```
 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
```

```
52 . *  2: hp2hmcare
53 . *  3: hp2probsoc
54 . *  4: hp2pbfhm
55 . *  5: hp2sexlife
56 . *  6: hp2inthob
57 . *  7: hp2vactn
58 .
59 .
60 . local dvwhole HP2work-HP2vacatn

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

62 .
63 .
64 .
65 . di "$User"
   Robert Alan Yaffee

66 .
67 . title "Testing part 2 of hypothesis 1 for wave three"


   ******************************************************************************
   > *
   ******************************************************************************
   > *
   *****                                                                     ****
   > *
   *****                                                                     ****
   > *
   *****            Testing part 2 of hypothesis 1 for wave three            ****
   > *
   *****                                                                     ****
   > *
   *****                                                                     ****
   > *
   *****                                          1 Jul 2012    20:32:48     ****
   > *
   ******************************************************************************
   > *
   ******************************************************************************
   > *
```

```
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    20:32:48  ****
   > *
   *******************************************************************************
   > *
   *******************************************************************************
   > *
```

```
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

```
 87 .
 88 . cap gen havmilsq = havmil^2

 89 .
 90 . cap rename Havmil havmil

 91 . //  controlling for potential confounders
 92 . //  socio-demographics age gender educ income occp marstat children inc
 93 . //  distance from accident side
 94 . //  perceived Chornobyl related health threat to oneself
 95 .
 96 . local w1bf bf1 bf4 bf9 bf10 bf11 bf4m bf15m bf20 bf22 bf30 bf40

 97 . local w3bf bf1 bf4 bf6 bf7 bf14 bf15 bf40

 98 . local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

 99 .
100 . *-----------------------------------------------------------------------------
    > ----
101 . *  Hypothesis 1   Part 2 wave 3 tests    male and female
102 . * endogneous Nottingham pt 2 subscales: HP2work HP2hmcare HP2probsoc HP2pbfh
    > m ///
    > *                                        HP2sxlife HP2inthob HP2vacatn
103 . *  structure of models
104 . *    1. general models on all Pt 2 subscales with all potential confounders
105 . *    2. trimmed models on all Pt 2 subscales with from all potential confoun
    > ders
106 . *    3. from trimmed models examination of possible moderator variables
107 . *    4. from trimmed models examination of possible mediator variables
108 . *    5. Summary analysis and model evaluation of final models only
109 . *   program is divided into 8 chunks one a general model and 1 for each
110 . *       endogenous variable
111 . *-----------------------------------------------------------------------------
    > ----
112 . * Chunk 1  General models for all part 2 of Nottingham Health Profile
```

```
113 . est clear

114 . set linesize 80

115 . title "Zero order effects test for wave 3"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                 Zero order effects test for wave 3                  ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                             1 Jul 2012    20:32:48  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *



116 .
117 .
118 .
119 . foreach var in hp2work hp2hmcare hp2prbsoc HP2pbfhm HP2sxlife ///
    >   HP2inthob HP2vacatn {
      2.    forvalues k=2/2 {
      3.    set more off
      4.  logit `var' avgcumdosew3 if gender==`k', nolog
      5.  eststo `var'
      6.  }
      7.  }

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(1)      =       5.91
                                                      Prob > chi2     =     0.0150
    Log likelihood = -203.60666                       Pseudo R2       =     0.0143
```

hp2work	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
avgcumdosew3	.1515886	.0639414	2.37	0.018	.0262658	.2769114
_cons	-1.258846	.1466856	-8.58	0.000	-1.546344	-.9713471

Logistic regression			
	Number of obs	=	363
	LR chi2(1)	=	0.04
	Prob > chi2	=	0.8368
Log likelihood = -233.70738	Pseudo R2	=	0.0001

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
avgcumdosew3	-.0131553	.0643514	-0.20	0.838	-.1392816	.1129711
_cons	-.6282335	.1343551	-4.68	0.000	-.8915646	-.3649023

Logistic regression			
	Number of obs	=	363
	LR chi2(1)	=	25.59
	Prob > chi2	=	0.0000
Log likelihood = -170.77453	Pseudo R2	=	0.0697

hp2prbsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
avgcumdosew3	.3818633	.1004161	3.80	0.000	.1850514	.5786752
_cons	-1.855996	.1805781	-10.28	0.000	-2.209923	-1.50207

Logistic regression			
	Number of obs	=	363
	LR chi2(1)	=	1.39
	Prob > chi2	=	0.2389
Log likelihood = -139.20329	Pseudo R2	=	0.0050

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
avgcumdosew3	.0875242	.0693786	1.26	0.207	-.0484553	.2235037
_cons	-2.020197	.1850603	-10.92	0.000	-2.382909	-1.657486

Logistic regression			
	Number of obs	=	363
	LR chi2(1)	=	13.23
	Prob > chi2	=	0.0003
Log likelihood = -201.00372	Pseudo R2	=	0.0319

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**.2420078**	**.0764553**	**3.17**	**0.002**	**.0921582**	**.3918573**
_cons	**-1.357074**	**.1533357**	**-8.85**	**0.000**	**-1.657606**	**-1.056541**

Logistic regression			
	Number of obs	=	**363**
	LR chi2(**1**)	=	**5.02**
	Prob > chi2	=	**0.0250**
Log likelihood = **-169.60139**	Pseudo R2	=	**0.0146**

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**.1444902**	**.0628294**	**2.30**	**0.021**	**.0213469**	**.2676336**
_cons	**-1.695781**	**.1633385**	**-10.38**	**0.000**	**-2.015919**	**-1.375643**

Logistic regression			
	Number of obs	=	**363**
	LR chi2(**1**)	=	**4.68**
	Prob > chi2	=	**0.0305**
Log likelihood = **-165.17453**	Pseudo R2	=	**0.0140**

HP2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**.1408134**	**.0629055**	**2.24**	**0.025**	**.017521**	**.2641059**
_cons	**-1.748135**	**.1659602**	**-10.53**	**0.000**	**-2.073411**	**-1.422859**

```
.
. title "Summary of zero-order tests for females in wave three"


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****        Summary of zero-order tests for females in wave three        ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
```

```
*****                                          1 Jul 2012    20:32:58  ****
> *
******************************************************************************
> *
******************************************************************************
> *



122 .
123 .
124 . estout   hp2work hp2hmcare hp2prbsoc HP2pbfhm, cells(b(star fmt(%9.3f)) se(p
    > ar) t p)  ///
    >                stats(r2_p bic N, fmt(%9.3f %9.0g) labels(Psuedo R^2))  ///
    >                legend collabels(none) varlabels(_cons Constant)  ///
    >                mlabels( work homecare socialprbs famprobs)  ///
    >                title("Zero-order regression coefficients" ///
    >                 "of reconstructed dose on Nottingham Part 2")
```

Zero-order regression coefficients of reconstructed dose on Nottingham Part 2

	work	homecare	socialprbs	famprobs
main				
avgcumdosew3	**0.152***	**-0.013**	**0.382*****	**0.088**
	(0.064)	**(0.064)**	**(0.100)**	**(0.069)**
	2.371	**-0.204**	**3.803**	**1.262**
	0.018	**0.838**	**0.000**	**0.207**
Constant	**-1.259*****	**-0.628*****	**-1.856*****	**-2.020*****
	(0.147)	**(0.134)**	**(0.181)**	**(0.185)**
	-8.582	**-4.676**	**-10.278**	**-10.916**
	0.000	**0.000**	**0.000**	**0.000**
Psuedo	**0.014**	**0.000**	**0.070**	**0.005**
R^2	**419.0021**	**479.2036**	**353.3379**	**290.1954**
N	**363**	**363**	**363**	**363**

* p<0.05, ** p<0.01, *** p<0.001

```
125 . estout  HP2sxlife HP2inthob HP2vacatn, cells(b(star fmt(%9.3f)) se(par) t p)
    >   ///
    >                 stats(r2_p bic N, fmt(%9.3f %9.0g) labels(Pseudo R^2))  ///
    >                 legend collabels(none) varlabels(_cons Constant)  ///
    >                 mlabels(sexlife intshobbies vacatnPlans)  ///
    >                 title("Zero-order regression coefficients" ///
    >                  "of reconstructed dose on Nottingham Part 2")
```

Zero-order regression coefficients of reconstructed dose on Nottingham Part 2

	sexlife	intshobbies	vacatnPlans
main			
avgcumdosew3	**0.242****	**0.144***	**0.141***
	(0.076)	**(0.063)**	**(0.063)**
	3.165	**2.300**	**2.238**
	0.002	**0.021**	**0.025**
Constant	**-1.357*****	**-1.696*****	**-1.748*****
	(0.153)	**(0.163)**	**(0.166)**
	-8.850	**-10.382**	**-10.533**
	0.000	**0.000**	**0.000**
Pseudo	**0.032**	**0.015**	**0.014**
R^2	**413.7963**	**350.9916**	**342.1379**
N	**363**	**363**	**363**

* p<0.05, ** p<0.01, *** p<0.001

```
126 .
127 . title "Trimmed model summary for females in wave three"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****         Trimmed model summary for females in wave three             ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                          1 Jul 2012    20:32:59     ****
    > *
    ******************************************************************************
```

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



128 .
129 . forvalues j=3/3 {
  2. des  age  avgcumdosew`j'
  3. logistic HP2work  age  ///
>    avgcumdosew3   if gender==2, coef nolog
  4. eststo work
  5. }

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
age             double %8.0g                * Respondent's age
avgcumdosew3    double %8.0g                  Avg Mean dose of CS137 ending
                                                12/31/2009

Logistic regression                               Number of obs   =        363
                                                  LR chi2(2)      =      44.24
                                                  Prob > chi2     =     0.0000
Log likelihood = -184.44118                       Pseudo R2       =     0.1071

------------------------------------------------------------------------------
     HP2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0677348     .01171     5.78   0.000     .0447836    .0906861
avgcumdosew3 |    .102922   .0642392     1.60   0.109    -.0229846    .2288285
       _cons |  -4.750307   .6479129    -7.33   0.000    -6.020193   -3.480421
------------------------------------------------------------------------------

130 .
131 . title "Trimmed female homecare in wave three"
```

```
********************************************************************************
> *
********************************************************************************
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****                 Trimmed female homecare in wave three                 ****
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****                                                1 Jul 2012    20:33:00 ****
> *
********************************************************************************
> *
********************************************************************************
> *


132 . * Dose work relationship for females in wave 3 washes out also
133 . set more off

134 . forvalues j=3/3 {
  2. local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  3. di _skip(4)
  4. di as input "For females hp2hmcare on wave 1 with dose ns"
  5. des  age   avgcumdosew`j' `w3bf'
  6. logistic HP2work  age    radhlw3 ///
>    avgcumdosew3 shhlw`j'  if gender==2, coef nolog
  7. eststo homecare
  8.
135 . }

For females hp2hmcare on wave 1 with dose ns
```

variable name	storage type	display format	value label	variable label
age	double	%8.0g		* **Respondent's age**
avgcumdosew3	double	%8.0g		**Avg Mean dose of CS137 ending 12/31/2009**
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(4)      =      54.20
                                                Prob > chi2     =     0.0000
Log likelihood = -179.46218                     Pseudo R2       =     0.1312
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0604261**	**.0121821**	**4.96**	**0.000**	**.0365495**	**.0843027**
radhlw3	**.0091245**	**.0041171**	**2.22**	**0.027**	**.0010551**	**.0171938**
avgcumdosew3	**.0744838**	**.0646958**	**1.15**	**0.250**	**-.0523177**	**.2012853**
shhlw3	**.0068705**	**.0039339**	**1.75**	**0.081**	**-.0008399**	**.0145808**
_cons	**-5.221192**	**.6904908**	**-7.56**	**0.000**	**-6.574529**	**-3.867855**

```
136 .
137 . title "Trimmed female dose-social problems in wave three model B: Dose is si
    > gnificant"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****Trimmed female dose-social problems in wave three model B: Dose is signif
    > icant*****
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                              1 Jul 2012    20:33:01  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *



138 . set more off

139 .  logit HP2probsoc age radhlw3  illw3  ////
    >    shrelaw3 avgcumdosew3 if gender==2

    Iteration 0:   log likelihood =  -183.5701
    Iteration 1:   log likelihood = -125.28517
    Iteration 2:   log likelihood = -117.19625
    Iteration 3:   log likelihood = -116.97888
    Iteration 4:   log likelihood = -116.97825
    Iteration 5:   log likelihood = -116.97825

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(5)      =     133.18
                                                      Prob > chi2     =     0.0000
    Log likelihood = -116.97825                       Pseudo R2       =     0.3628
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
age	.12216	.0187462	6.52	0.000	.0854181	.1589019
radhlw3	.0215768	.0055327	3.90	0.000	.0107328	.0324208
illw3	.2697796	.1359094	1.98	0.047	.0034019	.5361572
shrelaw3	-.0157291	.0056433	-2.79	0.005	-.0267898	-.0046685
avgcumdosew3	.3226135	.1095794	2.94	0.003	.1078418	.5373853
_cons	-9.764122	1.1857	-8.23	0.000	-12.08805	-7.440193

```
140 . eststo probsoc

141 .
142 .
143 . title "More partly female Trimmed wave 3"  "Dose => Problems with Family at
    > home models"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                More partly female Trimmed wave 3                   ****
    > *
    *****            Dose => Problems with Family at home models             ****
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                       1 Jul 2012    20:33:03       ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
144 . local w3bf bf1 bf4 bf2 bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf40

145 . 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

```
146 . eststo familyprbs

147 .
148 . title "trimmed HP2sexlife main effects models" "wave 3 for H1 part 2 with do
    > se ns"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****               trimmed HP2sexlife main effects models                ****
    > *
    *****                 wave 3 for H1 part 2 with dose ns                   ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                        1 Jul 2012    20:33:04       ****
```

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


149 .         logit HP2sxlife age marrw31-marrw36  radhlw3 bf4 bf4m   ///
>               shfamw3 shrelaw3 avgcumdosew3  if gender==2

note: marrw36 omitted because of collinearity
Iteration 0:   log likelihood = -207.62116
Iteration 1:   log likelihood = -144.17685
Iteration 2:   log likelihood = -138.48259
Iteration 3:   log likelihood = -138.36775
Iteration 4:   log likelihood = -138.36738
Iteration 5:   log likelihood = -138.36738

Logistic regression                               Number of obs   =        363
                                                  LR chi2(12)     =     138.51
                                                  Prob > chi2     =     0.0000
Log likelihood = -138.36738                       Pseudo R2       =     0.3336
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0754579	.0170423	4.43	0.000	.0420555	.1088603
marrw31	-.9421212	.8010808	-1.18	0.240	-2.512211	.6279684
marrw32	-.440823	1.344699	-0.33	0.743	-3.076384	2.194738
marrw33	-.9501207	.4286832	-2.22	0.027	-1.790324	-.109917
marrw34	-.9642797	1.745537	-0.55	0.581	-4.38547	2.45691
marrw35	-.8586239	.6388872	-1.34	0.179	-2.11082	.393572
marrw36	0	(omitted)				
radhlw3	.0100484	.0049263	2.04	0.041	.000393	.0197038
bf4	-.5151847	.1744193	-2.95	0.003	-.8570402	-.1733292
bf4m	.3491023	.1586783	2.20	0.028	.0380985	.6601061
shfamw3	.0106246	.0054177	1.96	0.050	6.14e-06	.0212431
shrelaw3	-.0125055	.00593	-2.11	0.035	-.024128	-.0008829
avgcumdosew3	.1255823	.0854354	1.47	0.142	-.0418679	.2930326
_cons	-6.549884	1.704204	-3.84	0.000	-9.890063	-3.209705

```
150 . eststo sexlife

151 .
152 .
153 .
154 . set more off

155 .       logistic HP2inthob age   ///
    >                 radhlw3 avgcumdosew3 ///
    >                    bf4  ///
    >                  if gender==2, coef nolog  difficult iterate(50)

    Logistic regression                                 Number of obs   =        363
                                                        LR chi2(4)      =      85.17
                                                        Prob > chi2     =     0.0000
    Log likelihood = -129.52718                         Pseudo R2       =     0.2474

    ------------------------------------------------------------------------------
       HP2inthob |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             age |   .0747817   .0159584     4.69   0.000     .0435038    .1060596
         radhlw3 |   .0177314   .0055334     3.20   0.001     .0068862    .0285766
    avgcumdosew3 |   .0423064   .0679809     0.62   0.534    -.0909337    .1755466
             bf4 |   -.092667   .0312315    -2.97   0.003    -.1538797   -.0314543
           _cons |  -6.042759   1.092151    -5.53   0.000    -8.183336   -3.902181
    ------------------------------------------------------------------------------

156 . eststo intshobbies

157 .
158 .  logistic hp2vacatn age  radhlw3 avgcumdosew3   ///
    >   deaw3  suchrw3   ///
    >     if gender==2, coef nolog difficult iterate(50)

    Logistic regression                                 Number of obs   =        363
                                                        LR chi2(5)      =      69.60
                                                        Prob > chi2     =     0.0000
    Log likelihood = -132.71672                         Pseudo R2       =     0.2077
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0916152	.0157813	5.81	0.000	.0606844	.1225459
radhlw3	.0117344	.0050394	2.33	0.020	.0018573	.0216115
avgcumdosew3	.0985606	.0692713	1.42	0.155	-.0372087	.2343299
deaw3	.3433813	.158229	2.17	0.030	.0332581	.6535045
suchrw3	-.0061918	.0037117	-1.67	0.095	-.0134666	.0010831
_cons	-7.50211	.9350027	-8.02	0.000	-9.334682	-5.669539

```
159 .   eststo vacations

160 .
161 .
162 . title "Summary of Female Trimmed Main effect models for wave three"


    *******************************************************************************
    > *
    *******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****    Summary of Female Trimmed Main effect models for wave three      ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                         1 Jul 2012    20:33:08      ****
    > *
    *******************************************************************************
    > *
    *******************************************************************************
    > *
```

```
163 .
164 .
165 .
166 . set more off

167 . estout  work homecare probsoc familyprbs, cells(b(star fmt(%9.3f)) se(par) t
    >  p)  ///
    >                stats(r2_p bic N, fmt(%9.3f %9.0g) labels(Psuedo R^2))  ///
    >                legend collabels(none) varlabels(_cons Constant)  ///
    >                mlabels( work homecare socialprbs famprobs)  ///
    >                title("Trimmed main effect models" ///
    >                 "of reconstructed dose on Nottingham Part 2")
```

Trimmed main effect models of reconstructed dose on Nottingham Part 2

	work	homecare	socialprbs	famprobs
main				
age	**0.068*****	**0.060*****	**0.122*****	**0.064*****
	(0.012)	**(0.012)**	**(0.019)**	**(0.017)**
	5.784	**4.960**	**6.517**	**3.684**
	0.000	**0.000**	**0.000**	**0.000**
avgcumdosew3	**0.103**	**0.074**	**0.323****	
	(0.064)	**(0.065)**	**(0.110)**	
	1.602	**1.151**	**2.944**	
	0.109	**0.250**	**0.003**	
radhlw3		**0.009***	**0.022*****	
		(0.004)	**(0.006)**	
		2.216	**3.900**	
		0.027	**0.000**	
shhlw3		**0.007**		
		(0.004)		
		1.746		
		0.081		
illw3			**0.270***	
			(0.136)	
			1.985	
			0.047	
shrelaw3			**-0.016****	
			(0.006)	
			-2.787	
			0.005	
bf4				**-0.203*****
				(0.039)
				-5.170
				0.000
bf40				**-0.194***
				(0.091)
				-2.125

```
                                                                    0.034
Constant             -4.750***       -5.221***       -9.764***      -3.086**
                    (0.648)         (0.690)         (1.186)        (1.113)
                     -7.332          -7.562          -8.235         -2.772
                      0.000           0.000           0.000          0.000           0.006
----------------------------------------------------------------------------
Psuedo                0.107           0.131           0.363          0.241
R^2                 386.5656        388.3964        269.3229       235.8194
N                       363             363             363            363
----------------------------------------------------------------------------
* p<0.05, ** p<0.01, *** p<0.001
```

```
168 . estout  sexlife intshobbies vacations, cells(b(star fmt(%9.3f)) se(par) t p)
    >   ///
    >                 stats(r2_p bic N, fmt(%9.3f %9.0g) labels(Pseudo R^2))  ///
    >                 legend collabels(none) varlabels(_cons Constant)  ///
    >                 mlabels(sexlife intshobbies vacatnPlans)   ///
    >                 title("Trimmed main effect models" ///
    >                  "of reconstructed dose on Nottingham Part 2")
```

```
Trimmed main effect models of reconstructed dose on Nottingham Part 2
------------------------------------------------------------
                  sexlife     intshobbies     vacatnPlans
------------------------------------------------------------
main
age                 0.075***        0.075***        0.092***
                   (0.017)         (0.016)         (0.016)
                    4.428           4.686           5.805
                    0.000           0.000           0.000
marrw31            -0.942
                   (0.801)
                   -1.176
                    0.240
marrw32            -0.441
                   (1.345)
                   -0.328
                    0.743
marrw33            -0.950*
                   (0.429)
                   -2.216
                    0.027
marrw34            -0.964
                   (1.746)
                   -0.552
                    0.581
marrw35            -0.859
                   (0.639)
                   -1.344
                    0.179
```

o.marrw36	0.000		
	(.)		
	.		
	.		
radhlw3	0.010*	0.018**	0.012*
	(0.005)	(0.006)	(0.005)
	2.040	3.204	2.329
	0.041	0.001	0.020
bf4	-0.515**	-0.093**	
	(0.174)	(0.031)	
	-2.954	-2.967	
	0.003	0.003	
bf4m	0.349*		
	(0.159)		
	2.200		
	0.028		
shfamw3	0.011*		
	(0.005)		
	1.961		
	0.050		
shrelaw3	-0.013*		
	(0.006)		
	-2.109		
	0.035		
avgcumdosew3	0.126	0.042	0.099
	(0.085)	(0.068)	(0.069)
	1.470	0.622	1.423
	0.142	0.534	0.155
deaw3			0.343*
			(0.158)
			2.170
			0.030
suchrw3			-0.006
			(0.004)
			-1.668
			0.095
Constant	-6.550***	-6.043***	-7.502***
	(1.704)	(1.092)	(0.935)
	-3.843	-5.533	-8.024
	0.000	0.000	0.000
Pseudo	0.334	0.247	0.208
R^2	353.362	288.5264	300.7999
N	363	363	363

* p<0.05, ** p<0.01, *** p<0.001

```
169 .
170 .
171 .
172 .
173 .
174 .
175 .
176 . title " Hypothesis 1 part2 wave 3  H1: General models"


    *******************************************************************************
    > *
    *******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****           Hypothesis 1 part2 wave 3  H1: General models             ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                         1 Jul 2012    20:33:09      ****
    > *
    *******************************************************************************
    > *
    *******************************************************************************
    > *



177 . forvalues j=3/3 {
      2. set more off
      3.
178 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
```

```
179 .   foreach var in HP2work HP2hmcare HP2probsoc HP2pbfhm HP2sxlife HP2inthob /
    > //
    >       HP2vacatn  {
      5.       forvalues k=1/2 {
      6. local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      7.
180 . 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.
181 .       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. }
```

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**
marrw31	byte	%8.0g		**marrw3==1. single**
marrw32	byte	%8.0g		**marrw3==2. cohabitating**
marrw33	byte	%8.0g		**marrw3==3. married**
marrw34	byte	%8.0g		**marrw3==4. separated**
marrw35	byte	%8.0g		**marrw3==5. divorced**
marrw36	byte	%8.0g		**marrw3==6. widowed**

```
inc1w3          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities NOW
inc2w3          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities NOW
inc3w3          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                NOW
inc4w3          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items NOW
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= 3

chunk 2 H1 test:Gender= 1  model Wave =  3 for hp2vacatn

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
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: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

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

note: _Ieduc_6 omitted because of collinearity
note: occ8w3 omitted because of collinearity
note: marrw36 omitted because of collinearity

Logistic regression                               Number of obs   =        325
                                                  LR chi2(48)     =     107.62
                                                  Prob > chi2     =     0.0000
Log likelihood = -115.51874                       Pseudo R2       =     0.3178
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0398855	.0274181	1.45	0.146	-.0138531	.0936241
_Ieduc_2	1.063444	.984496	1.08	0.280	-.8661327	2.993021
_Ieduc_3	.0594211	.4628201	0.13	0.898	-.8476896	.9665319
_Ieduc_4	-.6292279	1.199379	-0.52	0.600	-2.979968	1.721512
_Ieduc_5	-.0324117	.5603466	-0.06	0.954	-1.130671	1.065848
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w3	-16.21183	2056.545	-0.01	0.994	-4046.966	4014.542
occ2w3	-15.9512	2056.545	-0.01	0.994	-4046.705	4014.803
occ3w3	-16.80618	2056.545	-0.01	0.993	-4047.56	4013.948
occ4w3	-15.08231	2056.545	-0.01	0.994	-4045.836	4015.672
occ5w3	-15.97511	2056.545	-0.01	0.994	-4046.729	4014.779
occ6w3	0	(omitted)				
occ7w3	-15.17432	2056.545	-0.01	0.994	-4045.928	4015.58
occ8w3	0	(omitted)				
marrw31	1.816033	1.097265	1.66	0.098	-.3345671	3.966633
marrw32	.0757168	1.330041	0.06	0.955	-2.531115	2.682549
marrw33	-.7164591	1.109884	-0.65	0.519	-2.891791	1.458873
marrw35	.9690805	1.275825	0.76	0.448	-1.53149	3.469651
marrw36	0	(omitted)				
inc1w3	16.44823	2056.545	0.01	0.994	-4014.306	4047.202
inc2w3	16.79255	2056.545	0.01	0.993	-4013.961	4047.546
inc3w3	16.28275	2056.545	0.01	0.994	-4014.471	4047.037
inc4w3	16.19339	2056.545	0.01	0.994	-4014.561	4046.948
radhlw3	.0018951	.0075342	0.25	0.801	-.0128717	.0166619
havmil	-.0003047	.0050542	-0.06	0.952	-.0102109	.0096014
avgcumdosew3	.0388524	.0643134	0.60	0.546	-.0871996	.1649043
bf1	-.1090167	.0689067	-1.58	0.114	-.2440713	.026038
bf4	-.1845645	.1878566	-0.98	0.326	-.5527567	.1836277
bf2	.0001393	.0001535	0.91	0.364	-.0001616	.0004401
bf4m	-.0184667	.1657846	-0.11	0.911	-.3433984	.3064651
bf5m	.0009023	.0015537	0.58	0.561	-.0021429	.0039475
bf7m	.0008163	.0004923	1.66	0.097	-.0001485	.0017811
bf8	-.0001145	.0000456	-2.51	0.012	-.000204	-.0000251
bf15m	.0001838	.0002744	0.67	0.503	-.000354	.0007216
bf17	0	(omitted)				
bf20	.0923153	.0637829	1.45	0.148	-.0326969	.2173275
bf22	.0000533	.0001499	0.36	0.722	-.0002405	.0003471
bf29	.0000161	.0000149	1.08	0.282	-.0000132	.0000453
bf30	-.0004903	.0003941	-1.24	0.214	-.0012627	.0002822
bf40	.0752527	.2023106	0.37	0.710	-.3212688	.4717743
deaw3	-.1202184	.2295198	-0.52	0.600	-.570069	.3296321
dvcew3	-.0534217	1.08605	-0.05	0.961	-2.18204	2.075197
sepaw3	-.3670246	1.185339	-0.31	0.757	-2.690246	1.956196
accdw3	-.058659	.5773335	-0.10	0.919	-1.190212	1.072894

movew3	-.5628223	.5250647	-1.07	0.284	-1.59193	.4662856
illw3	.6145655	.2492311	2.47	0.014	.1260816	1.103049
shfamw3	-.0028773	.0074782	-0.38	0.700	-.0175343	.0117797
shhlw3	-.0003705	.0066844	-0.06	0.956	-.0134717	.0127307
shjobw3	.0119897	.0066255	1.81	0.070	-.0009961	.0249755
shrelaw3	-.0011615	.0067798	-0.17	0.864	-.0144496	.0121266
suprtw3	.0138766	.0081512	1.70	0.089	-.0020993	.0298526
suchrw3	-.0097666	.0065695	-1.49	0.137	-.0226425	.0031093
havmilsq	7.20e-07	7.22e-06	0.10	0.921	-.0000134	.0000149
_cons	-6.713085	3.586597	-1.87	0.061	-13.74269	.3165157

Note: 4 failures and 0 successes completely determined.

