Sensitivity	Pr(+| D)	46.38%
Specificity	Pr(-|~D)	94.46%
Positive predictive value	Pr(D| +)	68.09%
Negative predictive value	Pr(~D| -)	87.37%
False + rate for true ~D	Pr(+|~D)	5.54%
False - rate for true D	Pr(-| D)	53.62%
False + rate for classified +	Pr(~D| +)	31.91%
False - rate for classified -	Pr(D| -)	12.63%
Correctly classified		84.71%

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       330
            Pearson chi2(324) =       287.38
                  Prob > chi2 =         0.9292

Measures of Fit for logit of HP2sxlife

Log-Lik Intercept Only:     -171.514     Log-Lik Full Model:          -115.371
D(334):                      230.743     LR(5):                        112.285
                                         Prob > LR:                      0.000
McFadden's R2:                 0.327     McFadden's Adj R2:              0.292
Maximum Likelihood R2:         0.281     Cragg & Uhler's R2:             0.443
McKelvey and Zavoina's R2:     0.462     Efron's R2:                     0.344
Variance of y*:                6.119     Variance of error:              3.290
Count R2:                      0.847     Adj Count R2:                   0.246
AIC:                           0.714     AIC*n:                        242.743
BIC:                       -1716.125     BIC':                         -83.140

783 .
784 . * sex life washes out
785 .
786 .
787 . scalar MainEffsxlifeMw2 = "age bf4 illw2 radhlw2"

788 . scalar SigDosesxlifeMw2 = "no"

789 .
790 .
791 . forvalues j=2/2 {
    2. title "trimmed HP2sxlife main effects models wave `j' for H1 part 2 with
  > dose ns"
    3. title2 "Wave `j dose HPsxlife relationship but avgcumdosew`j': Dose not s
  > ignif"
    4. }


  ******************************************************************************
  > *
  ******************************************************************************
  > *
  *****                                                                     ****
  > *
  *****                                                                     ****
  > *
  *****trimmed HP2sxlife main effects models wave 2 for H1 part 2 with dose ns**
  > ***
  *****                                                                     ****
  > *
  *****                                                                     ****
```

```
> *
*****                                                   1 Jul 2012    15:04:47  ****
> *
*****************************************************************************
> *
*****************************************************************************
> *
```

```
title2: Wave `j dose HPsxlife relationship but avgcumdosew2: Dose not signif
                                       Date and time:   1 Jul 2012    15:04:47
                                       Working directory:  /Users/robertyaffee
> /Documents/data/research/chwk/phase3/Htests/H1tests/h1pt2
                                       Stata data file:  chwide1jul2012.dta  h
> as  2399  variables and  703  observations

Wave `j dose HPsxlife relationship but avgcumdosew2: Dose not signif
```

```
792 .
793 .
794 . cap gen radhlw2Xd3 = radhlw2*avgcumdosew2

795 .
796 . set more off

797 . des bf4

              storage  display     value
variable name   type   format      label      variable label
-----------------------------------------------------------------------------
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)

798 . forvalues j=2/2 {
  2.                 sw, pr(.1):logistic HP2sxlife age bf4 illw`j' ///
>                 avgcumdosew`j' radhlw`j' ageXd3 radhlw2Xd3 illw2Xd3 if gende
> r==1, coef nolog
  3.                         estat class
  4.                         estat gof
  5.                         fitstat
  6. }
                     begin with full model
p = 0.6505 >= 0.1000  removing avgcumdosew2
p = 0.4079 >= 0.1000  removing illw2Xd3
```

```
Logistic regression                               Number of obs   =        340
                                                  LR chi2(6)      =     121.14
                                                  Prob > chi2     =     0.0000
Log likelihood = -110.94454                       Pseudo R2       =     0.3531
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0529331	.0169001	3.13	0.002	.0198095	.0860566
bf4	-.1653141	.0375369	-4.40	0.000	-.2388852	-.0917431
illw2	.4168743	.2517861	1.66	0.098	-.0766174	.9103659
radhlw2Xd3	-.0118911	.0064749	-1.84	0.066	-.0245816	.0007994
radhlw2	.0203277	.0073575	2.76	0.006	.0059072	.0347481
ageXd3	.0144933	.0077512	1.87	0.062	-.0006989	.0296854
_cons	-3.925242	1.078928	-3.64	0.000	-6.039901	-1.810582

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	33	11	44
-	36	260	296
Total	69	271	340

Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0

Sensitivity	Pr(+| D)	47.83%
Specificity	Pr(-|~D)	95.94%
Positive predictive value	Pr(D| +)	75.00%
Negative predictive value	Pr(~D| -)	87.84%
False + rate for true ~D	Pr(+|~D)	4.06%
False - rate for true D	Pr(-| D)	52.17%
False + rate for classified +	Pr(~D| +)	25.00%
False - rate for classified -	Pr(D| -)	12.16%
Correctly classified		86.18%

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       330
            Pearson chi2(323) =       291.21
                  Prob > chi2 =         0.8976

Measures of Fit for logistic of HP2sxlife

Log-Lik Intercept Only:     -171.514    Log-Lik Full Model:         -110.945
D(333):                      221.889    LR(6):                       121.139
                                        Prob > LR:                     0.000
McFadden's R2:                 0.353    McFadden's Adj R2:             0.312
Maximum Likelihood R2:         0.300    Cragg & Uhler's R2:            0.472
McKelvey and Zavoina's R2:     0.539    Efron's R2:                    0.379
Variance of y*:                7.135    Variance of error:             3.290
Count R2:                      0.862    Adj Count R2:                  0.319
AIC:                           0.694    AIC*n:                       235.889
BIC:                       -1719.150    BIC':                        -86.165

799 .
800 . scalar sxlifeModMw2 = "none"

801 . *xx male moderators: no main significant dose effect
802 . *xx no male moderators for sexlife impact
803 .
804 .
805 . * female models
806 .  *-----Chunk 7 dose3 moderator => sex life impact--------------------------
    > -
807 . di as input "chunk 7  female wave=3"
    chunk 7  female wave=3

808 . title "Chunk 7 trimmed female model:" "dose and HP2sxlife relationship in wa
    > ve 2"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                  Chunk 7 trimmed female model:                     ****
    > *
    *****            dose and HP2sxlife relationship in wave 2               ****
    > *
    *****                                                                    ****
    > *
```

```
*****                                                                   ****
> *
*****                                           1 Jul 2012    15:04:53  ****
> *
****************************************************************************
> *
****************************************************************************
> *
```

```
809 . * female models
810 .         forvalues j=2/2 {
  2.
811 . set more off
  3. des bf4 bf4m shfamw2 shrelaw2 avgcumdosew2
  4. title "trimmed HP2sexlife main effects models" "wave 2 for H1 part 2 with
>  dose ns"
  5. title "wave 2 dose HP2sexlife relationship" "avgcumdosew`j' Dose not sign
> if"
  6.         logit HP2sxlife age marrw21-marrw26  radhlw`j' bf4 bf4m   ///
>            shfamw`j' shrelaw`j' avgcumdosew`j'  if gender==2
  7.                         estat class
  8.                         estat gof
  9.                         fitstat
 10. }
```

variable name	storage type	display format	value label	variable label
bf4	float	%9.0g		**bf4 = max(0, 24 - BSIsoma)**
bf4m	float	%9.0g		**bf4m = max(0, 32 - BSIsoma)**
shfamw2	double	%8.0g		**Percentage of strains and hassles related to family in 1996**
shrelaw2	double	%8.0g		**Percentage of strains and hassles related to relationships in 1996**
avgcumdosew2	double	%8.0g		**Average mean dose CS1337 in mGy for wave 2**

```
*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****              trimmed HP2sexlife main effects models               ****
> *
*****                wave 2 for H1 part 2 with dose ns                  ****
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****                                         1 Jul 2012    15:04:53  ****
> *
*****************************************************************************
> *
*****************************************************************************
> *
```

```
*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****               wave 2 dose HP2sexlife relationship                 ****
> *
*****                   avgcumdosew2 Dose not signif                    ****
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****                                         1 Jul 2012    15:04:53  ****
> *
*****************************************************************************
> *
*****************************************************************************
> *
```

```
note: marrw24 omitted because of collinearity
note: marrw26 omitted because of collinearity
Iteration 0:   log likelihood = -206.26609
Iteration 1:   log likelihood = -143.57745
Iteration 2:   log likelihood = -138.68519
Iteration 3:   log likelihood = -138.62333
Iteration 4:   log likelihood = -138.62326
Iteration 5:   log likelihood = -138.62326

Logistic regression                               Number of obs   =        362
                                                  LR chi2(11)     =     135.29
                                                  Prob > chi2     =     0.0000
Log likelihood = -138.62326                       Pseudo R2       =     0.3279
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.076392	.0165292	4.62	0.000	.0439954	.1087886
marrw21	-.5305645	.8871345	-0.60	0.550	-2.269316	1.208187
marrw22	.2470266	1.206929	0.20	0.838	-2.11851	2.612563
marrw23	-.9086585	.7011467	-1.30	0.195	-2.282881	.4655638
marrw24	0	(omitted)				
marrw25	-1.473965	1.020033	-1.45	0.148	-3.473194	.525263
marrw26	0	(omitted)				
radhlw2	.0078658	.0048473	1.62	0.105	-.0016346	.0173663
bf4	-.6041323	.1886755	-3.20	0.001	-.9739294	-.2343351
bf4m	.40554	.1714694	2.37	0.018	.0694661	.7416139
shfamw2	-.0013231	.0052527	-0.25	0.801	-.0116181	.008972
shrelaw2	-.0119535	.0060123	-1.99	0.047	-.0237374	-.0001695
avgcumdosew2	.185182	.1129898	1.64	0.101	-.0362739	.4066379
_cons	-6.005196	1.747399	-3.44	0.001	-9.430035	-2.580358

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	53	20	73
-	40	249	289
Total	93	269	362

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   56.99%
Specificity                     Pr( -|~D)   92.57%
Positive predictive value       Pr( D| +)   72.60%
Negative predictive value       Pr(~D| -)   86.16%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    7.43%
False - rate for true D         Pr( -| D)   43.01%
False + rate for classified +   Pr(~D| +)   27.40%
False - rate for classified -   Pr( D| -)   13.84%
--------------------------------------------------
Correctly classified                        83.43%
--------------------------------------------------
```

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       362
 number of covariate patterns =       361
            Pearson chi2(349) =       408.71
                  Prob > chi2 =         0.0151
```

Measures of Fit for **logit** of **HP2sxlife**

```
Log-Lik Intercept Only:     -206.266    Log-Lik Full Model:          -138.623
D(348):                      277.247    LR(11):                       135.286
                                        Prob > LR:                      0.000
McFadden's R2:                 0.328    McFadden's Adj R2:              0.260
Maximum Likelihood R2:         0.312    Cragg & Uhler's R2:             0.459
McKelvey and Zavoina's R2:     0.482    Efron's R2:                     0.384
Variance of y*:                6.352    Variance of error:              3.290
Count R2:                      0.834    Adj Count R2:                   0.355
AIC:                           0.843    AIC*n:                        305.247
BIC:                       -1773.046    BIC':                         -70.478
```

```
812 . scalar SigDoseSxlifeFw2 = "no"

813 . scalar MainEffsxlifeFw2 = "age marrw23 radhlw2 bf4 bf4m shrelaw2"

814 . *-----  constructing possible moderators
815 .
816 .       foreach var in marrw21 marrw22 marrw23 marrw24 marrw25 marrw26 ///
    >           bf4 bf4m shfamw2 shrelaw2 radhlw2 {
      2.        cap gen `var'Xd3 = `var'*avgcumdosew2
      3.          }

817 .
818 . title "Chunk 7 trimmed female model:" "dose and HP2sxlife relationship in wa
    > ve 2"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                   Chunk 7 trimmed female model:                    ****
    > *
    *****             dose and HP2sxlife relationship in wave 2              ****
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                      1 Jul 2012    15:04:54        ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
819 . * female models
820 .         forvalues j=2/2 {
      2.
821 . set more off
      3. des bf4 bf4m shfamw2 shrelaw2 avgcumdosew2
      4. title "trimmed HP2sexlife main effects models" "wave 2 for H1 part 2 with
    >  dose ns"
      5. title "wave 2 dose HP2sexlife relationship" "avgcumdosew`j' Dose not sign
    > if"
      6.         logit HP2sxlife age marrw21-marrw26  radhlw`j' bf4 bf4m   ///
    >            shfamw`j' shrelaw`j' avgcumdosew`j'  ageXd3 marrw21Xd3 marrw22Xd3
    >  ///
    >            marrw23Xd3 marrw24Xd3 marrw25Xd3 bf4Xd3 bf4mXd3 shrelaw2Xd3 ///
    >              if gender==2
      7.                         estat class
      8.                         estat gof
      9.                         fitstat
     10. }

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------

    bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
    bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)
    shfamw2         double %8.0g                  Percentage of strains and
                                                    hassles related to family in
                                                    1996
    shrelaw2        double %8.0g                  Percentage of strains and
                                                    hassles related to
                                                    relationships in 1996
    avgcumdosew2    double %8.0g                  Average mean dose CS1337 in mGy
                                                    for wave 2


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****               trimmed HP2sexlife main effects models                ****
    > *
    *****                 wave 2 for H1 part 2 with dose ns                   ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
```

```
> *
*****                                          1 Jul 2012    15:04:54  ****
> *
****************************************************************************
> *
****************************************************************************
> *



****************************************************************************
> *
****************************************************************************
> *
*****                                                                  ****
> *
*****                                                                  ****
> *
*****              wave 2 dose HP2sexlife relationship                 ****
> *
*****                 avgcumdosew2 Dose not signif                     ****
> *
*****                                                                  ****
> *
*****                                                                  ****
> *
*****                                          1 Jul 2012    15:04:54  ****
> *
****************************************************************************
> *
****************************************************************************
> *


note: marrw24 omitted because of collinearity
note: marrw26 omitted because of collinearity
note: marrw24Xd3 omitted because of collinearity
Iteration 0:   log likelihood = -206.26609
Iteration 1:   log likelihood = -141.90135
Iteration 2:   log likelihood = -137.13734
Iteration 3:   log likelihood = -137.05422
Iteration 4:   log likelihood = -137.05402
Iteration 5:   log likelihood = -137.05402
```

Logistic regression

Number of obs =	362
LR chi2(19) =	138.42
Prob > chi2 =	0.0000
Pseudo R2 =	0.3355

Log likelihood = -137.05402

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0771657	.0249115	3.10	0.002	.02834	.1259913
marrw21	-1.451767	1.441353	-1.01	0.314	-4.276767	1.373234
marrw22	.0685249	1.464872	0.05	0.963	-2.802572	2.939622
marrw23	-1.092581	.9071979	-1.20	0.228	-2.870657	.6854937
marrw24	0	(omitted)				
marrw25	-1.837988	1.514456	-1.21	0.225	-4.806268	1.130292
marrw26	0	(omitted)				
radhlw2	.0079384	.0048969	1.62	0.105	-.0016593	.0175361
bf4	-.363408	.3781896	-0.96	0.337	-1.104646	.3778301
bf4m	.2325195	.3434991	0.68	0.498	-.4407264	.9057654
shfamw2	-.0007843	.0054412	-0.14	0.885	-.011449	.0098803
shrelaw2	-.0124226	.0061868	-2.01	0.045	-.0245484	-.0002967
avgcumdosew2	-1.023812	3.170547	-0.32	0.747	-7.23797	5.190346
ageXd3	.0002661	.0332903	0.01	0.994	-.0649818	.0655139
marrw21Xd3	1.328931	1.506104	0.88	0.378	-1.622979	4.28084
marrw22Xd3	.1769697	.9861833	0.18	0.858	-1.755914	2.109853
marrw23Xd3	.2926788	.7754937	0.38	0.706	-1.227261	1.812619
marrw24Xd3	0	(omitted)				
marrw25Xd3	.2934835	.9361317	0.31	0.754	-1.541301	2.128268
bf4Xd3	-.2172939	.2938598	-0.74	0.460	-.7932486	.3586608
bf4mXd3	.14997	.2614038	0.57	0.566	-.362372	.6623121
shrelaw2Xd3	.0002655	.0431225	0.01	0.995	-.084253	.084784
_cons	-5.03786	3.098692	-1.63	0.104	-11.11118	1.035465

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	55	20	75
-	38	249	287
Total	93	269	362

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   59.14%
Specificity                     Pr( -|~D)   92.57%
Positive predictive value       Pr( D| +)   73.33%
Negative predictive value       Pr(~D| -)   86.76%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    7.43%
False - rate for true D         Pr( -| D)   40.86%
False + rate for classified +   Pr(~D| +)   26.67%
False - rate for classified -   Pr( D| -)   13.24%
--------------------------------------------------
Correctly classified                        83.98%
--------------------------------------------------
```

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       362
 number of covariate patterns =       361
            Pearson chi2(341) =       404.96
                  Prob > chi2 =         0.0097
```

Measures of Fit for **logit** of **HP2sxlife**

```
Log-Lik Intercept Only:     -206.266   Log-Lik Full Model:            -137.054
D(339):                      274.108   LR(19):                         138.424
                                       Prob > LR:                        0.000
McFadden's R2:                 0.336   McFadden's Adj R2:                0.224
Maximum Likelihood R2:         0.318   Cragg & Uhler's R2:               0.467
McKelvey and Zavoina's R2:     0.494   Efron's R2:                       0.389
Variance of y*:                6.498   Variance of error:                3.290
Count R2:                      0.840   Adj Count R2:                     0.376
AIC:                           0.884   AIC*n:                          320.108
BIC:                       -1723.159   BIC':                           -26.483
```

```
822 . scalar sxlifeModFw2="none"

823 .
824 .
825 .
826 .
827 .  *----- testing female moderators
828 . title "partly trimmed female moderator model of dose & HP2sxlife relationshi
    > p in wv 3"


    *******************************************************************************
    > *
    *******************************************************************************
    > *
    *****                                                                      ****
    > *
    *****                                                                      ****
    > *
    *****partly trimmed female moderator model of dose & HP2sxlife relationship in
    >  wv 3*****
    *****                                                                      ****
    > *
    *****                                                                      ****
    > *
    *****                                             1 Jul 2012    15:04:56  ****
    > *
    *******************************************************************************
    > *
    *******************************************************************************
    > *



829 . * male models
830 .         forvalues j=2/2 {
      2. set more off
      3. des bf4 bf4m shfamw2 shrelaw2 avgcumdosew2
      4. title3 "trimmed HP2sexlife main effects models wave 1 for H1 part 2 with
    > dose ns"
      5. title "wave 2 dose HP2sexlife relationship but avgcumdosew`j': Dose not s
    > ignif"
      6.         logit HP2sxlife age marrw21-marrw26 radhlw`j' bf4 bf4m   ///
    >            shfamw`j' shrelaw`j' avgcumdosew`j' marrw21Xd3 marrw22Xd3 ///
    >            marrw23Xd3 marrw24Xd3 marrw25Xd3 marrw26Xd3 radhlw`j'Xd3 ///
    >            bf4Xd3 shfamw2Xd3 shrelaw2Xd3 if gender==2
      7.                         estat class
      8.                         estat gof
      9.                         fitstat
```

```
 10. }

                storage  display     value
variable name   type     format      label      variable label
-------------------------------------------------------------------------------
bf4             float    %9.0g                  bf4 = max(0, 24 - BSIsoma)
bf4m            float    %9.0g                  bf4m = max(0, 32 - BSIsoma)
shfamw2         double   %8.0g                  Percentage of strains and
                                                  hassles related to family in
                                                  1996
shrelaw2        double   %8.0g                  Percentage of strains and
                                                  hassles related to
                                                  relationships in 1996
avgcumdosew2    double   %8.0g                  Average mean dose CS1337 in mGy
                                                  for wave 2
-------------------------------------------------------------------------------
title3 : trimmed HP2sexlife main effects models wave 1 for H1 part 2 with dose
>  ns
 1 Jul 2012
15:04:56
computer  Macintosh (Intel 64-bit)
folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests
> /h1pt2
Data file  chwide1jul2012.dta  currrently has  2406  variables and  703  obser
> vations


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****wave 2 dose HP2sexlife relationship but avgcumdosew2: Dose not signif****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                                1 Jul 2012    15:04:56  ****
> *
******************************************************************************
> *
******************************************************************************
> *
```

```
note: marrw24 omitted because of collinearity
note: marrw26 omitted because of collinearity
note: marrw24Xd3 omitted because of collinearity
note: marrw26Xd3 omitted because of collinearity
Iteration 0:   log likelihood = -206.26609
Iteration 1:   log likelihood = -142.57705
Iteration 2:   log likelihood = -137.51325
Iteration 3:   log likelihood = -137.42461
Iteration 4:   log likelihood = -137.42437
Iteration 5:   log likelihood = -137.42437

Logistic regression                               Number of obs   =        362
                                                  LR chi2(19)     =     137.68
                                                  Prob > chi2     =     0.0000
Log likelihood = -137.42437                       Pseudo R2       =     0.3338
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0881857	.0228618	3.86	0.000	.0433774	.132994
marrw21	-1.190817	1.437325	-0.83	0.407	-4.007921	1.626288
marrw22	.0152843	1.480232	0.01	0.992	-2.885916	2.916485
marrw23	-1.100839	.8999384	-1.22	0.221	-2.864686	.6630077
marrw24	0	(omitted)				
marrw25	-1.714881	1.480971	-1.16	0.247	-4.61753	1.187768
marrw26	0	(omitted)				
radhlw2	.0059255	.0058476	1.01	0.311	-.0055355	.0173866
bf4	-.5647269	.1952268	-2.89	0.004	-.9473645	-.1820894
bf4m	.4033962	.174148	2.32	0.021	.0620723	.7447201
shfamw2	.0021518	.0065354	0.33	0.742	-.0106573	.0149608
shrelaw2	-.0127936	.0062133	-2.06	0.039	-.0249714	-.0006158
avgcumdosew2	1.042177	1.610695	0.65	0.518	-2.114727	4.199082
marrw21Xd3	1.083118	1.522783	0.71	0.477	-1.901481	4.067718
marrw22Xd3	.3220928	1.102342	0.29	0.770	-1.838458	2.482644
marrw23Xd3	.394904	.7698412	0.51	0.608	-1.113957	1.903765
marrw24Xd3	0	(omitted)				
marrw25Xd3	.3165762	.9106048	0.35	0.728	-1.468176	2.101329
marrw26Xd3	0	(omitted)				
radhlw2Xd3	.0024173	.0037617	0.64	0.520	-.0049555	.00979
bf4Xd3	-.0361335	.046891	-0.77	0.441	-.1280381	.0557711
shfamw2Xd3	-.0034656	.0052445	-0.66	0.509	-.0137447	.0068135
shrelaw2Xd3	-.0162686	.0222527	-0.73	0.465	-.0598831	.0273459
_cons	-6.710013	2.18777	-3.07	0.002	-10.99796	-2.422062

Logistic model for HP2sxlife

Classified	True D	True ~D	Total
+	**54**	**19**	**73**
-	**39**	**250**	**289**
Total	**93**	**269**	**362**

Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0

Sensitivity	Pr(+| D)	**58.06%**
Specificity	Pr(-|~D)	**92.94%**
Positive predictive value	Pr(D| +)	**73.97%**
Negative predictive value	Pr(~D| -)	**86.51%**
False + rate for true ~D	Pr(+|~D)	**7.06%**
False - rate for true D	Pr(-| D)	**41.94%**
False + rate for classified +	Pr(~D| +)	**26.03%**
False - rate for classified -	Pr(D| -)	**13.49%**
Correctly classified		**83.98%**

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       362
 number of covariate patterns =       361
            Pearson chi2(341) =       404.20
                  Prob > chi2 =         0.0104
```