Logistic model for HP2work

	True		
Classified	D	~D	Total
+	30	15	45
-	40	240	280
Total	70	255	325

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

Sensitivity	Pr(+| D)	42.86%
Specificity	Pr(-|~D)	94.12%
Positive predictive value	Pr(D| +)	66.67%
Negative predictive value	Pr(~D| -)	85.71%
False + rate for true ~D	Pr(+|~D)	5.88%
False - rate for true D	Pr(-| D)	57.14%
False + rate for classified +	Pr(~D| +)	33.33%
False - rate for classified -	Pr(D| -)	14.29%
Correctly classified		83.08%

Logistic model for HP2work, goodness-of-fit test

```
      number of observations =       325
 number of covariate patterns =       325
            Pearson chi2(276) =       298.51
                  Prob > chi2 =         0.1682
```

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

```
Log-Lik Intercept Only:      -169.326     Log-Lik Full Model:           -115.519
D(269):                       231.037     LR(48):                        107.615
                                          Prob > LR:                       0.000
McFadden's R2:                  0.318     McFadden's Adj R2:              -0.013
Maximum Likelihood R2:          0.282     Cragg & Uhler's R2:              0.436
McKelvey and Zavoina's R2:      0.713     Efron's R2:                      0.332
Variance of y*:                11.462     Variance of error:               3.290
Count R2:                       0.831     Adj Count R2:                    0.214
AIC:                            1.055     AIC*n:                         343.037
BIC:                        -1324.811     BIC':                          170.008
Full main model for HP2work for wave= 3

chunk 2 H1 test:Gender= 2  model Wave =  3 for HP2work

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

note: occ8w3 != 0 predicts failure perfectly
      occ8w3 dropped and 1 obs not used

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

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

Logistic regression                               Number of obs   =        345
                                                  LR chi2(50)     =     106.32
                                                  Prob > chi2     =     0.0000
Log likelihood = -147.91609                       Pseudo R2       =     0.2644
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0539741	.0202532	2.66	0.008	.0142786	.0936696
_Ieduc_2	-12.55341	623.5872	-0.02	0.984	-1234.762	1209.655
_Ieduc_3	-13.54577	623.5871	-0.02	0.983	-1235.754	1208.663
_Ieduc_4	-12.04583	623.5872	-0.02	0.985	-1234.254	1210.163
_Ieduc_5	-13.6714	623.5873	-0.02	0.983	-1235.88	1208.537
_Ieduc_6	-13.3439	623.5871	-0.02	0.983	-1235.552	1208.864
_Ieduc_7	-14.44833	623.5903	-0.02	0.982	-1236.663	1207.766
_Ieduc_8	0	(omitted)				
occ1w3	.1126048	1.869311	0.06	0.952	-3.551177	3.776386
occ2w3	.1300177	1.92152	0.07	0.946	-3.636092	3.896127
occ3w3	.4109427	1.89228	0.22	0.828	-3.297858	4.119743
occ4w3	-.168581	2.072728	-0.08	0.935	-4.231054	3.893892
occ5w3	1.045375	2.389172	0.44	0.662	-3.637316	5.728065
occ6w3	0	(omitted)				

occ7w3	-.3503943	1.867461	-0.19	0.851	-4.01055	3.309761
occ8w3	0	(omitted)				
marrw31	-.807006	1.451843	-0.56	0.578	-3.652566	2.038554
marrw32	-.3908773	1.745393	-0.22	0.823	-3.811785	3.030031
marrw33	-.3675069	1.295392	-0.28	0.777	-2.906429	2.171415
marrw35	-.1977292	1.318807	-0.15	0.881	-2.782543	2.387085
marrw36	.7011152	1.329741	0.53	0.598	-1.90513	3.30736
inc1w3	.9742727	1.913	0.51	0.611	-2.775139	4.723684
inc2w3	.8770803	1.873885	0.47	0.640	-2.795667	4.549827
inc3w3	.6085909	1.869674	0.33	0.745	-3.055903	4.273085
inc4w3	-.7888601	2.462315	-0.32	0.749	-5.614908	4.037188
radhlw3	.0045205	.0073058	0.62	0.536	-.0097986	.0188397
havmil	-.0009271	.0024979	-0.37	0.711	-.0058229	.0039686
avgcumdosew3	.115088	.0796177	1.45	0.148	-.0409598	.2711358
bf1	.0054828	.0325747	0.17	0.866	-.0583624	.069328
bf4	-.7222893	.236357	-3.06	0.002	-1.18554	-.2590382
bf2	-.0000397	.0001011	-0.39	0.694	-.0002378	.0001584
bf4m	.5355567	.2180534	2.46	0.014	.1081798	.9629336
bf5m	.0021761	.0013897	1.57	0.117	-.0005476	.0048998
bf7m	.0008931	.0005154	1.73	0.083	-.0001171	.0019033
bf8	-.000022	.0000319	-0.69	0.491	-.0000845	.0000406
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0052234	.0270949	-0.19	0.847	-.0583285	.0478817
bf22	-.0001469	.0001125	-1.31	0.192	-.0003673	.0000736
bf29	.0000122	.0000367	0.33	0.740	-.0000598	.0000841
bf30	.0000264	.0002891	0.09	0.927	-.0005402	.000593
bf40	.2842481	.1315066	2.16	0.031	.0264999	.5419962
deaw3	.0612074	.1656786	0.37	0.712	-.2635167	.3859315
dvcew3	-.3890334	.779063	-0.50	0.618	-1.915969	1.137902
sepaw3	1.192013	.8154298	1.46	0.144	-.4062002	2.790226
accdw3	.0577299	.4605728	0.13	0.900	-.8449761	.9604359
movew3	-1.554315	1.416782	-1.10	0.273	-4.331156	1.222526
illw3	-.2170464	.1492827	-1.45	0.146	-.5096352	.0755424
shfamw3	-.006443	.0065281	-0.99	0.324	-.0192379	.0063519
shhlw3	.0069987	.00596	1.17	0.240	-.0046826	.0186801
shjobw3	.002409	.0061202	0.39	0.694	-.0095863	.0144043
shrelaw3	-.0078238	.0063566	-1.23	0.218	-.0202824	.0046348
suprtw3	.0085376	.0067506	1.26	0.206	-.0046933	.0217685
suchrw3	-.007482	.0046136	-1.62	0.105	-.0165246	.0015606
havmilsq	-3.28e-09	1.73e-06	-0.00	0.998	-3.39e-06	3.38e-06
_cons	4.903623	623.5943	0.01	0.994	-1217.319	1227.126

Logistic model for HP2work

Classified	D	~D	Total
	True		
+	**45**	**24**	**69**
-	**48**	**228**	**276**
Total	**93**	**252**	**345**

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

Sensitivity	Pr(+| D)	**48.39%**
Specificity	Pr(-|~D)	**90.48%**
Positive predictive value	Pr(D| +)	**65.22%**
Negative predictive value	Pr(~D| -)	**82.61%**
False + rate for true ~D	Pr(+|~D)	**9.52%**
False - rate for true D	Pr(-| D)	**51.61%**
False + rate for classified +	Pr(~D| +)	**34.78%**
False - rate for classified -	Pr(D| -)	**17.39%**
Correctly classified		**79.13%**

Logistic model for HP2work, goodness-of-fit test

```
       number of observations =       345
 number of covariate patterns =       345
            Pearson chi2(294) =       317.37
                  Prob > chi2 =         0.1668
```

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

Log-Lik Intercept Only:	**-201.075**	Log-Lik Full Model:	**-147.916**
D(289):	**295.832**	LR(50):	**106.318**
		Prob > LR:	**0.000**
McFadden's R2:	**0.264**	McFadden's Adj R2:	**-0.014**
Maximum Likelihood R2:	**0.265**	Cragg & Uhler's R2:	**0.385**
McKelvey and Zavoina's R2:	**0.488**	Efron's R2:	**0.291**
Variance of y*:	**6.432**	Variance of error:	**3.290**
Count R2:	**0.791**	Adj Count R2:	**0.226**
AIC:	**1.182**	AIC*n:	**407.832**
BIC:	**-1392.952**	BIC':	**185.860**

Full main model for HP2hmcare for wave= 3

chunk 2 H1 test:Gender= 1 model Wave = 3 for HP2work

```
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_8 != 0 predicts failure perfectly
      _Ieduc_8 dropped and 2 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

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

note: _Ieduc_7 omitted because of collinearity
note: occ8w3 omitted because of collinearity
note: marrw36 omitted because of collinearity

Logistic regression                               Number of obs   =        315
                                                  LR chi2(48)     =     139.93
                                                  Prob > chi2     =     0.0000
Log likelihood = -96.893664                       Pseudo R2       =     0.4193
```

HP2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0323974	.0293162	1.11	0.269	-.0250612	.089856
_Ieduc_2	-4.152531	2.287775	-1.82	0.070	-8.636488	.3314257
_Ieduc_3	-1.864493	1.608696	-1.16	0.246	-5.017479	1.288493
_Ieduc_4	0	(omitted)				
_Ieduc_5	-1.404302	1.64491	-0.85	0.393	-4.628265	1.819662
_Ieduc_6	-2.017048	1.54335	-1.31	0.191	-5.041958	1.007861
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w3	-11.82929	1296.263	-0.01	0.993	-2552.458	2528.799
occ2w3	-11.65702	1296.263	-0.01	0.993	-2552.286	2528.972
occ3w3	-12.78325	1296.263	-0.01	0.992	-2553.412	2527.846
occ4w3	-10.84152	1296.263	-0.01	0.993	-2551.47	2529.787
occ5w3	-10.72665	1296.263	-0.01	0.993	-2551.356	2529.903
occ6w3	0	(omitted)				
occ7w3	-11.31316	1296.263	-0.01	0.993	-2551.942	2529.316
occ8w3	0	(omitted)				
marrw31	.3643704	1.429352	0.25	0.799	-2.437107	3.165848
marrw32	-2.206121	1.844343	-1.20	0.232	-5.820966	1.408725
marrw33	-.7934545	1.390519	-0.57	0.568	-3.518821	1.931912
marrw35	-.2775718	1.556356	-0.18	0.858	-3.327973	2.772829
marrw36	0	(omitted)				
inc1w3	14.70395	1296.262	0.01	0.991	-2525.924	2555.332
inc2w3	14.77269	1296.262	0.01	0.991	-2525.855	2555.4
inc3w3	14.57764	1296.262	0.01	0.991	-2526.05	2555.205
inc4w3	15.74154	1296.263	0.01	0.990	-2524.887	2556.37

radhlw3	.0078686	.0080582	0.98	0.329	-.007925	.0236623
havmil	.0027954	.0078952	0.35	0.723	-.0126789	.0182698
avgcumdosew3	.0057068	.0769937	0.07	0.941	-.1451981	.1566117
bf1	-.0445389	.0484618	-0.92	0.358	-.1395224	.0504446
bf4	-.0327423	.2796012	-0.12	0.907	-.5807506	.515266
bf2	.0000822	.0001677	0.49	0.624	-.0002465	.0004108
bf4m	-.341802	.2609957	-1.31	0.190	-.8533441	.1697402
bf5m	.0012439	.0017995	0.69	0.489	-.0022831	.0047709
bf7m	.0005614	.0005422	1.04	0.300	-.0005013	.0016241
bf8	-.0000499	.0000448	-1.11	0.265	-.0001376	.0000379
bf15m	-.0000712	.0003918	-0.18	0.856	-.0008391	.0006966
bf17	0	(omitted)				
bf20	.019063	.0407736	0.47	0.640	-.0608518	.0989778
bf22	.0000146	.0001733	0.08	0.933	-.0003251	.0003543
bf29	.0000124	.0000229	0.54	0.589	-.0000325	.0000572
bf30	-.000416	.0004185	-0.99	0.320	-.0012364	.0004043
bf40	.1486565	.2411791	0.62	0.538	-.3240459	.6213588
deaw3	-.6566764	.3112091	-2.11	0.035	-1.266635	-.0467177
dvcew3	.7731044	1.122755	0.69	0.491	-1.427455	2.973664
sepaw3	.1659839	1.359372	0.12	0.903	-2.498337	2.830305
accdw3	.7493757	.6472786	1.16	0.247	-.519267	2.018018
movew3	.9688514	.5333557	1.82	0.069	-.0765066	2.014209
illw3	.2806377	.2813528	1.00	0.319	-.2708037	.832079
shfamw3	.0045809	.0088802	0.52	0.606	-.0128239	.0219857
shhlw3	-.0144819	.0077	-1.88	0.060	-.0295736	.0006098
shjobw3	-.0101653	.0077745	-1.31	0.191	-.0254031	.0050725
shrelaw3	-.0092584	.0083742	-1.11	0.269	-.0256716	.0071547
suprtw3	-.0009401	.0080071	-0.12	0.907	-.0166337	.0147535
suchrw3	-.004683	.0069496	-0.67	0.500	-.0183041	.008938
havmilsq	-7.50e-06	.0000145	-0.52	0.604	-.0000359	.0000209
_cons	3.229911	4.235709	0.76	0.446	-5.071927	11.53175

Note: 3 failures and 0 successes completely determined.

Logistic model for HP2hmcare

Classified	True D	True ~D	Total
+	37	14	51
-	33	231	264
Total	70	245	315

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2hmcare != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   52.86%
Specificity                     Pr( -|~D)   94.29%
Positive predictive value       Pr( D| +)   72.55%
Negative predictive value       Pr(~D| -)   87.50%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    5.71%
False - rate for true D         Pr( -| D)   47.14%
False + rate for classified +   Pr(~D| +)   27.45%
False - rate for classified -   Pr( D| -)   12.50%
--------------------------------------------------
Correctly classified                        85.08%
--------------------------------------------------
```

Logistic model for HP2hmcare, goodness-of-fit test

```
       number of observations =       315
 number of covariate patterns =       315
            Pearson chi2(266) =       247.97
                  Prob > chi2 =         0.7796
```

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

```
Log-Lik Intercept Only:     -166.857    Log-Lik Full Model:            -96.894
D(259):                      193.787    LR(48):                        139.928
                                        Prob > LR:                       0.000
McFadden's R2:                 0.419    McFadden's Adj R2:               0.084
Maximum Likelihood R2:         0.359    Cragg & Uhler's R2:              0.549
McKelvey and Zavoina's R2:     0.758    Efron's R2:                      0.437
Variance of y*:               13.609    Variance of error:               3.290
Count R2:                      0.851    Adj Count R2:                    0.329
AIC:                           0.971    AIC*n:                         305.787
BIC:                       -1296.129    BIC':                          136.196
Full main model for HP2hmcare for wave= 3

chunk 2 H1 test:Gender= 2  model Wave =  3 for HP2hmcare

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

note: occ8w3 != 0 predicts failure perfectly
      occ8w3 dropped and 1 obs not used
```

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

note: _Ieduc_8 omitted because of collinearity
convergence not achieved

Logistic regression                               Number of obs   =        353
                                                  LR chi2(50)     =     144.83
                                                  Prob > chi2     =     0.0000
Log likelihood = -154.51255                       Pseudo R2       =     0.3191
```

HP2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0784128	.0199184	3.94	0.000	.0393735	.1174521
_Ieduc_2	-16.15888	2.72009	-5.94	0.000	-21.49016	-10.8276
_Ieduc_3	-16.70929	2.647032	-6.31	0.000	-21.89738	-11.5212
_Ieduc_4	-15.65932	2.672964	-5.86	0.000	-20.89823	-10.4204
_Ieduc_5	-16.93546	2.621945	-6.46	0.000	-22.07438	-11.79654
_Ieduc_6	-17.12993	2.678622	-6.40	0.000	-22.37993	-11.87993
_Ieduc_7	-16.6826	3.290952	-5.07	0.000	-23.13274	-10.23245
_Ieduc_8	0	(omitted)				
occ1w3	-17.5089	2870.035	-0.01	0.995	-5642.674	5607.656
occ2w3	-17.42465	2870.035	-0.01	0.995	-5642.59	5607.741
occ3w3	-17.38618	2870.035	-0.01	0.995	-5642.551	5607.779
occ4w3	-17.97919	2870.035	-0.01	0.995	-5643.145	5607.186
occ5w3	-16.19886	2870.036	-0.01	0.995	-5641.366	5608.968
occ6w3	0	(omitted)				
occ7w3	-17.37679	2870.035	-0.01	0.995	-5642.542	5607.789
occ8w3	0	(omitted)				
marrw31	.1254457	1.662878	0.08	0.940	-3.133735	3.384627
marrw32	.689276	1.963389	0.35	0.726	-3.158896	4.537448
marrw33	1.411752	1.537008	0.92	0.358	-1.600728	4.424232
marrw35	.6824445	1.564972	0.44	0.663	-2.384843	3.749732
marrw36	.9604788	1.548632	0.62	0.535	-2.074784	3.995742
inc1w3	18.76205	2870.035	0.01	0.995	-5606.403	5643.927
inc2w3	18.64464	2870.035	0.01	0.995	-5606.521	5643.81
inc3w3	18.13548	2870.035	0.01	0.995	-5607.03	5643.301
inc4w3	18.63139	2870.035	0.01	0.995	-5606.534	5643.797
radhlw3	-.0056373	.0071331	-0.79	0.429	-.0196178	.0083433
havmil	.0003358	.0026887	0.12	0.901	-.004934	.0056056
avgcumdosew3	-.1458757	.0962788	-1.52	0.130	-.3345787	.0428273
bf1	-.0155333	.0271811	-0.57	0.568	-.0688074	.0377407
bf4	-.4865728	.1784134	-2.73	0.006	-.8362567	-.136889
bf2	.0000926	.0001019	0.91	0.364	-.0001072	.0002923
bf4m	.3213367	.1603015	2.00	0.045	.0071516	.6355219
bf5m	-.000883	.0014167	-0.62	0.533	-.0036598	.0018937
bf7m	.0002998	.000443	0.68	0.499	-.0005684	.001168
bf8	6.84e-06	.0000322	0.21	0.832	-.0000563	.00007

bf15m	-.0163738	.5454291	-0.03	0.976	-1.085395	1.052648
bf17	.0008202	.0272715	0.03	0.976	-.0526309	.0542713
bf20	.00093	.0215397	0.04	0.966	-.041287	.043147
bf22	-.0000872	.0001081	-0.81	0.420	-.0002991	.0001247
bf29	0	(omitted)				
bf30	.0000251	.0002916	0.09	0.931	-.0005465	.0005967
bf40	.130008	.1227916	1.06	0.290	-.1106591	.3706751
deaw3	.0165154	.1614822	0.10	0.919	-.2999838	.3330147
dvcew3	.6982802	.7163029	0.97	0.330	-.7056476	2.102208
sepaw3	-.4992309	.8307882	-0.60	0.548	-2.127546	1.129084
accdw3	-.1706856	.4639657	-0.37	0.713	-1.080042	.7386705
movew3	-.4464406	1.157043	-0.39	0.700	-2.714203	1.821322
illw3	-.0890835	.1513588	-0.59	0.556	-.3857412	.2075743
shfamw3	-.0035627	.0062149	-0.57	0.566	-.0157436	.0086183
shhlw3	.0080044	.0056769	1.41	0.159	-.0031221	.0191309
shjobw3	-.0042351	.0058007	-0.73	0.465	-.0156042	.0071341
shrelaw3	-.010315	.0062344	-1.65	0.098	-.0225341	.0019041
suprtw3	-.0017061	.0061593	-0.28	0.782	-.0137782	.010366
suchrw3	-.0030007	.0044692	-0.67	0.502	-.0117602	.0057587
havmilsq	-1.55e-06	2.58e-06	-0.60	0.549	-6.61e-06	3.52e-06
_cons	10.07155	.	.	.	.	.

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

Logistic model for HP2hmcare

	True		
Classified	D	~D	Total
+	76	29	105
-	45	203	248
Total	121	232	353

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

Sensitivity	Pr(+| D)	62.81%
Specificity	Pr(-|~D)	87.50%
Positive predictive value	Pr(D| +)	72.38%
Negative predictive value	Pr(~D| -)	81.85%
False + rate for true ~D	Pr(+|~D)	12.50%
False - rate for true D	Pr(-| D)	37.19%
False + rate for classified +	Pr(~D| +)	27.62%
False - rate for classified -	Pr(D| -)	18.15%
Correctly classified		79.04%

Logistic model for HP2hmcare, goodness-of-fit test

```
       number of observations =       353
 number of covariate patterns =       353
            Pearson chi2(301) =       338.41
                  Prob > chi2 =         0.0677

Measures of Fit for logistic of HP2hmcare

Log-Lik Intercept Only:     -226.929   Log-Lik Full Model:           -154.513
D(297):                      309.025   LR(50):                        144.834
                                       Prob > LR:                       0.000
McFadden's R2:                 0.319   McFadden's Adj R2:               0.072
Maximum Likelihood R2:         0.337   Cragg & Uhler's R2:              0.465
McKelvey and Zavoina's R2:     0.954   Efron's R2:                      0.369
Variance of y*:               71.429   Variance of error:               3.290
Count R2:                      0.790   Adj Count R2:                    0.388
AIC:                           1.193   AIC*n:                         421.025
BIC:                       -1433.316   BIC':                          148.490
Full main model for HP2probsoc for wave= 3

chunk 2 H1 test:Gender= 1  model Wave =  3 for HP2hmcare

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: occ5w3 != 0 predicts failure perfectly
      occ5w3 dropped and 15 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

note: marrw32 != 0 predicts failure perfectly
      marrw32 dropped and 20 obs not used

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

```
note: _Ieduc_6 omitted because of collinearity
note: occ8w3 omitted because of collinearity
note: marrw36 omitted because of collinearity
note: bf17 omitted because of collinearity
```

```
Logistic regression                               Number of obs   =        266
                                                  LR chi2(44)     =     125.89
                                                  Prob > chi2     =     0.0000
Log likelihood =  -51.38371                       Pseudo R2       =     0.5506
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1094616	.0479486	2.28	0.022	.015484	.2034392
_Ieduc_2	.7414425	1.297886	0.57	0.568	-1.802367	3.285252
_Ieduc_3	-1.614771	.8291042	-1.95	0.051	-3.239785	.0102435
_Ieduc_4	0	(omitted)				
_Ieduc_5	-1.309884	1.008415	-1.30	0.194	-3.286342	.6665737
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w3	-14.19493	1124.783	-0.01	0.990	-2218.729	2190.339
occ2w3	-12.80013	1124.783	-0.01	0.991	-2217.335	2191.734
occ3w3	-14.84881	1124.785	-0.01	0.989	-2219.387	2189.689
occ4w3	-13.35572	1124.784	-0.01	0.991	-2217.891	2191.18
occ5w3	0	(omitted)				
occ6w3	0	(omitted)				
occ7w3	-14.19043	1124.784	-0.01	0.990	-2218.726	2190.345
occ8w3	0	(omitted)				
marrw31	3.074981	1.891094	1.63	0.104	-.6314958	6.781458
marrw32	0	(omitted)				
marrw33	1.087086	1.851071	0.59	0.557	-2.540947	4.715119
marrw35	2.144183	1.926965	1.11	0.266	-1.632599	5.920964
marrw36	0	(omitted)				
inc1w3	12.66541	1124.784	0.01	0.991	-2191.87	2217.201
inc2w3	14.23621	1124.783	0.01	0.990	-2190.299	2218.771
inc3w3	11.68224	1124.783	0.01	0.992	-2192.853	2216.217
inc4w3	13.15717	1124.785	0.01	0.991	-2191.381	2217.695
radhlw3	.0116102	.013936	0.83	0.405	-.0157038	.0389242
havmil	.010259	.0190025	0.54	0.589	-.0269853	.0475032
avgcumdosew3	.013934	.0740721	0.19	0.851	-.1312447	.1591127
bf1	.0049612	.0648373	0.08	0.939	-.1221176	.1320399
bf4	.3309901	.3608169	0.92	0.359	-.376198	1.038178
bf2	.0003753	.0003121	1.20	0.229	-.0002364	.000987
bf4m	-.7073564	.3457629	-2.05	0.041	-1.385039	-.0296735
bf5m	.0055743	.0030295	1.84	0.066	-.0003633	.0115119
bf7m	.0005904	.001055	0.56	0.576	-.0014774	.0026582
bf8	-.0001253	.0000745	-1.68	0.093	-.0002713	.0000207
bf15m	0	(omitted)				

bf17	0	(omitted)				
bf20	-.0283325	.0488173	-0.58	0.562	-.1240127	.0673477
bf22	.000352	.0002932	1.20	0.230	-.0002227	.0009267
bf29	-.0000333	.0000588	-0.57	0.572	-.0001486	.000082
bf30	-.0013785	.0007131	-1.93	0.053	-.0027761	.0000191
bf40	-.3600239	.3692219	-0.98	0.330	-1.083686	.3636377
deaw3	-.5217994	.4891348	-1.07	0.286	-1.480486	.4368872
dvcew3	-.5047921	1.728469	-0.29	0.770	-3.892529	2.882945
sepaw3	1.877558	1.625412	1.16	0.248	-1.308191	5.063307
accdw3	-1.417017	1.419234	-1.00	0.318	-4.198664	1.364631
movew3	-1.057894	1.576256	-0.67	0.502	-4.1473	2.031511
illw3	.0330976	.3751226	0.09	0.930	-.7021292	.7683243
shfamw3	.012083	.0115403	1.05	0.295	-.0105354	.0347015
shhlw3	-.0165557	.0125582	-1.32	0.187	-.0411693	.0080578
shjobw3	.032774	.0134379	2.44	0.015	.0064363	.0591118
shrelaw3	-.0108059	.0117883	-0.92	0.359	-.0339106	.0122988
suprtw3	-.014138	.0155065	-0.91	0.362	-.0445303	.0162542
suchrw3	.0131393	.0111977	1.17	0.241	-.0088078	.0350865
havmilsq	-.000014	.0000386	-0.36	0.717	-.0000896	.0000616
_cons	.4495347	5.049973	0.09	0.929	-9.44823	10.3473

Note: 3 failures and 0 successes completely determined.

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	27	5	32
-	14	220	234
Total	41	225	266

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

Sensitivity	Pr(+| D)	65.85%
Specificity	Pr(-|~D)	97.78%
Positive predictive value	Pr(D| +)	84.38%
Negative predictive value	Pr(~D| -)	94.02%
False + rate for true ~D	Pr(+|~D)	2.22%
False - rate for true D	Pr(-| D)	34.15%
False + rate for classified +	Pr(~D| +)	15.62%
False - rate for classified -	Pr(D| -)	5.98%
Correctly classified		92.86%

Logistic model for HP2probsoc, goodness-of-fit test

```
      number of observations =       266
number of covariate patterns =       266
           Pearson chi2(221) =       138.28
                 Prob > chi2 =         1.0000
```

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

```
Log-Lik Intercept Only:     -114.331    Log-Lik Full Model:          -51.384
D(210):                      102.767    LR(44):                      125.895
                                        Prob > LR:                     0.000
McFadden's R2:                 0.551    McFadden's Adj R2:             0.061
Maximum Likelihood R2:         0.377    Cragg & Uhler's R2:            0.654
McKelvey and Zavoina's R2:     0.833    Efron's R2:                    0.549
Variance of y*:               19.713    Variance of error:             3.290
Count R2:                      0.929    Adj Count R2:                  0.537
AIC:                           0.807    AIC*n:                       214.767
BIC:                       -1069.767    BIC':                        119.779
Full main model for HP2probsoc for wave= 3

chunk 2 H1 test:Gender= 2  model Wave =  3 for HP2probsoc

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: occ4w3 != 0 predicts failure perfectly
      occ4w3 dropped and 8 obs not used

note: occ5w3 != 0 predicts failure perfectly
      occ5w3 dropped and 5 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

note: occ8w3 != 0 predicts failure perfectly
      occ8w3 dropped and 1 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 11 obs not used

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

Logistic regression                               Number of obs   =        333
                                                  LR chi2(48)     =     182.65
                                                  Prob > chi2     =     0.0000
Log likelihood = -85.065495                       Pseudo R2       =     0.5177
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1095324	.0321452	3.41	0.001	.0465289	.1725358
_Ieduc_2	-13.53237	1231.492	-0.01	0.991	-2427.212	2400.147
_Ieduc_3	-13.52493	1231.492	-0.01	0.991	-2427.204	2400.154
_Ieduc_4	-12.60239	1231.492	-0.01	0.992	-2426.282	2401.077
_Ieduc_5	-12.71374	1231.492	-0.01	0.992	-2426.393	2400.966
_Ieduc_6	-14.01871	1231.492	-0.01	0.991	-2427.698	2399.66
_Ieduc_7	-14.42024	1231.563	-0.01	0.991	-2428.239	2399.398
_Ieduc_8	0	(omitted)				
occ1w3	-1.43031	4.480321	-0.32	0.750	-10.21158	7.350959
occ2w3	-.9422793	4.54239	-0.21	0.836	-9.8452	7.960641
occ3w3	-.9893619	4.495549	-0.22	0.826	-9.800476	7.821752
occ4w3	0	(omitted)				
occ5w3	0	(omitted)				
occ6w3	0	(omitted)				
occ7w3	-.3813499	4.479039	-0.09	0.932	-9.160105	8.397405
occ8w3	0	(omitted)				
marrw31	-1.356413	4.804963	-0.28	0.778	-10.77397	8.061141
marrw32	1.424321	4.907376	0.29	0.772	-8.193959	11.0426
marrw33	.9014745	4.669929	0.19	0.847	-8.251419	10.05437
marrw35	.1665893	4.645112	0.04	0.971	-8.937664	9.270842
marrw36	.3174753	4.648882	0.07	0.946	-8.794166	9.429116
inc1w3	.8600896	4.513897	0.19	0.849	-7.986987	9.707166
inc2w3	1.384829	4.490321	0.31	0.758	-7.416038	10.1857
inc3w3	.4792744	4.482989	0.11	0.915	-8.307222	9.26577
inc4w3	2.266942	4.835774	0.47	0.639	-7.211	11.74488
radhlw3	.0131788	.0108242	1.22	0.223	-.0080363	.0343939
havmil	.0001731	.0072695	0.02	0.981	-.0140748	.014421
avgcumdosew3	.4373021	.1594734	2.74	0.006	.12474	.7498642
bf1	.0565003	.0423978	1.33	0.183	-.0265978	.1395985
bf4	-.5202783	.2238014	-2.32	0.020	-.9589209	-.0816356
bf2	.0000421	.0001478	0.28	0.776	-.0002477	.0003318
bf4m	.2426577	.1977977	1.23	0.220	-.1450185	.630334
bf5m	-.0017451	.0026768	-0.65	0.514	-.0069915	.0035013
bf7m	.0007865	.0007919	0.99	0.321	-.0007656	.0023387
bf8	.0000207	.0000544	0.38	0.704	-.000086	.0001273
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0669294	.0330398	-2.03	0.043	-.1316862	-.0021726
bf22	-.0000944	.0001823	-0.52	0.605	-.0004517	.0002629
bf29	-.0000309	.000047	-0.66	0.511	-.0001229	.0000611
bf30	.0003246	.0004246	0.76	0.445	-.0005076	.0011567
bf40	.0606979	.1844629	0.33	0.742	-.3008427	.4222385
deaw3	.1696097	.2295421	0.74	0.460	-.2802844	.6195039
dvcew3	.3810548	1.285314	0.30	0.767	-2.138115	2.900224
sepaw3	-2.876602	1.529689	-1.88	0.060	-5.874737	.1215322
accdw3	.1226563	.714668	0.17	0.864	-1.278067	1.52338

movew3	1.918652	1.360681	1.41	0.159	-.7482334	4.585538
illw3	.2671943	.2045213	1.31	0.191	-.1336601	.6680487
shfamw3	-.0003116	.0095404	-0.03	0.974	-.0190104	.0183873
shhlw3	-.0026048	.0074647	-0.35	0.727	-.0172353	.0120256
shjobw3	.006075	.0086284	0.70	0.481	-.0108364	.0229864
shrelaw3	-.0267274	.010033	-2.66	0.008	-.0463918	-.007063
suprtw3	-.0065983	.0100162	-0.66	0.510	-.0262297	.0130331
suchrw3	.0015649	.0064519	0.24	0.808	-.0110806	.0142105
havmilsq	-3.19e-06	.0000124	-0.26	0.797	-.0000275	.0000211
_cons	6.986764	1231.505	0.01	0.995	-2406.718	2420.692