Measures of Fit for **logit** of **HP2sxlife**

Log-Lik Intercept Only:	**-206.266**	Log-Lik Full Model:	**-137.424**
D(338):	**274.849**	LR(19):	**137.683**
		Prob > LR:	**0.000**
McFadden's R2:	**0.334**	McFadden's Adj R2:	**0.217**
Maximum Likelihood R2:	**0.316**	Cragg & Uhler's R2:	**0.465**
McKelvey and Zavoina's R2:	**0.497**	Efron's R2:	**0.388**
Variance of y*:	**6.546**	Variance of error:	**3.290**
Count R2:	**0.840**	Adj Count R2:	**0.376**
AIC:	**0.892**	AIC*n:	**322.849**
BIC:	**-1716.527**	BIC':	**-25.742**

```
831 .
832 . title "fully female moderator model of dose & HP2sxlife relationship in wv 3
    > "


    ****************************************************************************
    > *
    ****************************************************************************
    > *
    *****                                                                   ****
    > *
    *****                                                                   ****
    > *
    *****fully female moderator model of dose & HP2sxlife relationship in wv 3****
    > *
    *****                                                                   ****
    > *
    *****                                                                   ****
    > *
    *****                                             1 Jul 2012    15:04:58  ****
    > *
    ****************************************************************************
    > *
    ****************************************************************************
    > *



833 . title2 "Signif female dose main effect "
    ____________________________________________________________________________

    title2: Signif female dose main effect
                                           Date and time:   1 Jul 2012    15:04:58
                                           Working directory:  /Users/robertyaffee
    > /Documents/data/research/chwk/phase3/Htests/H1tests/h1pt2
                                           Stata data file:  chwide1jul2012.dta  h
    > as  2406  variables and  703  observations

    Signif female dose main effect
    ____________________________________________________________________________
```

```
. 
. * female models
.         forvalues j=2/2 {
  2. des bf4 bf4m shfamw2 shrelaw2 avgcumdosew2
  3. title3 "trimmed HP2sexlife main effects models wave 1 for H1 part 2 with
> dose ns"
  4. title "wave 2 dose HP2sexlife relationship but avgcumdosew`j': Dose not s
> ignif"
  5.         logit HP2sxlife age  radhlw`j' bf4 bf4m   ///
>            shrelaw2 shfamw`j'  avgcumdosew`j'  ///
>           shrelaw2Xd3 if gender==2
  6.                        estat class
  7.                        estat gof
  8.                        fitstat
  9. }

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)
shfamw2         double %8.0g                  Percentage of strains and
                                                hassles related to family in
                                                1996
shrelaw2        double %8.0g                  Percentage of strains and
                                                hassles related to
                                                relationships in 1996
avgcumdosew2    double %8.0g                  Average mean dose CS1337 in mGy
                                                for wave 2
-------------------------------------------------------------------------------

title3 : trimmed HP2sexlife main effects models wave 1 for H1 part 2 with dose
>  ns
 1 Jul 2012
15:04:58
computer  Macintosh (Intel 64-bit)
folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests
> /h1pt2
Data file  chwide1jul2012.dta  currrently has  2406  variables and  703  obser
> vations
```

```
******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****wave 2 dose HP2sexlife relationship but avgcumdosew2: Dose not signif****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                              1 Jul 2012    15:04:58  ****
> *
******************************************************************************
> *
******************************************************************************
> *
```

```
Iteration 0:   log likelihood = -206.26609
Iteration 1:   log likelihood = -145.82764
Iteration 2:   log likelihood =   -140.338
Iteration 3:   log likelihood =  -140.1844
Iteration 4:   log likelihood =  -140.1838
Iteration 5:   log likelihood =  -140.1838

Logistic regression                               Number of obs   =        362
                                                  LR chi2(8)      =     132.16
                                                  Prob > chi2     =     0.0000
Log likelihood =  -140.1838                       Pseudo R2       =     0.3204
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.086161	.0187529	4.59	0.000	.049406	.122916
radhlw2	.0086327	.004785	1.80	0.071	-.0007457	.018011
bf4	-.5633458	.1891523	-2.98	0.003	-.9340774	-.1926141
bf4m	.3743527	.1732499	2.16	0.031	.0347891	.7139163
shrelaw2	-.0122309	.0059271	-2.06	0.039	-.0238478	-.000614
shfamw2	-.0009006	.0051781	-0.17	0.862	-.0110495	.0092484
avgcumdosew2	.9067215	.7875706	1.15	0.250	-.6368885	2.450332
shrelaw2Xd3	-.0126027	.0132428	-0.95	0.341	-.0385582	.0133527
_cons	-7.277228	1.721919	-4.23	0.000	-10.65213	-3.902329

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	**52**	**22**	**74**
-	**41**	**247**	**288**
Total	**93**	**269**	**362**

Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0

Sensitivity	Pr(+| D)	**55.91%**
Specificity	Pr(-|~D)	**91.82%**
Positive predictive value	Pr(D| +)	**70.27%**
Negative predictive value	Pr(~D| -)	**85.76%**
False + rate for true ~D	Pr(+|~D)	**8.18%**
False - rate for true D	Pr(-| D)	**44.09%**
False + rate for classified +	Pr(~D| +)	**29.73%**
False - rate for classified -	Pr(D| -)	**14.24%**
Correctly classified		**82.60%**

Logistic model for HP2sxlife, goodness-of-fit test

number of observations =	**362**
number of covariate patterns =	**361**
Pearson chi2(**352**) =	**405.41**
Prob > chi2 =	**0.0259**

Measures of Fit for **logit** of **HP2sxlife**

Log-Lik Intercept Only:	**-206.266**	Log-Lik Full Model:	**-140.184**
D(353):	**280.368**	LR(8):	**132.165**
		Prob > LR:	**0.000**
McFadden's R2:	**0.320**	McFadden's Adj R2:	**0.277**
Maximum Likelihood R2:	**0.306**	Cragg & Uhler's R2:	**0.450**
McKelvey and Zavoina's R2:	**0.479**	Efron's R2:	**0.373**
Variance of y*:	**6.317**	Variance of error:	**3.290**
Count R2:	**0.826**	Adj Count R2:	**0.323**
AIC:	**0.824**	AIC*n:	**298.368**
BIC:	**-1799.383**	BIC':	**-85.031**

```
837 . * female models
838 .         forvalues j=2/2 {
  2. des bf4 bf4m shfamw2 shrelaw2 avgcumdosew2
  3. title3 "trimmed HP2sexlife main effects models wave 1 for H1 part 2 with
> dose ns"
  4. title "wave 2 dose HP2sexlife relationship but avgcumdosew`j': Dose not s
> ignif"
  5.          logit HP2sxlife age  radhlw`j' bf4 bf4m   ///
>             shrelaw2 shfamw`j'   ///
>            if gender==2
  6.                          estat class
  7.                          estat gof
  8.                          fitstat
  9. }

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)
shfamw2         double %8.0g                  Percentage of strains and
                                                hassles related to family in
                                                1996
shrelaw2        double %8.0g                  Percentage of strains and
                                                hassles related to
                                                relationships in 1996
avgcumdosew2    double %8.0g                  Average mean dose CS1337 in mGy
                                                for wave 2
-------------------------------------------------------------------------------

title3 : trimmed HP2sexlife main effects models wave 1 for H1 part 2 with dose
>  ns
 1 Jul 2012
15:04:59
computer  Macintosh (Intel 64-bit)
folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests
> /h1pt2
Data file  chwide1jul2012.dta  currrently has  2406  variables and  703  obser
> vations
```

```
*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****wave 2 dose HP2sexlife relationship but avgcumdosew2: Dose not signif****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                             1 Jul 2012    15:04:59  ****
> *
*****************************************************************************
> *
*****************************************************************************
> *
```

```
Iteration 0:   log likelihood = -206.26609
Iteration 1:   log likelihood = -147.80582
Iteration 2:   log likelihood = -142.56802
Iteration 3:   log likelihood = -142.50325
Iteration 4:   log likelihood = -142.50319
Iteration 5:   log likelihood = -142.50319

Logistic regression                               Number of obs   =        362
                                                  LR chi2(6)      =     127.53
                                                  Prob > chi2     =     0.0000
Log likelihood = -142.50319                       Pseudo R2       =     0.3091
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0773867	.0151879	5.10	0.000	.0476189	.1071545
radhlw2	.0092803	.0047101	1.97	0.049	.0000487	.0185119
bf4	-.5791652	.1890895	-3.06	0.002	-.9497739	-.2085566
bf4m	.3860275	.1731752	2.23	0.026	.0466104	.7254445
shrelaw2	-.0111587	.0058224	-1.92	0.055	-.0225703	.000253
shfamw2	-.0012219	.005072	-0.24	0.810	-.0111628	.008719
_cons	-6.703691	1.604696	-4.18	0.000	-9.848837	-3.558545

Logistic model for HP2sxlife

Classified	True D	~D	Total
+	**49**	**23**	**72**
-	**44**	**246**	**290**
Total	**93**	**269**	**362**

Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0

Sensitivity	Pr(+| D)	**52.69%**
Specificity	Pr(-|~D)	**91.45%**
Positive predictive value	Pr(D| +)	**68.06%**
Negative predictive value	Pr(~D| -)	**84.83%**
False + rate for true ~D	Pr(+|~D)	**8.55%**
False - rate for true D	Pr(-| D)	**47.31%**
False + rate for classified +	Pr(~D| +)	**31.94%**
False - rate for classified -	Pr(D| -)	**15.17%**
Correctly classified		**81.49%**

Logistic model for HP2sxlife, goodness-of-fit test

number of observations = **362**
number of covariate patterns = **357**
Pearson chi2(**350**) = **401.39**
Prob > chi2 = **0.0301**

Measures of Fit for **logit** of **HP2sxlife**

Log-Lik Intercept Only:	**-206.266**	Log-Lik Full Model:	**-142.503**
D(355):	**285.006**	LR(6):	**127.526**
		Prob > LR:	**0.000**
McFadden's R2:	**0.309**	McFadden's Adj R2:	**0.275**
Maximum Likelihood R2:	**0.297**	Cragg & Uhler's R2:	**0.437**
McKelvey and Zavoina's R2:	**0.465**	Efron's R2:	**0.360**
Variance of y*:	**6.146**	Variance of error:	**3.290**
Count R2:	**0.815**	Adj Count R2:	**0.280**
AIC:	**0.826**	AIC*n:	**299.006**
BIC:	**-1806.527**	BIC':	**-92.176**

```
839 .
840 . scalar MainEffsxlifeFw2 = "age radhlw2 bf4 bf4m shrelaw2 shfamw2"

841 . scalar SigDoseSxlifeFw2="no"

842 . * xx female main effects model: no sign dose main effect
843 . * xx 6 signif main effects
844 . * xx no moderator effects significant
845 .
846 . *-----------  mediator models for Dose => sexlife impact
847 .
848 . di as input "testing possible sex life mediator effects for males"
    testing possible sex life mediator effects for males

849 .
850 . * age is a mediating effect for males for Dose=> sex life for men
851 . des bf4 bf4m

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------
    bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
    bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)

852 . glm age avgcumdosew2 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1330.6004

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  147.6853
    Deviance         =  49917.64009                    (1/df) Deviance =  147.6853
    Pearson          =  49917.64009                    (1/df) Pearson  =  147.6853

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =  7.838826
    Log likelihood   =   -1330.6004                    BIC             =  47947.46

    ------------------------------------------------------------------------------
                 |                 OIM
             age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew2 |   .5832314   .2635871     2.21   0.027     .0666101    1.099853
           _cons |   48.62133   .7061562    68.85   0.000     47.23729    50.00537
    ------------------------------------------------------------------------------
```

```
853 . glm HP2sxlife age  if gender==1, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =    287.05
    Iteration 2:   deviance =  282.9134
    Iteration 3:   deviance =  282.8157
    Iteration 4:   deviance =  282.8156
    Iteration 5:   deviance =  282.8156

    Generalized linear models                          No. of obs      =       340
    Optimization     : MQL Fisher scoring              Residual df     =       338
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  282.8156218                    (1/df) Deviance =  .8367326
    Pearson          =  327.5643783                    (1/df) Pearson  =  .9691254

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             = -1687.368

    ------------------------------------------------------------------------------
                 |                 EIM
       HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             age |   .0532907   .0067666     7.88   0.000     .0400283    .0665531
           _cons |  -3.620299   .3741324    -9.68   0.000    -4.353585   -2.887013
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

854 .
855 . * illness is a mediating effect for males = > sex life for men
856 . des illw2

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------
    illw2           double %8.0g                  Total number of illnesses
                                                    experienced in time period
                                                    1987-1996
```

```
857 . glm illw2 avgcumdosew2 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -303.59609

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  .3512988
    Deviance         =  118.7390083                    (1/df) Deviance =  .3512988
    Pearson          =  118.7390083                    (1/df) Pearson  =  .3512988

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =  1.797624
    Log likelihood   = -303.5960853                    BIC             = -1851.445

    ------------------------------------------------------------------------------
                 |                 OIM
           illw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew2 |   .0085423   .0128556     0.66   0.506    -.0166543    .0337389
           _cons |   .2741359   .0344406     7.96   0.000     .2066336    .3416382
    ------------------------------------------------------------------------------

858 . glm HP2sxlife illw2 if gender==1, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  327.4086
    Iteration 2:   deviance =  327.3702
    Iteration 3:   deviance =  327.3699
    Iteration 4:   deviance =  327.3699
    Iteration 5:   deviance =  327.3699

    Generalized linear models                          No. of obs      =       340
    Optimization     : MQL Fisher scoring              Residual df     =       338
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =    327.36992                    (1/df) Deviance =  .9685501
    Pearson          =  335.9738293                    (1/df) Pearson  =  .9940054

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             = -1642.814
```

```
------------------------------------------------------------------------------
             |                 EIM
   HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw2 |   .4754044   .1211711     3.92   0.000     .2379134    .7128953
       _cons |  -.9963884   .0886054   -11.25   0.000    -1.170052    -.822725
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

859 .
860 . des radhlw2

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------

radhlw2         double %8.0g                  how much believed personal
                                                health is affected by
                                                radiation in 1996

861 . glm radhlw2 avgcumdosew2 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1693.4076

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  1247.933
Deviance         =  421801.4584                    (1/df) Deviance =  1247.933
Pearson          =  421801.4584                    (1/df) Pearson  =  1247.933

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  9.972986
Log likelihood   = -1693.407647                    BIC             =  419831.3

------------------------------------------------------------------------------
             |                 OIM
     radhlw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   1.220373    .766216     1.59   0.111    -.2813831    2.722128
       _cons |   45.63198   2.052711    22.23   0.000     41.60874    49.65522
------------------------------------------------------------------------------
```

```
862 . glm HP2sxlife radhlw2 if gender==1, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  299.0301
    Iteration 2:   deviance =  296.5897
    Iteration 3:   deviance =  296.5625
    Iteration 4:   deviance =  296.5625
    Iteration 5:   deviance =  296.5625

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        338
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  296.5625078                    (1/df) Deviance =   .8774039
    Pearson          =   336.752315                    (1/df) Pearson  =   .9963086

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             =  -1673.621

    ------------------------------------------------------------------------------
                 |                 EIM
      HP2sxlife  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
        radhlw2  |   .0156386   .0022528     6.94   0.000     .0112232     .020054
          _cons  |  -1.687381   .1543913   -10.93   0.000    -1.989983    -1.38478
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

863 .
864 .
865 . des bf4

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------
    bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
```

```
866 . glm bf4  avgcumdosew2 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1027.1225

    Generalized linear models                          No. of obs      =        340
    Optimization     : ML                              Residual df     =        338
                                                       Scale parameter =    24.7771
    Deviance         =  8374.659221                    (1/df) Deviance =    24.7771
    Pearson          =  8374.659221                    (1/df) Pearson  =    24.7771

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =   6.053662
    Log likelihood   = -1027.122509                    BIC             =   6404.476

    ------------------------------------------------------------------------------
                 |                 OIM
             bf4 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew2 |  -.0331637   .1079644    -0.31   0.759    -.2447701    .1784427
           _cons |   12.52896   .2892393    43.32   0.000     11.96206    13.09586
    ------------------------------------------------------------------------------

867 . glm HP2sxlife bf4  if gender==1, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  265.0595
    Iteration 2:   deviance =  261.6959
    Iteration 3:   deviance =  261.6273
    Iteration 4:   deviance =  261.6271
    Iteration 5:   deviance =  261.6271

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        338
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  261.6270836                    (1/df) Deviance =   .7740446
    Pearson          =  301.9171445                    (1/df) Pearson  =    .893246

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             =  -1708.557
```

HP2sxlife	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	-.1431725	.0149643	-9.57	0.000	-.172502	-.1138431
_cons	.7780696	.180124	4.32	0.000	.425033	1.131106

(Standard errors scaled using square root of deviance-based dispersion.)

```
868 .
869 . des bf4m
```

variable name	storage type	display format	value label	variable label
bf4m	float	%9.0g		**bf4m = max(0, 32 - BSIsoma)**

```
870 . glm bf4m  avgcumdosew2 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1060.7791

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =   30.20174
Deviance         =  10208.18969                    (1/df) Deviance =   30.20174
Pearson          =  10208.18969                    (1/df) Pearson  =   30.20174

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =   6.251642
Log likelihood   = -1060.779096                    BIC             =   8238.006
```

bf4m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	-.0266037	.1191987	-0.22	0.823	-.2602289	.2070215
_cons	20.34324	.3193362	63.70	0.000	19.71735	20.96913

```
871 . glm HP2sxlife bf4m  if gender==1, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  266.1375
    Iteration 2:   deviance =  263.3205
    Iteration 3:   deviance =   263.273
    Iteration 4:   deviance =  263.2729
    Iteration 5:   deviance =  263.2729

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        338
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  263.2728985                    (1/df) Deviance =   .7789139
    Pearson          =  303.0162706                    (1/df) Pearson  =   .8964978

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             =  -1706.911

    ------------------------------------------------------------------------------
                 |                 EIM
       HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
            bf4m |  -.1287243   .0140303    -9.17   0.000    -.1562231   -.1012255
           _cons |   1.624944    .276779     5.87   0.000     1.082468    2.167421
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

872 .
873 .
874 . * age is a mediating effect for females for Dose=> sex life for women
875 . glm age avgcumdosew2 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1406.9403

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =   136.9184
    Deviance         =  49427.52828                    (1/df) Deviance =   136.9184
    Pearson          =  49427.52828                    (1/df) Pearson  =   136.9184

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =   7.762756
    Log likelihood   = -1406.940271                    BIC             =   47299.65
```

```
             |                 OIM
         age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   1.502324   .4454009     3.37   0.001     .6293547    2.375294
       _cons |   48.86944   .7323225    66.73   0.000     47.43412    50.30477
------------------------------------------------------------------------------
```

```
876 . glm HP2sxlife age  if gender==2, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  336.5251
    Iteration 2:   deviance =  333.7638
    Iteration 3:   deviance =  333.7326
    Iteration 4:   deviance =  333.7326
    Iteration 5:   deviance =  333.7326

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  333.7325644                    (1/df) Deviance =  .9244669
    Pearson          =  379.4384762                    (1/df) Pearson  =  1.051076

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             = -1794.147

    ------------------------------------------------------------------------------
                 |                 EIM
       HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             age |   .0606116   .0071416     8.49   0.000     .0466144    .0746088
           _cons |  -3.838422   .3937027    -9.75   0.000    -4.610065   -3.066779
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

877 .
```

```
878 . * illness is a mediating effect for females = > sex life for men
879 . des illw2

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
illw2           double %8.0g                  Total number of illnesses
                                                experienced in time period
                                                1987-1996

880 . glm illw2 avgcumdosew2 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -463.51524

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =   .756881
Deviance         =  273.2340487                    (1/df) Deviance =   .756881
Pearson          =  273.2340487                    (1/df) Pearson  =   .756881

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  2.564822
Log likelihood   = -463.5152411                    BIC             = -1854.645

------------------------------------------------------------------------------
             |                 OIM
       illw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   .1249912   .0331157     3.77   0.000     .0600856    .1898968
       _cons |    .301285   .0544484     5.53   0.000      .194568    .4080019
------------------------------------------------------------------------------

881 . glm HP2sxlife illw2 if gender==2, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  388.6886
Iteration 2:   deviance =  388.2329
Iteration 3:   deviance =  388.2328
Iteration 4:   deviance =  388.2328

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       361
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  388.2327887                    (1/df) Deviance =  1.075437
Pearson          =  359.7775997                    (1/df) Pearson  =  .9966138
```

```
Variance function: V(u) = u*(1-u)                 [Bernoulli]
Link function    : g(u) = invnorm(u)              [Probit]

                                                  BIC             = -1739.647

------------------------------------------------------------------------------
             |                 EIM
   HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw2 |   .4442672   .0949037     4.68   0.000     .2582594     .630275
       _cons |  -.8535276   .0872416    -9.78   0.000    -1.024518   -.6825372
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)
```

882 .