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	54	13	67
-	20	246	266
Total	74	259	333

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

Sensitivity	Pr(+| D)	72.97%
Specificity	Pr(-|~D)	94.98%
Positive predictive value	Pr(D| +)	80.60%
Negative predictive value	Pr(~D| -)	92.48%
False + rate for true ~D	Pr(+|~D)	5.02%
False - rate for true D	Pr(-| D)	27.03%
False + rate for classified +	Pr(~D| +)	19.40%
False - rate for classified -	Pr(D| -)	7.52%
Correctly classified		90.09%

Logistic model for HP2probsoc, goodness-of-fit test

number of observations = 333
number of covariate patterns = 333
Pearson chi2(**284**) = 335.12
Prob > chi2 = 0.0199

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

```
Log-Lik Intercept Only:     -176.392     Log-Lik Full Model:           -85.065
D(277):                      170.131     LR(48):                       182.653
                                         Prob > LR:                      0.000
McFadden's R2:                 0.518     McFadden's Adj R2:              0.200
Maximum Likelihood R2:         0.422     Cragg & Uhler's R2:             0.646
McKelvey and Zavoina's R2:     0.810     Efron's R2:                     0.561
Variance of y*:               17.273     Variance of error:              3.290
Count R2:                      0.901     Adj Count R2:                   0.554
AIC:                           0.847     AIC*n:                        282.131
BIC:                       -1438.724     BIC':                          96.138
Full main model for HP2pbfhm for wave= 3

chunk 2 H1 test:Gender= 1  model Wave =  3 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 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: occ5w3 != 0 predicts failure perfectly
      occ5w3 dropped and 13 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 17 obs not used

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

note: movew3 != 0 predicts failure perfectly
      movew3 dropped and 22 obs not used

note: _Ieduc_6 omitted because of collinearity
note: occ8w3 omitted because of collinearity
note: marrw36 omitted because of collinearity
note: bf17 omitted because of collinearity
```

```
Logistic regression                               Number of obs   =        248
                                                  LR chi2(42)     =      61.10
                                                  Prob > chi2     =     0.0286
Log likelihood = -43.736999                       Pseudo R2       =     0.4112
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0762859	.0508028	1.50	0.133	-.0232857	.1758575
_Ieduc_2	0	(omitted)				
_Ieduc_3	-.1477637	.8109786	-0.18	0.855	-1.737253	1.441725
_Ieduc_4	0	(omitted)				
_Ieduc_5	-.7596947	1.090598	-0.70	0.486	-2.897227	1.377837
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w3	-10.90364	2018.344	-0.01	0.996	-3966.785	3944.977
occ2w3	-10.89538	2018.344	-0.01	0.996	-3966.777	3944.986
occ3w3	-9.963313	2018.344	-0.00	0.996	-3965.846	3945.919
occ4w3	-10.3499	2018.344	-0.01	0.996	-3966.232	3945.532
occ5w3	0	(omitted)				
occ6w3	0	(omitted)				
occ7w3	-10.56369	2018.344	-0.01	0.996	-3966.445	3945.318
occ8w3	0	(omitted)				
marrw31	1.938945	1.834088	1.06	0.290	-1.655802	5.533692
marrw32	2.869349	2.03424	1.41	0.158	-1.117687	6.856385
marrw33	-2.070881	2.007923	-1.03	0.302	-6.006338	1.864576
marrw35	3.548252	2.186549	1.62	0.105	-.7373048	7.833809
marrw36	0	(omitted)				
inc1w3	12.37597	2018.344	0.01	0.995	-3943.505	3968.257
inc2w3	12.75723	2018.343	0.01	0.995	-3943.123	3968.637
inc3w3	11.01982	2018.344	0.01	0.996	-3944.861	3966.9
inc4w3	11.952	2018.345	0.01	0.995	-3943.931	3967.835
radhlw3	.032589	.0182947	1.78	0.075	-.0032679	.0684459
havmil	.0129536	.013774	0.94	0.347	-.0140429	.0399501
avgcumdosew3	-.3791136	.3273992	-1.16	0.247	-1.020804	.2625771
bf1	-.1029605	.0825755	-1.25	0.212	-.2648056	.0588846
bf4	-.1906164	.3464978	-0.55	0.582	-.8697396	.4885069
bf2	.0004772	.0003548	1.35	0.179	-.0002181	.0011725
bf4m	.0772469	.2972932	0.26	0.795	-.505437	.6599308
bf5m	-.0019382	.0047879	-0.40	0.686	-.0113224	.007446
bf7m	.0012129	.001013	1.20	0.231	-.0007725	.0031983
bf8	-3.27e-06	.0000957	-0.03	0.973	-.0001909	.0001843
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.0430617	.0653802	0.66	0.510	-.0850811	.1712045
bf22	-4.46e-06	.0002995	-0.01	0.988	-.0005915	.0005826
bf29	0	(omitted)				
bf30	.000126	.0007197	0.18	0.861	-.0012845	.0015365

bf40	.071783	.4795976	0.15	0.881	-.8682111	1.011777
deaw3	.3272315	.4280065	0.76	0.445	-.5116458	1.166109
dvcew3	1.631036	1.568401	1.04	0.298	-1.442973	4.705045
sepaw3	.2595898	1.605075	0.16	0.872	-2.886299	3.405479
accdw3	-.9114258	2.076173	-0.44	0.661	-4.980649	3.157798
movew3	0	(omitted)				
illw3	-.5480408	.5150453	-1.06	0.287	-1.557511	.4614294
shfamw3	.0143257	.0164517	0.87	0.384	-.017919	.0465703
shhlw3	-.0109085	.0129224	-0.84	0.399	-.0362359	.014419
shjobw3	-.0129256	.0143995	-0.90	0.369	-.0411481	.0152969
shrelaw3	-.0047884	.012683	-0.38	0.706	-.0296466	.0200697
suprtw3	.025454	.0177967	1.43	0.153	-.0094269	.0603349
suchrw3	.0037567	.0120299	0.31	0.755	-.0198214	.0273349
havmilsq	-.0000259	.0000249	-1.04	0.299	-.0000746	.0000229
_cons	-12.84498	6.147159	-2.09	0.037	-24.89319	-.79677

Note: 5 failures and 0 successes completely determined.

Logistic model for HP2pbfhm

	True		
Classified	D	~D	Total
+	9	4	13
-	13	222	235
Total	22	226	248

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

Sensitivity	Pr(+| D)	40.91%
Specificity	Pr(-|~D)	98.23%
Positive predictive value	Pr(D| +)	69.23%
Negative predictive value	Pr(~D| -)	94.47%
False + rate for true ~D	Pr(+|~D)	1.77%
False - rate for true D	Pr(-| D)	59.09%
False + rate for classified +	Pr(~D| +)	30.77%
False - rate for classified -	Pr(D| -)	5.53%
Correctly classified		93.15%

Logistic model for HP2pbfhm, goodness-of-fit test

```
       number of observations =       248
 number of covariate patterns =       248
            Pearson chi2(205) =       151.48
                  Prob > chi2 =         0.9980

Measures of Fit for logistic of HP2pbfhm

Log-Lik Intercept Only:      -74.286    Log-Lik Full Model:           -43.737
D(192):                       87.474    LR(42):                        61.099
                                        Prob > LR:                      0.029
McFadden's R2:                 0.411    McFadden's Adj R2:             -0.343
Maximum Likelihood R2:         0.218    Cragg & Uhler's R2:             0.485
McKelvey and Zavoina's R2:     0.816    Efron's R2:                     0.329
Variance of y*:               17.878    Variance of error:              3.290
Count R2:                      0.931    Adj Count R2:                   0.227
AIC:                           0.804    AIC*n:                        199.474
BIC:                        -971.104    BIC':                         170.465
Full main model for HP2pbfhm for wave= 3

chunk 2 H1 test:Gender= 2  model Wave =  3 for HP2pbfhm

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: occ2w3 != 0 predicts failure perfectly
      occ2w3 dropped and 37 obs not used

note: occ4w3 != 0 predicts failure perfectly
      occ4w3 dropped and 8 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

note: occ8w3 != 0 predicts failure perfectly
      occ8w3 dropped and 1 obs not used

note: marrw32 != 0 predicts failure perfectly
      marrw32 dropped and 7 obs not used

note: inc4w3 != 0 predicts failure perfectly
      inc4w3 dropped and 8 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 11 obs not used

note: movew3 != 0 predicts failure perfectly
      movew3 dropped and 9 obs not used

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

Logistic regression   Number of obs   =   277
                                                      LR chi2(45)   =   88.17
                                                      Prob > chi2   =   0.0001
Log likelihood = -80.45257   Pseudo R2   =   0.3540

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0605232	.0301499	2.01	0.045	.0014305	.1196159
_Ieduc_2	14.33097	3050.48	0.00	0.996	-5964.5	5993.162
_Ieduc_3	14.57814	3050.48	0.00	0.996	-5964.253	5993.409
_Ieduc_4	14.71229	3050.48	0.00	0.996	-5964.118	5993.543
_Ieduc_5	14.46503	3050.48	0.00	0.996	-5964.366	5993.296
_Ieduc_6	14.13284	3050.48	0.00	0.996	-5964.698	5992.963
_Ieduc_7	16.45371	3050.482	0.01	0.996	-5962.381	5995.289
_Ieduc_8	0	(omitted)				
occ1w3	-.9142061	3.466224	-0.26	0.792	-7.70788	5.879468
occ2w3	0	(omitted)				
occ3w3	-.2867411	3.495557	-0.08	0.935	-7.137908	6.564426
occ4w3	0	(omitted)				
occ5w3	2.578209	4.53518	0.57	0.570	-6.310581	11.467
occ6w3	0	(omitted)				
occ7w3	-.5244179	3.46458	-0.15	0.880	-7.31487	6.266034
occ8w3	0	(omitted)				
marrw31	13.57521	900.684	0.02	0.988	-1751.733	1778.884
marrw32	0	(omitted)				
marrw33	15.5368	900.6835	0.02	0.986	-1749.77	1780.844
marrw35	15.43053	900.6834	0.02	0.986	-1749.877	1780.738
marrw36	15.00571	900.6833	0.02	0.987	-1750.301	1780.313
inc1w3	2.006505	3.516446	0.57	0.568	-4.885601	8.898612
inc2w3	2.111761	3.483985	0.61	0.544	-4.716724	8.940246
inc3w3	1.911831	3.463507	0.55	0.581	-4.876519	8.70018
inc4w3	0	(omitted)				
radhlw3	.0113673	.0123354	0.92	0.357	-.0128096	.0355442
havmil	-.0010166	.0142076	-0.07	0.943	-.0288629	.0268297
avgcumdosew3	-.0338506	.1440343	-0.24	0.814	-.3161526	.2484513
bf1	-.0040962	.0453653	-0.09	0.928	-.0930105	.0848181
bf4	-.3790747	.2483688	-1.53	0.127	-.8658686	.1077192
bf2	.0000525	.0001469	0.36	0.721	-.0002354	.0003404
bf4m	.1263528	.2275811	0.56	0.579	-.3196979	.5724036
bf5m	-.0049342	.0041169	-1.20	0.231	-.0130031	.0031348
bf7m	-.0004133	.0008454	-0.49	0.625	-.0020703	.0012437
bf8	.0001156	.0000755	1.53	0.125	-.0000323	.0002635
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0078983	.0366468	-0.22	0.829	-.0797248	.0639282
bf22	.000158	.0001863	0.85	0.396	-.0002071	.0005231
bf29	9.34e-06	.0000425	0.22	0.826	-.000074	.0000927
bf30	-.0000869	.0004483	-0.19	0.846	-.0009655	.0007917

bf40	-.2779981	.1983152	-1.40	0.161	-.6666887	.1106924
deaw3	-.0223131	.2253092	-0.10	0.921	-.4639109	.4192848
dvcew3	1.571998	1.037736	1.51	0.130	-.4619271	3.605923
sepaw3	-1.894764	1.527486	-1.24	0.215	-4.888582	1.099055
accdw3	-.2729555	.6926052	-0.39	0.694	-1.630437	1.084526
movew3	0	(omitted)				
illw3	-.1949663	.2468671	-0.79	0.430	-.6788169	.2888842
shfamw3	-.0082258	.0094908	-0.87	0.386	-.0268274	.0103758
shhlw3	.0062899	.0080613	0.78	0.435	-.00951	.0220898
shjobw3	-.0009012	.0093159	-0.10	0.923	-.0191601	.0173576
shrelaw3	-.0126452	.0092607	-1.37	0.172	-.0307958	.0055054
suprtw3	-.004099	.0105306	-0.39	0.697	-.0247385	.0165405
suchrw3	-.0078922	.0065901	-1.20	0.231	-.0208085	.0050241
havmilsq	-4.43e-06	.000039	-0.11	0.909	-.0000808	.000072
_cons	-32.88256	3180.671	-0.01	0.992	-6266.884	6201.119

Note: 5 failures and 0 successes completely determined.

Logistic model for HP2pbfhm

	True		
Classified	D	~D	Total
+	22	9	31
-	24	222	246
Total	46	231	277

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

Sensitivity	Pr(+| D)	47.83%
Specificity	Pr(-|~D)	96.10%
Positive predictive value	Pr(D| +)	70.97%
Negative predictive value	Pr(~D| -)	90.24%
False + rate for true ~D	Pr(+|~D)	3.90%
False - rate for true D	Pr(-| D)	52.17%
False + rate for classified +	Pr(~D| +)	29.03%
False - rate for classified -	Pr(D| -)	9.76%
Correctly classified		88.09%

Logistic model for HP2pbfhm, goodness-of-fit test

```
       number of observations =       277
 number of covariate patterns =       277
            Pearson chi2(231) =       439.38
                  Prob > chi2 =         0.0000

Measures of Fit for logistic of HP2pbfhm

Log-Lik Intercept Only:     -124.537    Log-Lik Full Model:          -80.453
D(221):                      160.905    LR(45):                       88.169
                                        Prob > LR:                     0.000
McFadden's R2:                 0.354    McFadden's Adj R2:            -0.096
Maximum Likelihood R2:         0.273    Cragg & Uhler's R2:            0.460
McKelvey and Zavoina's R2:     0.796    Efron's R2:                    0.384
Variance of y*:               16.128    Variance of error:             3.290
Count R2:                      0.881    Adj Count R2:                  0.283
AIC:                           0.985    AIC*n:                       272.905
BIC:                       -1082.003    BIC':                        164.912
Full main model for HP2sxlife for wave= 3

chunk 2 H1 test:Gender= 1  model Wave =  3 for HP2pbfhm

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: _Ieduc_7 != 0 predicts failure perfectly
      _Ieduc_7 dropped and 4 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 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: _Ieduc_8 omitted because of collinearity
note: occ8w3 omitted because of collinearity
note: marrw36 omitted because of collinearity
note: bf17 omitted because of collinearity

Logistic regression                               Number of obs   =        304
                                                  LR chi2(47)     =     153.48
                                                  Prob > chi2     =     0.0000
Log likelihood = -86.082561                       Pseudo R2       =     0.4713
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.1069256**	**.0319906**	**3.34**	**0.001**	**.0442252**	**.169626**
_Ieduc_2	**-.7455102**	**2.711615**	**-0.27**	**0.783**	**-6.060177**	**4.569157**
_Ieduc_3	**-1.187035**	**2.60622**	**-0.46**	**0.649**	**-6.295133**	**3.921063**
_Ieduc_4	**-2.546669**	**2.819292**	**-0.90**	**0.366**	**-8.072379**	**2.979041**
_Ieduc_5	**-.9083698**	**2.596245**	**-0.35**	**0.726**	**-5.996916**	**4.180177**
_Ieduc_6	**-.821989**	**2.54798**	**-0.32**	**0.747**	**-5.815938**	**4.17196**
_Ieduc_7	**0**	(omitted)				
_Ieduc_8	**0**	(omitted)				
occ1w3	**-13.83588**	**1847.337**	**-0.01**	**0.994**	**-3634.551**	**3606.879**
occ2w3	**-14.1177**	**1847.337**	**-0.01**	**0.994**	**-3634.833**	**3606.597**
occ3w3	**-15.12911**	**1847.338**	**-0.01**	**0.993**	**-3635.845**	**3605.586**
occ4w3	**-14.04877**	**1847.338**	**-0.01**	**0.994**	**-3634.764**	**3606.666**
occ5w3	**-13.39243**	**1847.338**	**-0.01**	**0.994**	**-3634.108**	**3607.323**
occ6w3	**0**	(omitted)				
occ7w3	**-14.25779**	**1847.337**	**-0.01**	**0.994**	**-3634.973**	**3606.457**
occ8w3	**0**	(omitted)				
marrw31	**1.917986**	**1.336919**	**1.43**	**0.151**	**-.7023282**	**4.538299**
marrw32	**-.8798595**	**1.841469**	**-0.48**	**0.633**	**-4.489073**	**2.729354**
marrw33	**.8814069**	**1.275273**	**0.69**	**0.489**	**-1.618082**	**3.380896**
marrw35	**1.398611**	**1.615954**	**0.87**	**0.387**	**-1.768602**	**4.565823**
marrw36	**0**	(omitted)				
inc1w3	**16.59262**	**1847.337**	**0.01**	**0.993**	**-3604.122**	**3637.307**
inc2w3	**16.41393**	**1847.337**	**0.01**	**0.993**	**-3604.3**	**3637.128**
inc3w3	**14.9931**	**1847.337**	**0.01**	**0.994**	**-3605.721**	**3635.708**
inc4w3	**13.76529**	**1847.339**	**0.01**	**0.994**	**-3606.952**	**3634.482**
radhlw3	**.0155883**	**.0090158**	**1.73**	**0.084**	**-.0020824**	**.0332591**
havmil	**.0032884**	**.0119659**	**0.27**	**0.783**	**-.0201643**	**.0267412**
avgcumdosew3	**.0366781**	**.0541231**	**0.68**	**0.498**	**-.0694012**	**.1427574**
bf1	**.0224773**	**.0438725**	**0.51**	**0.608**	**-.0635113**	**.108466**
bf4	**-.3119601**	**.2453847**	**-1.27**	**0.204**	**-.7929052**	**.168985**
bf2	**.0000786**	**.0001745**	**0.45**	**0.652**	**-.0002634**	**.0004207**
bf4m	**.0103662**	**.2174828**	**0.05**	**0.962**	**-.4158923**	**.4366247**
bf5m	**.0028825**	**.0019867**	**1.45**	**0.147**	**-.0010113**	**.0067763**
bf7m	**.0013372**	**.0006507**	**2.05**	**0.040**	**.0000618**	**.0026126**
bf8	**-.0000698**	**.0000479**	**-1.46**	**0.145**	**-.0001638**	**.0000241**
bf15m	**0**	(omitted)				
bf17	**0**	(omitted)				
bf20	**-.0288329**	**.0347084**	**-0.83**	**0.406**	**-.09686**	**.0391943**
bf22	**-.0000907**	**.0001888**	**-0.48**	**0.631**	**-.0004608**	**.0002793**
bf29	**0**	(omitted)				
bf30	**-5.44e-06**	**.0004196**	**-0.01**	**0.990**	**-.0008279**	**.0008171**
bf40	**.3549975**	**.2522025**	**1.41**	**0.159**	**-.1393104**	**.8493054**
deaw3	**-.1446966**	**.2515866**	**-0.58**	**0.565**	**-.6377974**	**.3484041**
dvcew3	**.2312151**	**1.685819**	**0.14**	**0.891**	**-3.07293**	**3.535361**
sepaw3	**1.563211**	**1.973158**	**0.79**	**0.428**	**-2.304108**	**5.430529**
accdw3	**-1.029126**	**.9986452**	**-1.03**	**0.303**	**-2.986435**	**.9281827**

movew3	-.3161441	.7920977	-0.40	0.690	-1.868627	1.236339
illw3	.2509498	.2730406	0.92	0.358	-.2841998	.7860995
shfamw3	-.0049114	.0092237	-0.53	0.594	-.0229895	.0131668
shhlw3	-.0135671	.0078785	-1.72	0.085	-.0290087	.0018746
shjobw3	.0090088	.0079953	1.13	0.260	-.0066617	.0246793
shrelaw3	-.0052844	.0083104	-0.64	0.525	-.0215726	.0110037
suprtw3	.0083949	.0090554	0.93	0.354	-.0093533	.0261431
suchrw3	-.0115343	.0079215	-1.46	0.145	-.0270603	.0039916
havmilsq	-.0000122	.0000253	-0.48	0.630	-.0000618	.0000374
_cons	-6.912277	3.93482	-1.76	0.079	-14.62438	.7998281

Note: 4 failures and 0 successes completely determined.

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	44	14	58
-	25	221	246
Total	69	235	304

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

Sensitivity	Pr(+| D)	63.77%
Specificity	Pr(-|~D)	94.04%
Positive predictive value	Pr(D| +)	75.86%
Negative predictive value	Pr(~D| -)	89.84%
False + rate for true ~D	Pr(+|~D)	5.96%
False - rate for true D	Pr(-| D)	36.23%
False + rate for classified +	Pr(~D| +)	24.14%
False - rate for classified -	Pr(D| -)	10.16%
Correctly classified		87.17%

Logistic model for HP2sxlife, goodness-of-fit test

number of observations = 304
number of covariate patterns = 304
Pearson chi2(**256**) = 202.32
Prob > chi2 = 0.9943

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

```
Log-Lik Intercept Only:     -162.820    Log-Lik Full Model:           -86.083
D(248):                      172.165    LR(47):                       153.476
                                        Prob > LR:                      0.000
McFadden's R2:                 0.471    McFadden's Adj R2:              0.127
Maximum Likelihood R2:         0.396    Cragg & Uhler's R2:             0.603
McKelvey and Zavoina's R2:     0.800    Efron's R2:                     0.484
Variance of y*:               16.474    Variance of error:              3.290
Count R2:                      0.872    Adj Count R2:                   0.435
AIC:                           0.935    AIC*n:                        284.165
BIC:                       -1245.658    BIC':                         115.224
Full main model for HP2sxlife for wave= 3

chunk 2 H1 test:Gender= 2  model Wave =  3 for HP2sxlife

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: occ8w3 != 0 predicts failure perfectly
      occ8w3 dropped and 1 obs not used

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: bf17 omitted because of collinearity

Logistic regression                               Number of obs   =        345
                                                  LR chi2(50)     =     168.03
                                                  Prob > chi2     =     0.0000
Log likelihood = -114.00457                       Pseudo R2       =     0.4243
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0813848	.0244496	3.33	0.001	.0334644	.1293053
_Ieduc_2	-12.79022	653.1326	-0.02	0.984	-1292.907	1267.326
_Ieduc_3	-11.94607	653.1326	-0.02	0.985	-1292.062	1268.17
_Ieduc_4	-11.36768	653.1328	-0.02	0.986	-1291.484	1268.749
_Ieduc_5	-12.54328	653.1327	-0.02	0.985	-1292.66	1267.573
_Ieduc_6	-11.93918	653.1326	-0.02	0.985	-1292.055	1268.177
_Ieduc_7	-12.87216	653.1524	-0.02	0.984	-1293.027	1267.283
_Ieduc_8	0	(omitted)				
occ1w3	-2.703036	2.21975	-1.22	0.223	-7.053665	1.647593
occ2w3	-2.165029	2.323461	-0.93	0.351	-6.718929	2.388871
occ3w3	-2.030908	2.234964	-0.91	0.364	-6.411358	2.349542
occ4w3	-1.625969	2.528132	-0.64	0.520	-6.581016	3.329078
occ5w3	.7269315	2.820396	0.26	0.797	-4.800943	6.254806
occ6w3	-.7633882	2.518786	-0.30	0.762	-5.700118	4.173342

occ7w3	-1.433838	2.203631	-0.65	0.515	-5.752876	2.8852
occ8w3	0	(omitted)				
marrw31	.3247443	1.774101	0.18	0.855	-3.152431	3.801919
marrw32	.8501767	2.207491	0.39	0.700	-3.476427	5.17678
marrw33	1.557872	1.575773	0.99	0.323	-1.530585	4.646329
marrw35	-.4253418	1.619183	-0.26	0.793	-3.598882	2.748198
marrw36	1.703593	1.601915	1.06	0.288	-1.436102	4.843288
inc1w3	1.766812	2.253827	0.78	0.433	-2.650608	6.184231
inc2w3	2.269344	2.224897	1.02	0.308	-2.091374	6.630061
inc3w3	.9292343	2.201873	0.42	0.673	-3.386357	5.244826
inc4w3	1.449624	2.775037	0.52	0.601	-3.989349	6.888597
radhlw3	.0277216	.0091569	3.03	0.002	.0097745	.0456688
havmil	.0021336	.0032179	0.66	0.507	-.0041733	.0084405
avgcumdosew3	.1969924	.1165031	1.69	0.091	-.0313496	.4253343
bf1	.0285984	.0382244	0.75	0.454	-.04632	.1035168
bf4	-.4015139	.2038932	-1.97	0.049	-.8011373	-.0018905
bf2	-.0001649	.0001225	-1.35	0.178	-.0004051	.0000753
bf4m	.3523301	.1864609	1.89	0.059	-.0131266	.7177867
bf5m	-.0026053	.001955	-1.33	0.183	-.006437	.0012264
bf7m	-.0000741	.0006237	-0.12	0.905	-.0012966	.0011483
bf8	-5.22e-06	.0000423	-0.12	0.902	-.0000881	.0000777
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0120216	.031995	-0.38	0.707	-.0747307	.0506874
bf22	-.0001004	.0001357	-0.74	0.459	-.0003664	.0001655
bf29	0	(omitted)				
bf30	-.0002441	.0003438	-0.71	0.478	-.0009179	.0004298
bf40	.095062	.1371931	0.69	0.488	-.1738314	.3639555
deaw3	.0760781	.1918427	0.40	0.692	-.2999267	.4520829
dvcew3	1.127371	.952705	1.18	0.237	-.7398962	2.994639
sepaw3	.5833047	.936842	0.62	0.534	-1.252872	2.419481
accdw3	-.5118992	.5859911	-0.87	0.382	-1.660421	.6366223
movew3	-.6063637	1.823477	-0.33	0.739	-4.180313	2.967586
illw3	.1168429	.1761008	0.66	0.507	-.2283082	.4619941
shfamw3	.0084815	.007536	1.13	0.260	-.0062888	.0232518
shhlw3	.0066923	.0066985	1.00	0.318	-.0064365	.0198212
shjobw3	-.0046191	.0070704	-0.65	0.514	-.0184767	.0092386
shrelaw3	-.0123617	.0074084	-1.67	0.095	-.0268819	.0021585
suprtw3	-.0091554	.0078461	-1.17	0.243	-.0245335	.0062227
suchrw3	-.0034248	.0055225	-0.62	0.535	-.0142486	.0073991
havmilsq	-2.54e-06	2.55e-06	-1.00	0.319	-7.52e-06	2.45e-06
_cons	1.83356	653.1407	0.00	0.998	-1278.299	1281.966

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2sxlife

Classified	D	~D	Total
	True		
+	**60**	**12**	**72**
-	**30**	**243**	**273**
Total	**90**	**255**	**345**

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

Sensitivity	Pr(+| D)	**66.67%**
Specificity	Pr(-|~D)	**95.29%**
Positive predictive value	Pr(D| +)	**83.33%**
Negative predictive value	Pr(~D| -)	**89.01%**
False + rate for true ~D	Pr(+|~D)	**4.71%**
False - rate for true D	Pr(-| D)	**33.33%**
False + rate for classified +	Pr(~D| +)	**16.67%**
False - rate for classified -	Pr(D| -)	**10.99%**
Correctly classified		**87.83%**

Logistic model for HP2sxlife, goodness-of-fit test

number of observations = **345**
number of covariate patterns = **345**
Pearson chi2(**294**) = **343.22**
Prob > chi2 = **0.0254**

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

Log-Lik Intercept Only:	**-198.018**	Log-Lik Full Model:	**-114.005**
D(289):	**228.009**	LR(50):	**168.026**
		Prob > LR:	**0.000**
McFadden's R2:	**0.424**	McFadden's Adj R2:	**0.141**
Maximum Likelihood R2:	**0.386**	Cragg & Uhler's R2:	**0.565**
McKelvey and Zavoina's R2:	**0.693**	Efron's R2:	**0.483**
Variance of y*:	**10.715**	Variance of error:	**3.290**
Count R2:	**0.878**	Adj Count R2:	**0.533**
AIC:	**0.986**	AIC*n:	**340.009**
BIC:	**-1460.775**	BIC':	**124.151**

Full main model for HP2inthob for wave= 3

chunk 2 H1 test:Gender= 1 model Wave = 3 for HP2sxlife

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: occ5w3 != 0 predicts failure perfectly
      occ5w3 dropped and 15 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 18 obs not used

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

note: _Ieduc_6 omitted because of collinearity
note: occ8w3 omitted because of collinearity
note: marrw36 omitted because of collinearity
note: bf17 omitted because of collinearity
convergence not achieved

Logistic regression                               Number of obs   =        276
                                                  LR chi2(42)     =     117.91
                                                  Prob > chi2     =     0.0000
Log likelihood = -51.649162                       Pseudo R2       =     0.5330
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0817005	.0490304	1.67	0.096	-.0143972	.1777983
_Ieduc_2	-1.531634	1.790651	-0.86	0.392	-5.041245	1.977977
_Ieduc_3	-1.560462	.8580327	-1.82	0.069	-3.242176	.1212508
_Ieduc_4	0	(omitted)				
_Ieduc_5	-.5489736	.8124194	-0.68	0.499	-2.141286	1.043339
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w3	-16.51737	2.253408	-7.33	0.000	-20.93397	-12.10077
occ2w3	-19.33038	2.062721	-9.37	0.000	-23.37324	-15.28752
occ3w3	-17.4588	2.676679	-6.52	0.000	-22.70499	-12.2126
occ4w3	-16.4147	2.207406	-7.44	0.000	-20.74113	-12.08826
occ5w3	0	(omitted)				
occ6w3	0	(omitted)				

occ7w3	-16.18451	2.199404	-7.36	0.000	-20.49527	-11.87376
occ8w3	0	(omitted)				
marrw31	.8557338	1.989444	0.43	0.667	-3.043506	4.754973
marrw32	1.067638	2.133137	0.50	0.617	-3.113233	5.248509
marrw33	-.0597494	1.809944	-0.03	0.974	-3.607174	3.487675
marrw35	4.178796	2.178555	1.92	0.055	-.091092	8.448685
marrw36	0	(omitted)				
inc1w3	14.99624	2.039372	7.35	0.000	10.99915	18.99334
inc2w3	15.54638	1.847372	8.42	0.000	11.92559	19.16716
inc3w3	16.08957	1.659414	9.70	0.000	12.83718	19.34196
inc4w3	20.06926	.	.	.	.	.
radhlw3	.0608448	.0162567	3.74	0.000	.0289822	.0927074
havmil	.004278	.0106932	0.40	0.689	-.0166802	.0252362
avgcumdosew3	-.3594081	.1656258	-2.17	0.030	-.6840288	-.0347874
bf1	-1.832947	.1402107	-13.07	0.000	-2.107755	-1.558139
bf4	-.1459909	.3386475	-0.43	0.666	-.8097278	.5177459
bf2	-.0007134	.0002919	-2.44	0.015	-.0012855	-.0001412
bf4m	-.0648788	.3169386	-0.20	0.838	-.6860671	.5563094
bf5m	-.0059221	.0033107	-1.79	0.074	-.0124109	.0005667
bf7m	-.00068	.0010134	-0.67	0.502	-.0026661	.0013062
bf8	.0000248	.0000707	0.35	0.726	-.0001137	.0001633
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	1.839453	.1331884	13.81	0.000	1.578408	2.100497
bf22	.000278	.0003035	0.92	0.360	-.0003168	.0008728
bf29	0	(omitted)				
bf30	.0006467	.000603	1.07	0.284	-.0005352	.0018286
bf40	.2996033	.3950361	0.76	0.448	-.4746533	1.07386
deaw3	-.6086988	.5212369	-1.17	0.243	-1.630304	.4129068
dvcew3	-.2319255	1.621511	-0.14	0.886	-3.410029	2.946178
sepaw3	-1.758194	2.087814	-0.84	0.400	-5.850234	2.333846
accdw3	.9189185	1.049895	0.88	0.381	-1.138839	2.976676
movew3	-1.391188	1.335043	-1.04	0.297	-4.007824	1.225448
illw3	-.3817302	.3999312	-0.95	0.340	-1.165581	.4021205
shfamw3	.0654585	.0176224	3.71	0.000	.0309192	.0999978
shhlw3	-.0105181	.0103515	-1.02	0.310	-.0308067	.0097705
shjobw3	-.0144707	.0115767	-1.25	0.211	-.0371606	.0082192
shrelaw3	-.0392022	.0137786	-2.85	0.004	-.0662077	-.0121967
suprtw3	.0070974	.0130297	0.54	0.586	-.0184403	.0326352
suchrw3	-.00232	.0110986	-0.21	0.834	-.0240728	.0194327
havmilsq	-7.67e-06	.0000192	-0.40	0.690	-.0000453	.00003
_cons	-80.28913	.	.	.	.	.