883 . des radhlw2

```
              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
radhlw2         double %8.0g                  how much believed personal
                                                health is affected by
                                                radiation in 1996
```

884 . glm radhlw2 avgcumdosew2 if gender==2, fam(gaus) link(identity)

```
Iteration 0:   log likelihood = -1791.2233

Generalized linear models                         No. of obs      =        363
Optimization     : ML                             Residual df     =        361
                                                  Scale parameter =   1137.567
Deviance         =  410661.5604                   (1/df) Deviance =   1137.567
Pearson          =  410661.5604                   (1/df) Pearson  =   1137.567

Variance function: V(u) = 1                       [Gaussian]
Link function    : g(u) = u                       [Identity]

                                                  AIC             =   9.880018
Log likelihood   = -1791.223306                   BIC             =   408533.7

------------------------------------------------------------------------------
             |                 OIM
     radhlw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   3.302288   1.283833     2.57   0.010     .7860214    5.818555
       _cons |   56.95167   2.110863    26.98   0.000     52.81445    61.08888
------------------------------------------------------------------------------
```

```
885 . glm HP2sxlife radhlw2 if gender==2, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  390.2214
    Iteration 2:   deviance =  389.9357
    Iteration 3:   deviance =  389.9356
    Iteration 4:   deviance =  389.9356

    Generalized linear models                          No. of obs      =        363
    Optimization     : MQL Fisher scoring              Residual df     =        361
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  389.9355535                    (1/df) Deviance =   1.080154
    Pearson          =  370.7850434                    (1/df) Pearson  =   1.027105

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             =  -1737.944

    ------------------------------------------------------------------------------
                 |                 EIM
       HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
         radhlw2 |   .0108547   .0023275     4.66   0.000     .0062929    .0154166
           _cons |  -1.340315   .1718732    -7.80   0.000     -1.67718   -1.003449
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

886 .
887 . des bf4   // soma recentered

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------
    bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)

888 . * bf4 is a mediting effect for females for Dose=>  sex life for women
889 . glm bf4  avgcumdosew2 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1109.0983

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =   26.53281
    Deviance         =  9578.344971                    (1/df) Deviance =   26.53281
    Pearson          =  9578.344971                    (1/df) Pearson  =   26.53281

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]
```

```
                                                  AIC             =  6.121754
Log likelihood   = -1109.098281                   BIC             =  7450.466

------------------------------------------------------------------------------
             |                 OIM
         bf4 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   -.595012   .1960703    -3.03   0.002    -.9793027   -.2107212
       _cons |   11.02048   .3223763    34.19   0.000     10.38863    11.65232
------------------------------------------------------------------------------

890 . glm HP2sxlife bf4  if gender==2, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  344.0399
Iteration 2:   deviance =  342.6827
Iteration 3:   deviance =  342.6686
Iteration 4:   deviance =  342.6686
Iteration 5:   deviance =  342.6686

Generalized linear models                         No. of obs      =        363
Optimization     : MQL Fisher scoring             Residual df     =        361
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  342.6686152                   (1/df) Deviance =   .9492205
Pearson          =  336.3540555                   (1/df) Pearson  =   .9317287

Variance function: V(u) = u*(1-u)                 [Bernoulli]
Link function    : g(u) = invnorm(u)              [Probit]

                                                  BIC             = -1785.211

------------------------------------------------------------------------------
             |                 EIM
   HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bf4 |  -.1230087   .0148291    -8.30   0.000    -.1520732   -.0939442
       _cons |   .5134392   .1542351     3.33   0.001      .211144    .8157344
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)
```

```
891 .
892 . des bf4m // soma recentered

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------
    bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)

893 . * bf4m is a possible mediating effect for female sex life
894 . glm bf4m  avgcumdosew2 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1140.8259

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =  31.60104
    Deviance         =  11407.97484                    (1/df) Deviance =  31.60104
    Pearson          =  11407.97484                    (1/df) Pearson  =  31.60104

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =  6.296561
    Log likelihood   = -1140.825904                    BIC             =  9280.095

    ------------------------------------------------------------------------------
                 |                 OIM
            bf4m |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew2 |   -.599311   .2139789    -2.80   0.005    -1.018702   -.1799202
           _cons |   18.83424   .3518214    53.53   0.000     18.14469     19.5238
    ------------------------------------------------------------------------------

895 . glm HP2sxlife bf4m  if gender==2, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  356.1451
    Iteration 2:   deviance =  355.6209
    Iteration 3:   deviance =  355.6178
    Iteration 4:   deviance =  355.6178
    Iteration 5:   deviance =  355.6178

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  355.6178202                    (1/df) Deviance =  .9850909
    Pearson          =  340.0032816                    (1/df) Pearson  =  .9418373
```

```
Variance function: V(u) = u*(1-u)                    [Bernoulli]
Link function    : g(u) = invnorm(u)                 [Probit]

                                                     BIC             = -1772.262

------------------------------------------------------------------------------
             |                 EIM
   HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf4m |  -.0990193   .0135516    -7.31   0.000      -.12558   -.0724586
       _cons |   1.063679    .244399     4.35   0.000      .584666    1.542693
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

896 .
897 . des shfamw2

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
shfamw2         double %8.0g                  Percentage of strains and
                                                hassles related to family in
                                                1996

898 . glm shfamw2  avgcumdosew2 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1804.1821

Generalized linear models                          No. of obs      =       362
Optimization     : ML                              Residual df     =       360
                                                   Scale parameter =   1255.79
Deviance         =  452084.3956                    (1/df) Deviance =   1255.79
Pearson          =  452084.3956                    (1/df) Pearson  =   1255.79

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  9.978907
Log likelihood   = -1804.182119                    BIC             =  449963.4

------------------------------------------------------------------------------
             |                 OIM
     shfamw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   .6648412   1.349346     0.49   0.622    -1.979828     3.30951
       _cons |    33.6876   2.218839    15.18   0.000     29.33876    38.03645
------------------------------------------------------------------------------
```

```
899 . glm HP2sxlife shfamw2 if gender==2, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  411.7925
    Iteration 2:   deviance =  411.1829
    Iteration 3:   deviance =  411.1826
    Iteration 4:   deviance =  411.1826

    Generalized linear models                          No. of obs      =        362
    Optimization     : MQL Fisher scoring              Residual df     =        360
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  411.1826472                    (1/df) Deviance =   1.142174
    Pearson          =  361.8999919                    (1/df) Pearson  =   1.005278

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             =  -1709.809

    ------------------------------------------------------------------------------
                 |                 EIM
       HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
         shfamw2 |  -.0023803   .0021918    -1.09   0.277    -.0066761    .0019156
           _cons |  -.5736929   .1047839    -5.48   0.000    -.7790656   -.3683202
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

900 .
901 . des shrelaw2

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------
    shrelaw2        double %8.0g                  Percentage of strains and
                                                    hassles related to
                                                    relationships in 1996
```

```
902 . glm shrelaw2  avgcumdosew2 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1767.2727

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =  996.9369
    Deviance         =   359894.211                    (1/df) Deviance =  996.9369
    Pearson          =   359894.211                    (1/df) Pearson  =  996.9369

    Variance function: V(u) = 1                        [Gaussian]
    Link function    : g(u) = u                        [Identity]

                                                       AIC             =  9.748059
    Log likelihood   = -1767.272695                    BIC             =  357766.3
```

shrelaw2	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	1.945314	1.20186	1.62	0.106	-.4102891	4.300917
_cons	22.64351	1.976084	11.46	0.000	18.77046	26.51657

```
903 . glm HP2sxlife shrelaw2 if gender==2, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  415.0412
    Iteration 2:   deviance =   414.406
    Iteration 3:   deviance =  414.4058
    Iteration 4:   deviance =  414.4058

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  414.4057989                    (1/df) Deviance =  1.147939
    Pearson          =  362.9721983                    (1/df) Pearson  =  1.005463

    Variance function: V(u) = u*(1-u)                  [Bernoulli]
    Link function    : g(u) = invnorm(u)               [Probit]

                                                       BIC             = -1713.474
```

```
------------------------------------------------------------------------------
             |                 EIM
   HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    shrelaw2 |  -.0020918   .0024591    -0.85   0.395    -.0069114    .0027279
       _cons |  -.5970179   .0953785    -6.26   0.000    -.7839564   -.4100794
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

904 .
905 .
906 .
907 . *xx summary of mediating effects:  age and illness mediate sex life for men
908 . *                                  age illnesss radhlw2 bf4 bf4m (soma) medi
> ate sex life for women
909 .
910 . scalar sxlifeMedMw2 = "age illw2"

911 . scalar sxlifeMedFw2 = "age illw2 radhlw2 bf4 bf4m"

912 . title4 "5. summary matrix contstruction for dose -> sexlife impact"
------------------------------------------------------------------------------
5. summary matrix contstruction for dose -> sexlife impact
------------------------------------------------------------------------------


913 .
914 .   matrix define HP2sxlifeMw2 = J(1,8, 0)

915 .         matrix define HP2sxlifeFw2 = J(1,8, 0)

916 . matrix colnames HP2sxlifeMw2 =  hypnum ptnum wave gender medsig numMAsig num
> Modsig numMed

917 .         matrix colnames HP2sxlifeFw2 =  hypnum ptnum wave gender medsig numM
> Asig numModsig numMed

918 .     matrix define HP2sxlifeMw2 = (1, 2, 3, 1, 0, 4, 0, 2 )
```

```
919 .          matrix define HP2sxlifeFw2 = (1, 2, 3, 2, 1, 6, 0, 5)

920 .          matrix rowname HP2sxlifeMw2 = HP2sxlifeMw2

921 .          matrix rowname HP2sxlifeFw2 = HP2sxlifeFw2

922 .          matlist HP2sxlifeMw2

                 |        c1          c2          c3          c4          c5          c
    > 6        c7
    -------------+-----------------------------------------------------------------------
    > -------------
    HP2sxlifeMw2 |         1           2           3           1           0
    > 4          0

                 |        c8
    -------------+------------
    HP2sxlifeMw2 |         2

923 .          matlist HP2sxlifeFw2

                 |        c1          c2          c3          c4          c5          c
    > 6        c7
    -------------+-----------------------------------------------------------------------
    > -------------
    HP2sxlifeFw2 |         1           2           3           2           1
    > 6          0

                 |        c8
    -------------+------------
    HP2sxlifeFw2 |         5

924 . matrix define H1pt2w2 = ( HP2wkMw2 \ HP2wkFw2 \ HP2hmcrMw2 \ HP2hmcrFw2 \ HP
    > 2spMw2 \ HP2spFw2 \ HP2prbfamMw2 \ HP2prbfamFw2 \ HP2sxlifeMw2 \ HP2sxlifeFw
    > 2 )

925 .
```

```
926 .         matlist H1pt2w2

             |        c1         c2         c3         c4         c5          c
> 6        c7
-------------+-----------------------------------------------------------------------
> -------------
          r1 |         1          2          3          1          0
> 4         0
          r1 |         1          2          3          2          0
> 1         0
          r1 |         1          2          3          1          0
> 4         0
          r1 |         1          2          3          2          0
> 2         0
    HP2spMw2 |         1          2          3          1          0
> 2         0
    HP2spFw2 |         1          2          3          2          1
> 5         5
  HP2prbfamM |         1          2          3          1          0
> 5         0
  HP2prbfamF |         1          2          3          2          0
> 2         2
HP2sxlifeMw2 |         1          2          3          1          0
> 4         0
HP2sxlifeFw2 |         1          2          3          2          1
> 6         0

             |        c8
-------------+-----------
          r1 |         4
          r1 |         6
          r1 |         2
          r1 |         2
    HP2spMw2 |         1
    HP2spFw2 |         2
  HP2prbfamM |         1
  HP2prbfamF |         2
HP2sxlifeMw2 |         2
HP2sxlifeFw2 |         5
```

```
927 .     matrix colnames H1pt2w2 =  hypnum ptnum wave gender medsig numMAsig numM
    > odsig numMed

928 .     matrix rownames H1pt2w2 =   HP2wkMw2 HP2wkFw2 HP2hmcrMw2 HP2hmcrFw2 HP2p
    > rbfhmMw2 HP2prbfhmFw2

929 .     matlist H1pt2w2

                 |    hypnum      ptnum       wave     gender     medsig   numMAsi
    > g  numModsig
    -------------+-----------------------------------------------------------------
    > -------------
        HP2wkMw2 |         1          2          3          1          0
    > 4          0
        HP2wkFw2 |         1          2          3          2          0
    > 1          0
      HP2hmcrMw2 |         1          2          3          1          0
    > 4          0
      HP2hmcrFw2 |         1          2          3          2          0
    > 2          0
    HP2prbfhmMw2 |         1          2          3          1          0
    > 2          0
    HP2prbfhmFw2 |         1          2          3          2          1
    > 5          5
    HP2prbfhmFw2 |         1          2          3          1          0
    > 5          0
    HP2prbfhmFw2 |         1          2          3          2          0
    > 2          2
    HP2prbfhmFw2 |         1          2          3          1          0
    > 4          0
    HP2prbfhmFw2 |         1          2          3          2          1
    > 6          0

                 |    numMed
    -------------+-----------
        HP2wkMw2 |         4
        HP2wkFw2 |         6
      HP2hmcrMw2 |         2
      HP2hmcrFw2 |         2
    HP2prbfhmMw2 |         1
    HP2prbfhmFw2 |         2
    HP2prbfhmFw2 |         1
    HP2prbfhmFw2 |         2
    HP2prbfhmFw2 |         2
    HP2prbfhmFw2 |         5
```

```
930 .
931 .
932 .
933 .
934 . *================== Chunk 8    Dose => interests and Hobbies relationship
935 . * washes out for males
936 . * washes out for females in trimmed model
937 .
938 . title  "6. Moderators and Mediators of the Dose = > interests and hobbies Im
    > pact"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****6. Moderators and Mediators of the Dose = > interests and hobbies Impact*
    > ****
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                                1 Jul 2012    15:05:35  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *



939 .
940 . title4 " Hyp. 1. pt 2 wave 2 Main effects Dose=> Interests and Hobbies impac
    > t identification"
    ------------------------------------------------------------------------------
     Hyp. 1. pt 2 wave 2 Main effects Dose=> Interests and Hobbies impact identifi
    > cation
    ------------------------------------------------------------------------------
```

```
941 .
942 . * Chunk 8 ---Female full Interest and hobbies model
943 . forvalues j=2/2 {
      2. set more off
      3.
944 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
945 .   foreach var in HP2inthob  {
      5.       forvalues k=1/2 {
      6. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      7.
946 . di as input "Full main model for `var' for wave= `j' "
      8. di _skip(4)
      9. di as input  "chunk 8 H1 test:Gender= `k'  model Wave =  `j' for `e(depva
    > r)' "
     10. di _skip(4)
     11. title "Full Nottingham Part 2 subscale models for male and then females"
     12. di as input "Model for gender==`k' and wave == `j'"
     13. di _skip(2)
     14.       xi: logistic `var' age i.educ occ1w`j'-occ8w`j' ///
    >               marrw`j'1- marrw`j'3 marrw`j'5-marrw`j'6 inc1w`j'-inc4w`j' /
    > //
    >               radhlw`j' havmil avgcumdosew`j' `w`j'bf'  ///
    >                deaw`j' dvcew`j' sepaw`j' accdw`j' movew`j' ///
    >               illw`j' shfamw`j' shhlw`j' shjobw`j' shrelaw`j' suprtw`j' su
    > chrw`j' ///
    >                havmilsq radhlw2 if gender==2, coef nolog  difficult iterat
    > e(50)
     15.                          estat class
     16.                          estat gof
     17.                          fitstat
     18. }
     19. }
     20. }
```

variable name	storage type	display format	value label	variable label
age	double	%8.0g		* **Respondent's age**
educ1	byte	%8.0g		**educ==1. did not graduate high school**
educ2	byte	%8.0g		**educ==2. graduated high school**
educ3	byte	%8.0g		**educ==3. technical degree**
educ4	byte	%8.0g		**educ==4. did not finish college/bachelor's**
educ5	byte	%8.0g		**educ==5. graduated college/bachelor's**

```
educ6            byte   %8.0g                   educ==6. finished
                                                  specialist/master's degree
educ7            byte   %8.0g                   educ==7. doctor of science/phd
marrw21          byte   %8.0g                   marrw2==1. single
marrw22          byte   %8.0g                   marrw2==2. cohabitating
marrw23          byte   %8.0g                   marrw2==3. married
marrw24          byte   %8.0g                   marrw2==4. separated
marrw25          byte   %8.0g                   marrw2==5. divorced
marrw26          byte   %8.0g                   marrw2==6. widowed
inc1w2           double %15.0g      LABJ        Income is not sufficient for
                                                  basic neccessities in 1996
inc2w2           double %15.0g      LABJ        Income is just sufficient for
                                                  basic neccessities in 1996
inc3w2           double %15.0g      LABJ        Income is sufficient for basics
                                                  plus extra purchases/savings
                                                  in 1996
inc4w2           double %15.0g      LABJ        Income allows to comfortably
                                                  afford luxury items in 1996
bf1              float  %9.0g                   bf1 = max(0, kzchorn - 40)
bf4              float  %9.0g                   bf4 = max(0, 24 - BSIsoma)
bf9              float  %9.0g                   bf9= max(0, 30 - shhlw1)
bf11             float  %9.0g                   bf11= max(0, 20 - sufamw1)
bf4m             float  %9.0g                   bf4m = max(0, 32 - BSIsoma)
bf15m            float  %9.0g                   bf15m= max(0, 1 - icdxcnt) * bf2
bf30             float  %9.0g                   bf30 = max(0, neiw1 - 85) * bf20
bf40             float  %9.0g                   bf40 = max(0, icdxcnt -
                                                  1.01635E-007)
Full main model for HP2inthob for wave= 2

chunk 8 H1 test:Gender= 1  model Wave =  2 for HP2sxlife


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females   ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                        1 Jul 2012    15:05:35       ****
> *
```

```
********************************************************************************
> *
********************************************************************************
> *


Model for gender==1 and wave == 2

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 7 obs not used

note: _Ieduc_8 omitted because of collinearity
note: marrw26 omitted because of collinearity
note: bf17 omitted because of collinearity
note: radhlw2 omitted because of collinearity

Logistic regression                               Number of obs   =        343
                                                  LR chi2(50)     =     122.71
                                                  Prob > chi2     =     0.0000
Log likelihood = -105.17277                       Pseudo R2       =     0.3684
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0823123	.0222811	3.69	0.000	.0386422	.1259824
_Ieduc_2	-11.49207	1090.325	-0.01	0.992	-2148.489	2125.505
_Ieduc_3	-10.49189	1090.324	-0.01	0.992	-2147.489	2126.505
_Ieduc_4	-9.521531	1090.325	-0.01	0.993	-2146.519	2127.476
_Ieduc_5	-10.03097	1090.325	-0.01	0.993	-2147.028	2126.966
_Ieduc_6	-10.65519	1090.325	-0.01	0.992	-2147.652	2126.342
_Ieduc_7	-10.56771	1090.33	-0.01	0.992	-2147.575	2126.44
_Ieduc_8	0	(omitted)				
occ1w2	-1.444251	1.786645	-0.81	0.419	-4.94601	2.057508
occ2w2	-1.72162	1.86422	-0.92	0.356	-5.375425	1.932185
occ3w2	-.6960307	1.813742	-0.38	0.701	-4.2509	2.858838
occ4w2	-1.340236	1.971898	-0.68	0.497	-5.205085	2.524613
occ5w2	-1.866674	2.177453	-0.86	0.391	-6.134403	2.401055
occ6w2	-.6630026	2.009767	-0.33	0.741	-4.602073	3.276067
occ7w2	-.3132082	1.768051	-0.18	0.859	-3.778525	3.152109
occ8w2	-.4424864	1.980995	-0.22	0.823	-4.325166	3.440193
marrw21	1.198754	1.252366	0.96	0.338	-1.255838	3.653346
marrw22	-.723147	1.45696	-0.50	0.620	-3.578736	2.132442
marrw23	-.1412732	.8614541	-0.16	0.870	-1.829692	1.547146
marrw25	.030411	1.273943	0.02	0.981	-2.466472	2.527294
marrw26	0	(omitted)				

inc1w2	.7639278	1.820866	0.42	0.675	-2.804904	4.33276
inc2w2	1.088119	1.754837	0.62	0.535	-2.351299	4.527537
inc3w2	.8549853	1.806256	0.47	0.636	-2.685212	4.395182
inc4w2	2.107171	2.102907	1.00	0.316	-2.014451	6.228794
radhlw2	.0162662	.0092193	1.76	0.078	-.0018033	.0343356
havmil	.0028568	.0035632	0.80	0.423	-.004127	.0098406
avgcumdosew2	.1191237	.1112746	1.07	0.284	-.0989705	.3372179
bf1	-.0579291	.0444461	-1.30	0.192	-.1450419	.0291837
bf4	-.5134212	.2911522	-1.76	0.078	-1.084069	.0572265
bf2	.0000225	.0001357	0.17	0.868	-.0002436	.0002885
bf4m	.3813738	.2769085	1.38	0.168	-.1613568	.9241045
bf5m	-.0013491	.0018728	-0.72	0.471	-.0050196	.0023214
bf7m	-.0007653	.0006452	-1.19	0.236	-.0020299	.0004993
bf8	.0000124	.0000428	0.29	0.772	-.0000716	.0000964
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.0409398	.0388667	1.05	0.292	-.0352376	.1171172
bf22	.0000496	.0001446	0.34	0.732	-.0002338	.0003329
bf29	.0000147	.0000386	0.38	0.704	-.000061	.0000904
bf30	.0005975	.0003487	1.71	0.087	-.0000859	.0012809
bf40	-.092913	.1571517	-0.59	0.554	-.4009247	.2150987
deaw2	.1650922	.2350487	0.70	0.482	-.2955947	.6257792
dvcew2	-.44027	1.751166	-0.25	0.801	-3.872493	2.991953
sepaw2	0	(omitted)				
accdw2	.3072193	.6191348	0.50	0.620	-.9062626	1.520701
movew2	-.4208456	.8150343	-0.52	0.606	-2.018283	1.176592
illw2	.146668	.2184808	0.67	0.502	-.2815466	.5748825
shfamw2	.0028218	.0077742	0.36	0.717	-.0124154	.018059
shhlw2	.0082475	.0076919	1.07	0.284	-.0068283	.0233233
shjobw2	-.0093426	.0067931	-1.38	0.169	-.0226569	.0039716
shrelaw2	-.0142034	.0081278	-1.75	0.081	-.0301336	.0017268
suprtw2	-.0099735	.0060387	-1.65	0.099	-.021809	.0018621
suchrw2	-.0045113	.0068989	-0.65	0.513	-.0180329	.0090102
havmilsq	-2.60e-06	4.34e-06	-0.60	0.550	-.0000111	5.92e-06
radhlw2	0	(omitted)				
_cons	2.140849	1090.33	0.00	0.998	-2134.867	2139.148

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	32	12	44
-	33	266	299
Total	65	278	343

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2inthob != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   49.23%
Specificity                     Pr( -|~D)   95.68%
Positive predictive value       Pr( D| +)   72.73%
Negative predictive value       Pr(~D| -)   88.96%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    4.32%
False - rate for true D         Pr( -| D)   50.77%
False + rate for classified +   Pr(~D| +)   27.27%
False - rate for classified -   Pr( D| -)   11.04%
--------------------------------------------------
Correctly classified                        86.88%
--------------------------------------------------
```

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       343
 number of covariate patterns =       343
            Pearson chi2(292) =       307.38
                  Prob > chi2 =         0.2568
```

Measures of Fit for **logistic** of **HP2inthob**

```
Log-Lik Intercept Only:     -166.528    Log-Lik Full Model:           -105.173
D(286):                      210.346    LR(50):                        122.710
                                        Prob > LR:                       0.000
McFadden's R2:                 0.368    McFadden's Adj R2:               0.026
Maximum Likelihood R2:         0.301    Cragg & Uhler's R2:              0.484
McKelvey and Zavoina's R2:     0.627    Efron's R2:                      0.388
Variance of y*:                8.828    Variance of error:               3.290
Count R2:                      0.869    Adj Count R2:                    0.308
AIC:                           0.946    AIC*n:                         324.346
BIC:                       -1459.245    BIC':                          169.177
Full main model for HP2inthob for wave= 2

chunk 8 H1 test:Gender= 2  model Wave =  2 for HP2inthob
```

```
******************************************************************************
> *
******************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females   ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                            1 Jul 2012    15:05:37  ****
> *
******************************************************************************
> *
******************************************************************************
> *


Model for gender==2 and wave == 2

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 7 obs not used

note: _Ieduc_8 omitted because of collinearity
note: marrw26 omitted because of collinearity
note: bf17 omitted because of collinearity
note: radhlw2 omitted because of collinearity

Logistic regression                               Number of obs   =        343
                                                  LR chi2(50)     =     122.71
                                                  Prob > chi2     =     0.0000
Log likelihood = -105.17277                       Pseudo R2       =     0.3684
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
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_Ieduc_3	-10.49189	1090.324	-0.01	0.992	-2147.489	2126.505
_Ieduc_4	-9.521531	1090.325	-0.01	0.993	-2146.519	2127.476
_Ieduc_5	-10.03097	1090.325	-0.01	0.993	-2147.028	2126.966
_Ieduc_6	-10.65519	1090.325	-0.01	0.992	-2147.652	2126.342
_Ieduc_7	-10.56771	1090.33	-0.01	0.992	-2147.575	2126.44
_Ieduc_8	0	(omitted)				
occ1w2	-1.444251	1.786645	-0.81	0.419	-4.94601	2.057508
occ2w2	-1.72162	1.86422	-0.92	0.356	-5.375425	1.932185
occ3w2	-.6960307	1.813742	-0.38	0.701	-4.2509	2.858838
occ4w2	-1.340236	1.971898	-0.68	0.497	-5.205085	2.524613
occ5w2	-1.866674	2.177453	-0.86	0.391	-6.134403	2.401055
occ6w2	-.6630026	2.009767	-0.33	0.741	-4.602073	3.276067
occ7w2	-.3132082	1.768051	-0.18	0.859	-3.778525	3.152109
occ8w2	-.4424864	1.980995	-0.22	0.823	-4.325166	3.440193
marrw21	1.198754	1.252366	0.96	0.338	-1.255838	3.653346
marrw22	-.723147	1.45696	-0.50	0.620	-3.578736	2.132442
marrw23	-.1412732	.8614541	-0.16	0.870	-1.829692	1.547146
marrw25	.030411	1.273943	0.02	0.981	-2.466472	2.527294
marrw26	0	(omitted)				
inc1w2	.7639278	1.820866	0.42	0.675	-2.804904	4.33276
inc2w2	1.088119	1.754837	0.62	0.535	-2.351299	4.527537
inc3w2	.8549853	1.806256	0.47	0.636	-2.685212	4.395182
inc4w2	2.107171	2.102907	1.00	0.316	-2.014451	6.228794
radhlw2	.0162662	.0092193	1.76	0.078	-.0018033	.0343356
havmil	.0028568	.0035632	0.80	0.423	-.004127	.0098406
avgcumdosew2	.1191237	.1112746	1.07	0.284	-.0989705	.3372179
bf1	-.0579291	.0444461	-1.30	0.192	-.1450419	.0291837
bf4	-.5134212	.2911522	-1.76	0.078	-1.084069	.0572265
bf2	.0000225	.0001357	0.17	0.868	-.0002436	.0002885
bf4m	.3813738	.2769085	1.38	0.168	-.1613568	.9241045
bf5m	-.0013491	.0018728	-0.72	0.471	-.0050196	.0023214
bf7m	-.0007653	.0006452	-1.19	0.236	-.0020299	.0004993
bf8	.0000124	.0000428	0.29	0.772	-.0000716	.0000964
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.0409398	.0388667	1.05	0.292	-.0352376	.1171172
bf22	.0000496	.0001446	0.34	0.732	-.0002338	.0003329
bf29	.0000147	.0000386	0.38	0.704	-.000061	.0000904
bf30	.0005975	.0003487	1.71	0.087	-.0000859	.0012809
bf40	-.092913	.1571517	-0.59	0.554	-.4009247	.2150987
deaw2	.1650922	.2350487	0.70	0.482	-.2955947	.6257792
dvcew2	-.44027	1.751166	-0.25	0.801	-3.872493	2.991953
sepaw2	0	(omitted)				
accdw2	.3072193	.6191348	0.50	0.620	-.9062626	1.520701

movew2	-.4208456	.8150343	-0.52	0.606	-2.018283	1.176592
illw2	.146668	.2184808	0.67	0.502	-.2815466	.5748825
shfamw2	.0028218	.0077742	0.36	0.717	-.0124154	.018059
shhlw2	.0082475	.0076919	1.07	0.284	-.0068283	.0233233
shjobw2	-.0093426	.0067931	-1.38	0.169	-.0226569	.0039716
shrelaw2	-.0142034	.0081278	-1.75	0.081	-.0301336	.0017268
suprtw2	-.0099735	.0060387	-1.65	0.099	-.021809	.0018621
suchrw2	-.0045113	.0068989	-0.65	0.513	-.0180329	.0090102
havmilsq	-2.60e-06	4.34e-06	-0.60	0.550	-.0000111	5.92e-06
radhlw2	0	(omitted)				
_cons	2.140849	1090.33	0.00	0.998	-2134.867	2139.148

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	32	12	44
-	33	266	299
Total	65	278	343

Classified + if predicted Pr(D) >= .5
True D defined as HP2inthob != 0

Sensitivity	Pr(+| D)	49.23%
Specificity	Pr(-|~D)	95.68%
Positive predictive value	Pr(D| +)	72.73%
Negative predictive value	Pr(~D| -)	88.96%
False + rate for true ~D	Pr(+|~D)	4.32%
False - rate for true D	Pr(-| D)	50.77%
False + rate for classified +	Pr(~D| +)	27.27%
False - rate for classified -	Pr(D| -)	11.04%
Correctly classified		86.88%

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       343
 number of covariate patterns =       343
            Pearson chi2(292) =       307.38
                  Prob > chi2 =         0.2568
```

```
Measures of Fit for logistic of HP2inthob

Log-Lik Intercept Only:     -166.528     Log-Lik Full Model:          -105.173
D(286):                      210.346     LR(50):                       122.710
                                         Prob > LR:                      0.000
McFadden's R2:                 0.368     McFadden's Adj R2:              0.026
Maximum Likelihood R2:         0.301     Cragg & Uhler's R2:             0.484
McKelvey and Zavoina's R2:     0.627     Efron's R2:                     0.388
Variance of y*:                8.828     Variance of error:              3.290
Count R2:                      0.869     Adj Count R2:                   0.308
AIC:                           0.946     AIC*n:                        324.346
BIC:                       -1459.245     BIC':                         169.177

947 .
948 . * Chunk 8 ---Female trimmed Interest and hobbies model
949 . forvalues j=2/2 {
  2. set more off
  3.
950 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
>   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
  4.
951 .   foreach var in HP2inthob  {
  5.       forvalues k=2/2 {
  6. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  7.
952 . di as input "trimmed main model for `var' for wave= `j' "
  8. di _skip(4)
  9. di as input  "chunk 8 H1 test:Gender= `k'  model Wave =  `j' for `e(depva
> r)' "
 10. di _skip(4)
 11. title "Full Nottingham Part 2 subscale models for male and then females"
 12. di as input "Model for gender==`k' and wave == `j'"
 13. di _skip(2)
 14.      logit `var' age   ///
>                 avgcumdosew`j' bf4 bf30  ///
>                 shrelaw`j' suprtw`j'  ///
>                radhlw2 if gender==2,  difficult iterate(50)  nolog
 15.  }
 16. }
 17. }
```

```
              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
age             double %8.0g                * Respondent's age
educ1           byte   %8.0g                  educ==1. did not graduate high
                                                school
educ2           byte   %8.0g                  educ==2. graduated high school
educ3           byte   %8.0g                  educ==3. technical degree
educ4           byte   %8.0g                  educ==4. did not finish
                                                college/bachelor's
educ5           byte   %8.0g                  educ==5. graduated
                                                college/bachelor's
educ6           byte   %8.0g                  educ==6. finished
                                                specialist/master's degree
educ7           byte   %8.0g                  educ==7. doctor of science/phd
marrw21         byte   %8.0g                  marrw2==1. single
marrw22         byte   %8.0g                  marrw2==2. cohabitating
marrw23         byte   %8.0g                  marrw2==3. married
marrw24         byte   %8.0g                  marrw2==4. separated
marrw25         byte   %8.0g                  marrw2==5. divorced
marrw26         byte   %8.0g                  marrw2==6. widowed
inc1w2          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1996
inc2w2          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1996
inc3w2          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1996
inc4w2          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1996
bf1             float  %9.0g                  bf1 = max(0, kzchorn - 40)
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
bf9             float  %9.0g                  bf9= max(0, 30 - shhlw1)
bf11            float  %9.0g                  bf11= max(0, 20 - sufamw1)
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)
bf15m           float  %9.0g                  bf15m= max(0, 1 - icdxcnt) * bf2
bf30            float  %9.0g                  bf30 = max(0, neiw1 - 85) * bf20
bf40            float  %9.0g                  bf40 = max(0, icdxcnt -
                                                1.01635E-007)
trimmed main model for HP2inthob for wave= 2

chunk 8 H1 test:Gender= 2  model Wave =  2 for HP2inthob
```

```
********************************************************************************
> *
********************************************************************************
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females    ****
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****                                                  1 Jul 2012    15:05:39  ****
> *
********************************************************************************
> *
********************************************************************************
> *
```

Model for gender==2 and wave == 2

```
Logistic regression                               Number of obs   =        363
                                                  LR chi2(7)      =     101.28
                                                  Prob > chi2     =     0.0000
Log likelihood = -121.47255                       Pseudo R2       =     0.2942
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
age	.0729699	.016233	4.50	0.000	.0411537	.104786
avgcumdosew2	.0713471	.0870475	0.82	0.412	-.0992629	.2419571
bf4	-.12277	.0348875	-3.52	0.000	-.1911482	-.0543918
bf30	.0005237	.0002568	2.04	0.041	.0000204	.001027
shrelaw2	-.0121549	.0056037	-2.17	0.030	-.0231379	-.001172
suprtw2	-.0103307	.0040941	-2.52	0.012	-.018355	-.0023065
radhlw2	.0119091	.0056652	2.10	0.036	.0008055	.0230128
_cons	-4.716583	1.190104	-3.96	0.000	-7.049144	-2.384021

```
953 .
954 .
955 .
956 . // female interests and hobbies wash out
957 .
958 .
959 . *------------------------------------------------------------------------
960 .
961 .
962 .
963 .
964 .
965 .
966 .
967 .
968 .  label var radhlw2 "Self-perceived Chornobyl health threat in wave 2"

969 .
970 . title4 "6. trimmed Moderators of male Dose => Interests and Hobbies Impact"
    ______________________________________________________________________________

    6. trimmed Moderators of male Dose => Interests and Hobbies Impact
    ______________________________________________________________________________


971 .
972 . di as input "wave 2 Main effects Dose=> Interests and Hobbies impact identif
    > ication"
    wave 2 Main effects Dose=> Interests and Hobbies impact identification

973 . forvalues j=2/2 {
      2. set more off
      3.
974 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
975 . foreach var in HP2inthob  {
      5. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      6. di _skip(2)
      7.  di as input "Full main model for `var' for wave= `j' "
      8. di _skip(4)
      9. di as input  "chunk 8 H1 test:Gender= male  model Wave =  `j' for `e(depv
    > ar)' "
     10. di _skip(4)
     11. title "Full Nottingham Part 2 subscale models " "males on  wave=`j'"
     12.     des bf5m shfamw2 radhlw2 bf4m
     13.       xi: logistic `var' age radhlw2 avgcumdosew2 shfamw2  ///
    >                    bf5m if gender==1, coef nolog  difficult iterate(50)
     14.                         estat class
     15.                         estat gof
```

```
 16.                          fitstat
 17. di _skip(2)
 18. di as input "Note: bf4m is necssary for bf5 but if bf4m is in model bf5 i
> s not signif."
 19. di as input " Therefore, bf5 is not deemed significant."
 20. }
 21. }

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
age             double %8.0g                * Respondent's age
educ1           byte   %8.0g                  educ==1. did not graduate high
                                                school
educ2           byte   %8.0g                  educ==2. graduated high school
educ3           byte   %8.0g                  educ==3. technical degree
educ4           byte   %8.0g                  educ==4. did not finish
                                                college/bachelor's
educ5           byte   %8.0g                  educ==5. graduated
                                                college/bachelor's
educ6           byte   %8.0g                  educ==6. finished
                                                specialist/master's degree
educ7           byte   %8.0g                  educ==7. doctor of science/phd
marrw21         byte   %8.0g                  marrw2==1. single
marrw22         byte   %8.0g                  marrw2==2. cohabitating
marrw23         byte   %8.0g                  marrw2==3. married
marrw24         byte   %8.0g                  marrw2==4. separated
marrw25         byte   %8.0g                  marrw2==5. divorced
marrw26         byte   %8.0g                  marrw2==6. widowed
inc1w2          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1996
inc2w2          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1996
inc3w2          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1996
inc4w2          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1996
bf1             float  %9.0g                  bf1 = max(0, kzchorn - 40)
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
bf9             float  %9.0g                  bf9= max(0, 30 - shhlw1)
bf11            float  %9.0g                  bf11= max(0, 20 - sufamw1)
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)
bf15m           float  %9.0g                  bf15m= max(0, 1 - icdxcnt) * bf2
bf30            float  %9.0g                  bf30 = max(0, neiw1 - 85) * bf20
bf40            float  %9.0g                  bf40 = max(0, icdxcnt -
                                                1.01635E-007)

Full main model for HP2inthob for wave= 2
```

```
chunk 8 H1 test:Gender= male  model Wave =  2 for HP2inthob


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****             Full Nottingham Part 2 subscale models                  ****
> *
*****                        males on  wave=2                             ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                          1 Jul 2012    15:05:40     ****
> *
******************************************************************************
> *
******************************************************************************
> *


              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
bf5m            float  %9.0g                  bf5m = max(0, ecprw3 - 75) *
                                                bf4m
shfamw2         double %8.0g                  Percentage of strains and
                                                hassles related to family in
                                                1996
radhlw2         double %8.0g                  Self-perceived Chornobyl health
                                                threat in wave 2
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)

Logistic regression                               Number of obs   =        339
                                                  LR chi2(5)      =      55.04
                                                  Prob > chi2     =     0.0000
Log likelihood = -91.424671                       Pseudo R2       =     0.2314
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
age	**.0431333**	**.0167168**	**2.58**	**0.010**	**.010369**	**.0758976**
radhlw2	**.0348063**	**.0070847**	**4.91**	**0.000**	**.0209205**	**.048692**
avgcumdosew2	**-.1062023**	**.1574615**	**-0.67**	**0.500**	**-.4148212**	**.2024166**
shfamw2	**.0030601**	**.0048986**	**0.62**	**0.532**	**-.006541**	**.0126612**
bf5m	**-.0015801**	**.0010798**	**-1.46**	**0.143**	**-.0036965**	**.0005363**
_cons	**-6.400487**	**1.022095**	**-6.26**	**0.000**	**-8.403758**	**-4.397217**

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	**8**	**4**	**12**
-	**30**	**297**	**327**
Total	**38**	**301**	**339**

Classified + if predicted Pr(D) >= .5
True D defined as HP2inthob != 0

Sensitivity	Pr(+| D)	**21.05%**
Specificity	Pr(-|~D)	**98.67%**
Positive predictive value	Pr(D| +)	**66.67%**
Negative predictive value	Pr(~D| -)	**90.83%**
False + rate for true ~D	Pr(+|~D)	**1.33%**
False - rate for true D	Pr(-| D)	**78.95%**
False + rate for classified +	Pr(~D| +)	**33.33%**
False - rate for classified -	Pr(D| -)	**9.17%**
Correctly classified		**89.97%**

Logistic model for HP2inthob, goodness-of-fit test

number of observations = **339**
number of covariate patterns = **327**
Pearson chi2(**321**) = **372.91**
Prob > chi2 = **0.0242**

Measures of Fit for **logistic** of **HP2inthob**

```
Log-Lik Intercept Only:      -118.946    Log-Lik Full Model:           -91.425
D(333):                       182.849    LR(5):                         55.042
                                         Prob > LR:                      0.000
McFadden's R2:                  0.231    McFadden's Adj R2:              0.181
Maximum Likelihood R2:          0.150    Cragg & Uhler's R2:             0.297
McKelvey and Zavoina's R2:      0.397    Efron's R2:                     0.214
Variance of y*:                 5.454    Variance of error:              3.290
Count R2:                       0.900    Adj Count R2:                   0.105
AIC:                            0.575    AIC*n:                        194.849
BIC:                        -1757.209    BIC':                         -25.912

Note: bf4m is necssary for bf5 but if bf4m is in model bf5 is not signif.
 Therefore, bf5 is not deemed significant.