Note: 32 failures and 0 successes completely determined.
Warning: convergence not achieved

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	**23**	**7**	**30**
-	**15**	**231**	**246**
Total	**38**	**238**	**276**

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

Sensitivity	Pr(+| D)	**60.53%**
Specificity	Pr(-|~D)	**97.06%**
Positive predictive value	Pr(D| +)	**76.67%**
Negative predictive value	Pr(~D| -)	**93.90%**
False + rate for true ~D	Pr(+|~D)	**2.94%**
False - rate for true D	Pr(-| D)	**39.47%**
False + rate for classified +	Pr(~D| +)	**23.33%**
False - rate for classified -	Pr(D| -)	**6.10%**
Correctly classified		**92.03%**

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       276
 number of covariate patterns =       276
            Pearson chi2(231) =       123.26
                  Prob > chi2 =         1.0000
```

Measures of Fit for **logistic** of **HP2inthob**

Log-Lik Intercept Only:	**-110.602**	Log-Lik Full Model:	**-51.649**
D(220):	**103.298**	LR(42):	**117.906**
		Prob > LR:	**0.000**
McFadden's R2:	**0.533**	McFadden's Adj R2:	**0.027**
Maximum Likelihood R2:	**0.348**	Cragg & Uhler's R2:	**0.631**
McKelvey and Zavoina's R2:	**0.982**	Efron's R2:	**0.500**
Variance of y*:	**180.636**	Variance of error:	**3.290**
Count R2:	**0.920**	Adj Count R2:	**0.421**
AIC:	**0.780**	AIC*n:	**215.298**
BIC:	**-1133.190**	BIC':	**118.151**

Full main model for HP2inthob for wave= 3

chunk 2 H1 test:Gender= 2 model Wave = 3 for HP2inthob

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

```
note: occ4w3 != 0 predicts failure perfectly
      occ4w3 dropped and 8 obs not used

note: occ5w3 != 0 predicts failure perfectly
      occ5w3 dropped and 5 obs not used

note: occ8w3 != 0 predicts failure perfectly
      occ8w3 dropped and 1 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 11 obs not used

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

Logistic regression                               Number of obs   =        337
                                                  LR chi2(49)     =     118.21
                                                  Prob > chi2     =     0.0000
Log likelihood = -107.57156                       Pseudo R2       =     0.3546
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0683881	.0247447	2.76	0.006	.0198893	.1168869
_Ieduc_2	-13.79024	962.4068	-0.01	0.989	-1900.073	1872.492
_Ieduc_3	-12.92792	962.4068	-0.01	0.989	-1899.211	1873.355
_Ieduc_4	-12.05387	962.4069	-0.01	0.990	-1898.337	1874.229
_Ieduc_5	-12.19345	962.407	-0.01	0.990	-1898.476	1874.09
_Ieduc_6	-13.09489	962.4068	-0.01	0.989	-1899.378	1873.188
_Ieduc_7	-13.1998	962.4102	-0.01	0.989	-1899.489	1873.089
_Ieduc_8	0	(omitted)				
occ1w3	-1.2723	3.511631	-0.36	0.717	-8.154969	5.61037
occ2w3	-2.590551	3.713618	-0.70	0.485	-9.869108	4.688006
occ3w3	-.8635752	3.536644	-0.24	0.807	-7.79527	6.06812
occ4w3	0	(omitted)				
occ5w3	0	(omitted)				
occ6w3	-.2036246	3.739879	-0.05	0.957	-7.533652	7.126403
occ7w3	-.4066434	3.50728	-0.12	0.908	-7.280786	6.467499
occ8w3	0	(omitted)				
marrw31	-2.820802	1.835568	-1.54	0.124	-6.418449	.776846
marrw32	-2.10882	2.397053	-0.88	0.379	-6.806958	2.589318
marrw33	-2.047151	1.625637	-1.26	0.208	-5.233341	1.13904
marrw35	-2.933509	1.682447	-1.74	0.081	-6.231043	.3640262
marrw36	-2.100943	1.718745	-1.22	0.222	-5.469621	1.267736
inc1w3	1.771469	3.538577	0.50	0.617	-5.164014	8.706952
inc2w3	1.229926	3.52319	0.35	0.727	-5.675399	8.13525
inc3w3	1.602207	3.508288	0.46	0.648	-5.273911	8.478326
inc4w3	2.650063	3.832399	0.69	0.489	-4.861301	10.16143
radhlw3	.0254128	.010363	2.45	0.014	.0051018	.0457239

havmil	.0052121	.0043654	1.19	0.232	-.003344	.0137682
avgcumdosew3	.0592875	.0898505	0.66	0.509	-.1168163	.2353913
bf1	-.0386178	.0465636	-0.83	0.407	-.1298807	.0526452
bf4	-.3299735	.2318908	-1.42	0.155	-.7844712	.1245242
bf2	5.14e-06	.0001261	0.04	0.967	-.000242	.0002523
bf4m	.24058	.2177227	1.10	0.269	-.1861487	.6673088
bf5m	-.0019924	.0019912	-1.00	0.317	-.0058951	.0019104
bf7m	-.000918	.0006896	-1.33	0.183	-.0022697	.0004336
bf8	6.91e-06	.0000428	0.16	0.872	-.0000771	.0000909
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.0290415	.0410365	0.71	0.479	-.0513885	.1094715
bf22	.000145	.000139	1.04	0.297	-.0001275	.0004175
bf29	.0000291	.0000389	0.75	0.455	-.0000472	.0001054
bf30	.0005863	.0003477	1.69	0.092	-.0000953	.0012679
bf40	-.1903404	.1540477	-1.24	0.217	-.4922683	.1115876
deaw3	-.0727208	.201017	-0.36	0.718	-.4667069	.3212652
dvcew3	-.3675995	.8921998	-0.41	0.680	-2.116279	1.38108
sepaw3	1.146748	.9391994	1.22	0.222	-.6940491	2.987545
accdw3	-.0400125	.5697822	-0.07	0.944	-1.156765	1.07674
movew3	.1242816	1.400684	0.09	0.929	-2.621008	2.869572
illw3	.0326786	.1772251	0.18	0.854	-.3146761	.3800333
shfamw3	-.0089451	.0081686	-1.10	0.273	-.0249552	.0070651
shhlw3	-.0019331	.0067351	-0.29	0.774	-.0151336	.0112673
shjobw3	.0022608	.0074164	0.30	0.760	-.012275	.0167966
shrelaw3	.0045217	.0078937	0.57	0.567	-.0109497	.0199931
suprtw3	-.0034378	.0085075	-0.40	0.686	-.0201123	.0132366
suchrw3	-.0106093	.0056039	-1.89	0.058	-.0215928	.0003741
havmilsq	-4.33e-06	6.65e-06	-0.65	0.515	-.0000174	8.70e-06
_cons	7.330327	962.4125	0.01	0.994	-1878.964	1893.624

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	33	12	45
-	33	259	292
Total	66	271	337

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2inthob != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   50.00%
Specificity                     Pr( -|~D)   95.57%
Positive predictive value       Pr( D| +)   73.33%
Negative predictive value       Pr(~D| -)   88.70%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    4.43%
False - rate for true D         Pr( -| D)   50.00%
False + rate for classified +   Pr(~D| +)   26.67%
False - rate for classified -   Pr( D| -)   11.30%
--------------------------------------------------
Correctly classified                        86.65%
--------------------------------------------------
```

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       337
 number of covariate patterns =       337
            Pearson chi2(287) =       317.53
                  Prob > chi2 =         0.1040
```

Measures of Fit for **logistic** of **HP2inthob**

```
Log-Lik Intercept Only:     -166.677   Log-Lik Full Model:          -107.572
D(281):                      215.143   LR(49):                       118.210
                                       Prob > LR:                      0.000
McFadden's R2:                 0.355   McFadden's Adj R2:              0.019
Maximum Likelihood R2:         0.296   Cragg & Uhler's R2:             0.471
McKelvey and Zavoina's R2:     0.678   Efron's R2:                     0.373
Variance of y*:               10.209   Variance of error:              3.290
Count R2:                      0.866   Adj Count R2:                   0.318
AIC:                           0.971   AIC*n:                        327.143
BIC:                       -1420.300   BIC':                         166.974
Full main model for HP2vacatn for wave= 3

chunk 2 H1 test:Gender= 1  model Wave =  3 for HP2inthob

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
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: occ5w3 != 0 predicts failure perfectly
      occ5w3 dropped and 18 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 19 obs not used

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

note: _Ieduc_6 omitted because of collinearity
note: occ8w3 omitted because of collinearity
note: marrw36 omitted because of collinearity
note: bf17 omitted because of collinearity

Logistic regression                               Number of obs   =        286
                                                  LR chi2(45)     =     130.35
                                                  Prob > chi2     =     0.0000
Log likelihood = -52.374274                       Pseudo R2       =     0.5544
```

HP2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1141267	.0450696	2.53	0.011	.025792	.2024615
_Ieduc_2	1.212945	1.630503	0.74	0.457	-1.982782	4.408672
_Ieduc_3	-1.181748	.8345653	-1.42	0.157	-2.817465	.4539703
_Ieduc_4	-.2703336	1.707405	-0.16	0.874	-3.616786	3.076119
_Ieduc_5	.0781642	.821705	0.10	0.924	-1.532348	1.688676
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w3	-13.38278	1622.421	-0.01	0.993	-3193.27	3166.504
occ2w3	-12.82938	1622.421	-0.01	0.994	-3192.717	3167.058
occ3w3	-12.16922	1622.422	-0.01	0.994	-3192.057	3167.719
occ4w3	-9.847245	1622.421	-0.01	0.995	-3189.735	3170.04
occ5w3	0	(omitted)				
occ6w3	0	(omitted)				
occ7w3	-10.21639	1622.421	-0.01	0.995	-3190.104	3169.671
occ8w3	0	(omitted)				
marrw31	2.471663	1.877772	1.32	0.188	-1.208702	6.152028
marrw32	3.882172	2.040109	1.90	0.057	-.116367	7.880711
marrw33	.7861586	1.848468	0.43	0.671	-2.836772	4.409089
marrw35	5.481699	2.097529	2.61	0.009	1.370617	9.592781
marrw36	0	(omitted)				
inc1w3	12.51469	1622.421	0.01	0.994	-3167.373	3192.402
inc2w3	14.55722	1622.421	0.01	0.993	-3165.329	3194.444
inc3w3	14.35316	1622.421	0.01	0.993	-3165.533	3194.24

inc4w3	15.92527	1622.422	0.01	0.992	-3163.963	3195.813
radhlw3	.0197321	.0147075	1.34	0.180	-.0090941	.0485583
havmil	.0234742	.0160068	1.47	0.143	-.0078985	.054847
avgcumdosew3	.1032883	.1755565	0.59	0.556	-.240796	.4473726
bf1	-.4769574	.3289335	-1.45	0.147	-1.121655	.1677405
bf4	-.1442369	.2873042	-0.50	0.616	-.7073429	.4188691
bf2	.0000186	.0002978	0.06	0.950	-.0005651	.0006023
bf4m	-.1956152	.2497206	-0.78	0.433	-.6850586	.2938281
bf5m	-.0071533	.0043294	-1.65	0.098	-.0156388	.0013321
bf7m	.0000185	.0010386	0.02	0.986	-.0020172	.0020542
bf8	-.0000173	.0000922	-0.19	0.851	-.0001981	.0001635
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.4362509	.3222411	1.35	0.176	-.1953299	1.067832
bf22	.0001349	.0003106	0.43	0.664	-.0004739	.0007437
bf29	0	(omitted)				
bf30	-.0009931	.0006553	-1.52	0.130	-.0022775	.0002912
bf40	.5185801	.3611964	1.44	0.151	-.1893518	1.226512
deaw3	.2097501	.3135963	0.67	0.504	-.4048875	.8243876
dvcew3	2.012022	1.543197	1.30	0.192	-1.012588	5.036632
sepaw3	-2.054184	1.443349	-1.42	0.155	-4.883097	.7747288
accdw3	.2022258	1.25899	0.16	0.872	-2.265349	2.669801
movew3	-4.177869	1.807922	-2.31	0.021	-7.721331	-.6344073
illw3	-.4549089	.4293751	-1.06	0.289	-1.296469	.3866508
shfamw3	.0141549	.0145895	0.97	0.332	-.0144399	.0427498
shhlw3	.004885	.011315	0.43	0.666	-.0172919	.0270619
shjobw3	-.0003857	.0112584	-0.03	0.973	-.0224516	.0216803
shrelaw3	-.008433	.0120996	-0.70	0.486	-.0321477	.0152817
suprtw3	.0050194	.0152005	0.33	0.741	-.0247729	.0348118
suchrw3	-.0175411	.0097951	-1.79	0.073	-.0367391	.0016569
havmilsq	-.000046	.0000341	-1.35	0.178	-.0001129	.0000209
_cons	-25.70032	13.82795	-1.86	0.063	-52.80261	1.40197

Note: 8 failures and 0 successes completely determined.

Logistic model for HP2vacatn

	True		
Classified	D	~D	Total
+	24	6	30
-	17	239	256
Total	41	245	286

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2vacatn != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   58.54%
Specificity                     Pr( -|~D)   97.55%
Positive predictive value       Pr( D| +)   80.00%
Negative predictive value       Pr(~D| -)   93.36%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    2.45%
False - rate for true D         Pr( -| D)   41.46%
False + rate for classified +   Pr(~D| +)   20.00%
False - rate for classified -   Pr( D| -)    6.64%
--------------------------------------------------
Correctly classified                        91.96%
--------------------------------------------------
```

Logistic model for HP2vacatn, goodness-of-fit test

```
       number of observations =       286
 number of covariate patterns =       286
           Pearson chi2(240) =       528.62
                 Prob > chi2 =         0.0000

Measures of Fit for logistic of HP2vacatn

Log-Lik Intercept Only:     -117.549    Log-Lik Full Model:           -52.374
D(230):                      104.749    LR(45):                       130.349
                                        Prob > LR:                      0.000
McFadden's R2:                 0.554    McFadden's Adj R2:              0.078
Maximum Likelihood R2:         0.366    Cragg & Uhler's R2:             0.653
McKelvey and Zavoina's R2:     0.907    Efron's R2:                     0.558
Variance of y*:               35.214    Variance of error:              3.290
Count R2:                      0.920    Adj Count R2:                   0.439
AIC:                           0.758    AIC*n:                        216.749
BIC:                       -1196.130    BIC':                         124.170
Full main model for HP2vacatn for wave= 3

chunk 2 H1 test:Gender= 2  model Wave =  3 for HP2vacatn

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: occ4w3 != 0 predicts failure perfectly
      occ4w3 dropped and 8 obs not used

note: occ5w3 != 0 predicts failure perfectly
      occ5w3 dropped and 5 obs not used
```

```
note: occ8w3 != 0 predicts failure perfectly
      occ8w3 dropped and 1 obs not used

note: marrw32 != 0 predicts failure perfectly
      marrw32 dropped and 8 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 11 obs not used

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

Logistic regression                               Number of obs   =        329
                                                  LR chi2(48)     =     107.68
                                                  Prob > chi2     =     0.0000
Log likelihood = -106.83646                       Pseudo R2       =     0.3351
```

HP2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0746889	.02598	2.87	0.004	.0237689	.1256088
_Ieduc_2	-16.28929	1372.198	-0.01	0.991	-2705.747	2673.169
_Ieduc_3	-16.27345	1372.198	-0.01	0.991	-2705.731	2673.185
_Ieduc_4	-13.92789	1372.198	-0.01	0.992	-2703.386	2675.53
_Ieduc_5	-15.70958	1372.198	-0.01	0.991	-2705.168	2673.749
_Ieduc_6	-15.75581	1372.198	-0.01	0.991	-2705.214	2673.702
_Ieduc_7	-16.71287	1372.201	-0.01	0.990	-2706.178	2672.752
_Ieduc_8	0	(omitted)				
occ1w3	-.9957645	2.610666	-0.38	0.703	-6.112575	4.121046
occ2w3	.3619615	2.64581	0.14	0.891	-4.82373	5.547653
occ3w3	-.2672451	2.620799	-0.10	0.919	-5.403917	4.869426
occ4w3	0	(omitted)				
occ5w3	0	(omitted)				
occ6w3	.7685654	2.898646	0.27	0.791	-4.912676	6.449807
occ7w3	-.2239682	2.598386	-0.09	0.931	-5.316711	4.868774
occ8w3	0	(omitted)				
marrw31	-3.154883	1.936003	-1.63	0.103	-6.949379	.6396133
marrw32	0	(omitted)				
marrw33	-1.629296	1.549774	-1.05	0.293	-4.666797	1.408206
marrw35	-.9785838	1.561258	-0.63	0.531	-4.038593	2.081425
marrw36	-.3736998	1.605068	-0.23	0.816	-3.519575	2.772176
inc1w3	1.236811	2.644541	0.47	0.640	-3.946394	6.420017
inc2w3	.3422181	2.612526	0.13	0.896	-4.778239	5.462675
inc3w3	.477638	2.599192	0.18	0.854	-4.616684	5.57196
inc4w3	.3174794	3.090064	0.10	0.918	-5.738935	6.373894
radhlw3	.0219342	.0098316	2.23	0.026	.0026647	.0412037
havmil	.0027203	.0039816	0.68	0.494	-.0050834	.010524
avgcumdosew3	.1848178	.1050999	1.76	0.079	-.0211742	.3908099
bf1	-.0115945	.040594	-0.29	0.775	-.0911573	.0679684

bf4	-.0350483	.2076999	-0.17	0.866	-.4421326	.372036
bf2	-.000079	.0001334	-0.59	0.554	-.0003406	.0001825
bf4m	-.0423071	.1886429	-0.22	0.823	-.4120403	.3274261
bf5m	.0008456	.0017602	0.48	0.631	-.0026043	.0042955
bf7m	-.0004985	.0006465	-0.77	0.441	-.0017657	.0007687
bf8	-.0000606	.0000411	-1.48	0.140	-.0001411	.0000199
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.0059388	.0344891	0.17	0.863	-.0616586	.0735362
bf22	.000128	.0001403	0.91	0.362	-.000147	.0004031
bf29	.0000416	.0000406	1.02	0.305	-.000038	.0001212
bf30	-.0003884	.0003734	-1.04	0.298	-.0011201	.0003434
bf40	-.1764055	.1673262	-1.05	0.292	-.5043588	.1515477
deaw3	.3451488	.2008083	1.72	0.086	-.0484283	.7387259
dvcew3	-.5492396	.9270299	-0.59	0.554	-2.366185	1.267706
sepaw3	1.201095	.9159312	1.31	0.190	-.5940969	2.996287
accdw3	.4787823	.5402897	0.89	0.376	-.5801659	1.537731
movew3	-.0774101	1.282853	-0.06	0.952	-2.591756	2.436936
illw3	-.2768508	.1854421	-1.49	0.135	-.6403106	.0866091
shfamw3	-.0081517	.0081915	-1.00	0.320	-.0242067	.0079032
shhlw3	.00718	.0069706	1.03	0.303	-.0064821	.0208421
shjobw3	-.0010439	.0078157	-0.13	0.894	-.0163623	.0142745
shrelaw3	-.0076648	.0080911	-0.95	0.343	-.0235231	.0081936
suprtw3	.0076145	.0086776	0.88	0.380	-.0093932	.0246222
suchrw3	-.0085201	.0055112	-1.55	0.122	-.0193219	.0022816
havmilsq	-2.61e-06	5.42e-06	-0.48	0.630	-.0000132	8.01e-06
_cons	12.03817	1372.201	0.01	0.993	-2677.427	2701.503

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2vacatn

	True		
Classified	D	~D	Total
+	27	10	37
-	36	256	292
Total	63	266	329

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

Sensitivity	Pr(+| D)	**42.86%**
Specificity	Pr(-|~D)	**96.24%**
Positive predictive value	Pr(D| +)	**72.97%**
Negative predictive value	Pr(~D| -)	**87.67%**
False + rate for true ~D	Pr(+|~D)	**3.76%**
False - rate for true D	Pr(-| D)	**57.14%**
False + rate for classified +	Pr(~D| +)	**27.03%**
False - rate for classified -	Pr(D| -)	**12.33%**
Correctly classified		**86.02%**

Logistic model for HP2vacatn, goodness-of-fit test

```
       number of observations =       329
 number of covariate patterns =       329
            Pearson chi2(280) =       296.45
                  Prob > chi2 =         0.2388
```

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

Log-Lik Intercept Only:	**-160.675**	Log-Lik Full Model:	**-106.836**
D(273):	**213.673**	LR(48):	**107.678**
		Prob > LR:	**0.000**
McFadden's R2:	**0.335**	McFadden's Adj R2:	**-0.013**
Maximum Likelihood R2:	**0.279**	Cragg & Uhler's R2:	**0.448**
McKelvey and Zavoina's R2:	**0.632**	Efron's R2:	**0.351**
Variance of y*:	**8.945**	Variance of error:	**3.290**
Count R2:	**0.860**	Adj Count R2:	**0.270**
AIC:	**0.990**	AIC*n:	**325.673**
BIC:	**-1368.651**	BIC':	**170.533**

```
182 .
183 . title4 "trimming male moderator models of dose and HP2work relationship in w
    > ave 3 "
```

trimming male moderator models of dose and HP2work relationship in wave 3

```
184 . * male models
185 .         forvalues j=3/3 {
      2. di as input "Gender =1 HP2work model"
      3.         logit HP2work age bf8 illw`j' shjobw`j' havmilsq avgcumdosew`j' i
    > f gender==1
      4.                         estat class
      5.                         estat gof
      6.                         fitstat
      7. }
    Gender =1 HP2work model

    Iteration 0:   log likelihood = -172.87291
    Iteration 1:   log likelihood = -148.75217
    Iteration 2:   log likelihood = -147.11486
    Iteration 3:   log likelihood = -147.09824
    Iteration 4:   log likelihood = -147.09823

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(6)      =      51.55
                                                      Prob > chi2     =     0.0000
    Log likelihood = -147.09823                       Pseudo R2       =     0.1491
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0473544	.0138047	3.43	0.001	.0202977	.0744111
bf8	-.0000527	.0000245	-2.15	0.032	-.0001007	-4.62e-06
illw3	.7688236	.1582366	4.86	0.000	.4586855	1.078962
shjobw3	.0115141	.0039727	2.90	0.004	.0037277	.0193004
havmilsq	-1.04e-06	1.75e-06	-0.59	0.552	-4.46e-06	2.38e-06
avgcumdosew3	.0105615	.0472406	0.22	0.823	-.0820282	.1031513
_cons	-4.59543	.8195918	-5.61	0.000	-6.201801	-2.98906

Logistic model for HP2work

Classified	True D	~D	Total
+	**17**	**6**	**23**
-	**53**	**264**	**317**
Total	**70**	**270**	**340**

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

Sensitivity	Pr(+| D)	**24.29%**
Specificity	Pr(-|~D)	**97.78%**
Positive predictive value	Pr(D| +)	**73.91%**
Negative predictive value	Pr(~D| -)	**83.28%**
False + rate for true ~D	Pr(+|~D)	**2.22%**
False - rate for true D	Pr(-| D)	**75.71%**
False + rate for classified +	Pr(~D| +)	**26.09%**
False - rate for classified -	Pr(D| -)	**16.72%**
Correctly classified		**82.65%**

Logistic model for HP2work, goodness-of-fit test

number of observations =	**340**
number of covariate patterns =	**324**
Pearson chi2(**317**) =	**321.28**
Prob > chi2 =	**0.4224**

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

Log-Lik Intercept Only:	**-172.873**	Log-Lik Full Model:	**-147.098**
D(333):	**294.196**	LR(6):	**51.549**
		Prob > LR:	**0.000**
McFadden's R2:	**0.149**	McFadden's Adj R2:	**0.109**
Maximum Likelihood R2:	**0.141**	Cragg & Uhler's R2:	**0.220**
McKelvey and Zavoina's R2:	**0.240**	Efron's R2:	**0.164**
Variance of y*:	**4.329**	Variance of error:	**3.290**
Count R2:	**0.826**	Adj Count R2:	**0.157**
AIC:	**0.906**	AIC*n:	**308.196**
BIC:	**-1646.842**	BIC':	**-16.576**

```
186 .
187 .
188 . forvalues j=3/3 {
      2. title4 "trimmed HP2work main effects models wave `j' for H1 part 2 with d
    > ose ns"
      3.
189 . }
```

trimmed HP2work main effects models wave 3 for H1 part 2 with dose ns

```
190 .
191 .
192 . forvalues j=3/3 {
      2.                  sw, pr(.1):logistic HP2work age bf8 illw`j' shjobw`j' hav
    > milsq ///
    >                 avgcumdosew`j' if gender==1, coef nolog
      3.                          estat class
      4.                          estat gof
      5.                          fitstat
      6. }
                          begin with full model
    p = 0.8231 >= 0.1000  removing avgcumdosew3
    p = 0.5467 >= 0.1000  removing havmilsq

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(4)      =      51.04
                                                      Prob > chi2     =     0.0000
    Log likelihood = -147.35095                       Pseudo R2       =     0.1476
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0477661	.0137843	3.47	0.001	.0207495	.0747828
bf8	-.0000502	.0000239	-2.10	0.036	-.0000971	-3.37e-06
illw3	.7513091	.1545821	4.86	0.000	.4483337	1.054285
shjobw3	.011716	.0039653	2.95	0.003	.0039441	.0194878
_cons	-4.626957	.8195405	-5.65	0.000	-6.233227	-3.020687

Logistic model for HP2work

Classified	True D	True ~D	Total
+	**16**	**7**	**23**
-	**54**	**263**	**317**
Total	**70**	**270**	**340**

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

Sensitivity	Pr(+| D)	**22.86%**
Specificity	Pr(-|~D)	**97.41%**
Positive predictive value	Pr(D| +)	**69.57%**
Negative predictive value	Pr(~D| -)	**82.97%**
False + rate for true ~D	Pr(+|~D)	**2.59%**
False - rate for true D	Pr(-| D)	**77.14%**
False + rate for classified +	Pr(~D| +)	**30.43%**
False - rate for classified -	Pr(D| -)	**17.03%**
Correctly classified		**82.06%**

Logistic model for HP2work, goodness-of-fit test

number of observations =	**340**
number of covariate patterns =	**272**
Pearson chi2(**267**) =	**278.53**
Prob > chi2 =	**0.3013**

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

Log-Lik Intercept Only:	**-172.873**	Log-Lik Full Model:	**-147.351**
D(335):	**294.702**	LR(4):	**51.044**
		Prob > LR:	**0.000**
McFadden's R2:	**0.148**	McFadden's Adj R2:	**0.119**
Maximum Likelihood R2:	**0.139**	Cragg & Uhler's R2:	**0.218**
McKelvey and Zavoina's R2:	**0.237**	Efron's R2:	**0.162**
Variance of y*:	**4.312**	Variance of error:	**3.290**
Count R2:	**0.821**	Adj Count R2:	**0.129**
AIC:	**0.896**	AIC*n:	**304.702**
BIC:	**-1657.995**	BIC':	**-27.728**

```
193 .
194 . forvalues j=3/3 {
  2.                 sw, pr(.1):logistic HP2work age bf8 illw`j' shjobw`j' hav
> milsq ///
>                 avgcumdosew`j' if gender==2, coef nolog
  3.                         estat class
  4.                         estat gof
  5.                         fitstat
  6. }
                      begin with full model
p = 0.9255 >= 0.1000  removing bf8
p = 0.8830 >= 0.1000  removing shjobw3
p = 0.5343 >= 0.1000  removing havmilsq
p = 0.6152 >= 0.1000  removing illw3
p = 0.1142 >= 0.1000  removing avgcumdosew3