976 .
977 . cap gen bf5mXd3 = bf5m*avgcumdosew2

978 .
979 .
980 .
981 . title3 "wave 2 Main effects Dose=> Interests and Hobbies impact identificati
    > on"
    ------------------------------------------------------------------------------
    title3 : wave 2 Main effects Dose=> Interests and Hobbies impact identificatio
    > n
     1 Jul 2012
    15:05:41
    computer  Macintosh (Intel 64-bit)
    folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests
    > /h1pt2
    Data file  chwide1jul2012.dta  currrently has  2399  variables and  703  obser
    > vations

982 . forvalues j=2/2 {
      2. set more off
      3.
983 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
```

```
984 . foreach var in HP2inthob  {
  5. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  6.  di as input "Full main model for `var' for wave= `j' "
  7. di _skip(4)
  8. di as input  "chunk 8 H1 test:Gender= male  model Wave =  `j' for `e(depv
> ar)' "
  9. di _skip(4)
 10. title "Full Nottingham Part 2 subscale models for males in wave=`j'"
 11.
985 .       xi: logistic `var' age   ///
>                 radhlw`j' avgcumdosew`j'  ///
>                  shfamw`j'  bf4m ///
>                  bf5m bf5mXd3  if gender==1, coef nolog  difficult iterate(5
> 0)
 12.                          estat class
 13.                          estat gof
 14.                          fitstat
 15. }
 16. }

              storage  display     value
variable name   type   format      label      variable label
---------------------------------------------------------------------------------------
age             double %8.0g                * Respondent's age
educ1           byte   %8.0g                  educ==1. did not graduate high
                                                school
educ2           byte   %8.0g                  educ==2. graduated high school
educ3           byte   %8.0g                  educ==3. technical degree
educ4           byte   %8.0g                  educ==4. did not finish
                                                college/bachelor's
educ5           byte   %8.0g                  educ==5. graduated
                                                college/bachelor's
educ6           byte   %8.0g                  educ==6. finished
                                                specialist/master's degree
educ7           byte   %8.0g                  educ==7. doctor of science/phd
marrw21         byte   %8.0g                  marrw2==1. single
marrw22         byte   %8.0g                  marrw2==2. cohabitating
marrw23         byte   %8.0g                  marrw2==3. married
marrw24         byte   %8.0g                  marrw2==4. separated
marrw25         byte   %8.0g                  marrw2==5. divorced
marrw26         byte   %8.0g                  marrw2==6. widowed
inc1w2          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1996
inc2w2          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1996
inc3w2          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1996
```

```
inc4w2          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1996
bf1             float  %9.0g                  bf1 = max(0, kzchorn - 40)
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
bf9             float  %9.0g                  bf9= max(0, 30 - shhlw1)
bf11            float  %9.0g                  bf11= max(0, 20 - sufamw1)
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)
bf15m           float  %9.0g                  bf15m= max(0, 1 - icdxcnt) * bf2
bf30            float  %9.0g                  bf30 = max(0, neiw1 - 85) * bf20
bf40            float  %9.0g                  bf40 = max(0, icdxcnt -
                                                1.01635E-007)
Full main model for HP2inthob for wave= 2

chunk 8 H1 test:Gender= male  model Wave =  2 for HP2inthob



******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****     Full Nottingham Part 2 subscale models for males in wave=2      ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                             1 Jul 2012    15:05:41  ****
> *
******************************************************************************
> *
******************************************************************************
> *


Logistic regression                               Number of obs   =        339
                                                  LR chi2(7)      =      61.20
                                                  Prob > chi2     =     0.0000
Log likelihood = -88.347465                       Pseudo R2       =     0.2572
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.030943	.0178289	1.74	0.083	-.0040009	.065887
radhlw2	.0256859	.0076857	3.34	0.001	.0106222	.0407496
avgcumdosew2	-.0706233	.347896	-0.20	0.839	-.752487	.6112404
shfamw2	.0004942	.0051095	0.10	0.923	-.0095202	.0105087
bf4m	-.0869807	.0356099	-2.44	0.015	-.1567749	-.0171866
bf5m	-.0007397	.0014331	-0.52	0.606	-.0035486	.0020692
bf5mXd3	-.0000719	.0008404	-0.09	0.932	-.0017191	.0015753
_cons	-3.59705	1.521825	-2.36	0.018	-6.579772	-.6143281

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	10	5	15
-	28	296	324
Total	38	301	339

Classified + if predicted Pr(D) >= .5
True D defined as HP2inthob != 0

Sensitivity	Pr(+| D)	26.32%
Specificity	Pr(-|~D)	98.34%
Positive predictive value	Pr(D| +)	66.67%
Negative predictive value	Pr(~D| -)	91.36%
False + rate for true ~D	Pr(+|~D)	1.66%
False - rate for true D	Pr(-| D)	73.68%
False + rate for classified +	Pr(~D| +)	33.33%
False - rate for classified -	Pr(D| -)	8.64%
Correctly classified		90.27%

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       339
 number of covariate patterns =       334
            Pearson chi2(326) =       295.89
                  Prob > chi2 =         0.8832
```

Measures of Fit for **logistic** of **HP2inthob**

```
    Log-Lik Intercept Only:      -118.946     Log-Lik Full Model:           -88.347
    D(331):                       176.695     LR(7):                         61.196
                                              Prob > LR:                      0.000
    McFadden's R2:                  0.257     McFadden's Adj R2:              0.190
    Maximum Likelihood R2:          0.165     Cragg & Uhler's R2:             0.328
    McKelvey and Zavoina's R2:      0.374     Efron's R2:                     0.224
    Variance of y*:                 5.258     Variance of error:              3.290
    Count R2:                       0.903     Adj Count R2:                   0.132
    AIC:                            0.568     AIC*n:                        192.695
    BIC:                        -1751.711     BIC':                         -20.414

986 . scalar SigDoseInthbMw2 = "no"

987 . scalar MainEffInthbMw2 = "age radhlw2 shfamw2"

988 . scalar InthbMw2 = "none"

989 .
990 . *------chunk 8  female moderator models
991 . title "trimmed Moderators of female Dose => Interests and Hobbies Impact"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    ***** trimmed Moderators of female Dose => Interests and Hobbies Impact   ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                                1 Jul 2012   15:05:43  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
992 .
993 .
994 . forvalues j=2/2 {
      2. set more off
      3.
995 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
996 . foreach var in HP2inthob  {
      5. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      6.  di as input "Full main model for `var' for wave= `j' "
      7. di _skip(4)
      8. di as input  "chunk 8 H1 test:Gender= male  model Wave =  `j' for `e(depv
    > ar)' "
      9. di _skip(4)
     10. title "Full Nottingham Part 2 subscale models for females "
     11.
997 .       xi: logistic `var' age   ///
    >                radhlw`j' avgcumdosew`j' ///
    >                   bf4  ///
    >                 if gender==2, coef nolog  difficult iterate(50)
     12.                          estat class
     13.                          estat gof
     14.                          fitstat
     15. }
     16. }

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------
    age             double %8.0g                * Respondent's age
    educ1           byte   %8.0g                  educ==1. did not graduate high
                                                    school
    educ2           byte   %8.0g                  educ==2. graduated high school
    educ3           byte   %8.0g                  educ==3. technical degree
    educ4           byte   %8.0g                  educ==4. did not finish
                                                    college/bachelor's
    educ5           byte   %8.0g                  educ==5. graduated
                                                    college/bachelor's
    educ6           byte   %8.0g                  educ==6. finished
                                                    specialist/master's degree
    educ7           byte   %8.0g                  educ==7. doctor of science/phd
    marrw21         byte   %8.0g                  marrw2==1. single
    marrw22         byte   %8.0g                  marrw2==2. cohabitating
    marrw23         byte   %8.0g                  marrw2==3. married
    marrw24         byte   %8.0g                  marrw2==4. separated
    marrw25         byte   %8.0g                  marrw2==5. divorced
    marrw26         byte   %8.0g                  marrw2==6. widowed
```

```
inc1w2           double %15.0g      LABJ        Income is not sufficient for
                                                  basic neccessities in 1996
inc2w2           double %15.0g      LABJ        Income is just sufficient for
                                                  basic neccessities in 1996
inc3w2           double %15.0g      LABJ        Income is sufficient for basics
                                                  plus extra purchases/savings
                                                  in 1996
inc4w2           double %15.0g      LABJ        Income allows to comfortably
                                                  afford luxury items in 1996
bf1              float  %9.0g                   bf1 = max(0, kzchorn - 40)
bf4              float  %9.0g                   bf4 = max(0, 24 - BSIsoma)
bf9              float  %9.0g                   bf9= max(0, 30 - shhlw1)
bf11             float  %9.0g                   bf11= max(0, 20 - sufamw1)
bf4m             float  %9.0g                   bf4m = max(0, 32 - BSIsoma)
bf15m            float  %9.0g                   bf15m= max(0, 1 - icdxcnt) * bf2
bf30             float  %9.0g                   bf30 = max(0, neiw1 - 85) * bf20
bf40             float  %9.0g                   bf40 = max(0, icdxcnt -
                                                  1.01635E-007)
Full main model for HP2inthob for wave= 2

chunk 8 H1 test:Gender= male  model Wave =  2 for HP2inthob



*******************************************************************************
> *
*******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****        Full Nottingham Part 2 subscale models for females           ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                              1 Jul 2012    15:05:43  ****
> *
*******************************************************************************
> *
*******************************************************************************
> *
```

Logistic regression	Number of obs	=	**363**
	LR chi2(**4**)	=	**85.23**
	Prob > chi2	=	**0.0000**
Log likelihood = **-129.49784**	Pseudo R2	=	**0.2476**

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0747628**	**.0160244**	**4.67**	**0.000**	**.0433556**	**.10617**
radhlw2	**.0174604**	**.0053569**	**3.26**	**0.001**	**.0069611**	**.0279597**
avgcumdosew2	**.0556287**	**.0871446**	**0.64**	**0.523**	**-.1151717**	**.226429**
bf4	**-.0957645**	**.0312145**	**-3.07**	**0.002**	**-.1569439**	**-.0345852**
_cons	**-5.962105**	**1.09169**	**-5.46**	**0.000**	**-8.101778**	**-3.822431**

Logistic model for HP2inthob

Classified	True D	True ~D	Total
+	**27**	**8**	**35**
-	**39**	**289**	**328**
Total	**66**	**297**	**363**

Classified + if predicted Pr(D) >= .5
True D defined as HP2inthob != 0

Sensitivity	Pr(+| D)	**40.91%**
Specificity	Pr(-|~D)	**97.31%**
Positive predictive value	Pr(D| +)	**77.14%**
Negative predictive value	Pr(~D| -)	**88.11%**
False + rate for true ~D	Pr(+|~D)	**2.69%**
False - rate for true D	Pr(-| D)	**59.09%**
False + rate for classified +	Pr(~D| +)	**22.86%**
False - rate for classified -	Pr(D| -)	**11.89%**
Correctly classified		**87.05%**

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       363
 number of covariate patterns =       361
             Pearson chi2(356) =       453.01
                   Prob > chi2 =         0.0004
```

```
Measures of Fit for logistic of HP2inthob

Log-Lik Intercept Only:     -172.113     Log-Lik Full Model:          -129.498
D(358):                      258.996     LR(4):                         85.229
                                         Prob > LR:                      0.000
McFadden's R2:                 0.248     McFadden's Adj R2:              0.219
Maximum Likelihood R2:         0.209     Cragg & Uhler's R2:             0.342
McKelvey and Zavoina's R2:     0.407     Efron's R2:                     0.292
Variance of y*:                5.547     Variance of error:              3.290
Count R2:                      0.871     Adj Count R2:                   0.288
AIC:                           0.741     AIC*n:                        268.996
BIC:                       -1851.201     BIC':                         -61.652

 998 . scalar SigdoseInthbFw2 = "no"

 999 . scalar MainEffInthbFw2 = "age radhlw2 bf4"

1000 .
1001 . *------chunk 8 testing female moderators
1002 . title "trimmed Moderators of female Dose => Interests and Hobbies Impact"


*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
***** trimmed Moderators of female Dose => Interests and Hobbies Impact   ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                         1 Jul 2012    15:05:44     ****
> *
*****************************************************************************
> *
*****************************************************************************
> *
```

```
1003 .
1004 .
1005 . forvalues j=2/2 {
       2. set more off
       3.
1006 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
     >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
       4.
1007 . foreach var in HP2inthob  {
       5. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
     > bf40
       6.  di as input "Full main model for `var' for wave= `j' "
       7. di _skip(4)
       8. di as input  "chunk 8 H1 test:Gender= male  model Wave =  `j' for `e(depv
     > ar)' "
       9. di _skip(4)
      10. title "Full Nottingham Part 2 subscale models for females in wave=`j' "
      11.
1008 .       xi: logistic `var' age   ///
     >                 radhlw`j' avgcumdosew`j' ///
     >                    bf4  bf4Xd3 ageXd3 radhlw2Xd3 ///
     >                  if gender==2, coef nolog  difficult iterate(50)
      12.                         estat class
      13.                         estat gof
      14.                         fitstat
      15. }
      16. }

                  storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     age             double %8.0g                * Respondent's age
     educ1           byte   %8.0g                  educ==1. did not graduate high
                                                     school
     educ2           byte   %8.0g                  educ==2. graduated high school
     educ3           byte   %8.0g                  educ==3. technical degree
     educ4           byte   %8.0g                  educ==4. did not finish
                                                     college/bachelor's
     educ5           byte   %8.0g                  educ==5. graduated
                                                     college/bachelor's
     educ6           byte   %8.0g                  educ==6. finished
                                                     specialist/master's degree
     educ7           byte   %8.0g                  educ==7. doctor of science/phd
     marrw21         byte   %8.0g                  marrw2==1. single
     marrw22         byte   %8.0g                  marrw2==2. cohabitating
     marrw23         byte   %8.0g                  marrw2==3. married
     marrw24         byte   %8.0g                  marrw2==4. separated
     marrw25         byte   %8.0g                  marrw2==5. divorced
     marrw26         byte   %8.0g                  marrw2==6. widowed
```

```
inc1w2          double %15.0g      LABJ        Income is not sufficient for
                                                 basic neccessities in 1996
inc2w2          double %15.0g      LABJ        Income is just sufficient for
                                                 basic neccessities in 1996
inc3w2          double %15.0g      LABJ        Income is sufficient for basics
                                                 plus extra purchases/savings
                                                 in 1996
inc4w2          double %15.0g      LABJ        Income allows to comfortably
                                                 afford luxury items in 1996
bf1             float  %9.0g                   bf1 = max(0, kzchorn - 40)
bf4             float  %9.0g                   bf4 = max(0, 24 - BSIsoma)
bf9             float  %9.0g                   bf9= max(0, 30 - shhlw1)
bf11            float  %9.0g                   bf11= max(0, 20 - sufamw1)
bf4m            float  %9.0g                   bf4m = max(0, 32 - BSIsoma)
bf15m           float  %9.0g                   bf15m= max(0, 1 - icdxcnt) * bf2
bf30            float  %9.0g                   bf30 = max(0, neiw1 - 85) * bf20
bf40            float  %9.0g                   bf40 = max(0, icdxcnt -
                                                 1.01635E-007)
Full main model for HP2inthob for wave= 2

chunk 8 H1 test:Gender= male  model Wave =  2 for HP2inthob



*******************************************************************************
> *
*******************************************************************************
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****   Full Nottingham Part 2 subscale models for females in wave=2       ****
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****                                           1 Jul 2012    15:05:44     ****
> *
*******************************************************************************
> *
*******************************************************************************
> *
```

Logistic regression	Number of obs	=	**363**
	LR chi2(**7**)	=	**88.01**
	Prob > chi2	=	**0.0000**
Log likelihood = **-128.11005**	Pseudo R2	=	**0.2557**

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0684009**	**.0187006**	**3.66**	**0.000**	**.0317484**	**.1050534**
radhlw2	**.0215957**	**.0064007**	**3.37**	**0.001**	**.0090506**	**.0341409**
avgcumdosew2	**-.1117068**	**.8606863**	**-0.13**	**0.897**	**-1.798621**	**1.575207**
bf4	**-.0939457**	**.0393671**	**-2.39**	**0.017**	**-.1711039**	**-.0167876**
bf4Xd3	**-.0023725**	**.0194992**	**-0.12**	**0.903**	**-.0405902**	**.0358453**
ageXd3	**.0062659**	**.0102599**	**0.61**	**0.541**	**-.0138431**	**.0263749**
radhlw2Xd3	**-.0033605**	**.0032954**	**-1.02**	**0.308**	**-.0098193**	**.0030983**
_cons	**-5.94901**	**1.257396**	**-4.73**	**0.000**	**-8.41346**	**-3.484559**

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	**28**	**8**	**36**
-	**38**	**289**	**327**
Total	**66**	**297**	**363**

Classified + if predicted Pr(D) >= .5
True D defined as HP2inthob != 0

Sensitivity	Pr(+| D)	**42.42%**
Specificity	Pr(-|~D)	**97.31%**
Positive predictive value	Pr(D| +)	**77.78%**
Negative predictive value	Pr(~D| -)	**88.38%**
False + rate for true ~D	Pr(+|~D)	**2.69%**
False - rate for true D	Pr(-| D)	**57.58%**
False + rate for classified +	Pr(~D| +)	**22.22%**
False - rate for classified -	Pr(D| -)	**11.62%**
Correctly classified		**87.33%**

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       363
 number of covariate patterns =       361
            Pearson chi2(353) =       461.18
                  Prob > chi2 =         0.0001

Measures of Fit for logistic of HP2inthob

Log-Lik Intercept Only:      -172.113   Log-Lik Full Model:          -128.110
D(355):                       256.220   LR(7):                         88.005
                                        Prob > LR:                      0.000
McFadden's R2:                  0.256   McFadden's Adj R2:              0.209
Maximum Likelihood R2:          0.215   Cragg & Uhler's R2:             0.351
McKelvey and Zavoina's R2:      0.418   Efron's R2:                     0.305
Variance of y*:                 5.654   Variance of error:              3.290
Count R2:                       0.873   Adj Count R2:                   0.303
AIC:                            0.750   AIC*n:                        272.220
BIC:                        -1836.293   BIC':                         -46.744

1009 . scalar InthbModFw2 = "none"

1010 .
1011 . title4 "Chunk 8  interests and hobbies testing mediator effects "
─────────────────────────────────────────────────────────────────────────────
Chunk 8  interests and hobbies testing mediator effects
─────────────────────────────────────────────────────────────────────────────

1012 .
1013 . * age is a mediating effect for males for Dose=> sex life for men
1014 .
1015 . glm age avgcumdosew2 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1330.6004

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  147.6853
Deviance         =  49917.64009                    (1/df) Deviance =  147.6853
Pearson          =  49917.64009                    (1/df) Pearson  =  147.6853

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  7.838826
Log likelihood   =   -1330.6004                    BIC             =  47947.46
```

age	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	**.5832314**	**.2635871**	**2.21**	**0.027**	**.0666101**	**1.099853**
_cons	**48.62133**	**.7061562**	**68.85**	**0.000**	**47.23729**	**50.00537**

```
1016 . glm HP2inthob age  if gender==1, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  224.8585
Iteration 2:   deviance =  219.8355
Iteration 3:   deviance =  219.6997
Iteration 4:   deviance =  219.6996
Iteration 5:   deviance =  219.6996

Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        338
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  219.6996277                    (1/df) Deviance =   .6499989
Pearson          =  354.7105724                    (1/df) Pearson  =    1.04944

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             =  -1750.484
```

HP2inthob	EIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.031726**	**.0062563**	**5.07**	**0.000**	**.0194638**	**.0439882**
_cons	**-2.867608**	**.344284**	**-8.33**	**0.000**	**-3.542392**	**-2.192824**

(Standard errors scaled using square root of deviance-based dispersion.)

1017 .

1018 . * illness is a mediating effect for males = > sex life for men
1019 . des illw2

```
                storage  display     value
variable name    type    format      label      variable label
-------------------------------------------------------------------------------
illw2           double %8.0g                    Total number of illnesses
                                                  experienced in time period
                                                  1987-1996
```

1020 . glm illw2 avgcumdosew2 if gender==1, fam(gaus) link(identity)

```
Iteration 0:   log likelihood = -303.59609

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  .3512988
Deviance         =  118.7390083                    (1/df) Deviance =  .3512988
Pearson          =  118.7390083                    (1/df) Pearson  =  .3512988

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  1.797624
Log likelihood   = -303.5960853                    BIC             = -1851.445
```

illw2	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	.0085423	.0128556	0.66	0.506	-.0166543	.0337389
_cons	.2741359	.0344406	7.96	0.000	.2066336	.3416382

1021 . glm HP2inthob illw2 if gender==1, fam(bin) irls scale(dev) link(probit)

```
Iteration 1:   deviance =  237.2651
Iteration 2:   deviance =  236.0196
Iteration 3:   deviance =  236.0142
Iteration 4:   deviance =  236.0142
Iteration 5:   deviance =  236.0142

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       338
                    (IRLS EIM)                     Scale parameter =         1
Deviance         =  236.0141663                    (1/df) Deviance =  .6982668
Pearson          =    338.89241                    (1/df) Pearson  =   1.00264
```

```
Variance function: V(u) = u*(1-u)                    [Bernoulli]
Link function    : g(u) = invnorm(u)                 [Probit]

                                                     BIC             = -1734.169

------------------------------------------------------------------------------
             |                 EIM
   HP2inthob |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw2 |   .2044103    .113873     1.80   0.073    -.0187766    .4275973
       _cons |  -1.284117   .0852302   -15.07   0.000    -1.451165   -1.117069
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

1022 .
1023 . des radhlw2

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
radhlw2         double %8.0g                  Self-perceived Chornobyl health
                                                threat in wave 2

1024 . glm radhlw2 avgcumdosew2 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1693.4076

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  1247.933
Deviance         =  421801.4584                    (1/df) Deviance =  1247.933
Pearson          =  421801.4584                    (1/df) Pearson  =  1247.933

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  9.972986
Log likelihood   = -1693.407647                    BIC             =  419831.3

------------------------------------------------------------------------------
             |                 OIM
     radhlw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   1.220373    .766216     1.59   0.111    -.2813831    2.722128
       _cons |   45.63198   2.052711    22.23   0.000     41.60874    49.65522
------------------------------------------------------------------------------
```

```
1025 . glm HP2inthob radhlw2 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  207.4869
     Iteration 2:   deviance =  195.0786
     Iteration 3:   deviance =  193.7239
     Iteration 4:   deviance =  193.6942
     Iteration 5:   deviance =  193.6942
     Iteration 6:   deviance =  193.6942

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =   193.694234                    (1/df) Deviance =   .5730599
     Pearson          =  330.3909814                    (1/df) Pearson  =   .9774881

     Variance function: V(u) = u*(1-u)                  [Bernoulli]
     Link function    : g(u) = invnorm(u)               [Probit]

                                                        BIC             = -1776.489

     ------------------------------------------------------------------------------
                  |                 EIM
        HP2inthob |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
          radhlw2 |   .0187765   .0024049     7.81   0.000      .014063      .02349
            _cons |  -2.360804   .1846104   -12.79   0.000    -2.722634   -1.998974
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1026 .
1027 .
1028 . des shfamw2

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     shfamw2         double %8.0g                  Percentage of strains and
                                                     hassles related to family in
                                                     1996
```

1029 . glm shfamw2 avgcumdosew2 if gender==1, fam(gaus) link(identity)

```
Iteration 0:   log likelihood = -1704.8947

Generalized linear models                          No. of obs      =        339
Optimization     : ML                              Residual df     =        337
                                                   Scale parameter =   1375.284
Deviance         =   463470.769                    (1/df) Deviance =   1375.284
Pearson          =   463470.769                    (1/df) Pearson  =   1375.284

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =   10.07017
Log likelihood   = -1704.894657                    BIC             =   461507.4
```

shfamw2	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	-.7484378	.8043765	-0.93	0.352	-2.324987	.8281112
_cons	34.76184	2.15791	16.11	0.000	30.53241	38.99127

1030 . glm HP2inthob shfamw2 if gender==1, fam(bin) irls scale(dev) link(probit)

```
Iteration 1:   deviance =  236.0134
Iteration 2:   deviance =   234.459
Iteration 3:   deviance =  234.4495
Iteration 4:   deviance =  234.4495

Generalized linear models                          No. of obs      =        339
Optimization     : MQL Fisher scoring              Residual df     =        337
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  234.4495475                    (1/df) Deviance =    .695696
Pearson          =  340.0883436                    (1/df) Pearson  =   1.009164

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             =  -1728.912
```

HP2inthob	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
shfamw2	**.0043459**	**.0019602**	**2.22**	**0.027**	**.0005039**	**.0081879**
_cons	**-1.379269**	**.1084635**	**-12.72**	**0.000**	**-1.591853**	**-1.166684**

(Standard errors scaled using square root of deviance-based dispersion.)