Logistic regression                               Number of obs   =        362
                                                  LR chi2(1)      =      42.20
                                                  Prob > chi2     =     0.0000
Log likelihood =  -185.1665                       Pseudo R2       =     0.1023
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.070115	.0116471	6.02	0.000	.047287	.0929429
_cons	-4.733748	.6446886	-7.34	0.000	-5.997314	-3.470181

Logistic model for HP2work

Classified	True D	True ~D	Total
+	20	14	34
-	73	255	328
Total	93	269	362

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2work != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   21.51%
Specificity                     Pr( -|~D)   94.80%
Positive predictive value       Pr( D| +)   58.82%
Negative predictive value       Pr(~D| -)   77.74%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    5.20%
False - rate for true D         Pr( -| D)   78.49%
False + rate for classified +   Pr(~D| +)   41.18%
False - rate for classified -   Pr( D| -)   22.26%
--------------------------------------------------
Correctly classified                        75.97%
--------------------------------------------------
```

Logistic model for HP2work, goodness-of-fit test

```
       number of observations =       362
 number of covariate patterns =        49
             Pearson chi2(47) =        58.24
                  Prob > chi2 =         0.1261
```

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

```
Log-Lik Intercept Only:     -206.266     Log-Lik Full Model:          -185.167
D(360):                      370.333     LR(1):                         42.199
                                         Prob > LR:                      0.000
McFadden's R2:                 0.102     McFadden's Adj R2:              0.093
Maximum Likelihood R2:         0.110     Cragg & Uhler's R2:             0.162
McKelvey and Zavoina's R2:     0.174     Efron's R2:                     0.127
Variance of y*:                3.982     Variance of error:              3.290
Count R2:                      0.760     Adj Count R2:                   0.065
AIC:                           1.034     AIC*n:                        374.333
BIC:                       -1750.659     BIC':                         -36.308
```

```
.
.
. scalar SigDoseWkFw3 = "no"

.
.
. des bf8

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

. * male sign main effects in main effects model: 4- age, bf8, illw3 shjobw3
. * male main effects model avgcumdosew3  was not signif.
. * male hp2wk w3  mediators: age illw3 ageXillw3 bf8
. * female signif main effects in main effects model
. * female hp2wk w3 mediators: radhlw3 age ageXillw3 bf1 bf4 bf4m bf40
. *  hypothnuym pt dv wave gender signif
.
.
.
.
. title4 " 1. Summary matrix construction Paid employment partition: first two
>  rows"
-------------------------------------------------------------------------------

 1. Summary matrix construction Paid employment partition: first two rows
-------------------------------------------------------------------------------


.
.     matrix define HP2wkMw3 = J(1,8, 0)

.         matrix define HP2wkFw3 = J(1,8, 0)

. matrix colnames HP2wkMw3=  hypnum ptnum wave gender medsig numMAsig numModsi
> g numMed
```

```
216 . matrix colnames HP2wkFw3=  hypnum ptnum wave gender medsig numMAsig numModsi
    > g numMed

217 .     matrix rownames HP2wkMw3 = workM

218 .     matrix rownames HP2wkFw3 = workF

219 .         matrix define HP2wkMw3= (1, 2, 3, 1, 0 ,4,  0, 4 )

220 .         matrix define HP2wkFw3= (1, 2, 3, 2, 0, 1,  0, 6 )

221 .
222 .         matrix define H1pt2w3 = (HP2wkMw3 \ HP2wkFw3)

223 .     matrix colnames H1pt2w3 =  hypnum ptnum wave  medsig numMAsig numModsig
    > numMed

224 .     matrix rownames H1pt2w3 = HP2wkMw3 WHP2wkFw3

225 .     matlist H1pt2w3

                 |    hypnum      ptnum       wave     medsig   numMAsig  numModsi
    > g
    -------------+---------------------------------------------------------------
    > --
        HP2wkMw3 |         1          2          3          1          0
    > 4
       WHP2wkFw3 |         1          2          3          2          0
    > 1

                 |    numMed     numMed
    -------------+----------------------
        HP2wkMw3 |         0          4
       WHP2wkFw3 |         0          6

226 .
227 . scalar SigDoseWKMw3 = "no"
```

```
228 . scalar MainEffwkMw3 = "workM: age  bf8  illw3  shjobw3"

229 .
230 . scalar list `MainEffwkMw3'
    VactnMedFw3 = age illw3 radhlw3
    VactnMedMw3 = age illw3
    VacatnModFw3 = none
    MainEffVactnFw3 = age radhlw3 deaw3
    SigDoseVactnFw3 = no
    vactnModMw3 = none
    MainEffVactnMw3 = age bf7m radhlw3
    SigDoseVactnMw3 = no
    sxLifeMedFw3 = age bf4 bf4m
    sxLifeMedMw3 = age illw3
    InthbModFw3 = none
    MainEffInthbFw3 = age radhlw3 bf4
    SigdoseInthbFw3 = no
      InthbMw3 = none
    MainEffInthbMw3 = age radhlw3 shfamw3
    SigDoseInthbMw3 = no
    sxlifeMedFw3 = age illw3 radhlw3 bf4 bf4m
    sxlifeMedMw3 = age illw3
    sxlifeModFw3 = none
    MainEffsxlifeFw3 = age radhlw3 bf4 bf4m shrelaw3 shfamw3
    SigDoseSxlifeFw3 = no
    sxlifeModMw3 = none
    SigDosesxlifeMw3 = no
    MainEffsxlifeMw3 = age bf4 illw3 radhlw3
    PrbfmhmMedFw3 = age bf4
    PrbfmhmMedMw3 = age
    PrbfmhmModFw3 = none
    MainEffPrbfmhmFw3 = age bf4 bf40
    SigDosePrbfmhmFw3 = no
    PrbfmhmModw3 = none
    SigDosePrbfmhmMw3 = no
    SigDosePrbfhmMw3 = no
    MainEffPrbfhmMw3 = bf1 bf4 dvcew3 bf7m
    ProbsocMedFw3 = age radhlw3
    ProbsocMedMw3 = age
    ProbsocModFw3 = none
    MainEffProbSocFw3 = age radhlw3 illw3 Shrelaw3 avgcumodsew3
    SigDoseProbsocFw3 = yes
    ProbSocModMw3 = none
    SigDoseProbsocMw3 = no
    MainEffPrbsocMw3 = age radhlw3 shjobw3
    hmcareMedFw3 = age illw3
    hmcareMedMw3 = age illw3
    hmcareModFw3 = none
    SigdoseHmcareFw3 = no
```

```
hmcareModMw3 = none
MainEffhmcareMw3 = none
SigDoseHmcareMw3 = no
  wkMedFw3 = radhlw3 age bf40 bf4m bf1
  wkMedMw3 = bf8 age illw3 ageXillw3
  wkModFw3 = none
  wkModMw3 = none
MainEffwkFw3 = age
MainEffwkMw3 = workM: age  bf8  illw3  shjobw3
SigDoseWKMw3 = no
SigDoseWkFw3 = no
 medsigFw2 =         1
  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
```

```
231 .
232 . * moderator construction
233 . * none ussed because basic dose work relationship washes out
234 .
235 .
236 .
237 . title4 "testing male hp2work moderators for hypothesis 1 pt 2 wave 3"
    ────────────────────────────────────────────────────────────────────────────────
    testing male hp2work moderators for hypothesis 1 pt 2 wave 3
    ────────────────────────────────────────────────────────────────────────────────

238 . * Dose work relationship washes out for males in wave 3 also
239 . cap gen hp2hmcare=HP2hmcare

240 .
241 . forvalues j=3/3 {
      2. local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      3. di as input "For females HP2work on wave 3 with dose ns"
      4.         des  age occ1w`j'-occ8w`j' inc1w`j'-inc4w`j' avgcumdosew`j' bf8 /
    > //
    >            marrw`j'1-marrw`j'6  `w3bf'
      5.         sw, pr(.1): logistic HP2work marrw`j'3-marrw`j'6 age  havmilsq //
    > /
    >                 avgcumdosew3 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 3 with dose ns

                  storage  display     value
    variable name   type   format      label      variable label
    ────────────────────────────────────────────────────────────────────────────────
    age             double %8.0g                * Respondent's age
    occ1w3          double %15.0g      LABJ       professional executive
                                                    administration now
    occ2w3          double %15.0g      LABJ       technical sales admin support
                                                    now
    occ3w3          double %15.0g      LABJ       service occup protective
                                                    services now
    occ4w3          double %15.0g      LABJ       precision prod mechan craft
                                                    construction now
    occ5w3          double %15.0g      LABJ       factory laborer machinist transp
                                                    cleaner now
    occ6w3          double %15.0g      LABJ       farming agricul forestry fishing
                                                    trapping logging now
    occ7w3          double %15.0g      LABJ       homemaking or caregiving now
```

```
occ8w3          double %15.0g     LABJ      student now
inc1w3          double %15.0g     LABJ      Income is not sufficient for
                                              basic neccessities NOW
inc2w3          double %15.0g     LABJ      Income is just sufficient for
                                              basic neccessities NOW
inc3w3          double %15.0g     LABJ      Income is sufficient for basics
                                              plus extra purchases/savings
                                              NOW
inc4w3          double %15.0g     LABJ      Income allows to comfortably
                                              afford luxury items NOW
avgcumdosew3    double %8.0g                Avg Mean dose of CS137 ending
                                              12/31/2009
bf8             float  %9.0g                bf8 = max(0, radtlw3 - 40) *
                                              bf5m
marrw31         byte   %8.0g                marrw3==1. single
marrw32         byte   %8.0g                marrw3==2. cohabitating
marrw33         byte   %8.0g                marrw3==3. married
marrw34         byte   %8.0g                marrw3==4. separated
marrw35         byte   %8.0g                marrw3==5. divorced
marrw36         byte   %8.0g                marrw3==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)
                      begin with full model
p = 0.9521 >= 0.1000  removing bf8
p = 0.9034 >= 0.1000  removing marrw33
p = 0.8340 >= 0.1000  removing shjobw3
p = 0.6525 >= 0.1000  removing marrw35
p = 0.5244 >= 0.1000  removing havmilsq
```

```
p = 0.5971 >= 0.1000  removing illw3
p = 0.5333 >= 0.1000  removing suprtw3
p = 0.5822 >= 0.1000  removing marrw34
p = 0.4224 >= 0.1000  removing marrw36
p = 0.1142 >= 0.1000  removing avgcumdosew3

Logistic regression                               Number of obs   =        362
                                                  LR chi2(1)      =      42.20
                                                  Prob > chi2     =     0.0000
Log likelihood =  -185.1665                       Pseudo R2       =     0.1023

------------------------------------------------------------------------------
     HP2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |    .070115   .0116471     6.02   0.000      .047287    .0929429
       _cons |  -4.733748   .6446886    -7.34   0.000    -5.997314   -3.470181
------------------------------------------------------------------------------

Logistic model for HP2work, goodness-of-fit test
------------------------------------------------

       number of observations =       362
 number of covariate patterns =        49
             Pearson chi2(47) =        58.24
                  Prob > chi2 =         0.1261

Logistic model for HP2work

              -------- True --------
Classified |         D            ~D  |      Total
-----------+--------------------------+-----------
     +     |        20            14  |         34
     -     |        73           255  |        328
-----------+--------------------------+-----------
   Total   |        93           269  |        362

Classified + if predicted Pr(D) >= .5
True D defined as HP2work != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   21.51%
Specificity                     Pr( -|~D)   94.80%
Positive predictive value       Pr( D| +)   58.82%
Negative predictive value       Pr(~D| -)   77.74%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    5.20%
False - rate for true D         Pr( -| D)   78.49%
False + rate for classified +   Pr(~D| +)   41.18%
False - rate for classified -   Pr( D| -)   22.26%
--------------------------------------------------
```

```
Correctly classified                        75.97%
--------------------------------------------------

Measures of Fit for logistic of HP2work

Log-Lik Intercept Only:     -206.266   Log-Lik Full Model:           -185.167
D(360):                      370.333   LR(1):                          42.199
                                       Prob > LR:                       0.000
McFadden's R2:                 0.102   McFadden's Adj R2:               0.093
Maximum Likelihood R2:         0.110   Cragg & Uhler's R2:              0.162
McKelvey and Zavoina's R2:     0.174   Efron's R2:                      0.127
Variance of y*:                3.982   Variance of error:               3.290
Count R2:                      0.760   Adj Count R2:                    0.065
AIC:                           1.034   AIC*n:                         374.333
BIC:                       -1750.659   BIC':                          -36.308

242 .
243 . scalar MainEffwkFw3 = "age"

244 .
245 .
246 .
247 . forvalues j=3/3 {
      2. local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      3.
248 . di as input "For females HP2work on wave 3 with dose ns"
      4.         des  age occ1w`j'-occ8w`j' inc1w`j'-inc4w`j' avgcumdosew`j' bf8 /
    > //
    >            marrw`j'1-marrw`j'6  `w3bf'
      5.         sw, pr(.1): logistic HP2work marrw`j'3-marrw`j'6 age  havmilsq //
    > /
    >                 avgcumdosew3 bf8 illw`j' shjobw`j' suprtw`j' if gender==1, c
    > oef nolog
      6.         estat gof
      7.         estat class
      8.         fitstat
      9.         }
For females HP2work on wave 3 with dose ns
```

variable name	storage type	display format	value label	variable label
age	double	%8.0g		* **Respondent's age**
occ1w3	double	%15.0g	LABJ	**professional executive administration now**
occ2w3	double	%15.0g	LABJ	**technical sales admin support now**
occ3w3	double	%15.0g	LABJ	**service occup protective services now**
occ4w3	double	%15.0g	LABJ	**precision prod mechan craft construction now**
occ5w3	double	%15.0g	LABJ	**factory laborer machinist transp cleaner now**
occ6w3	double	%15.0g	LABJ	**farming agricul forestry fishing trapping logging now**
occ7w3	double	%15.0g	LABJ	**homemaking or caregiving now**
occ8w3	double	%15.0g	LABJ	**student now**
inc1w3	double	%15.0g	LABJ	**Income is not sufficient for basic neccessities NOW**
inc2w3	double	%15.0g	LABJ	**Income is just sufficient for basic neccessities NOW**
inc3w3	double	%15.0g	LABJ	**Income is sufficient for basics plus extra purchases/savings NOW**
inc4w3	double	%15.0g	LABJ	**Income allows to comfortably afford luxury items NOW**
avgcumdosew3	double	%8.0g		**Avg Mean dose of CS137 ending 12/31/2009**
bf8	float	%9.0g		**bf8 = max(0, radtlw3 - 40) * bf5m**
marrw31	byte	%8.0g		**marrw3==1. single**
marrw32	byte	%8.0g		**marrw3==2. cohabitating**
marrw33	byte	%8.0g		**marrw3==3. married**
marrw34	byte	%8.0g		**marrw3==4. separated**
marrw35	byte	%8.0g		**marrw3==5. divorced**
marrw36	byte	%8.0g		**marrw3==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: marrw34 dropped because of collinearity
                      begin with full model
p = 0.6924 >= 0.1000  removing avgcumdosew3
p = 0.5691 >= 0.1000  removing marrw36
p = 0.5489 >= 0.1000  removing havmilsq
p = 0.5439 >= 0.1000  removing marrw35

Logistic regression                               Number of obs   =        340
                                                  LR chi2(6)      =      54.97
                                                  Prob > chi2     =     0.0000
Log likelihood =  -145.3871                       Pseudo R2       =     0.1590
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
marrw33	-.9533134	.4976353	-1.92	0.055	-1.928661	.0220339
bf8	-.0000528	.0000242	-2.18	0.029	-.0001002	-5.32e-06
shjobw3	.0109505	.0039896	2.74	0.006	.003131	.0187701
age	.0475117	.0137133	3.46	0.001	.0206342	.0743892
illw3	.7534933	.157365	4.79	0.000	.4450635	1.061923
suprtw3	.0095264	.0057237	1.66	0.096	-.0016919	.0207447
_cons	-4.534902	.8292162	-5.47	0.000	-6.160136	-2.909668

Logistic model for HP2work, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       320
            Pearson chi2(313) =       320.59
                  Prob > chi2 =         0.3716

Logistic model for HP2work
```

Classified	True D	True ~D	Total
+	**18**	**7**	**25**
-	**52**	**263**	**315**
Total	**70**	**270**	**340**

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

Sensitivity	Pr(+| D)	**25.71%**
Specificity	Pr(-|~D)	**97.41%**
Positive predictive value	Pr(D| +)	**72.00%**
Negative predictive value	Pr(~D| -)	**83.49%**
False + rate for true ~D	Pr(+|~D)	**2.59%**
False - rate for true D	Pr(-| D)	**74.29%**
False + rate for classified +	Pr(~D| +)	**28.00%**
False - rate for classified -	Pr(D| -)	**16.51%**
Correctly classified		**82.65%**

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

Log-Lik Intercept Only:	**-172.873**	Log-Lik Full Model:	**-145.387**
D(333):	**290.774**	LR(6):	**54.972**
		Prob > LR:	**0.000**
McFadden's R2:	**0.159**	McFadden's Adj R2:	**0.119**
Maximum Likelihood R2:	**0.149**	Cragg & Uhler's R2:	**0.234**
McKelvey and Zavoina's R2:	**0.253**	Efron's R2:	**0.177**
Variance of y*:	**4.403**	Variance of error:	**3.290**
Count R2:	**0.826**	Adj Count R2:	**0.157**
AIC:	**0.896**	AIC*n:	**304.774**
BIC:	**-1650.265**	BIC':	**-19.998**

```
249 .
250 .
251 .
252 . * capturing significant vars from last analysis
253 . local cn1: colnames(e(b))

254 . di "`cn1'"
    marrw33 bf8 shjobw3 age illw3 suprtw3 _cons

255 . local leng1 = length( "`cn1'")

256 . di `leng1'
    43

257 . local leng1b `leng1'-6

258 . di `leng1b'
    37

259 . local nuvlist = substr("`cn1'",1,`leng1b')

260 . di "`nuvlist'"
    marrw33 bf8 shjobw3 age illw3 suprtw3

261 . local rhsvars = "`nuvlist'"

262 . local nuvlist= "`nuvlist'"

263 . local nuvlist= substr("`cn1'",1,`leng1b')

264 . di "`nuvlist'"
    marrw33 bf8 shjobw3 age illw3 suprtw3

265 . sw, pr(.1):logit hp2hmcare `nuvlist' if gender==1
                          begin with full model
    p = 0.9998 >= 0.1000  removing marrw33
    p = 0.9539 >= 0.1000  removing shjobw3
    p = 0.4193 >= 0.1000  removing suprtw3
    p = 0.1605 >= 0.1000  removing bf8

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(2)      =      37.81
                                                      Prob > chi2     =     0.0000
    Log likelihood = -153.96835                       Pseudo R2       =     0.1094
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
age	.050053	.0120837	4.14	0.000	.0263694	.0737367
illw3	.450018	.1335457	3.37	0.001	.1882732	.7117629
_cons	-4.209924	.6577161	-6.40	0.000	-5.499024	-2.920824

```
266 . di "`rhsvars'"
    marrw33 bf8 shjobw3 age illw3 suprtw3

267 . matrix define c=e(b)

268 . local cn2: colnames(c)

269 . di "`cn2'"
    age illw3 _cons

270 . local leng2 = length("`cn2'")

271 . local leng2b = `leng2'-6

272 . local rhsvars = substr("`cn2'",1,`leng2b')

273 . logit hp2work `rhsvars' if gender==1

    Iteration 0:   log likelihood = -172.87291
    Iteration 1:   log likelihood = -155.70854
    Iteration 2:   log likelihood = -154.73483
    Iteration 3:   log likelihood =  -154.7292
    Iteration 4:   log likelihood =  -154.7292

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(2)      =      36.29
                                                      Prob > chi2     =     0.0000
    Log likelihood =  -154.7292                       Pseudo R2       =     0.1050
```

hp2work	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
age	.029911	.0118759	2.52	0.012	.0066346	.0531873
illw3	.6323839	.1414947	4.47	0.000	.3550594	.9097083
_cons	-3.26854	.6276516	-5.21	0.000	-4.498715	-2.038366

```
274 .
275 .
276 .
277 . di "`rhsvars'"
    age illw3

278 . local varlist2 =substr("`rhsvars'",1,9)

279 . di "`varlist2'"
    age illw3

280 .
281 .  * constructing potential moderators
282 . foreach var in age illw3 {
      2. cap gen `var'Xd3 = `var'* avgcumdosew3
      3. }

283 .
284 . * main effects model
285 .
286 . logit hp2work `rhsvars'  if gender==1, nolog

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(2)      =      36.29
                                                      Prob > chi2     =     0.0000
    Log likelihood =  -154.7292                       Pseudo R2       =     0.1050
```

hp2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.029911	.0118759	2.52	0.012	.0066346	.0531873
illw3	.6323839	.1414947	4.47	0.000	.3550594	.9097083
_cons	-3.26854	.6276516	-5.21	0.000	-4.498715	-2.038366

```
287 .
288 . *x  no signif male moderators for paid employment
```

```
289 .
290 . logit hp2work `rhsvars' illw3Xd3 if gender==1

    Iteration 0:   log likelihood = -172.87291
    Iteration 1:   log likelihood = -155.25678
    Iteration 2:   log likelihood = -154.38518
    Iteration 3:   log likelihood = -154.38145
    Iteration 4:   log likelihood = -154.38145

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(3)      =      36.98
                                                      Prob > chi2     =     0.0000
    Log likelihood = -154.38145                       Pseudo R2       =     0.1070
```

hp2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0293019	.0119141	2.46	0.014	.0059507	.0526531
illw3	.5890952	.14968	3.94	0.000	.2957278	.8824626
illw3Xd3	.0284995	.0363345	0.78	0.433	-.0427148	.0997139
_cons	-3.238806	.6288194	-5.15	0.000	-4.471269	-2.006342

```
291 . fitstat

    Measures of Fit for logit of hp2work

    Log-Lik Intercept Only:      -172.873   Log-Lik Full Model:           -154.381
    D(336):                       308.763   LR(3):                          36.983
                                            Prob > LR:                       0.000
    McFadden's R2:                  0.107   McFadden's Adj R2:               0.084
    Maximum Likelihood R2:          0.103   Cragg & Uhler's R2:              0.161
    McKelvey and Zavoina's R2:      0.160   Efron's R2:                      0.127
    Variance of y*:                 3.919   Variance of error:               3.290
    Count R2:                       0.818   Adj Count R2:                    0.114
    AIC:                            0.932   AIC*n:                         316.763
    BIC:                        -1649.763   BIC':                          -19.496
```

```
292 .
293 . scalar wkModMw3 = "none"

294 . *  Testing female moderator models xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
    > xxxxx
295 .
296 . title4 "testing general female moderator models for hp2work"
    ------------------------------------------------------------------------------
    testing general female moderator models for hp2work
    ------------------------------------------------------------------------------

297 . local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

298 . * Moderator testing for women also
299 . * Dose work relationship for females in wave 3 washes out also
300 .
301 . forvalues j=3/3 {
      2. di as input "For females HP2work on wave 3 with dose ns"
      3. des  age occ1w`j'-occ8w`j' inc1w`j'-inc4w`j' avgcumdosew`j' `w3bf'
      4. sw, pr(.1): logistic HP2work  age  havmilsq ///
    >    avgcumdosew3 illw`j' shjobw`j' suprtw`j' if gender==2, coef nolog
      5. estat gof
      6. estat class
      7. fitstat
      8. }
    For females HP2work on wave 3 with dose ns

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------
    age             double %8.0g                * Respondent's age
    occ1w3          double %15.0g      LABJ       professional executive
                                                    administration now
    occ2w3          double %15.0g      LABJ       technical sales admin support
                                                    now
    occ3w3          double %15.0g      LABJ       service occup protective
                                                    services now
    occ4w3          double %15.0g      LABJ       precision prod mechan craft
                                                    construction now
    occ5w3          double %15.0g      LABJ       factory laborer machinist transp
                                                    cleaner now
    occ6w3          double %15.0g      LABJ       farming agricul forestry fishing
                                                    trapping logging now
    occ7w3          double %15.0g      LABJ       homemaking or caregiving now
    occ8w3          double %15.0g      LABJ       student now
    inc1w3          double %15.0g      LABJ       Income is not sufficient for
                                                    basic neccessities NOW
    inc2w3          double %15.0g      LABJ       Income is just sufficient for
```

```
                                                        basic neccessities NOW
inc3w3          double %15.0g      LABJ          Income is sufficient for basics
                                                   plus extra purchases/savings
                                                   NOW
inc4w3          double %15.0g      LABJ          Income allows to comfortably
                                                   afford luxury items NOW
avgcumdosew3    double %8.0g                     Avg Mean dose of CS137 ending
                                                   12/31/2009
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 = 0.8907 >= 0.1000  removing suprtw3
p = 0.8830 >= 0.1000  removing shjobw3
p = 0.5343 >= 0.1000  removing havmilsq
p = 0.6152 >= 0.1000  removing illw3
p = 0.1142 >= 0.1000  removing avgcumdosew3

Logistic regression                               Number of obs   =        362
                                                  LR chi2(1)      =      42.20
                                                  Prob > chi2     =     0.0000
Log likelihood =  -185.1665                       Pseudo R2       =     0.1023
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
age	**.070115**	**.0116471**	**6.02**	**0.000**	**.047287**	**.0929429**
_cons	**-4.733748**	**.6446886**	**-7.34**	**0.000**	**-5.997314**	**-3.470181**

Logistic model for HP2work, goodness-of-fit test

number of observations =	**362**
number of covariate patterns =	**49**
Pearson chi2(**47**) =	**58.24**
Prob > chi2 =	**0.1261**

Logistic model for HP2work

Classified	True D	True ~D	Total
+	**20**	**14**	**34**
-	**73**	**255**	**328**
Total	**93**	**269**	**362**

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

Sensitivity	Pr(+| D)	**21.51%**
Specificity	Pr(-|~D)	**94.80%**
Positive predictive value	Pr(D| +)	**58.82%**
Negative predictive value	Pr(~D| -)	**77.74%**
False + rate for true ~D	Pr(+|~D)	**5.20%**
False - rate for true D	Pr(-| D)	**78.49%**
False + rate for classified +	Pr(~D| +)	**41.18%**
False - rate for classified -	Pr(D| -)	**22.26%**
Correctly classified		**75.97%**

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

```
Log-Lik Intercept Only:      -206.266   Log-Lik Full Model:          -185.167
D(360):                       370.333   LR(1):                         42.199
                                        Prob > LR:                      0.000
McFadden's R2:                  0.102   McFadden's Adj R2:              0.093
Maximum Likelihood R2:          0.110   Cragg & Uhler's R2:             0.162
McKelvey and Zavoina's R2:      0.174   Efron's R2:                     0.127
Variance of y*:                 3.982   Variance of error:              3.290
Count R2:                       0.760   Adj Count R2:                   0.065
AIC:                            1.034   AIC*n:                        374.333
BIC:                        -1750.659   BIC':                         -36.308

302 .
303 . replace ageXd3 = age*avgcumdosew3
    (0 real changes made)

304 .
305 . * capturing significant vars
306 . local cn3: colnames(e(b))

307 . di "`cn3'"
    age _cons

308 . local leng1 = length( "`cn3'")

309 . di `leng3'


310 . local leng1b `leng1'-6

311 . di `leng3b'


312 . local nuvlist3 = substr("`cn1'",1,`leng1b')

313 . di "`nuvlist3'"
    mar
```

```
314 . local rhsvars3 = "`nuvlist3'"

315 . local nuvlist3= "`nuvlist3'"

316 . local nuvlist3= substr("`cn1'",1,`leng1b')

317 . di "`nuvlist3'"
    mar

318 .
319 . * moderators for hp2work female and male are saved as scalars:
320 . scalar wkModFw3="none"

321 . scalar wkModMw3="none"

322 .
323 . *x trimmed female main effects model for paid employment
324 . forvalues j=3/3 {
      2. di as input "For females hp2probsoc on wave 1 with dose ns"
      3. des  age occ1w`j'-occ8w`j' inc1w`j'-inc4w`j' avgcumdosew`j' `w3bf'
      4. logistic HP2work  age  ///
    >    avgcumdosew3  illw`j' if gender==2, coef nolog
      5.
325 . }
    For females hp2probsoc on wave 1 with dose ns

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

    age             double %8.0g                * Respondent's age
    occ1w3          double %15.0g      LABJ       professional executive
                                                    administration now
    occ2w3          double %15.0g      LABJ       technical sales admin support
                                                    now
    occ3w3          double %15.0g      LABJ       service occup protective
                                                    services now
    occ4w3          double %15.0g      LABJ       precision prod mechan craft
                                                    construction now
    occ5w3          double %15.0g      LABJ       factory laborer machinist transp
                                                    cleaner now
    occ6w3          double %15.0g      LABJ       farming agricul forestry fishing
                                                    trapping logging now
    occ7w3          double %15.0g      LABJ       homemaking or caregiving now
    occ8w3          double %15.0g      LABJ       student now
    inc1w3          double %15.0g      LABJ       Income is not sufficient for
                                                    basic neccessities NOW
    inc2w3          double %15.0g      LABJ       Income is just sufficient for
                                                    basic neccessities NOW
    inc3w3          double %15.0g      LABJ       Income is sufficient for basics
```

```
                                          plus extra purchases/savings
                                            NOW
inc4w3          double %15.0g      LABJ   Income allows to comfortably
                                            afford luxury items NOW
avgcumdosew3    double %8.0g              Avg Mean dose of CS137 ending
                                            12/31/2009
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(3)      =      44.36
                                              Prob > chi2     =     0.0000
Log likelihood = -184.38047                   Pseudo R2       =     0.1074
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0671516	.0118118	5.69	0.000	.044001	.0903022
avgcumdosew3	.098591	.0655698	1.50	0.133	-.0299235	.2271054
illw3	.0384557	.1099365	0.35	0.726	-.1770159	.2539274
_cons	-4.743303	.6477105	-7.32	0.000	-6.012792	-3.473814

```
326 .
327 . title4 " Mediator analysis for Dose=>paid employment wave three"
    ────────────────────────────────────────────────────────────────────────────
     Mediator analysis for Dose=>paid employment wave three
    ────────────────────────────────────────────────────────────────────────────