```
1031 .
1032 . des bf5m
```

variable name	storage type	display format	value label	variable label
bf5m	float	%9.0g		**bf5m = max(0, ecprw3 - 75) * bf4m**

```
1033 . glm bf5m  avgcumdosew2 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -2273.2523

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =   37801.15
Deviance         =  12776789.76                    (1/df) Deviance =   37801.15
Pearson          =  12776789.76                    (1/df) Pearson  =   37801.15

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =   13.38384
Log likelihood   = -2273.252279                    BIC             =   1.28e+07
```

bf5m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	**9.243905**	**4.217043**	**2.19**	**0.028**	**.9786526**	**17.50916**
_cons	**104.6228**	**11.29756**	**9.26**	**0.000**	**82.47996**	**126.7656**

```
1034 . glm HP2inthob bf5m  if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  238.9021
     Iteration 2:   deviance =  238.0124
     Iteration 3:   deviance =  238.0098
     Iteration 4:   deviance =  238.0098
     Iteration 5:   deviance =  238.0098

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  238.0098185                    (1/df) Deviance =   .7041711
     Pearson          =  339.8073754                    (1/df) Pearson  =   1.005347

     Variance function: V(u) = u*(1-u)                  [Bernoulli]
     Link function    : g(u) = invnorm(u)               [Probit]

                                                        BIC             =  -1732.174

     ------------------------------------------------------------------------------
                  |                 EIM
        HP2inthob |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
             bf5m |   .0001615    .000378     0.43   0.669    -.0005794    .0009024
            _cons |  -1.236147   .0878768   -14.07   0.000    -1.408382   -1.063912
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1035 .
1036 . glm bf4 avgcumdosew2 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1027.1225

     Generalized linear models                          No. of obs      =        340
     Optimization     : ML                              Residual df     =        338
                                                        Scale parameter =    24.7771
     Deviance         =  8374.659221                    (1/df) Deviance =    24.7771
     Pearson          =  8374.659221                    (1/df) Pearson  =    24.7771

     Variance function: V(u) = 1                        [Gaussian]
     Link function    : g(u) = u                        [Identity]

                                                        AIC             =   6.053662
     Log likelihood   = -1027.122509                    BIC             =   6404.476
```

	OIM				
bf4	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
avgcumdosew2	**-.0331637**	**.1079644**	**-0.31**	**0.759**	**-.2447701**	**.1784427**
_cons	**12.52896**	**.2892393**	**43.32**	**0.000**	**11.96206**	**13.09586**

```
1037 . glm HP2inthob bf4  if gender==1, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  201.5914
Iteration 2:   deviance =  191.8769
Iteration 3:   deviance =  191.2682
Iteration 4:   deviance =  191.2622
Iteration 5:   deviance =  191.2622
Iteration 6:   deviance =  191.2622

Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        338
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  191.2622075                    (1/df) Deviance =   .5658645
Pearson          =   305.593706                    (1/df) Pearson  =   .9041234

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             =  -1778.921
```

		EIM				
HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	**-.1182178**	**.013496**	**-8.76**	**0.000**	**-.1446695**	**-.091766**
_cons	**.0441185**	**.1517879**	**0.29**	**0.771**	**-.2533804**	**.3416174**

(Standard errors scaled using square root of deviance-based dispersion.)

```
1038 .
1039 .
1040 . * age is a mediating effect for females for Dose=> sex life for women
1041 . glm age avgcumdosew2 if gender==2, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1406.9403

     Generalized linear models                         No. of obs      =       363
     Optimization     : ML                             Residual df     =       361
                                                       Scale parameter =  136.9184
     Deviance         =  49427.52828                   (1/df) Deviance =  136.9184
     Pearson          =  49427.52828                   (1/df) Pearson  =  136.9184

     Variance function: V(u) = 1                       [Gaussian]
     Link function    : g(u) = u                       [Identity]

                                                       AIC             =  7.762756
     Log likelihood   = -1406.940271                   BIC             =  47299.65

     ------------------------------------------------------------------------------
                  |                 OIM
              age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew2 |   1.502324   .4454009     3.37   0.001     .6293547    2.375294
            _cons |   48.86944   .7323225    66.73   0.000     47.43412    50.30477
     ------------------------------------------------------------------------------

1042 . glm HP2inthob age  if gender==2, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  293.9671
     Iteration 2:   deviance =    289.27
     Iteration 3:   deviance =  289.1951
     Iteration 4:   deviance =  289.1951
     Iteration 5:   deviance =  289.1951

     Generalized linear models                         No. of obs      =       363
     Optimization     : MQL Fisher scoring             Residual df     =       361
                        (IRLS EIM)                     Scale parameter =         1
     Deviance         =  289.1950995                   (1/df) Deviance =  .8010945
     Pearson          =  415.3464621                   (1/df) Pearson  =  1.150544

     Variance function: V(u) = u*(1-u)                 [Bernoulli]
     Link function    : g(u) = invnorm(u)              [Probit]

                                                       BIC             = -1838.684
```

HP2inthob	Coef. (EIM)	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0515323**	**.0068567**	**7.52**	**0.000**	**.0380933**	**.0649713**
_cons	**-3.649661**	**.3847198**	**-9.49**	**0.000**	**-4.403698**	**-2.895624**

(Standard errors scaled using square root of deviance-based dispersion.)

```
1043 .
1044 . des bf4   // soma recentered
```

variable name	storage type	display format	value label	variable label
bf4	float	%9.0g		**bf4 = max(0, 24 - BSIsoma)**

```
1045 . * bf4 is a mediting effect for females for Dose=>  sex life for women
1046 . glm bf4  avgcumdosew2 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1109.0983

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   26.53281
Deviance         =  9578.344971                    (1/df) Deviance =   26.53281
Pearson          =  9578.344971                    (1/df) Pearson  =   26.53281

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =   6.121754
Log likelihood   = -1109.098281                    BIC             =   7450.466
```

bf4	Coef. (OIM)	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	**-.595012**	**.1960703**	**-3.03**	**0.002**	**-.9793027**	**-.2107212**
_cons	**11.02048**	**.3223763**	**34.19**	**0.000**	**10.38863**	**11.65232**

```
1047 . glm HP2inthob bf4  if gender==2, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  304.5744
     Iteration 2:   deviance =   301.504
     Iteration 3:   deviance =  301.4488
     Iteration 4:   deviance =  301.4487
     Iteration 5:   deviance =  301.4487

     Generalized linear models                          No. of obs      =       363
     Optimization     : MQL Fisher scoring              Residual df     =       361
                        (IRLS EIM)                      Scale parameter =         1
     Deviance         =  301.4486672                    (1/df) Deviance =  .8350379
     Pearson          =  341.1451194                    (1/df) Pearson  =  .9450003

     Variance function: V(u) = u*(1-u)                  [Bernoulli]
     Link function    : g(u) = invnorm(u)               [Probit]

                                                        BIC             = -1826.431
```

HP2inthob	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	-.0993749	.0142594	-6.97	0.000	-.1273229	-.071427
_cons	.0117358	.1447759	0.08	0.935	-.2720197	.2954914

```
     (Standard errors scaled using square root of deviance-based dispersion.)

1048 .
1049 . des bf4m // soma recentered
```

variable name	storage type	display format	value label	variable label
bf4m	float	%9.0g		bf4m = max(0, 32 - BSIsoma)

```
1050 . * bf4m is a possible mediating effect for female sex life
```

```
1051 . glm bf4m  avgcumdosew2 if gender==2, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1140.8259

     Generalized linear models                          No. of obs      =        363
     Optimization     : ML                              Residual df     =        361
                                                        Scale parameter =   31.60104
     Deviance         =  11407.97484                    (1/df) Deviance =   31.60104
     Pearson          =  11407.97484                    (1/df) Pearson  =   31.60104

     Variance function: V(u) = 1                        [Gaussian]
     Link function    : g(u) = u                        [Identity]

                                                        AIC             =   6.296561
     Log likelihood   = -1140.825904                    BIC             =   9280.095

     ------------------------------------------------------------------------------
                  |                 OIM
             bf4m |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew2 |   -.599311   .2139789    -2.80   0.005    -1.018702   -.1799202
            _cons |   18.83424   .3518214    53.53   0.000     18.14469     19.5238
     ------------------------------------------------------------------------------

1052 . glm HP2sxlife bf4m  if gender==2, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  356.1451
     Iteration 2:   deviance =  355.6209
     Iteration 3:   deviance =  355.6178
     Iteration 4:   deviance =  355.6178
     Iteration 5:   deviance =  355.6178

     Generalized linear models                          No. of obs      =        363
     Optimization     : MQL Fisher scoring              Residual df     =        361
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  355.6178202                    (1/df) Deviance =   .9850909
     Pearson          =  340.0032816                    (1/df) Pearson  =   .9418373

     Variance function: V(u) = u*(1-u)                  [Bernoulli]
     Link function    : g(u) = invnorm(u)               [Probit]

                                                        BIC             =  -1772.262
```

```
------------------------------------------------------------------------------
             |                 EIM
  HP2sxlife  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf4m |  -.0990193   .0135516    -7.31   0.000      -.12558   -.0724586
       _cons |   1.063679    .244399     4.35   0.000      .584666    1.542693
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

1053 .
1054 . des shfamw2

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
shfamw2         double %8.0g                  Percentage of strains and
                                                hassles related to family in
                                                1996

1055 . glm shfamw2  avgcumdosew2 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1704.8947

Generalized linear models                          No. of obs      =       339
Optimization     : ML                              Residual df     =       337
                                                   Scale parameter =  1375.284
Deviance         =   463470.769                    (1/df) Deviance =  1375.284
Pearson          =   463470.769                    (1/df) Pearson  =  1375.284

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  10.07017
Log likelihood   = -1704.894657                    BIC             =  461507.4

------------------------------------------------------------------------------
             |                 OIM
     shfamw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |  -.7484378   .8043765    -0.93   0.352    -2.324987    .8281112
       _cons |   34.76184    2.15791    16.11   0.000     30.53241    38.99127
------------------------------------------------------------------------------
```

1056 . glm HP2sxlife shfamw2 if gender==1, fam(bin) irls scale(dev) link(probit)

```
Iteration 1:   deviance =  338.2157
Iteration 2:   deviance =  338.0066
Iteration 3:   deviance =  338.0065
Iteration 4:   deviance =  338.0065

Generalized linear models                          No. of obs      =        339
Optimization     : MQL Fisher scoring              Residual df     =        337
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  338.0064771                    (1/df) Deviance =   1.002987
Pearson          =  339.3157137                    (1/df) Pearson  =   1.006872

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             =  -1625.356
```

HP2sxlife	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
shfamw2	.0027669	.0020626	1.34	0.180	-.0012757	.0068096
_cons	-.9380005	.1081399	-8.67	0.000	-1.149951	-.7260503

(Standard errors scaled using square root of deviance-based dispersion.)

1057 .
1058 . des bf4

variable name	storage type	display format	value label	variable label
bf4	float	%9.0g		**bf4 = max(0, 24 - BSIsoma)**

1059 . glm bf4 avgcumdosew2 if gender==1, fam(gaus) link(identity)

```
Iteration 0:   log likelihood = -1027.1225

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =    24.7771
Deviance         =  8374.659221                    (1/df) Deviance =    24.7771
Pearson          =  8374.659221                    (1/df) Pearson  =    24.7771

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]
```

```
                                                  AIC             =  6.053662
Log likelihood   = -1027.122509                   BIC             =  6404.476
```

bf4	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	-.0331637	.1079644	-0.31	0.759	-.2447701	.1784427
_cons	12.52896	.2892393	43.32	0.000	11.96206	13.09586

```
1060 . glm HP2sxlife bf4 if gender==1, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  265.0595
Iteration 2:   deviance =  261.6959
Iteration 3:   deviance =  261.6273
Iteration 4:   deviance =  261.6271
Iteration 5:   deviance =  261.6271

Generalized linear models                          No. of obs      =        340
Optimization      : MQL Fisher scoring             Residual df     =        338
                    (IRLS EIM)                     Scale parameter =          1
Deviance          =  261.6270836                   (1/df) Deviance =   .7740446
Pearson           =  301.9171445                   (1/df) Pearson  =    .893246

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             = -1708.557
```

HP2sxlife	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	-.1431725	.0149643	-9.57	0.000	-.172502	-.1138431
_cons	.7780696	.180124	4.32	0.000	.425033	1.131106

(Standard errors scaled using square root of deviance-based dispersion.)

```
1061 .
1062 . des bf4m // soma recentered

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)

1063 . * bf4m is a possible mediating effect for female ints and hobbies
1064 . glm bf4m  avgcumdosew2 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1140.8259

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  31.60104
Deviance         =  11407.97484                    (1/df) Deviance =  31.60104
Pearson          =  11407.97484                    (1/df) Pearson  =  31.60104

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  6.296561
Log likelihood   = -1140.825904                    BIC             =  9280.095

------------------------------------------------------------------------------
             |                 OIM
        bf4m |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   -.599311   .2139789    -2.80   0.005    -1.018702   -.1799202
       _cons |   18.83424   .3518214    53.53   0.000     18.14469     19.5238
------------------------------------------------------------------------------

1065 . glm HP2inthob bf4m  if gender==2, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  310.9241
Iteration 2:   deviance =  308.9696
Iteration 3:   deviance =  308.9479
Iteration 4:   deviance =  308.9478
Iteration 5:   deviance =  308.9478

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       361
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  308.9478254                    (1/df) Deviance =  .8558112
Pearson          =  336.1855337                    (1/df) Pearson  =  .9312619
```

```
Variance function: V(u) = u*(1-u)                    [Bernoulli]
Link function    : g(u) = invnorm(u)                 [Probit]

                                                     BIC             = -1818.932

------------------------------------------------------------------------------
             |                 EIM
    HP2inthob |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf4m |  -.0801416   .0127284    -6.30   0.000    -.1050887   -.0551944
       _cons |   .4618823   .2255505     2.05   0.041     .0198113    .9039532
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

1066 .
1067 . des age  // age is a possilbe mediating effect for interest and hobbies

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
age             double %8.0g                * Respondent's age

1068 . glm age  avgcumdosew2 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1330.6004

Generalized linear models                            No. of obs      =       340
Optimization     : ML                                Residual df     =       338
                                                     Scale parameter =  147.6853
Deviance         =  49917.64009                      (1/df) Deviance =  147.6853
Pearson          =  49917.64009                      (1/df) Pearson  =  147.6853

Variance function: V(u) = 1                          [Gaussian]
Link function    : g(u) = u                          [Identity]

                                                     AIC             =  7.838826
Log likelihood   =   -1330.6004                      BIC             =  47947.46

------------------------------------------------------------------------------
             |                 OIM
         age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   .5832314   .2635871     2.21   0.027     .0666101    1.099853
       _cons |   48.62133   .7061562    68.85   0.000     47.23729    50.00537
------------------------------------------------------------------------------
```

```
1069 . glm HP2inthob age if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  224.8585
     Iteration 2:   deviance =  219.8355
     Iteration 3:   deviance =  219.6997
     Iteration 4:   deviance =  219.6996
     Iteration 5:   deviance =  219.6996

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  219.6996277                    (1/df) Deviance =   .6499989
     Pearson          =  354.7105724                    (1/df) Pearson  =    1.04944

     Variance function: V(u) = u*(1-u)                  [Bernoulli]
     Link function    : g(u) = invnorm(u)               [Probit]

                                                        BIC             =  -1750.484

     ------------------------------------------------------------------------------
                  |                 EIM
        HP2inthob |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
              age |    .031726   .0062563     5.07   0.000     .0194638    .0439882
            _cons |  -2.867608    .344284    -8.33   0.000    -3.542392   -2.192824
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1070 .
1071 . des illw2

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     illw2           double %8.0g                  Total number of illnesses
                                                     experienced in time period
                                                     1987-1996
```

```
1072 . glm illw2  avgcumdosew2 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -303.59609

     Generalized linear models                         No. of obs      =        340
     Optimization     : ML                             Residual df     =        338
                                                       Scale parameter =   .3512988
     Deviance         =  118.7390083                   (1/df) Deviance =   .3512988
     Pearson          =  118.7390083                   (1/df) Pearson  =   .3512988

     Variance function: V(u) = 1                       [Gaussian]
     Link function    : g(u) = u                       [Identity]

                                                       AIC             =   1.797624
     Log likelihood   = -303.5960853                   BIC             =  -1851.445

     ------------------------------------------------------------------------------
                  |                 OIM
            illw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew2 |   .0085423   .0128556     0.66   0.506    -.0166543    .0337389
            _cons |   .2741359   .0344406     7.96   0.000     .2066336    .3416382
     ------------------------------------------------------------------------------

1073 . glm HP2inthob illw2 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  237.2651
     Iteration 2:   deviance =  236.0196
     Iteration 3:   deviance =  236.0142
     Iteration 4:   deviance =  236.0142
     Iteration 5:   deviance =  236.0142

     Generalized linear models                         No. of obs      =        340
     Optimization     : MQL Fisher scoring             Residual df     =        338
                        (IRLS EIM)                     Scale parameter =          1
     Deviance         =  236.0141663                   (1/df) Deviance =   .6982668
     Pearson          =    338.89241                   (1/df) Pearson  =    1.00264

     Variance function: V(u) = u*(1-u)                 [Bernoulli]
     Link function    : g(u) = invnorm(u)              [Probit]

                                                       BIC             =  -1734.169
```

HP2inthob	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
illw2	**.2044103**	**.113873**	**1.80**	**0.073**	**-.0187766**	**.4275973**
_cons	**-1.284117**	**.0852302**	**-15.07**	**0.000**	**-1.451165**	**-1.117069**

(Standard errors scaled using square root of deviance-based dispersion.)