328 . title4 "age may be a male mediator for dose- paid employment impact"
    ────────────────────────────────────────────────────────────────────────────
    age may be a male mediator for dose- paid employment impact
    ────────────────────────────────────────────────────────────────────────────

329 .
330 . *  we test for the possibility by testing a probit analysis
331 . glm radhlw3 avgcumdosew3 if gender==1, fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -1695.1855

    Generalized linear models                          No. of obs      =        340
    Optimization     : ML                              Residual df     =        338
                                                       Scale parameter =   1261.052
    Deviance         =  426235.7205                    (1/df) Deviance =   1261.052
    Pearson          =  426235.7205                    (1/df) Pearson  =   1261.052

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

                                                       AIC             =   9.983444
    Log likelihood   = -1695.185473                    BIC             =   424265.5

    ─────────────┬──────────────────────────────────────────────────────────────
                 │                 OIM
         radhlw3 │      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    ─────────────┼──────────────────────────────────────────────────────────────
    avgcumdosew3 │   .9606492   .7224692     1.33   0.184    -.4553645    2.376663
           _cons │   46.19995   2.117563    21.82   0.000      42.0496     50.3503
    ─────────────┴──────────────────────────────────────────────────────────────
```

```
332 . glm hp2work radhlw3 if gender==1, fam(binomial) irls scale(dev) link(probit)

    Iteration 1:   deviance =  327.9117
    Iteration 2:   deviance =  327.3424
    Iteration 3:   deviance =   327.342
    Iteration 4:   deviance =   327.342

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        338
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  327.3419871                    (1/df) Deviance =   .9684674
    Pearson          =   339.544695                    (1/df) Pearson  =    1.00457

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

                                                       BIC             =  -1642.842

    ------------------------------------------------------------------------------
                 |                 EIM
         hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
         radhlw3 |   .0094116   .0021904     4.30   0.000     .0051185    .0137048
           _cons |  -1.312207   .1427935    -9.19   0.000    -1.592077   -1.032337
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

333 .
334 .
335 . di as input "age is a possible male mediator for paid employment"
    age is a possible male mediator for paid employment

336 .
337 . glm age avgcumdosew3  if gender==1, family(gaussian) link(identity)

    Iteration 0:   log likelihood = -1330.6336

    Generalized linear models                          No. of obs      =        340
    Optimization     : ML                              Residual df     =        338
                                                       Scale parameter =   147.7142
    Deviance         =  49927.38549                    (1/df) Deviance =   147.7142
    Pearson          =  49927.38549                    (1/df) Pearson  =   147.7142

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

                                                       AIC             =   7.839021
    Log likelihood   = -1330.633586                    BIC             =    47957.2
```

```
------------------------------------------------------------------------------
             |                 OIM
         age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |   .5433648   .2472657     2.20   0.028      .058733    1.027997
       _cons |   48.52021   .7247376    66.95   0.000     47.09975    49.94067
------------------------------------------------------------------------------

338 . glm hp2work age if gender==1, family(binomial) irls scale(dev) link(probit)

    Iteration 1:   deviance =  332.6127
    Iteration 2:   deviance =  332.2035
    Iteration 3:   deviance =  332.2034
    Iteration 4:   deviance =  332.2034

    Generalized linear models                          No. of obs      =       340
    Optimization     : MQL Fisher scoring              Residual df     =       338
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  332.2034085                    (1/df) Deviance =  .9828503
    Pearson          =  339.5831812                    (1/df) Pearson  =  1.004684

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

                                                       BIC             =  -1637.98

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0233394   .0063554     3.67   0.000     .0108831    .0357956
       _cons |  -2.001321   .3351159    -5.97   0.000    -2.658136   -1.344506
------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

339 .
340 .
```

```
341 . di as input "Illness in wave 3 is a possible mediator for dose-paid employme
    > nt impact"
    Illness in wave 3 is a possible mediator for dose-paid employment impact

342 . glm illw3 avgcumdosew3 if gender==1, family(gaussian) link(identity)

    Iteration 0:   log likelihood = -461.99206

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  .8919217
    Deviance         =   301.469521                    (1/df) Deviance =  .8919217
    Pearson          =   301.469521                    (1/df) Pearson  =  .8919217

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

                                                       AIC             =  2.729365
    Log likelihood   = -461.9920626                    BIC             = -1668.714

    ------------------------------------------------------------------------------
                 |                 OIM
           illw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew3 |    .038211   .0192139     1.99   0.047     .0005524    .0758696
           _cons |   .4504952   .0563162     8.00   0.000     .3401176    .5608729
    ------------------------------------------------------------------------------

343 . glm hp2work illw3 if gender==1, family(binomial) irls scale(dev) link(probit
    > )

    Iteration 1:   deviance =  315.5535
    Iteration 2:   deviance =  315.5149
    Iteration 3:   deviance =  315.5148
    Iteration 4:   deviance =  315.5148

    Generalized linear models                          No. of obs      =       340
    Optimization     : MQL Fisher scoring              Residual df     =       338
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  315.5148102                    (1/df) Deviance =  .9334758
    Pearson          =  336.1884602                    (1/df) Pearson  =  .9946404

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

                                                       BIC             = -1654.669
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf. Interval]	
illw3	**.4173011**	**.0774431**	**5.39**	**0.000**	**.2655154**	**.5690869**
_cons	**-1.077182**	**.0906493**	**-11.88**	**0.000**	**-1.254852**	**-.899513**

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

```
344 . * constructing an interaction
345 .
346 .
347 . di as input "Interaction of age & illness in wave 3 is moderator that mediat
    > es for males"
    Interaction of age & illness in wave 3 is moderator that mediates for males

348 .
349 . cap gen ageXillw3 = age*illw3

350 . glm illw3 avgcumdosew3 if gender==1, family(gaussian) link(identity)

    Iteration 0:   log likelihood = -461.99206

    Generalized linear models                         No. of obs      =        340
    Optimization     : ML                             Residual df     =        338
                                                      Scale parameter =   .8919217
    Deviance         =   301.469521                   (1/df) Deviance =   .8919217
    Pearson          =   301.469521                   (1/df) Pearson  =   .8919217

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

                                                      AIC             =   2.729365
    Log likelihood   = -461.9920626                   BIC             =  -1668.714
```

illw3	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf. Interval]	
avgcumdosew3	**.038211**	**.0192139**	**1.99**	**0.047**	**.0005524**	**.0758696**
_cons	**.4504952**	**.0563162**	**8.00**	**0.000**	**.3401176**	**.5608729**

```
351 . glm hp2work illw3 avgcumdosew3 ageXillw3 if gender==1, family(binomial) ///
    >    irls scale(dev) link(probit)

    Iteration 1:   deviance =  306.4966
    Iteration 2:   deviance =  306.1716
    Iteration 3:   deviance =  306.1695
    Iteration 4:   deviance =  306.1695

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        336
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  306.1695162                    (1/df) Deviance =   .9112188
    Pearson          =  333.6560038                    (1/df) Pearson  =   .9930238

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

                                                       BIC             =  -1652.356

    ------------------------------------------------------------------------------
                 |                 EIM
         hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
           illw3 |  -.9049112   .4534263    -2.00   0.046     -1.79361   -.0162121
    avgcumdosew3 |   -.004425   .0291879    -0.15   0.879    -.0616323    .0527822
       ageXillw3 |   .0235805   .0080114     2.94   0.003     .0078785    .0392825
           _cons |  -1.048466   .0954586   -10.98   0.000    -1.235561   -.8613702
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

352 .
353 .
354 .
355 . des bf8

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

```
356 . title4 "bf8 is a male mediator of paid employment"

    bf8 is a male mediator of paid employment


357 . local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

358 . foreach var in `w3bf'{
      2. glm `var' avgcumdosew3 if gender==1, family(gaussian) link(identity)
      3. glm hp2work `var' illw3 avgcumdosew3 ageXillw3 if gender==1, family(binom
    > ial) ///
    >    irls scale(dev) link(probit)
      4. }

    Iteration 0:   log likelihood = -1551.9192

    Generalized linear models                         No. of obs      =        340
    Optimization     : ML                             Residual df     =        338
                                                      Scale parameter =   542.9186
    Deviance         =  183506.4901                   (1/df) Deviance =   542.9186
    Pearson          =  183506.4901                   (1/df) Pearson  =   542.9186

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

                                                      AIC             =   9.140701
    Log likelihood   =  -1551.91925                   BIC             =   181536.3

    ------------------------------------------------------------------------------
                 |                 OIM
             bf1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew3 |   -.002304   .4740456    -0.00   0.996    -.9314164    .9268084
           _cons |   32.04104   1.389431    23.06   0.000     29.31781    34.76428
    ------------------------------------------------------------------------------

    Iteration 1:   deviance =  301.0309
    Iteration 2:   deviance =  300.1656
    Iteration 3:   deviance =  300.1621
    Iteration 4:   deviance =  300.1621
    Iteration 5:   deviance =  300.1621

    Generalized linear models                         No. of obs      =        340
    Optimization     : MQL Fisher scoring             Residual df     =        335
                       (IRLS EIM)                     Scale parameter =          1
    Deviance         =  300.1621391                   (1/df) Deviance =   .8960064
    Pearson          =  331.1205639                   (1/df) Pearson  =   .9884196
```

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

                                                 BIC             = -1652.535
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf1	.0089452	.0034596	2.59	0.010	.0021644	.0157259
illw3	-.77203	.4386134	-1.76	0.078	-1.631697	.0876365
avgcumdosew3	-.00216	.0295424	-0.07	0.942	-.0600621	.0557421
ageXillw3	.020558	.0077394	2.66	0.008	.005389	.0357271
_cons	-1.346332	.1529226	-8.80	0.000	-1.646055	-1.04661

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

Iteration 0:   log likelihood = -1027.1072

Generalized linear models                        No. of obs      =        340
Optimization     : ML                            Residual df     =        338
                                                 Scale parameter =   24.77487
Deviance         =  8373.906252                  (1/df) Deviance =   24.77487
Pearson          =  8373.906252                  (1/df) Pearson  =   24.77487

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

                                                 AIC             =   6.053572
Log likelihood   = -1027.107224                  BIC             =   6403.723
```

bf4	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	-.0357675	.1012648	-0.35	0.724	-.2342429	.1627078
_cons	12.54064	.2968079	42.25	0.000	11.95891	13.12238

```
Iteration 1:   deviance =  282.7342
Iteration 2:   deviance =  280.9952
Iteration 3:   deviance =  280.9756
Iteration 4:   deviance =  280.9756
Iteration 5:   deviance =  280.9756
```

```
Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        335
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =   280.975559                    (1/df) Deviance =    .838733
Pearson          =  310.5734169                    (1/df) Pearson  =   .9270848

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

                                                   BIC             = -1671.721

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bf4 |  -.0819747   .0150372    -5.45   0.000    -.1114471   -.0525023
       illw3 |  -.5388859   .4267744    -1.26   0.207    -1.375348    .2975765
avgcumdosew3 |   .0024099   .0278188     0.09   0.931     -.052114    .0569338
   ageXillw3 |   .0153271   .0074554     2.06   0.040     .0007149    .0299394
       _cons |  -.0701321   .2003312    -0.35   0.726    -.4627742    .3225099
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -3110.5209

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =    5205387
Deviance         =   1759420733                    (1/df) Deviance =    5205387
Pearson          =   1759420733                    (1/df) Pearson  =    5205387

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

                                                   AIC             =   18.30895
Log likelihood   = -3110.520925                    BIC             =   1.76e+09

------------------------------------------------------------------------------
             |                 OIM
         bf2 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |  -40.64822   46.41724    -0.88   0.381    -131.6243     50.3279
       _cons |   1991.578   136.0493    14.64   0.000     1724.926    2258.229
------------------------------------------------------------------------------
```

```
Iteration 1:   deviance =  299.7774
Iteration 2:   deviance =  299.1194
Iteration 3:   deviance =  299.1177
Iteration 4:   deviance =  299.1177
Iteration 5:   deviance =  299.1177

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       335
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  299.1177398                    (1/df) Deviance =  .8928888
Pearson          =  333.2413587                    (1/df) Pearson  =  .9947503

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

                                                   BIC             = -1653.579

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bf2 |   .0000949   .0000336     2.82   0.005      .000029    .0001608
       illw3 |  -.6262331    .449099    -1.39   0.163    -1.506451    .2539847
avgcumdosew3 |   .0027738   .0281975     0.10   0.922    -.0524922    .0580398
   ageXillw3 |   .0180516   .0079115     2.28   0.023     .0025454    .0335579
       _cons |  -1.256084   .1228394   -10.23   0.000    -1.496845   -1.015323
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -1060.7697

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  30.20008
Deviance         =  10207.62832                    (1/df) Deviance =  30.20008
Pearson          =  10207.62832                    (1/df) Pearson  =  30.20008

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

                                                   AIC             =  6.251587
Log likelihood   = -1060.769747                    BIC             =  8237.445
```

bf4m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**-.0292413**	**.1118039**	**-0.26**	**0.794**	**-.2483729**	**.1898903**
_cons	**20.35328**	**.327698**	**62.11**	**0.000**	**19.711**	**20.99556**

```
Iteration 1:   deviance =  284.2146
Iteration 2:   deviance =  282.8347
Iteration 3:   deviance =  282.8223
Iteration 4:   deviance =  282.8223
Iteration 5:   deviance =  282.8223

Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        335
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  282.8222621                    (1/df) Deviance =   .8442456
Pearson          =  311.8592054                    (1/df) Pearson  =    .930923

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

                                                   BIC             =  -1669.875
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4m	**-.0702538**	**.0135383**	**-5.19**	**0.000**	**-.0967884**	**-.0437191**
illw3	**-.5205682**	**.4244129**	**-1.23**	**0.220**	**-1.352402**	**.3112658**
avgcumdosew3	**.0026156**	**.0277534**	**0.09**	**0.925**	**-.05178**	**.0570112**
ageXillw3	**.0151759**	**.0074121**	**2.05**	**0.041**	**.0006484**	**.0297034**
_cons	**.3364223**	**.2818414**	**1.19**	**0.233**	**-.2159766**	**.8888213**

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

```
Iteration 0:   log likelihood =  -2273.014

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =    37748.2
Deviance         =  12758891.39                    (1/df) Deviance =    37748.2
Pearson          =  12758891.39                    (1/df) Pearson  =    37748.2

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

```
                                                  AIC             =  13.38244
Log likelihood   = -2273.013968                   BIC             =  1.28e+07
```

bf5m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	9.087842	3.952764	2.30	0.021	1.340566	16.83512
_cons	102.4403	11.58558	8.84	0.000	79.73302	125.1477

```
Iteration 1:   deviance =  304.1111
Iteration 2:   deviance =  303.3297
Iteration 3:   deviance =   303.318
Iteration 4:   deviance =   303.318
Iteration 5:   deviance =   303.318

Generalized linear models                         No. of obs      =        340
Optimization     : MQL Fisher scoring             Residual df     =        335
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  303.3180183                   (1/df) Deviance =   .9054269
Pearson          =  334.3846422                   (1/df) Pearson  =   .9981631

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

                                                  BIC             = -1649.379
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf5m	-.0008032	.0004666	-1.72	0.085	-.0017178	.0001114
illw3	-.8955598	.4670831	-1.92	0.055	-1.811026	.0199063
avgcumdosew3	.0024508	.0286972	0.09	0.932	-.0537946	.0586962
ageXillw3	.0244622	.0082752	2.96	0.003	.0082431	.0406812
_cons	-1.001258	.0981618	-10.20	0.000	-1.193652	-.8088645

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

Iteration 0:   log likelihood = -2733.8489

Generalized linear models                         No. of obs      =        340
Optimization     : ML                             Residual df     =        338
                                                  Scale parameter =   567778.4
Deviance         =  191909111.2                   (1/df) Deviance =   567778.4
Pearson          =  191909111.2                   (1/df) Pearson  =   567778.4
```

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

                                                        AIC             =  16.09323
Log likelihood   = -2733.848861                         BIC             =  1.92e+08
```

bf7m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	9.565438	15.33	0.62	0.533	-20.48082	39.61169
_cons	1022.573	44.93236	22.76	0.000	934.5073	1110.639

```
Iteration 1:   deviance =   306.253
Iteration 2:   deviance =  305.9082
Iteration 3:   deviance =  305.9062
Iteration 4:   deviance =  305.9062
Iteration 5:   deviance =  305.9062

Generalized linear models                               No. of obs      =       340
Optimization     : MQL Fisher scoring                   Residual df     =       335
                   (IRLS EIM)                           Scale parameter =         1
Deviance         =  305.9062256                         (1/df) Deviance =  .9131529
Pearson          =  334.7424736                         (1/df) Pearson  =  .9992313

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

                                                        BIC             = -1646.791
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf7m	-.000056	.0001041	-0.54	0.591	-.00026	.000148
illw3	-.8870307	.45488	-1.95	0.051	-1.778579	.0045177
avgcumdosew3	-.0034059	.0290164	-0.12	0.907	-.060277	.0534652
ageXillw3	.0233076	.0080353	2.90	0.004	.0075586	.0390565
_cons	-.9935662	.1388801	-7.15	0.000	-1.265766	-.7213662

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

```
Iteration 0:   log likelihood = -3529.6624
```

```
Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =   6.13e+07
Deviance         =  2.07081e+10                    (1/df) Deviance =   6.13e+07
Pearson          =  2.07081e+10                    (1/df) Pearson  =   6.13e+07

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

                                                   AIC             =   20.77448
Log likelihood   = -3529.662384                    BIC             =   2.07e+10

------------------------------------------------------------------------------
             |                 OIM
         bf8 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |    355.615   159.2444     2.23   0.026      43.5018    667.7282
       _cons |   2733.121   466.7464     5.86   0.000     1818.315    3647.927
------------------------------------------------------------------------------

Iteration 1:   deviance =  302.6209
Iteration 2:   deviance =  301.3338
Iteration 3:   deviance =  301.2925
Iteration 4:   deviance =  301.2924
Iteration 5:   deviance =  301.2924

Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        335
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  301.2924095                    (1/df) Deviance =   .8993803
Pearson          =  336.2938827                    (1/df) Pearson  =   1.003862

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

                                                   BIC             =  -1651.404

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bf8 |   -.000027   .0000125    -2.15   0.031    -.0000516   -2.44e-06
       illw3 |  -.9474576   .4820727    -1.97   0.049    -1.892303   -.0026126
avgcumdosew3 |   .0061317   .0278623     0.22   0.826    -.0484774    .0607408
   ageXillw3 |   .0256323    .008669     2.96   0.003     .0086413    .0426233
       _cons |  -1.016811   .0955984   -10.64   0.000    -1.204181   -.8294416
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)
```

```
Iteration 0:   log likelihood = -2696.8709

Generalized linear models                         No. of obs      =        340
Optimization     : ML                             Residual df     =        338
                                                  Scale parameter =   456785.4
Deviance         =  154393458.8                   (1/df) Deviance =   456785.4
Pearson          =  154393458.8                   (1/df) Pearson  =   456785.4

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

                                                  AIC             =   15.87571
Log likelihood   = -2696.870867                   BIC             =   1.54e+08

------------------------------------------------------------------------------
             |                 OIM
       bf15m |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |  -3.628301    13.7502    -0.26   0.792    -30.57819    23.32159
       _cons |    115.892   40.30193     2.88   0.004     36.90167    194.8823
------------------------------------------------------------------------------

Iteration 1:   deviance =  306.0016
Iteration 2:   deviance =  305.6478
Iteration 3:   deviance =  305.6457
Iteration 4:   deviance =  305.6457

Generalized linear models                         No. of obs      =        340
Optimization     : MQL Fisher scoring             Residual df     =        335
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  305.6457012                   (1/df) Deviance =   .9123752
Pearson          =  333.5001091                   (1/df) Pearson  =   .9955227

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

                                                  BIC             =  -1647.051
```

```
------------------------------------------------------------------------------
             |                 EIM
    hp2work  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       bf15m |   .0000806    .000105     0.77   0.443    -.0001252    .0002864
       illw3 |  -.8957517   .4543388    -1.97   0.049    -1.786239   -.0052639
avgcumdosew3 |  -.0042893   .0292684    -0.15   0.883    -.0616544    .0530759
   ageXillw3 |   .0235238   .0080267     2.93   0.003     .0077918    .0392559
       _cons |  -1.061944   .0973897   -10.90   0.000    -1.252824    -.871064
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -3469.0024

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  4.29e+07
Deviance         =  1.44935e+10                    (1/df) Deviance =  4.29e+07
Pearson          =  1.44935e+10                    (1/df) Pearson  =  4.29e+07

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

                                                   AIC             =  20.41766
Log likelihood   = -3469.002409                    BIC             =  1.45e+10

------------------------------------------------------------------------------
             |                 OIM
        bf17 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |  -17.08696   133.2235    -0.13   0.898    -278.2002    244.0263
       _cons |   434.0573   390.4791     1.11   0.266    -331.2677    1199.382
------------------------------------------------------------------------------

Iteration 1:   deviance =  306.2652
Iteration 2:   deviance =  305.7886
Iteration 3:   deviance =  305.7001
Iteration 4:   deviance =  305.5515
Iteration 5:   deviance =  305.1672
Iteration 6:   deviance =  305.0101
Iteration 7:   deviance =  304.9255
Iteration 8:   deviance =  304.8717
Iteration 9:   deviance =  304.8247
Iteration 10:  deviance =  304.7365
Iteration 11:  deviance =  304.6723
Iteration 12:  deviance =  304.6508
Iteration 13:  deviance =  304.6429
Iteration 14:  deviance =  304.6398
Iteration 15:  deviance =  304.6384
```

```
Iteration 16:  deviance =  304.6377
Iteration 17:  deviance =  304.6373
Iteration 18:  deviance =   304.637
Iteration 19:  deviance =  304.6369
Iteration 20:  deviance =  304.6368
Iteration 21:  deviance =  304.6367
Iteration 22:  deviance =  304.6366
Iteration 23:  deviance =  304.6366
Iteration 24:  deviance =  304.6365
Iteration 25:  deviance =  304.6365
Iteration 26:  deviance =  304.6365
Iteration 27:  deviance =  304.6364
Iteration 28:  deviance =  304.6364
Iteration 29:  deviance =  304.6364
Iteration 30:  deviance =  304.6364
Iteration 31:  deviance =  304.6364
Iteration 32:  deviance =  304.6364
Iteration 33:  deviance =  304.6364
Iteration 34:  deviance =  304.6364
Iteration 35:  deviance =  304.6363
Iteration 36:  deviance =  304.6363
Iteration 37:  deviance =  304.6363
Iteration 38:  deviance =  304.6363
Iteration 39:  deviance =  304.6363
Iteration 40:  deviance =  304.6363
Iteration 41:  deviance =  304.6363
Iteration 42:  deviance =  304.6363
Iteration 43:  deviance =  304.6363
Iteration 44:  deviance =  304.6363
Iteration 45:  deviance =  304.6363
Iteration 46:  deviance =  304.6363
Iteration 47:  deviance =  304.6363
Iteration 48:  deviance =  304.6363
Iteration 49:  deviance =  304.6363
Iteration 50:  deviance =  304.6363
Iteration 51:  deviance =  304.6363
Iteration 52:  deviance =  304.6363
Iteration 53:  deviance =  304.6363
Iteration 54:  deviance =  304.6363
Iteration 55:  deviance =  304.6363
Iteration 56:  deviance =  304.6363
Iteration 57:  deviance =  304.6363
Iteration 58:  deviance =  304.6363
Iteration 59:  deviance =  304.6363
Iteration 60:  deviance =  304.6363
Iteration 61:  deviance =  304.6363
Iteration 62:  deviance =  304.6363
Iteration 63:  deviance =  304.6363
Iteration 64:  deviance =  304.6363
```

```
Iteration 65:  deviance =  304.6363
Iteration 66:  deviance =  304.6363
Iteration 67:  deviance =  304.6363
Iteration 68:  deviance =  304.6363

Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        335
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =   304.636255                    (1/df) Deviance =    .909362
Pearson          =  328.9419784                    (1/df) Pearson  =   .9819164

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

                                                   BIC             = -1648.061
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf17	-.0061172	.0135397	-0.45	0.651	-.0326545	.0204201
illw3	-.8919627	.4536997	-1.97	0.049	-1.781198	-.0027277
avgcumdosew3	-.0045617	.029111	-0.16	0.875	-.0616181	.0524948
ageXillw3	.023281	.0080101	2.91	0.004	.0075815	.0389804
_cons	-1.03774	.0956856	-10.85	0.000	-1.225281	-.8502001

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

Iteration 0:   log likelihood = -1596.6648

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =   706.3908
Deviance         =  238760.0795                    (1/df) Deviance =   706.3908
Pearson          =  238760.0795                    (1/df) Pearson  =   706.3908

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

                                                   AIC             =   9.403911
Log likelihood   = -1596.664807                    BIC             =   236789.9
```

bf20	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	-.1398753	.5407236	-0.26	0.796	-1.199674	.9199234
_cons	70.35574	1.584865	44.39	0.000	67.24947	73.46202

```
Iteration 1:   deviance =  300.1457
Iteration 2:   deviance =  299.0235
Iteration 3:   deviance =  299.0152
Iteration 4:   deviance =  299.0152
Iteration 5:   deviance =  299.0152

Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        335
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  299.0152272                    (1/df) Deviance =   .8925828
Pearson          =    330.25436                    (1/df) Pearson  =   .9858339

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

                                                   BIC             =  -1653.682
```

hp2work	EIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf20	.0088228	.003147	2.80	0.005	.0026548	.0149908
illw3	-.7807362	.4376076	-1.78	0.074	-1.638431	.076959
avgcumdosew3	-.0015929	.0300016	-0.05	0.958	-.060395	.0572092
ageXillw3	.0206881	.0077194	2.68	0.007	.0055584	.0358178
_cons	-1.683938	.2508128	-6.71	0.000	-2.175522	-1.192354

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

Iteration 0:   log likelihood = -3143.6434

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =    6325138
Deviance         =   2137896613                    (1/df) Deviance =    6325138
Pearson          =   2137896613                    (1/df) Pearson  =    6325138

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

```
                                                  AIC             =  18.50378
Log likelihood   = -3143.643356                   BIC             =  2.14e+09
```

bf22	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	72.68941	51.16675	1.42	0.155	-27.59557	172.9744
_cons	2107.73	149.9701	14.05	0.000	1813.794	2401.666

```
Iteration 1:   deviance =  305.3026
Iteration 2:   deviance =  304.9396
Iteration 3:   deviance =  304.9374
Iteration 4:   deviance =  304.9374
Iteration 5:   deviance =  304.9374

Generalized linear models                         No. of obs      =        340
Optimization     : MQL Fisher scoring             Residual df     =        335
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  304.9374153                   (1/df) Deviance =   .9102609
Pearson          =  331.1091682                   (1/df) Pearson  =   .9883856

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

                                                  BIC             = -1647.759
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf22	.0000371	.0000318	1.17	0.243	-.0000252	.0000993
illw3	-.918145	.4518314	-2.03	0.042	-1.803718	-.0325717
avgcumdosew3	-.006472	.0296204	-0.22	0.827	-.0645268	.0515829
ageXillw3	.0231361	.0079661	2.90	0.004	.0075229	.0387493
_cons	-1.114315	.1113817	-10.00	0.000	-1.332619	-.8960105

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

Iteration 0:   log likelihood = -3683.6189

Generalized linear models                         No. of obs      =        340
Optimization     : ML                             Residual df     =        338
                                                  Scale parameter =   1.52e+08
Deviance         =  5.12210e+10                   (1/df) Deviance =   1.52e+08
Pearson          =  5.12210e+10                   (1/df) Pearson  =   1.52e+08
```

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

                                                     AIC             =  21.68011
Log likelihood   = -3683.618914                      BIC             =  5.12e+10
```

bf29	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	72.89759	250.4485	0.29	0.771	-417.9724	563.7676
_cons	1316.168	734.0664	1.79	0.073	-122.5761	2754.911

```
Iteration 1:   deviance =  306.2986
Iteration 2:   deviance =  305.9514
Iteration 3:   deviance =  305.9494
Iteration 4:   deviance =  305.9494

Generalized linear models                            No. of obs      =       340
Optimization     : MQL Fisher scoring                Residual df     =       335
                   (IRLS EIM)                        Scale parameter =         1
Deviance         =  305.9493576                      (1/df) Deviance =  .9132817
Pearson          =  332.9706028                      (1/df) Pearson  =  .9939421

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

                                                     BIC             = -1646.747
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf29	2.79e-06	5.58e-06	0.50	0.617	-8.15e-06	.0000137
illw3	-.9120386	.4552478	-2.00	0.045	-1.804308	-.0197692
avgcumdosew3	-.0047071	.0293276	-0.16	0.872	-.0621882	.052774
ageXillw3	.0237101	.0080424	2.95	0.003	.0079473	.0394729
_cons	-1.052896	.0959692	-10.97	0.000	-1.240992	-.8647998

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

Iteration 0:   log likelihood = -2661.1782
```

```
Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =     370279
Deviance         =  125154318.2                    (1/df) Deviance =     370279
Pearson          =  125154318.2                    (1/df) Pearson  =     370279

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

                                                   AIC             =   15.66575
Log likelihood   =  -2661.17822                    BIC             =   1.25e+08

------------------------------------------------------------------------------
             |                 OIM
        bf30 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |  -8.740799   12.37991    -0.71   0.480    -33.00497    15.52337
       _cons |   499.3279    36.2856    13.76   0.000     428.2095    570.4464
------------------------------------------------------------------------------

Iteration 1:   deviance =  302.7978
Iteration 2:   deviance =  302.3054
Iteration 3:   deviance =  302.3037
Iteration 4:   deviance =  302.3037
Iteration 5:   deviance =  302.3037

Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        335
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  302.3036646                    (1/df) Deviance =    .902399
Pearson          =  330.9769023                    (1/df) Pearson  =   .9879908

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

                                                   BIC             =  -1650.393

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf30 |   .0002605   .0001257     2.07   0.038     .0000141     .000507
       illw3 |   -.704577   .4520917    -1.56   0.119    -1.590661    .1815065
avgcumdosew3 |  -.0017053   .0295427    -0.06   0.954     -.059608    .0561974
   ageXillw3 |   .0200764   .0079446     2.53   0.012     .0045054    .0356475
       _cons |  -1.198337   .1213319    -9.88   0.000    -1.436144    -.960531
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)
```

```
Iteration 0:   log likelihood = -658.90158

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  2.840313
Deviance         =   960.025842                    (1/df) Deviance =  2.840313
Pearson          =   960.025842                    (1/df) Pearson  =  2.840313

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

                                                   AIC             =  3.887656
Log likelihood   = -658.9015808                    BIC             = -1010.158

------------------------------------------------------------------------------
             |                 OIM
        bf40 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
 avgcumdosew3 |   .0494693   .0342875     1.44   0.149     -.017733    .1166715
       _cons |   2.083835   .1004969    20.74   0.000     1.886864    2.280805
------------------------------------------------------------------------------

Iteration 1:   deviance =  300.0331
Iteration 2:   deviance =  299.3058
Iteration 3:   deviance =  299.3023
Iteration 4:   deviance =  299.3023
Iteration 5:   deviance =  299.3023

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       335
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =   299.302286                    (1/df) Deviance =  .8934397
Pearson          =  332.1283637                    (1/df) Pearson  =   .991428

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

                                                   BIC             = -1653.394
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf40	**.1459653**	**.0519808**	**2.81**	**0.005**	**.0440849**	**.2478458**
illw3	**-.8596898**	**.4456734**	**-1.93**	**0.054**	**-1.733194**	**.0138141**
avgcumdosew3	**-.004707**	**.0285947**	**-0.16**	**0.869**	**-.0607516**	**.0513375**
ageXillw3	**.0204911**	**.0078874**	**2.60**	**0.009**	**.005032**	**.0359502**
_cons	**-1.321598**	**.1388504**	**-9.52**	**0.000**	**-1.593739**	**-1.049456**

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

```
359 .
360 . **** male mediators of dose paid employment: bf8, age, illw3 ageXillw3
361 . scalar wkMedMw3 = "bf8 age illw3 ageXillw3"

362 .
363 . title4 "Female mediator models for dose-paid employment"
```

Female mediator models for dose-paid employment

```
364 . glm radhlw3 avgcumdosew3 if gender==2, fam(gaussian) link(identity)

Iteration 0:   log likelihood = -1798.7074

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   1185.454
Deviance         =  427948.9522                    (1/df) Deviance =   1185.454
Pearson          =  427948.9522                    (1/df) Pearson  =   1185.454

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

                                                   AIC             =   9.921253
Log likelihood   = -1798.707367                    BIC             =   425821.1
```

radhlw3	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**2.751602**	**1.03038**	**2.67**	**0.008**	**.7320943**	**4.77111**
_cons	**57.70689**	**2.190692**	**26.34**	**0.000**	**53.41321**	**62.00057**

```
365 . glm hp2work radhlw3 if gender==2, fam(binomial) irls scale(dev) link(probit)

    Iteration 1:   deviance =    395.05
    Iteration 2:   deviance =  394.6898
    Iteration 3:   deviance =  394.6898
    Iteration 4:   deviance =  394.6898

    Generalized linear models                          No. of obs      =        363
    Optimization     : MQL Fisher scoring              Residual df     =        361
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  394.6897802                    (1/df) Deviance =   1.093323
    Pearson          =  364.9268795                    (1/df) Pearson  =   1.010878

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

                                                       BIC             =   -1733.19

    ------------------------------------------------------------------------------
                 |                 EIM
         hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
         radhlw3 |   .0091162   .0022772     4.00   0.000      .004653    .0135795
           _cons |  -1.244306   .1697735    -7.33   0.000    -1.577055   -.9115557
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

366 . glm age avgcumdosew3 if gender==2, fam(gaussian) link(identity)

    Iteration 0:   log likelihood =  -1408.064

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =   137.7687
    Deviance         =  49734.51399                    (1/df) Deviance =   137.7687
    Pearson          =  49734.51399                    (1/df) Pearson  =   137.7687

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

                                                       AIC             =   7.768948
    Log likelihood   = -1408.06405                     BIC             =   47606.63
```

age	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**1.058366**	**.3512614**	**3.01**	**0.003**	**.3699069**	**1.746826**
_cons	**48.94293**	**.7468173**	**65.54**	**0.000**	**47.47919**	**50.40666**

```
367 . 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
```

hp2work	Coef.	EIM 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.)

368 . glm illw3 avgcumdosew3 if gender==2, fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -562.81042

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =   1.308042
    Deviance         =  472.2033151                    (1/df) Deviance =   1.308042
    Pearson          =  472.2033151                    (1/df) Pearson  =   1.308042

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

```
                                                  AIC             =  3.111903
Log likelihood   = -562.8104237                   BIC             = -1655.676

------------------------------------------------------------------------------
             |                 OIM
       illw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |   .1284565   .0342268     3.75   0.000     .0613733    .1955398
       _cons |   .5563644   .0727696     7.65   0.000     .4137387    .6989902
------------------------------------------------------------------------------

369 . glm hp2work illw3 if gender==2, fam(binomial) irls scale(dev) link(probit)

Iteration 1:   deviance =  410.7265
Iteration 2:   deviance =  410.1776
Iteration 3:   deviance =  410.1774
Iteration 4:   deviance =  410.1774

Generalized linear models                         No. of obs      =        363
Optimization     : MQL Fisher scoring             Residual df     =        361
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  410.1774283                   (1/df) Deviance =   1.136226
Pearson          =  362.4869354                   (1/df) Pearson  =   1.004119

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

                                                  BIC             = -1717.702

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw3 |   .1024787   .0628325     1.63   0.103    -.0206709    .2256282
       _cons |  -.7324278    .090138    -8.13   0.000     -.909095   -.5557606
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)
```

```
370 .
371 . * interaction of ageXillw3 impacts paid employment as mediator and moderator
372 . glm illw3 avgcumdosew3 if gender==2, fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -562.81042

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =  1.308042
    Deviance         =  472.2033151                    (1/df) Deviance =  1.308042
    Pearson          =  472.2033151                    (1/df) Pearson  =  1.308042

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

                                                       AIC             =  3.111903
    Log likelihood   = -562.8104237                    BIC             = -1655.676

    ------------------------------------------------------------------------------
                 |                 OIM
           illw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew3 |   .1284565   .0342268     3.75   0.000     .0613733    .1955398
           _cons |   .5563644   .0727696     7.65   0.000     .4137387    .6989902
    ------------------------------------------------------------------------------

373 . glm hp2work ageXillw3 illw3 avgcumdosew3 if gender==2, fam(binomial) irls sc
    > ale(dev) link(probit)

    Iteration 1:   deviance =  392.5389
    Iteration 2:   deviance =  391.8976
    Iteration 3:   deviance =  391.8969
    Iteration 4:   deviance =  391.8969
    Iteration 5:   deviance =  391.8969

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       359
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  391.8968943                    (1/df) Deviance =  1.091635
    Pearson          =  370.0301694                    (1/df) Pearson  =  1.030725

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

                                                       BIC             = -1724.194
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
ageXillw3	**.0187409**	**.0060019**	**3.12**	**0.002**	**.0069775**	**.0305044**
illw3	**-.9562978**	**.343609**	**-2.78**	**0.005**	**-1.629759**	**-.2828366**
avgcumdosew3	**.0662197**	**.0429198**	**1.54**	**0.123**	**-.0179015**	**.150341**
_cons	**-.79789**	**.1001619**	**-7.97**	**0.000**	**-.9942036**	**-.6015764**

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

```
374 .
375 .
376 .
377 .
378 .
379 .
380 . title4 "bf8 is a male mediator of paid employment"
```

---

bf8 is a male mediator of paid employment

```
381 . local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

382 . foreach var in `w3bf'{
      2. glm `var' avgcumdosew3 if gender==2, family(gaussian) link(identity)
      3. glm hp2work `var' illw3 avgcumdosew3  if gender==2, family(binomial) irls
    >  scale(dev) link(probit)
      4.
383 .
384 . }
```

```
Iteration 0:   log likelihood = -1647.6213

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  515.6618
Deviance         =  186153.9233                    (1/df) Deviance =  515.6618
Pearson          =  186153.9233                    (1/df) Pearson  =  515.6618

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

                                                   AIC             =  9.088823
Log likelihood   = -1647.621315                    BIC             =    184026
```

bf1	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
avgcumdosew3	**1.403532**	**.6795752**	**2.07**	**0.039**	**.0715889**	**2.735475**
_cons	**37.53913**	**1.444846**	**25.98**	**0.000**	**34.70728**	**40.37097**

```
Iteration 1:   deviance =  400.7858
Iteration 2:   deviance =  400.3649
Iteration 3:   deviance =  400.3647
Iteration 4:   deviance =  400.3647

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        359
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  400.3647141                    (1/df) Deviance =   1.115222
Pearson          =  362.3414503                    (1/df) Pearson  =   1.009308

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

                                                   BIC             =  -1715.726
```

hp2work	EIM Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
bf1	**.0075263**	**.0035043**	**2.15**	**0.032**	**.0006579**	**.0143947**
illw3	**.0566488**	**.0651687**	**0.87**	**0.385**	**-.0710796**	**.1843771**
avgcumdosew3	**.0748818**	**.0422562**	**1.77**	**0.076**	**-.007939**	**.1577025**
_cons	**-1.099425**	**.1680193**	**-6.54**	**0.000**	**-1.428737**	**-.7701136**

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

```
Iteration 0:   log likelihood = -1109.6569

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =    26.6146
Deviance         =  9607.869105                    (1/df) Deviance =    26.6146
Pearson          =  9607.869105                    (1/df) Pearson  =    26.6146

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

                                                   AIC             =   6.124831
Log likelihood   = -1109.656873                    BIC             =    7479.99
```

bf4	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	-.4386292	.1543885	-2.84	0.004	-.7412252	-.1360333
_cons	11.01475	.3282456	33.56	0.000	10.3714	11.6581

```
Iteration 1:   deviance =  368.0458
Iteration 2:   deviance =  367.7561
Iteration 3:   deviance =  367.7558
Iteration 4:   deviance =  367.7558

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        359
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  367.7557582                    (1/df) Deviance =   1.024389
Pearson          =  356.2171479                    (1/df) Pearson  =   .9922483

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

                                                   BIC             =  -1748.335
```

hp2work	EIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	-.0912403	.015392	-5.93	0.000	-.1214082	-.0610725
illw3	-.0442384	.0678425	-0.65	0.514	-.1772072	.0887305
avgcumdosew3	.0676603	.041034	1.65	0.099	-.0127647	.1480854
_cons	.179333	.1922188	0.93	0.351	-.1974089	.5560748

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

```
Iteration 0:   log likelihood = -3335.9695

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =    5652705
Deviance         =   2040626644                    (1/df) Deviance =    5652705
Pearson          =   2040626644                    (1/df) Pearson  =    5652705

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

                                                   AIC             =   18.39102
Log likelihood   = -3335.969457                    BIC             =   2.04e+09
```

bf2	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
avgcumdosew3	-14.66006	71.15136	-0.21	0.837	-154.1142	124.794
_cons	2486.833	151.275	16.44	0.000	2190.34	2783.327

```
Iteration 1:   deviance =  400.7561
Iteration 2:   deviance =  400.3769
Iteration 3:   deviance =  400.3768
Iteration 4:   deviance =  400.3768

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        359
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  400.3767744                    (1/df) Deviance =   1.115256
Pearson          =  362.4243987                    (1/df) Pearson  =   1.009539

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

                                                   BIC             =  -1715.714
```

hp2work	EIM Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
bf2	.0000693	.0000321	2.16	0.031	6.50e-06	.0001322
illw3	.0579184	.0652264	0.89	0.375	-.069923	.1857598
avgcumdosew3	.0863439	.041937	2.06	0.040	.0041489	.168539
_cons	-.9883744	.1289169	-7.67	0.000	-1.241047	-.7357019

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

```
Iteration 0:   log likelihood = -1141.3116

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   31.68572
Deviance         =  11438.54371                    (1/df) Deviance =   31.68572
Pearson          =  11438.54371                    (1/df) Pearson  =   31.68572

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

                                                   AIC             =   6.299237
Log likelihood   = -1141.311602                    BIC             =   9310.664
```

bf4m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	-.441173	.1684561	-2.62	0.009	-.771341	-.1110051
_cons	18.82772	.3581548	52.57	0.000	18.12575	19.52969

```
Iteration 1:   deviance =  376.2521
Iteration 2:   deviance =  376.1219
Iteration 3:   deviance =  376.1216
Iteration 4:   deviance =  376.1216
Iteration 5:   deviance =  376.1216

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        359
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  376.1216056                    (1/df) Deviance =   1.047692
Pearson          =   352.597962                    (1/df) Pearson  =    .982167

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

                                                   BIC             = -1739.969
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4m	-.0718043	.0138855	-5.17	0.000	-.0990193	-.0445893
illw3	-.0199722	.06741	-0.30	0.767	-.1520934	.112149
avgcumdosew3	.070842	.0412807	1.72	0.086	-.0100667	.1517506
_cons	.5296971	.2777901	1.91	0.057	-.0147615	1.074156

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

```
Iteration 0:   log likelihood = -2474.3315

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =    49036.9
Deviance         =  17702319.75                    (1/df) Deviance =    49036.9
Pearson          =  17702319.75                    (1/df) Pearson  =    49036.9

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

```
                                                  AIC             =   13.6437
Log likelihood   = -2474.331507                   BIC             =  1.77e+07

------------------------------------------------------------------------------
             |                 OIM
        bf5m |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |   11.51759   6.626993     1.74   0.082    -1.471077    24.50626
       _cons |   146.1251   14.08966    10.37   0.000     118.5098    173.7403
------------------------------------------------------------------------------

Iteration 1:   deviance =  406.0898
Iteration 2:   deviance =  405.5971
Iteration 3:   deviance =  405.5969
Iteration 4:   deviance =  405.5969
Iteration 5:   deviance =  405.5969

Generalized linear models                         No. of obs      =        363
Optimization     : MQL Fisher scoring             Residual df     =        359
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  405.5968814                   (1/df) Deviance =   1.129796
Pearson          =  362.2771278                   (1/df) Pearson  =   1.009128

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

                                                  BIC             =  -1710.494

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf5m |   .0000253    .000346     0.07   0.942    -.0006528    .0007034
       illw3 |   .0757307   .0648804     1.17   0.243    -.0514326     .202894
avgcumdosew3 |   .0816456   .0425803     1.92   0.055    -.0018103    .1651014
       _cons |  -.8200136   .1118444    -7.33   0.000    -1.039225   -.6008026
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -2919.8803

Generalized linear models                         No. of obs      =        363
Optimization     : ML                             Residual df     =        361
                                                  Scale parameter =   570998.8
Deviance         =  206130564.2                   (1/df) Deviance =   570998.8
Pearson          =  206130564.2                   (1/df) Pearson  =   570998.8
```

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

                                                     AIC             =  16.09851
Log likelihood   = -2919.880264                      BIC             =  2.06e+08
```

bf7m	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	-9.882168	22.61375	-0.44	0.662	-54.20431	34.43997
_cons	1192.342	48.07913	24.80	0.000	1098.109	1286.575

```
Iteration 1:   deviance =  405.7923
Iteration 2:   deviance =  405.3032
Iteration 3:   deviance =   405.303
Iteration 4:   deviance =   405.303

Generalized linear models                            No. of obs      =        363
Optimization     : MQL Fisher scoring                Residual df     =        359
                   (IRLS EIM)                        Scale parameter =          1
Deviance         =  405.3030164                      (1/df) Deviance =   1.128978
Pearson          =  362.1616249                      (1/df) Pearson  =   1.008807

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

                                                     BIC             =  -1710.788
```

hp2work	EIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf7m	-.0000542	.0001026	-0.53	0.598	-.0002553	.000147
illw3	.0715496	.0653324	1.10	0.273	-.0564996	.1995988
avgcumdosew3	.0819746	.0424018	1.93	0.053	-.0011314	.1650805
_cons	-.7500788	.1604213	-4.68	0.000	-1.064499	-.4356588

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

Iteration 0:   log likelihood = -3888.8378

Generalized linear models                            No. of obs      =        363
Optimization     : ML                                Residual df     =        361
                                                     Scale parameter =   1.19e+08
Deviance         =  4.29211e+10                      (1/df) Deviance =   1.19e+08
Pearson          =  4.29211e+10                      (1/df) Pearson  =   1.19e+08
```

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

                                                          AIC             =  21.43712
Log likelihood   =  -3888.83781                           BIC             =  4.29e+10

------------------------------------------------------------------------------
             |                 OIM
         bf8 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |   474.4107   326.3149     1.45   0.146    -165.1547    1113.976
       _cons |   5499.472   693.7785     7.93   0.000     4139.691    6859.253
------------------------------------------------------------------------------

Iteration 1:   deviance =   406.001
Iteration 2:   deviance =  405.5105
Iteration 3:   deviance =  405.5103
Iteration 4:   deviance =  405.5103

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       359
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =   405.510287                    (1/df) Deviance =  1.129555
Pearson          =  362.2128945                    (1/df) Pearson  =   1.00895

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

                                                   BIC             =  -1710.58

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bf8 |   2.02e-06   6.97e-06     0.29   0.772    -.0000116    .0000157
       illw3 |   .0763832   .0648403     1.18   0.239    -.0507015    .2034678
avgcumdosew3 |   .0810208   .0425231     1.91   0.057    -.0023229    .1643645
       _cons |  -.8280872   .1080894    -7.66   0.000    -1.039939   -.6162358
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

Iteration 0:   log likelihood = -2865.4294

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  423004.2
Deviance         =  152704509.3                    (1/df) Deviance =  423004.2
Pearson          =  152704509.3                    (1/df) Pearson  =  423004.2
```

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

                                                     AIC             =  15.79851
Log likelihood   =  -2865.42935                      BIC             =  1.53e+08
```

bf15m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	-16.31159	19.46379	-0.84	0.402	-54.45991	21.83674
_cons	119.7135	41.38199	2.89	0.004	38.60629	200.8207

```
Iteration 1:   deviance =  403.0022
Iteration 2:   deviance =  401.3838
Iteration 3:   deviance =  400.8551
Iteration 4:   deviance =  400.4877
Iteration 5:   deviance =  400.1075
Iteration 6:   deviance =  399.7784
Iteration 7:   deviance =  399.6168
Iteration 8:   deviance =  399.5208
Iteration 9:   deviance =  399.4454
Iteration 10:  deviance =  399.3984
Iteration 11:  deviance =  399.3819
Iteration 12:  deviance =  399.3763
Iteration 13:  deviance =  399.3744
Iteration 14:  deviance =  399.3737
Iteration 15:  deviance =  399.3734
Iteration 16:  deviance =  399.3733
Iteration 17:  deviance =  399.3732
Iteration 18:  deviance =  399.3732
Iteration 19:  deviance =  399.3732
Iteration 20:  deviance =  399.3732
Iteration 21:  deviance =  399.3732
Iteration 22:  deviance =  399.3732
Iteration 23:  deviance =  399.3732
Iteration 24:  deviance =  399.3732
Iteration 25:  deviance =  399.3732
Iteration 26:  deviance =  399.3732
Iteration 27:  deviance =  399.3732
Iteration 28:  deviance =  399.3732
Iteration 29:  deviance =  399.3732
```

```
Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        359
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  399.3731679                    (1/df) Deviance =    1.11246
Pearson          =   350.463985                    (1/df) Pearson  =   .9762228

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

                                                   BIC             =  -1716.717
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf15m	-.0185517	.1405693	-0.13	0.895	-.2940624	.2569591
illw3	.0637593	.064584	0.99	0.324	-.0628231	.1903417
avgcumdosew3	.0795244	.0419333	1.90	0.058	-.0026634	.1617122
_cons	-.779424	.1009676	-7.72	0.000	-.9773168	-.5815312

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

```
Iteration 0:   log likelihood = -3826.3372

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   8.43e+07
Deviance         =  3.04172e+10                    (1/df) Deviance =   8.43e+07
Pearson          =  3.04172e+10                    (1/df) Pearson  =   8.43e+07

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

                                                   AIC             =   21.09277
Log likelihood   = -3826.337161                    BIC             =   3.04e+10
```

bf17	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	-210.5363	274.7014	-0.77	0.443	-748.9411	327.8686
_cons	1283.326	584.043	2.20	0.028	138.6227	2428.029

```
Iteration 1:   deviance =  404.4868
Iteration 2:   deviance =  403.3612
Iteration 3:   deviance =  403.0401
Iteration 4:   deviance =  402.7883
Iteration 5:   deviance =  402.5042
Iteration 6:   deviance =  402.3328
Iteration 7:   deviance =  402.2311
Iteration 8:   deviance =  402.1401
Iteration 9:   deviance =  402.0781
Iteration 10:  deviance =  402.0571
Iteration 11:  deviance =    402.05
Iteration 12:  deviance =  402.0475
Iteration 13:  deviance =  402.0467
Iteration 14:  deviance =  402.0463
Iteration 15:  deviance =  402.0462
Iteration 16:  deviance =  402.0462
Iteration 17:  deviance =  402.0462
Iteration 18:  deviance =  402.0461
Iteration 19:  deviance =  402.0461
Iteration 20:  deviance =  402.0461
Iteration 21:  deviance =  402.0461
Iteration 22:  deviance =  402.0461
Iteration 23:  deviance =  402.0461
Iteration 24:  deviance =  402.0461
Iteration 25:  deviance =  402.0461

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       359
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  402.0461284                    (1/df) Deviance =  1.119906
Pearson          =  355.4109876                    (1/df) Pearson  =  .9900028

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

                                                   BIC             = -1714.044
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf17	-.0009418	.0098647	-0.10	0.924	-.0202762	.0183926
illw3	.0690879	.0646796	1.07	0.285	-.0576818	.1958576
avgcumdosew3	.0802034	.0421293	1.90	0.057	-.0023685	.1627752
_cons	-.7949403	.1007866	-7.89	0.000	-.9924784	-.5974022

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

```
Iteration 0:   log likelihood = -1708.7675

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   722.2307
Deviance         =  260725.2848                    (1/df) Deviance =   722.2307
Pearson          =  260725.2848                    (1/df) Pearson  =   722.2307

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

                                                   AIC             =   9.425716
Log likelihood   = -1708.767472                    BIC             =   258597.4

------------------------------------------------------------------------------
             |                 OIM
        bf20 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |   1.430073   .8042536     1.78   0.075    -.1462347    3.006382
       _cons |   75.65323   1.709925    44.24   0.000     72.30184    79.00463
------------------------------------------------------------------------------

Iteration 1:   deviance =  400.9177
Iteration 2:   deviance =  400.4591
Iteration 3:   deviance =  400.4589
Iteration 4:   deviance =  400.4589

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        359
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  400.4588662                    (1/df) Deviance =   1.115484
Pearson          =  362.8847271                    (1/df) Pearson  =   1.010821

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

                                                   BIC             =  -1715.632

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf20 |   .0064287   .0030571     2.10   0.035     .0004369    .0124206
       illw3 |   .0564777   .0651612     0.87   0.386    -.0712358    .1841913
avgcumdosew3 |   .0763386   .0422654     1.81   0.071    -.0065001    .1591772
       _cons |  -1.303581   .2556066    -5.10   0.000    -1.804561   -.8026017
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)
```

```
Iteration 0:   log likelihood = -3441.3735

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   1.01e+07
Deviance         =   3647330298                    (1/df) Deviance =   1.01e+07
Pearson          =   3647330298                    (1/df) Pearson  =   1.01e+07

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

                                                   AIC             =   18.97175
Log likelihood   = -3441.373501                    BIC             =   3.65e+09
```

bf22	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	198.9575	95.12376	2.09	0.036	12.51832	385.3966
_cons	3099.215	202.2427	15.32	0.000	2702.826	3495.603

```
Iteration 1:   deviance =  404.7126
Iteration 2:   deviance =  404.2497
Iteration 3:   deviance =  404.2495
Iteration 4:   deviance =  404.2495

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        359
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  404.2495058                    (1/df) Deviance =   1.126043
Pearson          =  361.0837357                    (1/df) Pearson  =   1.005804

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

                                                   BIC             = -1711.841
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf22	.0000268	.0000236	1.14	0.256	-.0000194	.000073
illw3	.0662768	.0652813	1.02	0.310	-.0616722	.1942257
avgcumdosew3	.0787126	.0424878	1.85	0.064	-.004562	.1619871
_cons	-.8976713	.1234173	-7.27	0.000	-1.139565	-.6557778

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

```
Iteration 0:   log likelihood = -3484.9822

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   1.28e+07
Deviance         =   4637909003                    (1/df) Deviance =   1.28e+07
Pearson          =   4637909003                    (1/df) Pearson  =   1.28e+07

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

                                                   AIC             =   19.21202
Log likelihood   = -3484.982169                    BIC             =   4.64e+09
```

bf29	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	40.03151	107.2661	0.37	0.709	-170.2062	250.2692
_cons	265.9396	228.0586	1.17	0.244	-181.0471	712.9263

```
Iteration 1:   deviance =  405.4201
Iteration 2:   deviance =   404.937
Iteration 3:   deviance =  404.9369
Iteration 4:   deviance =  404.9369

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        359
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  404.9368816                    (1/df) Deviance =   1.127958
Pearson          =  362.1381099                    (1/df) Pearson  =   1.008741

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

                                                   BIC             =  -1711.154
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf29	.000015	.0000199	0.75	0.452	-.0000241	.000054
illw3	.0693319	.0654643	1.06	0.290	-.0589757	.1976395
avgcumdosew3	.0823559	.0423081	1.95	0.052	-.0005665	.1652783
_cons	-.8176021	.1003576	-8.15	0.000	-1.014299	-.6209049

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

```
Iteration 0:   log likelihood = -2855.9026

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   401373.8
Deviance         =  144895947.3                    (1/df) Deviance =   401373.8
Pearson          =  144895947.3                    (1/df) Pearson  =   401373.8

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

                                                   AIC             =   15.74602
Log likelihood   = -2855.902622                    BIC             =   1.45e+08

------------------------------------------------------------------------------
             |                 OIM
        bf30 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |   45.42508   18.95962     2.40   0.017     8.264914    82.58525
       _cons |    474.094   40.31007    11.76   0.000     395.0877    553.1003
------------------------------------------------------------------------------

Iteration 1:   deviance =  403.2568
Iteration 2:   deviance =  402.8398
Iteration 3:   deviance =  402.8396
Iteration 4:   deviance =  402.8396
Iteration 5:   deviance =  402.8396

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        359
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  402.8396329                    (1/df) Deviance =   1.122116
Pearson          =  362.9011676                    (1/df) Pearson  =   1.010867

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

                                                   BIC             =  -1713.251
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf30	.0001877	.0001196	1.57	0.116	-.0000466	.0004221
illw3	.0850723	.065274	1.30	0.192	-.0428624	.2130069
avgcumdosew3	.0727348	.0430132	1.69	0.091	-.0115696	.1570391
_cons	-.9155104	.1202543	-7.61	0.000	-1.151204	-.6798163

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

```
Iteration 0:   log likelihood = -818.14796

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   5.340664
Deviance         =  1927.979854                    (1/df) Deviance =   5.340664
Pearson          =  1927.979854                    (1/df) Pearson  =   5.340664

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

                                                   AIC             =   4.518722
Log likelihood   = -818.1479598                    BIC             =  -199.8996
```

bf40	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	.152897	.0691596	2.21	0.027	.0173466	.2884474
_cons	2.981537	.1470404	20.28	0.000	2.693343	3.269731

```
Iteration 1:   deviance =  401.3653
Iteration 2:   deviance =  400.9889
Iteration 3:   deviance =  400.9888
Iteration 4:   deviance =  400.9888

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        359
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  400.9887605                    (1/df) Deviance =    1.11696
Pearson          =  359.9660415                    (1/df) Pearson  =   1.002691

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

                                                   BIC             =  -1715.102
```

```
-----------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+---------------------------------------------------------------
        bf40 |   .0689094   .0331691     2.08   0.038     .0038992    .1339195
       illw3 |   .0376887   .0670381     0.56   0.574    -.0937035    .1690809
avgcumdosew3 |   .0782343   .0423534     1.85   0.065    -.0047769    .1612455
       _cons |  -1.010896     .13795    -7.33   0.000    -1.281273   -.7405191
-----------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

385 . * Saving mediators as scalars for Dose=work relationship
386 . **** female mediators of dose-paid employment: radhlw3, age, bf40, bf4m, bf4
    > , bf1
387 . scalar wkMedFw3 = "radhlw3 age bf40 bf4m bf1"

388 . scalar list
    VactnMedFw3 = age illw3 radhlw3
    VactnMedMw3 = age illw3
    VacatnModFw3 = none
    MainEffVactnFw3 = age radhlw3 deaw3
    SigDoseVactnFw3 = no
    vactnModMw3 = none
    MainEffVactnMw3 = age bf7m radhlw3
    SigDoseVactnMw3 = no
    sxLifeMedFw3 = age bf4 bf4m
    sxLifeMedMw3 = age illw3
    InthbModFw3 = none
    MainEffInthbFw3 = age radhlw3 bf4
    SigdoseInthbFw3 = no
      InthbMw3 = none
    MainEffInthbMw3 = age radhlw3 shfamw3
    SigDoseInthbMw3 = no
    sxlifeMedFw3 = age illw3 radhlw3 bf4 bf4m
    sxlifeMedMw3 = age illw3
    sxlifeModFw3 = none
    MainEffsxlifeFw3 = age radhlw3 bf4 bf4m shrelaw3 shfamw3
    SigDoseSxlifeFw3 = no
    sxlifeModMw3 = none
    SigDosesxlifeMw3 = no
    MainEffsxlifeMw3 = age bf4 illw3 radhlw3
    PrbfmhmMedFw3 = age bf4
    PrbfmhmMedMw3 = age
    PrbfmhmModFw3 = none
    MainEffPrbfmhmFw3 = age bf4 bf40
    SigDosePrbfmhmFw3 = no
    PrbfmhmModw3 = none
    SigDosePrbfmhmMw3 = no
    SigDosePrbfhmMw3 = no
```

```
MainEffPrbfhmMw3 = bf1 bf4 dvcew3 bf7m
ProbsocMedFw3 = age radhlw3
ProbsocMedMw3 = age
ProbsocModFw3 = none
MainEffProbSocFw3 = age radhlw3 illw3 Shrelaw3 avgcumodsew3
SigDoseProbsocFw3 = yes
ProbSocModMw3 = none
SigDoseProbsocMw3 = no
MainEffPrbsocMw3 = age radhlw3 shjobw3
hmcareMedFw3 = age illw3
hmcareMedMw3 = age illw3
hmcareModFw3 = none
SigdoseHmcareFw3 = no
hmcareModMw3 = none
MainEffhmcareMw3 = none
SigDoseHmcareMw3 = no
  wkMedFw3 = radhlw3 age bf40 bf4m bf1
  wkMedMw3 = bf8 age illw3 ageXillw3
  wkModFw3 = none
  wkModMw3 = none
MainEffwkFw3 = age
MainEffwkMw3 = workM: age  bf8  illw3  shjobw3
SigDoseWKMw3 = no
SigDoseWkFw3 = no
 medsigFw2 =          1
  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

.
.
.
.
.
. *xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
> xxxx
. *------  Chunk 3    Dose=> hp2hmcare impact for males and females
. *xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
> xxxx
.
. title "2.  Wave 3 part2  H1: dose home care relationship " ///
>  " Wave 3 Dose -  HP2home care Main effects identification"


******************************************************************************
> *
******************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****        2.  Wave 3 part2  H1: dose home care relationship           ****
> *
*****      Wave 3 Dose -  HP2home care Main effects identification       ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                              1 Jul 2012    20:36:21  ****
> *
******************************************************************************
> *
******************************************************************************
> *
```

```
399 .
400 . *  review of general model for men and women
401 .
402 . forvalues j=3/3 {
      2.  set more off
      3.
403 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
404 .   foreach var in HP2hmcare  {
      5.
405 .         forvalues k=1/2 {
      6.   local w3bf 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.
406 .
407 .       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' radhlw3 ///
    >                illw`j' shfamw`j' shhlw`j' shjobw`j' shrelaw`j' suprtw`j' su
    > chrw`j' ///
    >                 havmilsq if gender==`k', coef nolog  difficult iterate(50)
     10.                         estat class
     11.                         estat gof
     12.                         fitstat
     13. }
     14. }
     15. }

                  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
```

```
marrw31          byte   %8.0g                       marrw3==1. single
marrw32          byte   %8.0g                       marrw3==2. cohabitating
marrw33          byte   %8.0g                       marrw3==3. married
marrw34          byte   %8.0g                       marrw3==4. separated
marrw35          byte   %8.0g                       marrw3==5. divorced
marrw36          byte   %8.0g                       marrw3==6. widowed
inc1w3           double %15.0g      LABJ            Income is not sufficient for
                                                      basic neccessities NOW
inc2w3           double %15.0g      LABJ            Income is just sufficient for
                                                      basic neccessities NOW
inc3w3           double %15.0g      LABJ            Income is sufficient for basics
                                                      plus extra purchases/savings
                                                      NOW
inc4w3           double %15.0g      LABJ            Income allows to comfortably
                                                      afford luxury items NOW
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 =  3 for hp2work      ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                                  1 Jul 2012    20:36:21  ****
> *
******************************************************************************
> *
******************************************************************************
> *
```

```
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_8 != 0 predicts failure perfectly
      _Ieduc_8 dropped and 2 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

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

note: _Ieduc_7 omitted because of collinearity
note: occ8w3 omitted because of collinearity
note: marrw36 omitted because of collinearity
note: radhlw3 omitted because of collinearity

Logistic regression                               Number of obs   =        315
                                                  LR chi2(48)     =     139.93
                                                  Prob > chi2     =     0.0000
Log likelihood = -96.893664                       Pseudo R2       =     0.4193
```