```
1074 .
1075 .
1076 . *xx summary of mediating effects: males only age and illw2  2
1077 . *xx           females: age
1078 .
1079 .
1080 .
1081 . * summary of sxlife moderator effects  none
1082 . scalar sxLifeMedMw2 = "age illw2"

1083 . scalar sxLifeMedFw2 = "age bf4 bf4m"

1084 .
1085 . * no sign main dose effect for males
1086 . * no male moderators
1087 . * 3 signif main effects in male main effect model
1088 .
1089 .
1090 . * no signif dose main effect for females
1091 . * 3 main female effects
1092 . * no significant female moderators
1093 .  matrix define HP2inthbMw2 = J(1,8, 0)

1094 .         matrix define HP2inthbFw2 = J(1,8, 0)

1095 . matrix colnames HP2inthbMw2 =  hypnum ptnum wave gender medsig numMAsig numM
> odsig numMed
```

```
1096 . matrix colnames HP2inthbFw2 =  hypnum ptnum wave gender medsig numMAsig numM
     > odsig numMed

1097 .     matrix define HP2inthbMw2 = (1, 2, 3, 1, 0, 3, 0, 2 )

1098 .         matrix define HP2inthbFw2 = (1, 2, 3, 2, 0, 3, 0, 3 )

1099 .         matrix rowname HP2inthbMw2 = HP2inthbM

1100 .         matrix rowname HP2inthbFw2 = HP2inthobF

1101 .         matlist HP2inthbMw2

                   |         c1          c2          c3          c4          c5          c
     > 6         c7
     --------------+-----------------------------------------------------------------------
     > --------------
        HP2inthbM  |          1           2           3           1           0
     > 3          0

                   |         c8
     --------------+-------------
        HP2inthbM  |          2

1102 .         matlist HP2inthbFw2

                   |         c1          c2          c3          c4          c5          c
     > 6         c7
     --------------+-----------------------------------------------------------------------
     > --------------
       HP2inthobF  |          1           2           3           2           0
     > 3          0

                   |         c8
     --------------+-------------
       HP2inthobF  |          3
```

```
1103 .         matrix define H1pt2w2 = ( HP2wkMw2 \ HP2wkFw2 \ HP2hmcrMw2 \ HP2hmcr
     > Fw2 \ HP2spMw2 ///
     >             \ HP2spFw2 \ HP2prbfamMw2 \ HP2prbfamFw2 \ HP2inthbMw2 \ HP2inth
     > bFw2 )

1104 .         matlist H1pt2w2

                  |        c1          c2          c3          c4          c5          c
     > 6         c7
     -------------+------------------------------------------------------------------------
     > -------------
               r1 |         1           2           3           1           0
     > 4          0
               r1 |         1           2           3           2           0
     > 1          0
               r1 |         1           2           3           1           0
     > 4          0
               r1 |         1           2           3           2           0
     > 2          0
         HP2spMw2 |         1           2           3           1           0
     > 2          0
         HP2spFw2 |         1           2           3           2           1
     > 5          5
       HP2prbfamM |         1           2           3           1           0
     > 5          0
       HP2prbfamF |         1           2           3           2           0
     > 2          2
        HP2inthbM |         1           2           3           1           0
     > 3          0
       HP2inthobF |         1           2           3           2           0
     > 3          0

                  |        c8
     -------------+------------
               r1 |         4
               r1 |         6
               r1 |         2
               r1 |         2
         HP2spMw2 |         1
         HP2spFw2 |         2
       HP2prbfamM |         1
       HP2prbfamF |         2
        HP2inthbM |         2
       HP2inthobF |         3
```

```
1105 .     matrix colnames H1pt2w2 =  hypnum ptnum wave gender medsig numMAsig numM
     > odsig numMed

1106 .     matrix rownames H1pt2w2 =   HP2wkMw2 HP2wkFw2 HP2hmcrMw2 HP2hmcrFw2 HP2s
     > pMw2 HP2spFw2 HP2prbfamMw2 HP2prbfamFw2 HP2inthbMw2 HP2inthbFw2

1107 .     matlist H1pt2w2

                   |    hypnum      ptnum       wave     gender     medsig   numMAsi
     > g  numModsig
     ------------------------------------------------------------------------------
     > -------------
          HP2wkMw2 |         1          2          3          1          0
     > 4         0
          HP2wkFw2 |         1          2          3          2          0
     > 1         0
        HP2hmcrMw2 |         1          2          3          1          0
     > 4         0
        HP2hmcrFw2 |         1          2          3          2          0
     > 2         0
          HP2spMw2 |         1          2          3          1          0
     > 2         0
          HP2spFw2 |         1          2          3          2          1
     > 5         5
      HP2prbfamMw2 |         1          2          3          1          0
     > 5         0
      HP2prbfamFw2 |         1          2          3          2          0
     > 2         2
       HP2inthbMw2 |         1          2          3          1          0
     > 3         0
       HP2inthbFw2 |         1          2          3          2          0
     > 3         0

                   |    numMed
     --------------+-----------
          HP2wkMw2 |         4
          HP2wkFw2 |         6
        HP2hmcrMw2 |         2
        HP2hmcrFw2 |         2
          HP2spMw2 |         1
          HP2spFw2 |         2
      HP2prbfamMw2 |         1
      HP2prbfamFw2 |         2
       HP2inthbMw2 |         2
       HP2inthbFw2 |         3
```

```
1108 .
1109 . *xxxxxxxxxxxxxxx  chunk 9  Dose=> vacation plans impactxxxxxxxxxxxxxxxxxxxx
     > xxxx
1110 . title "7. Hypothesis 1 pt 2 wave 2 dose vacation plans impact"


     ******************************************************************************
     > *
     ******************************************************************************
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     *****       7. Hypothesis 1 pt 2 wave 2 dose vacation plans impact        ****
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     *****                                           1 Jul 2012    15:06:27  ****
     > *
     ******************************************************************************
     > *
     ******************************************************************************
     > *



1111 .
1112 . cap gen hp2vacatn = HP2vacatn

1113 .
1114 . forvalues j=2/2 {
       2. title " wave 2 Dose = >hp2vacatn Female main effects models for H1 pt2"
       3. set more off
       4. local w1bf bf1 bf4 bf9 bf10 bf11 bf4m bf15m bf20 bf22 bf30 bf40
       5. local w2bf bf1 bf4 bf6 bf7 bf14 bf15 bf40
       6. local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
     > bf40
       7. di _skip(3)
       8.
```

```
1115 . di as input "Female model wave 2 dose-hp2vactn moderator model "
       9. di _skip(4)
      10. logit hp2vacatn age i.educ occ1w`j'-occ8w`j' ///
     >   marrw`j'1- marrw`j'3 marrw`j'5-marrw`j'6 inc1w`j'-inc4w`j' ///
     >   radhlw`j' havmil avgcumdosew`j' `w`j'bf'  ///
     >   deaw`j' dvcew`j' sepaw`j' accdw`j' movew`j' ///
     >  illw`j' shfamw`j' shhlw`j' shjobw`j' shrelaw`j' suprtw`j' suchrw`j'  havmil
     > sq ///
     >  radhlw`j' avgcumdosew`j' if gender==2, nolog
      11.  di _skip(4)
      12.  title3 "trimmed hp2hmcare main effects models for H1 no direct dose effe
     > ct for male"
      13.  pwcorr hp2vacatn age  deaw2 shjobw2 bf7m shjobw2 havmilsq ///
     >   radhlw2 avgcumdosew2 if gender==2, sig obs sidak star(.05) listwise
      14. di _skip(1)
      15. di as input "For females trimmed vacation plans model on wave2 and d2 is
     > not signif "
      16. di _skip(1)
      17.   logistic hp2vacatn age  deaw2 shjobw2 bf7m havmil  ///
     >   radhlw2 avgcumdosew2 if ///
     >    gender==2, coef nolog
      18. }


     ********************************************************************************
     > *
     ********************************************************************************
     > *
     *****                                                                      ****
     > *
     *****                                                                      ****
     > *
     *****   wave 2 Dose = >hp2vacatn Female main effects models for H1 pt2     ****
     > *
     *****                                                                      ****
     > *
     *****                                                                      ****
     > *
     *****                                               1 Jul 2012    15:06:27  ****
     > *
     ********************************************************************************
     > *
     ********************************************************************************
     > *
```

```
Female model wave 2 dose-hp2vactn moderator model

note: 1.educ != 0 predicts success perfectly
      1.educ dropped and 1 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 12 obs not used

note: sepaw2 != 0 predicts failure perfectly
      sepaw2 dropped and 7 obs not used

note: 7.educ omitted because of collinearity
note: marrw26 omitted because of collinearity
note: bf17 omitted because of collinearity
note: radhlw2 omitted because of collinearity
note: avgcumdosew2 omitted because of collinearity

Logistic regression                               Number of obs   =        342
                                                  LR chi2(49)     =     109.68
                                                  Prob > chi2     =     0.0000
Log likelihood = -105.52458                       Pseudo R2       =     0.3420
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0854768	.0223995	3.82	0.000	.0415747	.129379
educ						
1	0	(empty)				
2	-.1593387	2.114879	-0.08	0.940	-4.304426	3.985748
3	.0597641	2.056969	0.03	0.977	-3.971821	4.091349
4	1.938135	2.166629	0.89	0.371	-2.308379	6.184649
5	.5746086	2.110158	0.27	0.785	-3.561224	4.710442
6	.514209	2.047201	0.25	0.802	-3.498231	4.526649
7	0	(omitted)				
occ1w2	-1.136832	2.2792	-0.50	0.618	-5.603982	3.330319
occ2w2	-.2856505	2.305307	-0.12	0.901	-4.803969	4.232668
occ3w2	-.2169427	2.294811	-0.09	0.925	-4.714689	4.280804
occ4w2	-.683475	2.371054	-0.29	0.773	-5.330655	3.963705
occ5w2	-1.371472	2.630882	-0.52	0.602	-6.527906	3.784962
occ6w2	.0514752	2.451671	0.02	0.983	-4.753711	4.856661
occ7w2	-.1816542	2.247999	-0.08	0.936	-4.587651	4.224342
occ8w2	.8447307	2.549827	0.33	0.740	-4.152839	5.8423
marrw21	-.3962689	1.357581	-0.29	0.770	-3.057079	2.264541
marrw22	-.7029234	1.344493	-0.52	0.601	-3.338081	1.932234
marrw23	-.2946087	.8362371	-0.35	0.725	-1.933603	1.344386
marrw25	-.3847095	1.312384	-0.29	0.769	-2.956935	2.187516

marrw26	0	(omitted)				
inc1w2	-.1652011	2.308319	-0.07	0.943	-4.689424	4.359021
inc2w2	.5715606	2.259621	0.25	0.800	-3.857216	5.000337
inc3w2	.4239638	2.273454	0.19	0.852	-4.031925	4.879853
inc4w2	-.1023039	2.63108	-0.04	0.969	-5.259126	5.054518
radhlw2	.0311845	.0092957	3.35	0.001	.0129652	.0494037
havmil	.0003107	.0031022	0.10	0.920	-.0057695	.006391
avgcumdosew2	.0845855	.1349954	0.63	0.531	-.1800007	.3491716
bf1	-.0293284	.0365427	-0.80	0.422	-.1009508	.042294
bf4	-.035894	.2239004	-0.16	0.873	-.4747308	.4029428
bf2	.0000573	.0001382	0.41	0.678	-.0002135	.0003281
bf4m	-.0145711	.2099542	-0.07	0.945	-.4260738	.3969316
bf5m	-.0005728	.0016599	-0.35	0.730	-.0038262	.0026805
bf7m	-.0009478	.0006252	-1.52	0.130	-.0021731	.0002775
bf8	-.0000327	.0000408	-0.80	0.422	-.0001126	.0000472
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.0039952	.030974	0.13	0.897	-.0567128	.0647032
bf22	.0000865	.0001546	0.56	0.576	-.0002165	.0003895
bf29	.0000586	.0000394	1.49	0.137	-.0000187	.000136
bf30	-.0003297	.0003684	-0.89	0.371	-.0010518	.0003924
bf40	-.1986581	.1714089	-1.16	0.246	-.5346134	.1372973
deaw2	.2948255	.2283224	1.29	0.197	-.1526782	.7423292
dvcew2	1.55263	1.538911	1.01	0.313	-1.463579	4.56884
sepaw2	0	(omitted)				
accdw2	-.6724545	.7843213	-0.86	0.391	-2.209696	.8647871
movew2	-.2536562	.8260121	-0.31	0.759	-1.87261	1.365298
illw2	.1944001	.2307879	0.84	0.400	-.2579358	.646736
shfamw2	.010723	.0072538	1.48	0.139	-.0034942	.0249402
shhlw2	.0100536	.0078834	1.28	0.202	-.0053977	.0255048
shjobw2	-.0092745	.0068673	-1.35	0.177	-.0227342	.0041852
shrelaw2	-.0224849	.0085804	-2.62	0.009	-.0393023	-.0056675
suprtw2	-.0043936	.0060874	-0.72	0.470	-.0163246	.0075375
suchrw2	.0021145	.0069953	0.30	0.762	-.0115961	.015825
havmilsq	-6.40e-07	2.42e-06	-0.26	0.792	-5.39e-06	4.11e-06
radhlw2	0	(omitted)				
avgcumdosew2	0	(omitted)				
_cons	-5.212149	3.615206	-1.44	0.149	-12.29782	1.873525

```
title3 : trimmed hp2hmcare main effects models for H1 no direct dose effect fo
> r male
 1 Jul 2012
15:06:28
computer  Macintosh (Intel 64-bit)
folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests
> /h1pt2
Data file  chwide1jul2012.dta  currrently has  2399  variables and  703  obser
```

> vations

	hp2vac~n	age	deaw2	shjobw2	bf7m	shjobw2	havmilsq
hp2vacatn	1.0000						
	363						
age	0.3765*	1.0000					
	0.0000						
	363	363					
deaw2	0.1195	0.1404	1.0000				
	0.5641	0.2337					
	363	363	363				
shjobw2	-0.0747	-0.0331	-0.0711	1.0000			
	0.9977	1.0000	0.9991				
	363	363	363	363			
bf7m	-0.0670	-0.0780	0.0244	-0.1112	1.0000		
	0.9997	0.9953	1.0000	0.7134			
	363	363	363	363	363		
shjobw2	-0.0747	-0.0331	-0.0711	1.0000*	-0.1112	1.0000	
	0.9977	1.0000	0.9991	0.0000	0.7134		
	363	363	363	363	363	363	
havmilsq	-0.0378	-0.0465	-0.0150	0.0080	0.0150	0.0080	1.0000
	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
	363	363	363	363	363	363	363
radhlw2	0.2650*	0.2605*	0.1095	-0.0109	0.2974*	-0.0109	-0.0284
	0.0000	0.0000	0.7430	1.0000	0.0000	1.0000	1.0000
	363	363	363	363	363	363	363
avgcumdosew2	0.1224	0.1748*	-0.0214	0.0826	-0.0270	0.0826	-0.0052
	0.5104	0.0292	1.0000	0.9883	1.0000	0.9883	1.0000
	363	363	363	363	363	363	363

	radhlw2	avgcum~2
radhlw2	1.0000	
	363	
avgcumdosew2	0.1342	1.0000
	0.3162	
	363	363

For females trimmed vacation plans model on wave2 and d2 is not signif

```
Logistic regression                               Number of obs   =        363
                                                  LR chi2(7)      =      76.69
                                                  Prob > chi2     =     0.0000
Log likelihood = -129.17206                       Pseudo R2       =     0.2289
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.079348	.0155749	5.09	0.000	.0488217	.1098742
deaw2	.1646231	.1715933	0.96	0.337	-.1716935	.5009397
shjobw2	-.0056137	.0041432	-1.35	0.175	-.0137341	.0025068
bf7m	-.0006133	.00025	-2.45	0.014	-.0011032	-.0001234
havmil	-.0001958	.0011139	-0.18	0.860	-.0023791	.0019875
radhlw2	.0233367	.005861	3.98	0.000	.0118494	.034824
avgcumdosew2	.0651649	.0909818	0.72	0.474	-.1131561	.243486
_cons	-6.606305	1.018983	-6.48	0.000	-8.603475	-4.609135

```
.
. // vacation plans washes out for females also
.
.
. scalar SigDoseVactnMw2 = "no"
```

```
1121 . scalar MainEffVactnMw2 = "age bf7m radhlw2 "

1122 .
1123 . local cn7:colnames(e(b))

1124 . di "`cn7'"
     age deaw2 shjobw2 bf7m havmil radhlw2 avgcumdosew2 _cons

1125 . local len7 = length("`cn7'")

1126 . di `len7'
     56

1127 . local len7b = `len7' - 6

1128 . di `len7b'
     50

1129 . local myvarlist = substr("`cn7'",1,`len7b')

1130 . di "`myvarlist'"
     age deaw2 shjobw2 bf7m havmil radhlw2 avgcumdosew2

1131 .
1132 . foreach var in `myvarlist' {
       2. cap gen `var'Xd3 = `var'*avgcumdosew2
       3. }

1133 .
1134 . title " Trimmed male main effects dose=> vacation plans  model"


     *******************************************************************************
     > *
     *******************************************************************************
     > *
     *****                                                                      ****
     > *
     *****                                                                      ****
     > *
     *****       Trimmed male main effects dose=> vacation plans  model         ****
     > *
     *****                                                                      ****
     > *
     *****                                                                      ****
     > *
     *****                                              1 Jul 2012    15:06:30  ****
     > *
     *******************************************************************************
```

```
> *
*****************************************************************************
> *
```

```
1135 . di as input "No sig main male dose main effects model"
     No sig main male dose main effects model

1136 . sw, pr(.1): logit hp2vacatn `myvarlist' if gender==1
                           begin with full model
     p = 0.7095 >= 0.1000  removing deaw2
     p = 0.6626 >= 0.1000  removing avgcumdosew2
     p = 0.4924 >= 0.1000  removing shjobw2
     p = 0.4544 >= 0.1000  removing havmil
     p = 0.1243 >= 0.1000  removing bf7m

     Logistic regression                               Number of obs   =        340
                                                       LR chi2(2)      =      36.09
                                                       Prob > chi2     =     0.0000
     Log likelihood = -107.10862                       Pseudo R2       =     0.1442
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0587352	.0156958	3.74	0.000	.027972	.0894984
radhlw2	.0163217	.005398	3.02	0.002	.0057417	.0269016
_cons	-6.0454	.8953448	-6.75	0.000	-7.800244	-4.290557

```
1137 .
1138 .
1139 . local cn8:colnames(e(b))

1140 . di "`cn8'"
     age radhlw2 _cons
```

```
1141 . local len8 = length("`cn8'")

1142 . di `len7'
     56

1143 . local len8b = `len8' - 6

1144 . di `len8b'
     11

1145 . local myvarlist = substr("`cn8'",1,`len8b')

1146 . di "`myvarlist'"
     age radhlw2

1147 .
1148 .
1149 .
1150 .  title4 "Trimmed male interaction dose=> vacation plans model"
     ------------------------------------------------------------------------------
     Trimmed male interaction dose=> vacation plans model
     ------------------------------------------------------------------------------

1151 .  logit hp2vacatn age radhlw2 ageXd3 bf7m avgcumdosew2 bf4m bf4mXd3 bf7mXd3 i
     > f gender==1

     Iteration 0:   log likelihood = -125.15243
     Iteration 1:   log likelihood = -103.75295
     Iteration 2:   log likelihood = -95.975162
     Iteration 3:   log likelihood = -95.713486
     Iteration 4:   log likelihood = -95.674656
     Iteration 5:   log likelihood = -95.673437
     Iteration 6:   log likelihood = -95.673437

     Logistic regression                               Number of obs   =        340
                                                       LR chi2(8)      =      58.96
                                                       Prob > chi2     =     0.0000
     Log likelihood = -95.673437                       Pseudo R2       =     0.2355
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0351266	.0232179	1.51	0.130	-.0103796	.0806328
radhlw2	.0006782	.0066781	0.10	0.919	-.0124106	.0137669
ageXd3	.0103149	.0213141	0.48	0.628	-.0314599	.0520897
bf7m	.0001809	.0004722	0.38	0.702	-.0007446	.0011065
avgcumdosew2	-.5848691	1.717213	-0.34	0.733	-3.950545	2.780807
bf4m	-.1548807	.0718689	-2.16	0.031	-.2957412	-.0140202
bf4mXd3	-.0235592	.0602635	-0.39	0.696	-.1416735	.094555
bf7mXd3	.000194	.0003621	0.54	0.592	-.0005158	.0009038
_cons	-1.171738	1.695722	-0.69	0.490	-4.495293	2.151816

```
1152 .
1153 .  scalar vactnModMw2 ="none"

1154 .
1155 .  di as input "Trimmed Female model wave 2 main effects dose-hp2vacatn model
     > "
     Trimmed Female model wave 2 main effects dose-hp2vacatn model

1156 .  forvalues j=2/2 {
       2.  local w2bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
     >  bf40
       3.
1157 .   xi: logistic hp2vacatn age  radhlw`j' avgcumdosew`j'   ///
     >   deaw`j'  suchrw`j'   ///
     >     if gender==2, coef nolog difficult iterate(50)
       4.
1158 . }

     Logistic regression                               Number of obs   =        363
                                                       LR chi2(5)      =      70.03
                                                       Prob > chi2     =     0.0000
     Log likelihood = -132.50308                       Pseudo R2       =     0.2090
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0851818	.0154813	5.50	0.000	.054839	.1155246
radhlw2	.0170145	.0053804	3.16	0.002	.0064692	.0275599
avgcumdosew2	.0786711	.0879844	0.89	0.371	-.0937752	.2511173
deaw2	.201149	.1681372	1.20	0.232	-.1283938	.5306918
suchrw2	-.0020193	.0038609	-0.52	0.601	-.0095866	.005548
_cons	-7.431055	.9998597	-7.43	0.000	-9.390744	-5.471366

```
1159 .
1160 . scalar SigDoseVactnMw2 = "no"

1161 .
1162 .  * summary of male moderating effects: no sign main dose effect in main effe
     > cts model
1163 .  *          no signif male moderators
1164 .  *          3 significant main effects in main effects model
1165 .
1166 .  * summary of female moderation main effects:  no signif main dose effect
1167 .  *                    3 signif main effects
1168 .
1169 . local cn9:colnames(e(b))

1170 . di "`cn9'"
     age radhlw2 avgcumdosew2 deaw2 suchrw2 _cons

1171 . local len9 = length("`cn9'")

1172 . di `len9'
     44

1173 . local len9b = `len9' - 6

1174 . di `len9b'
     38

1175 . local myvarlist = substr("`cn9'",1,`len9b')

1176 . di "`myvarlist'"
     age radhlw2 avgcumdosew2 deaw2 suchrw2

1177 .
1178 .
1179 . foreach var in `myvarlist' {
       2.   cap gen `var'Xd3 = `var'*avgcumdosew2
       3.   }
```

```
1180 .
1181 .
1182 . * female dose vacatn w2 models
1183 .
1184 . title4 "trimmed hp2vacatn wave3 main effects models for H1"
```

trimmed hp2vacatn wave3 main effects models for H1

```
1185 . di as input "For females hp2vacatn on wave3"
     For females hp2vacatn on wave3

1186 . sw, pr(.1):logit hp2vacatn `myvarlist' if gender==2
                           begin with full model
     p = 0.6010 >= 0.1000  removing suchrw2
     p = 0.4044 >= 0.1000  removing avgcumdosew2
     p = 0.2500 >= 0.1000  removing deaw2

     Logistic regression                               Number of obs   =        363
                                                       LR chi2(2)      =      67.78
                                                       Prob > chi2     =     0.0000
     Log likelihood =   -133.624                       Pseudo R2       =     0.2023
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.087459	.0153711	5.69	0.000	.0573321	.1175858
radhlw2	.0183043	.0051588	3.55	0.000	.0081933	.0284153
_cons	-7.552753	.9504531	-7.95	0.000	-9.415607	-5.689899

```
1187 . estat class

     Logistic model for hp2vacatn
```

	True		
Classified	D	~D	Total
+	18	3	21
-	45	297	342
Total	63	300	363

```
Classified + if predicted Pr(D) >= .5
True D defined as hp2vacatn != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   28.57%
Specificity                     Pr( -|~D)   99.00%
Positive predictive value       Pr( D| +)   85.71%
Negative predictive value       Pr(~D| -)   86.84%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    1.00%
False - rate for true D         Pr( -| D)   71.43%
False + rate for classified +   Pr(~D| +)   14.29%
False - rate for classified -   Pr( D| -)   13.16%
--------------------------------------------------
Correctly classified                        86.78%
--------------------------------------------------
```

```
1188 . estat gof

     Logistic model for hp2vacatn, goodness-of-fit test
     --------------------------------------------------

            number of observations =       363
      number of covariate patterns =       219
                  Pearson chi2(216) =       284.26
                        Prob > chi2 =         0.0013

1189 . fitstat

     Measures of Fit for logit of hp2vacatn

     Log-Lik Intercept Only:     -167.516    Log-Lik Full Model:         -133.624
     D(360):                      267.248    LR(2):                        67.784
                                             Prob > LR:                     0.000
     McFadden's R2:                 0.202    McFadden's Adj R2:             0.184
     Maximum Likelihood R2:         0.170    Cragg & Uhler's R2:            0.283
     McKelvey and Zavoina's R2:     0.354    Efron's R2:                    0.237
     Variance of y*:                5.091    Variance of error:             3.290
     Count R2:                      0.868    Adj Count R2:                  0.238
     AIC:                           0.753    AIC*n:                       273.248
     BIC:                       -1854.737    BIC':                        -55.995
```

```
1190 .
1191 . scalar SigDoseVactnFw2 = "no"

1192 . scalar MainEffVactnFw2 = "age radhlw2 deaw2"

1193 .
1194 . di as result " Full moderator model for females for dose=> Vacation plans"
      Full moderator model for females for dose=> Vacation plans

1195 . logit hp2vacatn age radhlw2 deaw2 suchrw2 avgcumdosew2 ageXd3 radhlw2Xd3 dea
     > w2Xd3  ///
     >     suchrw2Xd3 havmilsq if gender==2

     Iteration 0:   log likelihood =   -167.516
     Iteration 1:   log likelihood = -135.52597
     Iteration 2:   log likelihood = -131.52279
     Iteration 3:   log likelihood =  -131.2764
     Iteration 4:   log likelihood = -131.27069
     Iteration 5:   log likelihood = -131.27061
     Iteration 6:   log likelihood = -131.27061

     Logistic regression                               Number of obs   =        363
                                                       LR chi2(10)     =      72.49
                                                       Prob > chi2     =     0.0000
     Log likelihood = -131.27061                       Pseudo R2       =     0.2164

     ------------------------------------------------------------------------------
        hp2vacatn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
              age |   .0708879   .0190976     3.71   0.000     .0334572    .1083185
          radhlw2 |   .0165656   .0064315     2.58   0.010     .0039601    .0291712
            deaw2 |   .3060548    .241868     1.27   0.206    -.1679977    .7801073
          suchrw2 |  -.0009912   .0046331    -0.21   0.831    -.0100718    .0080894
     avgcumdosew2 |  -.9450174   1.222942    -0.77   0.440     -3.34194    1.451905
           ageXd3 |   .0137792   .0133034     1.04   0.300     -.012295    .0398534
       radhlw2Xd3 |    .001068   .0036864     0.29   0.772    -.0061572    .0082931
         deaw2Xd3 |  -.1266981   .2241693    -0.57   0.572    -.5660619    .3126657
       suchrw2Xd3 |  -.0004938   .0024641    -0.20   0.841    -.0053234    .0043359
         havmilsq |  -5.05e-07   1.35e-06    -0.37   0.708    -3.15e-06    2.14e-06
            _cons |  -6.701508   1.270732    -5.27   0.000    -9.192096   -4.210919
     ------------------------------------------------------------------------------
```

```
1196 .
1197 . di as result "trimmed female moderator model for dose=> vacation plans"
     trimmed female moderator model for dose=> vacation plans

1198 . logit hp2vacatn age avgcumdosew2 suchrw2 deaw2 deaw2Xd3  if gender==2

     Iteration 0:   log likelihood =   -167.516
     Iteration 1:   log likelihood = -140.72298
     Iteration 2:   log likelihood = -137.85316
     Iteration 3:   log likelihood = -137.83165
     Iteration 4:   log likelihood = -137.83165

     Logistic regression                               Number of obs   =        363
                                                       LR chi2(5)      =      59.37
                                                       Prob > chi2     =     0.0000
     Log likelihood = -137.83165                       Pseudo R2       =     0.1772

     ------------------------------------------------------------------------------
        hp2vacatn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
              age |   .0896607   .0149698     5.99   0.000     .0603204    .1190011
     avgcumdosew2 |   .1488443   .1025315     1.45   0.147    -.0521136    .3498023
          suchrw2 |  -.0054654   .0036554    -1.50   0.135    -.0126297     .001699
            deaw2 |   .2935759   .2210405     1.33   0.184    -.1396555    .7268074
         deaw2Xd3 |  -.0992117   .1869089    -0.53   0.596    -.4655464     .267123
            _cons |  -6.416219    .881865    -7.28   0.000    -8.144642   -4.687795
     ------------------------------------------------------------------------------

1199 .
1200 . scalar VacatnModFw2 = "none"

1201 . *xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
     > xxxx
1202 . cap gen hp2vactn = HP2vacatn

1203 . title4 "Chunk 9 HP2vacatn plans mediator models for males"
     ------------------------------------------------------------------------------
     Chunk 9 HP2vacatn plans mediator models for males
     ------------------------------------------------------------------------------
```

```
1204 .
1205 . * age is a mediator for males
1206 . glm age avgcumdosew2 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1330.6004

     Generalized linear models                         No. of obs      =        340
     Optimization     : ML                             Residual df     =        338
                                                       Scale parameter =   147.6853
     Deviance         =  49917.64009                   (1/df) Deviance =   147.6853
     Pearson          =  49917.64009                   (1/df) Pearson  =   147.6853

     Variance function: V(u) = 1                       [Gaussian]
     Link function    : g(u) = u                       [Identity]

                                                       AIC             =   7.838826
     Log likelihood   =   -1330.6004                   BIC             =   47947.46

     ------------------------------------------------------------------------------
                  |                 OIM
              age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew2 |   .5832314   .2635871     2.21   0.027     .0666101    1.099853
            _cons |   48.62133   .7061562    68.85   0.000     47.23729    50.00537
     ------------------------------------------------------------------------------

1207 . glm hp2vactn age  if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  230.5483
     Iteration 2:   deviance =  224.6254
     Iteration 3:   deviance =  224.4149
     Iteration 4:   deviance =  224.4147
     Iteration 5:   deviance =  224.4147

     Generalized linear models                         No. of obs      =        340
     Optimization     : MQL Fisher scoring             Residual df     =        338
                        (IRLS EIM)                     Scale parameter =          1
     Deviance         =  224.4146771                   (1/df) Deviance =   .6639487
     Pearson          =  345.2370578                   (1/df) Pearson  =   1.021411

     Variance function: V(u) = u*(1-u)                 [Bernoulli]
     Link function    : g(u) = invnorm(u)              [Probit]

                                                       BIC             =  -1745.769
```

```
------------------------------------------------------------------------------
             |                 EIM
    hp2vactn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0377399   .0063833     5.91   0.000     .0252289    .0502509
       _cons |  -3.150096   .3549593    -8.87   0.000    -3.845803   -2.454388
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)
```

```
1208 .
1209 . * illness is a mediating effect for males = > vacatn for men
1210 . des illw2

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
illw2           double %8.0g                  Total number of illnesses
                                                experienced in time period
                                                1987-1996

1211 . glm illw2 avgcumdosew2 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -303.59609

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  .3512988
Deviance         =  118.7390083                    (1/df) Deviance =  .3512988
Pearson          =  118.7390083                    (1/df) Pearson  =  .3512988

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  1.797624
Log likelihood   = -303.5960853                    BIC             = -1851.445

------------------------------------------------------------------------------
             |                 OIM
       illw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   .0085423   .0128556     0.66   0.506    -.0166543    .0337389
       _cons |   .2741359   .0344406     7.96   0.000     .2066336    .3416382
------------------------------------------------------------------------------
```

```
1212 . glm hp2vactn illw2 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  246.5506
     Iteration 2:   deviance =  245.3093
     Iteration 3:   deviance =  245.3029
     Iteration 4:   deviance =  245.3029
     Iteration 5:   deviance =  245.3029

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  245.3029322                    (1/df) Deviance =   .7257483
     Pearson          =  335.4909761                    (1/df) Pearson  =   .9925769

     Variance function: V(u) = u*(1-u)                  [Bernoulli]
     Link function    : g(u) = invnorm(u)               [Probit]

                                                        BIC             =  -1724.881

     ------------------------------------------------------------------------------
                  |                 EIM
         hp2vactn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
            illw2 |   .3031606   .1114242     2.72   0.007     .0847731    .5215481
            _cons |  -1.277579   .0863769   -14.79   0.000    -1.446875   -1.108284
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1213 .
1214 . des radhlw2

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     radhlw2         double %8.0g                  Self-perceived Chornobyl health
                                                     threat in wave 2
```

```
1215 . glm radhlw2 avgcumdosew2 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1693.4076

     Generalized linear models                          No. of obs      =        340
     Optimization     : ML                              Residual df     =        338
                                                        Scale parameter =   1247.933
     Deviance         =  421801.4584                    (1/df) Deviance =   1247.933
     Pearson          =  421801.4584                    (1/df) Pearson  =   1247.933

     Variance function: V(u) = 1                        [Gaussian]
     Link function    : g(u) = u                        [Identity]

                                                        AIC             =   9.972986
     Log likelihood   = -1693.407647                    BIC             =   419831.3

     ------------------------------------------------------------------------------
                  |                 OIM
          radhlw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew2 |   1.220373    .766216     1.59   0.111    -.2813831    2.722128
            _cons |   45.63198   2.052711    22.23   0.000     41.60874    49.65522
     ------------------------------------------------------------------------------

1216 . glm hp2vactn radhlw2 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  234.5448
     Iteration 2:   deviance =  229.6041
     Iteration 3:   deviance =  229.4465
     Iteration 4:   deviance =  229.4462
     Iteration 5:   deviance =  229.4462

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  229.4462113                    (1/df) Deviance =   .6788349
     Pearson          =  340.4683102                    (1/df) Pearson  =   1.007303

     Variance function: V(u) = u*(1-u)                  [Bernoulli]
     Link function    : g(u) = invnorm(u)               [Probit]

                                                        BIC             =  -1740.737
```

hp2vactn	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
radhlw2	**.0116586**	**.0021811**	**5.35**	**0.000**	**.0073837**	**.0159334**
_cons	**-1.817407**	**.1519393**	**-11.96**	**0.000**	**-2.115203**	**-1.519612**

(Standard errors scaled using square root of deviance-based dispersion.)

```
1217 .
1218 . title4 "HP2vacatn plans mediator models for females"
```

HP2vacatn plans mediator models for females

```
1219 .
1220 . * age is a mediator for females
1221 . glm age avgcumdosew2 if gender==2, fam(gaus) link(identity)
```

```
Iteration 0:   log likelihood = -1406.9403

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   136.9184
Deviance         =  49427.52828                    (1/df) Deviance =   136.9184
Pearson          =  49427.52828                    (1/df) Pearson  =   136.9184

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =   7.762756
Log likelihood   = -1406.940271                    BIC             =   47299.65
```

age	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	**1.502324**	**.4454009**	**3.37**	**0.001**	**.6293547**	**2.375294**
_cons	**48.86944**	**.7323225**	**66.73**	**0.000**	**47.43412**	**50.30477**

```
1222 . glm hp2vactn age  if gender==2, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  288.2228
     Iteration 2:   deviance =  282.9212
     Iteration 3:   deviance =     282.8
     Iteration 4:   deviance =     282.8
     Iteration 5:   deviance =     282.8

     Generalized linear models                         No. of obs      =       363
     Optimization     : MQL Fisher scoring              Residual df     =       361
                        (IRLS EIM)                      Scale parameter =         1
     Deviance         =  282.7999835                    (1/df) Deviance =  .7833795
     Pearson          =  396.9154874                    (1/df) Pearson  =  1.099489

     Variance function: V(u) = u*(1-u)                  [Bernoulli]
     Link function    : g(u) = invnorm(u)               [Probit]

                                                        BIC             = -1845.079

     ------------------------------------------------------------------------------
                  |                 EIM
         hp2vactn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
              age |   .0510238   .0068535     7.44   0.000     .0375912    .0644564
            _cons |  -3.660305   .3855366    -9.49   0.000    -4.415943   -2.904667
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1223 .
1224 . * illness is a mediating effect for females = > vacatn
1225 . des illw2

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     illw2           double %8.0g                  Total number of illnesses
                                                     experienced in time period
                                                     1987-1996
```

1226 . glm illw2 avgcumdosew2 if gender==2, fam(gaus) link(identity)

```
Iteration 0:   log likelihood = -463.51524

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =    .756881
Deviance         =  273.2340487                    (1/df) Deviance =    .756881
Pearson          =  273.2340487                    (1/df) Pearson  =    .756881

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =   2.564822
Log likelihood   = -463.5152411                    BIC             =  -1854.645
```

illw2	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew2	.1249912	.0331157	3.77	0.000	.0600856	.1898968
_cons	.301285	.0544484	5.53	0.000	.194568	.4080019

1227 . glm hp2vactn illw2 if gender==2, fam(bin) irls scale(dev) link(probit)

```
Iteration 1:   deviance =   329.874
Iteration 2:   deviance =  329.8007
Iteration 3:   deviance =  329.8005
Iteration 4:   deviance =  329.8005

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        361
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  329.8005369                    (1/df) Deviance =   .9135749
Pearson          =  363.0908863                    (1/df) Pearson  =   1.005792

Variance function: V(u) = u*(1-u)                  [Bernoulli]
Link function    : g(u) = invnorm(u)               [Probit]

                                                   BIC             =  -1798.079
```

```
------------------------------------------------------------------------------
             |                 EIM
    hp2vactn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw2 |   .1861547   .0776301     2.40   0.016     .0340026    .3383068
       _cons |  -1.027515   .0837109   -12.27   0.000    -1.191586   -.8634451
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

1228 .
1229 . * radhlw2 is a mediating effect for females => vactn
1230 . des radhlw2

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
radhlw2         double %8.0g                  Self-perceived Chornobyl health
                                                threat in wave 2

1231 . glm radhlw2 avgcumdosew2 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1791.2233

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  1137.567
Deviance         =  410661.5604                    (1/df) Deviance =  1137.567
Pearson          =  410661.5604                    (1/df) Pearson  =  1137.567

Variance function: V(u) = 1                        [Gaussian]
Link function    : g(u) = u                        [Identity]

                                                   AIC             =  9.880018
Log likelihood   = -1791.223306                    BIC             =  408533.7

------------------------------------------------------------------------------
             |                 OIM
     radhlw2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew2 |   3.302288   1.283833     2.57   0.010     .7860214    5.818555
       _cons |   56.95167   2.110863    26.98   0.000     52.81445    61.08888
------------------------------------------------------------------------------
```

```
1232 . glm hp2vactn radhlw2 if gender==2, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  310.7426
     Iteration 2:   deviance =  307.9144
     Iteration 3:   deviance =   307.878
     Iteration 4:   deviance =   307.878
     Iteration 5:   deviance =   307.878

     Generalized linear models                          No. of obs      =        363
     Optimization     : MQL Fisher scoring              Residual df     =        361
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  307.8780006                    (1/df) Deviance =   .8528476
     Pearson          =   369.926962                    (1/df) Pearson  =   1.024728

     Variance function: V(u) = u*(1-u)                  [Bernoulli]
     Link function    : g(u) = invnorm(u)               [Probit]

                                                        BIC             =  -1820.001

     ------------------------------------------------------------------------------
                  |                 EIM
         hp2vactn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
          radhlw2 |   .0127779   .0023866     5.35   0.000     .0081002    .0174555
            _cons |  -1.793767   .1848064    -9.71   0.000     -2.15598   -1.431553
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1233 .
1234 .  * summary of male moderating effects: no sign main dose effect in main effe
     > cts model
1235 .  *          no signif male moderators
1236 .  *          3 significant main effects in main effects model
1237 .
1238 . scalar VactnMedMw2 = "age illw2"

1239 . scalar VactnMedFw2 = "age illw2 radhlw2"
```

```
1240 .
1241 . *xx summary of moderator effects for females:
1242 .     * no signif main dose effect
1243 .     * 3 signif main effects in main effect model
1244 .     * 1 moderator: deaw2Xd3
1245 . title4 "7. SUMMARY MATRIX of dose - vacation plans impact"
     ─────────────────────────────────────────────────────────────────────────────
     7. SUMMARY MATRIX of dose - vacation plans impact
     ─────────────────────────────────────────────────────────────────────────────

1246 . set more off

1247 .   matrix define HP2vactnMw2 = J(1,8, 0)

1248 .         matrix define HP2vactnFw2 = J(1,8, 0)

1249 . matrix colnames HP2vactnMw2=  hypnum ptnum wave gender medsig numMAsig numMo
     > dsig numMed

1250 . matrix colnames HP2vactnFw2=  hypnum ptnum wave gender medsig numMAsig numMo
     > dsig numMed

1251 .     matrix define HP2vactnMw2= (1, 2, 3, 1, 0, 3, 0, 2 )

1252 .         matrix define HP2vactnFw2= (1, 2, 3, 2, 0, 3, 1, 3 )

1253 .         matrix rowname HP2vactnMw2 = HP2vactnM

1254 .         matrix rowname HP2vactnFw2 = HP2vactnF

1255 .         matlist HP2vactnMw2

                  |        c1          c2          c3          c4          c5           c
     > 6         c7
     ─────────────+───────────────────────────────────────────────────────────────
     > ─────────────
        HP2vactnM |         1           2           3           1           0
     > 3          0

                  |        c8
     ─────────────+──────────
        HP2vactnM |         2
```

```
1256 .         matlist HP2vactnFw2

                 |       c1          c2          c3          c4          c5          c
     > 6         c7
     ------------+--------------------------------------------------------------------
     > -------------
        HP2vactnF |        1           2           3           2           0
     > 3          1

                 |       c8
     ------------+-------------
        HP2vactnF |        3

1257 . matrix define H1pt2w2=(HP2wkMw2 \ HP2wkFw2 \ HP2hmcrMw2 \ HP2hmcrFw2 \ HP2sp
     > Mw2 \ HP2spFw2 \ HP2prbfamMw2 \ HP2prbfamFw2 \ HP2inthbMw2 \ HP2inthbFw2 \ H
     > P2vactnMw2 \ HP2vactnFw2 )

1258 .
1259 .         matlist H1pt2w2

                 |       c1          c2          c3          c4          c5          c
     > 6         c7
     ------------+--------------------------------------------------------------------
     > -------------
               r1 |        1           2           3           1           0
     > 4          0
               r1 |        1           2           3           2           0
     > 1          0
               r1 |        1           2           3           1           0
     > 4          0
               r1 |        1           2           3           2           0
     > 2          0
         HP2spMw2 |        1           2           3           1           0
     > 2          0
         HP2spFw2 |        1           2           3           2           1
     > 5          5
       HP2prbfamM |        1           2           3           1           0
     > 5          0
       HP2prbfamF |        1           2           3           2           0
     > 2          2
        HP2inthbM |        1           2           3           1           0
     > 3          0
       HP2inthobF |        1           2           3           2           0
     > 3          0
        HP2vactnM |        1           2           3           1           0
     > 3          0
        HP2vactnF |        1           2           3           2           0
     > 3          1
```

```
              |          c8
--------------+-------------
           r1 |           4
           r1 |           6
           r1 |           2
           r1 |           2
     HP2spMw2 |           1
     HP2spFw2 |           2
   HP2prbfamM |           1
   HP2prbfamF |           2
    HP2inthbM |           2
   HP2inthobF |           3
    HP2vactnM |           2
    HP2vactnF |           3

1260 .     matrix colnames H1pt2w2 =  hypnum ptnum wave gender medsig numMAsig numM
     > odsig numMed

1261 . matrix rownames H1pt2w2 =HP2wkMw2 HP2wkFw2 HP2hmcrMw2 HP2hmcrFw2 HP2socprbMw
     > 2 HP2socprbFw2 HP2prbfamMw2 HP2prbfamFw2 HP2inthbMw2 HP2inthbFw2 HP2vacatnMw
     > 2 HP2vacatnFw2

1262 .     matlist H1pt2w2

              |     hypnum      ptnum       wave     gender     medsig   numMAsi
     > g  numModsig
--------------+-----------------------------------------------------------------
     > --------------
     HP2wkMw2 |          1          2          3          1          0
     > 4          0
     HP2wkFw2 |          1          2          3          2          0
     > 1          0
   HP2hmcrMw2 |          1          2          3          1          0
     > 4          0
   HP2hmcrFw2 |          1          2          3          2          0
     > 2          0
 HP2socprbMw2 |          1          2          3          1          0
     > 2          0
 HP2socprbFw2 |          1          2          3          2          1
     > 5          5
 HP2prbfamMw2 |          1          2          3          1          0
     > 5          0
 HP2prbfamFw2 |          1          2          3          2          0
     > 2          2
  HP2inthbMw2 |          1          2          3          1          0
     > 3          0
  HP2inthbFw2 |          1          2          3          2          0
     > 3          0
 HP2vacatnMw2 |          1          2          3          1          0
```

```
> 3          0
HP2vacatnFw2 |        1        2        3        2        0
> 3          1
```

	numMed
HP2wkMw2	4
HP2wkFw2	6
HP2hmcrMw2	2
HP2hmcrFw2	2
HP2socprbMw2	1
HP2socprbFw2	2
HP2prbfamMw2	1
HP2prbfamFw2	2
HP2inthbMw2	2
HP2inthbFw2	3
HP2vacatnMw2	2
HP2vacatnFw2	3

```
1263 .
1264 .
1265 . sjlog close, replace
```