HP2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0323974	.0293162	1.11	0.269	-.0250612	.089856
_Ieduc_2	-4.152531	2.287775	-1.82	0.070	-8.636488	.3314257
_Ieduc_3	-1.864493	1.608696	-1.16	0.246	-5.017479	1.288493
_Ieduc_4	0	(omitted)				
_Ieduc_5	-1.404302	1.64491	-0.85	0.393	-4.628265	1.819662
_Ieduc_6	-2.017048	1.54335	-1.31	0.191	-5.041958	1.007861
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w3	-11.82929	1296.263	-0.01	0.993	-2552.458	2528.799
occ2w3	-11.65702	1296.263	-0.01	0.993	-2552.286	2528.971
occ3w3	-12.78325	1296.263	-0.01	0.992	-2553.412	2527.846
occ4w3	-10.84152	1296.263	-0.01	0.993	-2551.47	2529.787
occ5w3	-10.72665	1296.263	-0.01	0.993	-2551.356	2529.903
occ6w3	0	(omitted)				
occ7w3	-11.31316	1296.263	-0.01	0.993	-2551.942	2529.316
occ8w3	0	(omitted)				
marrw31	.3643704	1.429352	0.25	0.799	-2.437107	3.165848
marrw32	-2.206121	1.844343	-1.20	0.232	-5.820966	1.408725
marrw33	-.7934545	1.390519	-0.57	0.568	-3.518821	1.931912
marrw35	-.2775718	1.556356	-0.18	0.858	-3.327973	2.772829
marrw36	0	(omitted)				
inc1w3	14.70395	1296.262	0.01	0.991	-2525.924	2555.332

inc2w3	14.77269	1296.262	0.01	0.991	-2525.855	2555.4
inc3w3	14.57764	1296.262	0.01	0.991	-2526.05	2555.205
inc4w3	15.74154	1296.263	0.01	0.990	-2524.886	2556.37
radhlw3	.0078686	.0080582	0.98	0.329	-.007925	.0236623
havmil	.0027954	.0078952	0.35	0.723	-.0126789	.0182698
avgcumdosew3	.0057068	.0769937	0.07	0.941	-.1451981	.1566117
bf1	-.0445389	.0484618	-0.92	0.358	-.1395224	.0504446
bf4	-.0327423	.2796012	-0.12	0.907	-.5807506	.515266
bf2	.0000822	.0001677	0.49	0.624	-.0002465	.0004108
bf4m	-.341802	.2609957	-1.31	0.190	-.8533441	.1697402
bf5m	.0012439	.0017995	0.69	0.489	-.0022831	.0047709
bf7m	.0005614	.0005422	1.04	0.300	-.0005013	.0016241
bf8	-.0000499	.0000448	-1.11	0.265	-.0001376	.0000379
bf15m	-.0000712	.0003918	-0.18	0.856	-.0008391	.0006966
bf17	0	(omitted)				
bf20	.019063	.0407736	0.47	0.640	-.0608518	.0989778
bf22	.0000146	.0001733	0.08	0.933	-.0003251	.0003543
bf29	.0000124	.0000229	0.54	0.589	-.0000325	.0000572
bf30	-.000416	.0004185	-0.99	0.320	-.0012364	.0004043
bf40	.1486565	.2411791	0.62	0.538	-.3240459	.6213588
deaw3	-.6566764	.3112091	-2.11	0.035	-1.266635	-.0467177
dvcew3	.7731044	1.122755	0.69	0.491	-1.427455	2.973664
sepaw3	.1659839	1.359372	0.12	0.903	-2.498337	2.830305
accdw3	.7493757	.6472786	1.16	0.247	-.519267	2.018018
movew3	.9688514	.5333557	1.82	0.069	-.0765066	2.014209
radhlw3	0	(omitted)				
illw3	.2806377	.2813528	1.00	0.319	-.2708037	.832079
shfamw3	.0045809	.0088802	0.52	0.606	-.0128239	.0219857
shhlw3	-.0144819	.0077	-1.88	0.060	-.0295736	.0006098
shjobw3	-.0101653	.0077745	-1.31	0.191	-.0254031	.0050725
shrelaw3	-.0092584	.0083742	-1.11	0.269	-.0256716	.0071547
suprtw3	-.0009401	.0080071	-0.12	0.907	-.0166337	.0147535
suchrw3	-.004683	.0069496	-0.67	0.500	-.0183041	.008938
havmilsq	-7.50e-06	.0000145	-0.52	0.604	-.0000359	.0000209
_cons	3.229911	4.235709	0.76	0.446	-5.071927	11.53175

Note: 3 failures and 0 successes completely determined.

Logistic model for HP2hmcare

	True		
Classified	D	~D	Total
+	37	14	51
-	33	231	264
Total	70	245	315

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2hmcare != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   52.86%
Specificity                     Pr( -|~D)   94.29%
Positive predictive value       Pr( D| +)   72.55%
Negative predictive value       Pr(~D| -)   87.50%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    5.71%
False - rate for true D         Pr( -| D)   47.14%
False + rate for classified +   Pr(~D| +)   27.45%
False - rate for classified -   Pr( D| -)   12.50%
--------------------------------------------------
Correctly classified                        85.08%
--------------------------------------------------
```

Logistic model for HP2hmcare, goodness-of-fit test

```
       number of observations =       315
 number of covariate patterns =       315
            Pearson chi2(266) =       247.97
                  Prob > chi2 =         0.7796
```

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

```
Log-Lik Intercept Only:     -166.857    Log-Lik Full Model:             -96.894
D(258):                      193.787    LR(48):                         139.928
                                        Prob > LR:                        0.000
McFadden's R2:                 0.419    McFadden's Adj R2:                0.078
Maximum Likelihood R2:         0.359    Cragg & Uhler's R2:               0.549
McKelvey and Zavoina's R2:     0.758    Efron's R2:                       0.437
Variance of y*:               13.609    Variance of error:                3.290
Count R2:                      0.851    Adj Count R2:                     0.329
AIC:                           0.977    AIC*n:                          307.787
BIC:                       -1290.376    BIC':                           136.196
```

```
*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****  chunk 3 H1 test pt 2 :Gender= 2  model Wave =  3 for HP2hmcare     ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                             1 Jul 2012    20:36:23  ****
> *
*****************************************************************************
> *
*****************************************************************************
> *


i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

note: occ8w3 != 0 predicts failure perfectly
      occ8w3 dropped and 1 obs not used

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

note: _Ieduc_8 omitted because of collinearity
note: radhlw3 omitted because of collinearity
convergence not achieved

Logistic regression                               Number of obs   =        353
                                                  LR chi2(50)     =     144.83
                                                  Prob > chi2     =     0.0000
Log likelihood = -154.51255                       Pseudo R2       =     0.3191
```

HP2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0784128	.0199184	3.94	0.000	.0393735	.1174521
_Ieduc_2	-16.15888	2.72009	-5.94	0.000	-21.49016	-10.8276
_Ieduc_3	-16.70929	2.647032	-6.31	0.000	-21.89738	-11.5212
_Ieduc_4	-15.65932	2.672964	-5.86	0.000	-20.89823	-10.4204
_Ieduc_5	-16.93546	2.621945	-6.46	0.000	-22.07438	-11.79654
_Ieduc_6	-17.12993	2.678622	-6.40	0.000	-22.37993	-11.87993
_Ieduc_7	-16.6826	3.290952	-5.07	0.000	-23.13274	-10.23245
_Ieduc_8	0	(omitted)				
occ1w3	-17.5089	2870.035	-0.01	0.995	-5642.674	5607.656
occ2w3	-17.42465	2870.035	-0.01	0.995	-5642.59	5607.741
occ3w3	-17.38618	2870.035	-0.01	0.995	-5642.551	5607.779
occ4w3	-17.97919	2870.035	-0.01	0.995	-5643.145	5607.186
occ5w3	-16.19886	2870.036	-0.01	0.995	-5641.366	5608.968
occ6w3	0	(omitted)				
occ7w3	-17.37679	2870.035	-0.01	0.995	-5642.542	5607.789
occ8w3	0	(omitted)				
marrw31	.1254457	1.662878	0.08	0.940	-3.133735	3.384627
marrw32	.689276	1.963389	0.35	0.726	-3.158896	4.537448
marrw33	1.411752	1.537008	0.92	0.358	-1.600728	4.424232
marrw35	.6824445	1.564972	0.44	0.663	-2.384843	3.749732
marrw36	.9604788	1.548632	0.62	0.535	-2.074784	3.995742
inc1w3	18.76205	2870.035	0.01	0.995	-5606.403	5643.927
inc2w3	18.64464	2870.035	0.01	0.995	-5606.521	5643.81
inc3w3	18.13548	2870.035	0.01	0.995	-5607.03	5643.301
inc4w3	18.63139	2870.035	0.01	0.995	-5606.534	5643.797
radhlw3	-.0056373	.0071331	-0.79	0.429	-.0196178	.0083433
havmil	.0003358	.0026887	0.12	0.901	-.004934	.0056056
avgcumdosew3	-.1458757	.0962788	-1.52	0.130	-.3345787	.0428273
bf1	-.0155333	.0271811	-0.57	0.568	-.0688074	.0377407
bf4	-.4865728	.1784134	-2.73	0.006	-.8362567	-.136889
bf2	.0000926	.0001019	0.91	0.364	-.0001072	.0002923
bf4m	.3213367	.1603015	2.00	0.045	.0071516	.6355219
bf5m	-.000883	.0014167	-0.62	0.533	-.0036598	.0018937
bf7m	.0002998	.000443	0.68	0.499	-.0005684	.001168
bf8	6.84e-06	.0000322	0.21	0.832	-.0000563	.00007
bf15m	-.0163738	.5454291	-0.03	0.976	-1.085395	1.052648
bf17	.0008202	.0272715	0.03	0.976	-.0526309	.0542713
bf20	.00093	.0215397	0.04	0.966	-.041287	.043147
bf22	-.0000872	.0001081	-0.81	0.420	-.0002991	.0001247
bf29	0	(omitted)				
bf30	.0000251	.0002916	0.09	0.931	-.0005465	.0005967
bf40	.130008	.1227916	1.06	0.290	-.1106591	.3706751
deaw3	.0165154	.1614822	0.10	0.919	-.2999838	.3330147
dvcew3	.6982802	.7163029	0.97	0.330	-.7056476	2.102208
sepaw3	-.4992309	.8307882	-0.60	0.548	-2.127546	1.129084
accdw3	-.1706856	.4639657	-0.37	0.713	-1.080042	.7386705

movew3	-.4464406	1.157043	-0.39	0.700	-2.714203	1.821322
radhlw3	0	(omitted)				
illw3	-.0890835	.1513588	-0.59	0.556	-.3857412	.2075743
shfamw3	-.0035627	.0062149	-0.57	0.566	-.0157436	.0086183
shhlw3	.0080044	.0056769	1.41	0.159	-.0031221	.0191309
shjobw3	-.0042351	.0058007	-0.73	0.465	-.0156042	.0071341
shrelaw3	-.010315	.0062344	-1.65	0.098	-.0225341	.0019041
suprtw3	-.0017061	.0061593	-0.28	0.782	-.0137782	.010366
suchrw3	-.0030007	.0044692	-0.67	0.502	-.0117602	.0057587
havmilsq	-1.55e-06	2.58e-06	-0.60	0.549	-6.61e-06	3.52e-06
_cons	10.07155	.	.	.	.	.

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

Logistic model for HP2hmcare

	True		
Classified	D	~D	Total
+	76	29	105
-	45	203	248
Total	121	232	353

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

Sensitivity	Pr(+| D)	62.81%
Specificity	Pr(-|~D)	87.50%
Positive predictive value	Pr(D| +)	72.38%
Negative predictive value	Pr(~D| -)	81.85%
False + rate for true ~D	Pr(+|~D)	12.50%
False - rate for true D	Pr(-| D)	37.19%
False + rate for classified +	Pr(~D| +)	27.62%
False - rate for classified -	Pr(D| -)	18.15%
Correctly classified		79.04%

Logistic model for HP2hmcare, goodness-of-fit test

number of observations = 353
number of covariate patterns = 353
Pearson chi2(301) = 338.41
Prob > chi2 = 0.0677

```
Measures of Fit for logistic of HP2hmcare

Log-Lik Intercept Only:      -226.929     Log-Lik Full Model:            -154.513
D(296):                       309.025     LR(50):                         144.834
                                          Prob > LR:                        0.000
McFadden's R2:                  0.319     McFadden's Adj R2:                0.068
Maximum Likelihood R2:          0.337     Cragg & Uhler's R2:               0.465
McKelvey and Zavoina's R2:      0.954     Efron's R2:                       0.369
Variance of y*:                71.429     Variance of error:                3.290
Count R2:                       0.790     Adj Count R2:                     0.388
AIC:                            1.198     AIC*n:                          423.025
BIC:                        -1427.449     BIC':                           148.490

408 .
409 .   title4 "Male Main effects model for dose=> homcare wave 3"
```

Male Main effects model for dose=> homcare wave 3

```
410 .   logit hp2hmcare age radhlw3 avgcumdosew3 bf4 bf4m bf40 if gender==1

Iteration 0:   log likelihood = -172.87291
Iteration 1:   log likelihood = -133.30015
Iteration 2:   log likelihood = -130.66001
Iteration 3:   log likelihood = -130.56564
Iteration 4:   log likelihood = -130.56534
Iteration 5:   log likelihood = -130.56534

Logistic regression                               Number of obs   =        340
                                                  LR chi2(6)      =      84.62
                                                  Prob > chi2     =     0.0000
Log likelihood = -130.56534                       Pseudo R2       =     0.2447
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0212427	.0145356	1.46	0.144	-.0072466	.0497319
radhlw3	-.0004747	.0052658	-0.09	0.928	-.0107954	.0098461
avgcumdosew3	.0109468	.049766	0.22	0.826	-.0865928	.1084864
bf4	-.0254029	.2104548	-0.12	0.904	-.4378867	.3870809
bf4m	-.172073	.19389	-0.89	0.375	-.5520905	.2079444
bf40	.1415116	.0924687	1.53	0.126	-.0397237	.3227469
_cons	.7537844	1.701465	0.44	0.658	-2.581025	4.088594

```
411 .
412 . 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

413 . 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

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

415 .
416 . scalar SigDoseHmcareMw3 = "no"

417 . scalar MainEffhmcareMw3= "none"

418 . scalar list
    VactnMedFw3 = age illw3 radhlw3
    VactnMedMw3 = age illw3
    VacatnModFw3 = none
    MainEffVactnFw3 = age radhlw3 deaw3
    SigDoseVactnFw3 = no
    vactnModMw3 = none
    MainEffVactnMw3 = age bf7m radhlw3
    SigDoseVactnMw3 = no
    sxLifeMedFw3 = age bf4 bf4m
    sxLifeMedMw3 = age illw3
    InthbModFw3 = none
    MainEffInthbFw3 = age radhlw3 bf4
    SigdoseInthbFw3 = no
      InthbMw3 = none
    MainEffInthbMw3 = age radhlw3 shfamw3
    SigDoseInthbMw3 = no
    sxlifeMedFw3 = age illw3 radhlw3 bf4 bf4m
    sxlifeMedMw3 = age illw3
    sxlifeModFw3 = none
    MainEffsxlifeFw3 = age radhlw3 bf4 bf4m shrelaw3 shfamw3
    SigDoseSxlifeFw3 = no
    sxlifeModMw3 = none
    SigDosesxlifeMw3 = no
    MainEffsxlifeMw3 = age bf4 illw3 radhlw3
    PrbfmhmMedFw3 = age bf4
    PrbfmhmMedMw3 = age
    PrbfmhmModFw3 = none
    MainEffPrbfmhmFw3 = age bf4 bf40
    SigDosePrbfmhmFw3 = no
    PrbfmhmModw3 = none
    SigDosePrbfmhmMw3 = no
```

```
SigDosePrbfhmMw3 = no
MainEffPrbfhmMw3 = bf1 bf4 dvcew3 bf7m
ProbsocMedFw3 = age radhlw3
ProbsocMedMw3 = age
ProbsocModFw3 = none
MainEffProbSocFw3 = age radhlw3 illw3 Shrelaw3 avgcumodsew3
SigDoseProbsocFw3 = yes
ProbSocModMw3 = none
SigDoseProbsocMw3 = no
MainEffPrbsocMw3 = age radhlw3 shjobw3
hmcareMedFw3 = age illw3
hmcareMedMw3 = age illw3
hmcareModFw3 = none
SigdoseHmcareFw3 = no
hmcareModMw3 = none
MainEffhmcareMw3 = none
SigDoseHmcareMw3 = no
  wkMedFw3 = radhlw3 age bf40 bf4m bf1
  wkMedMw3 = bf8 age illw3 ageXillw3
  wkModFw3 = none
  wkModMw3 = none
MainEffwkFw3 = age
MainEffwkMw3 = workM: age  bf8  illw3  shjobw3
SigDoseWKMw3 = no
SigDoseWkFw3 = no
 medsigFw2 =          1
  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

419 .
420 . title4 "male main effect plus interaction model"
    ------------------------------------------------------------------------------
    male main effect plus interaction model
    ------------------------------------------------------------------------------

421 . logit hp2hmcare age radhlw3 avgcumdosew3 ageXd3 illw3 if gender==1

    Iteration 0:   log likelihood = -172.87291
    Iteration 1:   log likelihood = -149.81879
    Iteration 2:   log likelihood = -148.25194
    Iteration 3:   log likelihood = -148.24243
    Iteration 4:   log likelihood = -148.24243

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(5)      =      49.26
                                                      Prob > chi2     =     0.0000
    Log likelihood = -148.24243                       Pseudo R2       =     0.1425
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0437867	.0172121	2.54	0.011	.0100515	.0775219
radhlw3	.0144867	.0043947	3.30	0.001	.0058733	.0231002
avgcumdosew3	.3109469	.7827747	0.40	0.691	-1.223263	1.845157
ageXd3	-.0057849	.0134227	-0.43	0.666	-.0320929	.020523
illw3	.40549	.1399082	2.90	0.004	.1312749	.679705
_cons	-4.648689	.9666744	-4.81	0.000	-6.543336	-2.754042

```
422 . cap gen radhlw3Xillw3 = radhlw3*illw3

423 . cap drop radhlw3Xd1

424 . cap gen radhlw3Xd3 = radhlw3*avgcumdosew3

425 . cap drop illw3Xd1

426 . cap gen illw3Xd3 = illw3*avgcumdosew3

427 . 
428 . 
429 . * there are no significant moderators for male dose=hmcare relationship
430 . scalar hmcareModMw3 = "none"

431 . 
432 . *---------   Male moderator tests for Dose-Hmcare in wave 3: ---------------
    > -----
433 . 
434 . title "Dose-home care impact relationship reveals no male moderators"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****   Dose-home care impact relationship reveals no male moderators     ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                            1 Jul 2012    20:36:27  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
435 . logit hp2hmcare radhlw3 avgcumdosew3 illw3 radhlw3Xillw3 radhlw3Xd3 illw3Xd3
    >  ///
    >    if gender==1

    Iteration 0:   log likelihood = -172.87291
    Iteration 1:   log likelihood = -153.71153
    Iteration 2:   log likelihood = -152.25962
    Iteration 3:   log likelihood = -152.22817
    Iteration 4:   log likelihood = -152.22779
    Iteration 5:   log likelihood = -152.22779

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(6)      =      41.29
                                                      Prob > chi2     =     0.0000
    Log likelihood = -152.22779                       Pseudo R2       =     0.1194

    ------------------------------------------------------------------------------
    > -
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval
    > ]
    -------------+----------------------------------------------------------------
    > -
         radhlw3 |   .0200281   .0064545     3.10   0.002     .0073775    .032678
    > 7
    avgcumdosew3 |  -.1252158   .2932467    -0.43   0.669    -.6999688    .449537
    > 2
           illw3 |    .677266   .2824634     2.40   0.016     .1236479    1.23088
    > 4
   radhlw3Xillw3 |  -.0042432   .0039636    -1.07   0.284    -.0120118    .003525
    > 4
      radhlw3Xd3 |   .0007389   .0042983     0.17   0.864    -.0076857    .009163
    > 5
        illw3Xd3 |   .0384326   .0812891     0.47   0.636     -.120891    .197756
    > 3
           _cons |  -2.652783   .4389838    -6.04   0.000    -3.513175   -1.79239
    > 1
    ------------------------------------------------------------------------------
    > -
```

```
436 . estat gof

    Logistic model for hp2hmcare, goodness-of-fit test
    ---------------------------------------------------

           number of observations =       340
     number of covariate patterns =       306
               Pearson chi2(299) =       319.87
                     Prob > chi2 =         0.1945

437 . estat class

    Logistic model for hp2hmcare

                  -------- True --------
    Classified |         D            ~D  |      Total
    -----------+--------------------------+-----------
         +     |         8             5  |         13
         -     |        62           265  |        327
    -----------+--------------------------+-----------
       Total   |        70           270  |        340

    Classified + if predicted Pr(D) >= .5
    True D defined as hp2hmcare != 0
    --------------------------------------------------
    Sensitivity                     Pr( +| D)   11.43%
    Specificity                     Pr( -|~D)   98.15%
    Positive predictive value       Pr( D| +)   61.54%
    Negative predictive value       Pr(~D| -)   81.04%
    --------------------------------------------------
    False + rate for true ~D        Pr( +|~D)    1.85%
    False - rate for true D         Pr( -| D)   88.57%
    False + rate for classified +   Pr(~D| +)   38.46%
    False - rate for classified -   Pr( D| -)   18.96%
    --------------------------------------------------
    Correctly classified                        80.29%
    --------------------------------------------------
```

```
438 . fitstat

    Measures of Fit for logit of hp2hmcare

    Log-Lik Intercept Only:      -172.873    Log-Lik Full Model:           -152.228
    D(333):                       304.456    LR(6):                          41.290
                                             Prob > LR:                       0.000
    McFadden's R2:                  0.119    McFadden's Adj R2:               0.079
    Maximum Likelihood R2:          0.114    Cragg & Uhler's R2:              0.179
    McKelvey and Zavoina's R2:      0.208    Efron's R2:                      0.130
    Variance of y*:                 4.154    Variance of error:               3.290
    Count R2:                       0.803    Adj Count R2:                    0.043
    AIC:                            0.937    AIC*n:                         318.456
    BIC:                        -1636.583    BIC':                           -6.317

439 .
440 .
441 . title "trimming female moderators for hp2hmcare"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****             trimming female moderators for hp2hmcare                ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                             1 Jul 2012    20:36:29  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
442 .
443 . * Dose work relationship for females in wave 3 washes out also
444 . set more off

445 . forvalues j=3/3 {
  2. local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  3. di _skip(4)
  4. di as input "For females hp2hmcare on wave 1 with dose ns"
  5. des  age   avgcumdosew`j' `w3bf'
  6. logistic HP2work  age    radhlw3 ///
>     avgcumdosew3 shhlw`j'  if gender==2, coef nolog
  7.
446 . }

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
avgcumdosew3    double %8.0g                  Avg Mean dose of CS137 ending
                                                12/31/2009
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(4)      =      54.20
                                                  Prob > chi2     =     0.0000
Log likelihood = -179.46218                       Pseudo R2       =     0.1312
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0604261	.0121821	4.96	0.000	.0365495	.0843027
radhlw3	.0091245	.0041171	2.22	0.027	.0010551	.0171938
avgcumdosew3	.0744838	.0646958	1.15	0.250	-.0523177	.2012853
shhlw3	.0068705	.0039339	1.75	0.081	-.0008399	.0145808
_cons	-5.221192	.6904908	-7.56	0.000	-6.574529	-3.867855

```
.
.
.
.
.
.
.
.
. scalar SigdoseHmcareFw3="no"

.
. * capturing significant vars to test as moderators
. local cn4: colnames(e(b))

. di "`cn4'"
age radhlw3 avgcumdosew3 shhlw3 _cons

. local leng4 = length( "`cn4'")

. di `leng4'
37
```

```
462 . local leng4b `leng4'-6

463 . di `leng3b'


464 . local nuvlist4 = substr("`cn4'",4,`leng4b')

465 . di "`nuvlist4'"
    radhlw3 avgcumdosew3 shhlw3 _c

466 . local rhsvars4 = "`nuvlist4'"

467 . local nuvlist4= "`nuvlist4'"

468 . local nuvlist4= substr("`cn4'",1,`leng4b')

469 . di "`nuvlist4'"
    age radhlw3 avgcumdosew3 shhlw3

470 .
471 . cap gen shhlw3Xd3 = shhlw3*avgcumdosew3

472 .
473 . 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    20:36:30  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
474 . logit hp2hmcare age shhlw3  avgcumdosew3 ageXd3 shhlw3Xd3 if gender==2

    Iteration 0:   log likelihood = -233.72859
    Iteration 1:   log likelihood = -194.59265
    Iteration 2:   log likelihood =  -193.8132
    Iteration 3:   log likelihood =  -193.8113
    Iteration 4:   log likelihood =  -193.8113

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(5)      =      79.83
                                                      Prob > chi2     =     0.0000
    Log likelihood =  -193.8113                       Pseudo R2       =     0.1708

    ------------------------------------------------------------------------------
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             age |   .0869437   .0159483     5.45   0.000     .0556857    .1182017
          shhlw3 |   .0025983   .0052389     0.50   0.620    -.0076698    .0128663
    avgcumdosew3 |  -.5753628   .7013698    -0.82   0.412    -1.950022    .7992968
          ageXd3 |   .0054767   .0110707     0.49   0.621    -.0162215    .0271749
       shhlw3Xd3 |   .0024363   .0033657     0.72   0.469    -.0041603    .0090329
           _cons |  -5.058574   .9113937    -5.55   0.000    -6.844872   -3.272275
    ------------------------------------------------------------------------------

475 .
476 . set more off

477 . *---------- Mediator relationships for home care are tested below: ---------
    > ----
478 . title "Mediator relationships of Dose - home care impact are tested"


    *****************************************************************************
    > *
    *****************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****    Mediator relationships of Dose - home care impact are tested    ****
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                         1 Jul 2012    20:36:32     ****
    > *
    *****************************************************************************
```

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



479 . forvalues k=1/2 {
  2. forvalues j=3/3 {
  3. local w3bf 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' `w3bf'
  7. sw, pr(.1): logistic hp2hmcare  age  havmilsq ///
>    avgcumdosew3  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 3

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
age             double %8.0g                * Respondent's age
occ1w3          double %15.0g      LABJ       professional executive
                                                administration now
occ2w3          double %15.0g      LABJ       technical sales admin support
                                                now
occ3w3          double %15.0g      LABJ       service occup protective
                                                services now
occ4w3          double %15.0g      LABJ       precision prod mechan craft
                                                construction now
occ5w3          double %15.0g      LABJ       factory laborer machinist transp
                                                cleaner now
occ6w3          double %15.0g      LABJ       farming agricul forestry fishing
                                                trapping logging now
occ7w3          double %15.0g      LABJ       homemaking or caregiving now
occ8w3          double %15.0g      LABJ       student now
inc1w3          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities NOW
inc2w3          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities NOW
inc3w3          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                NOW
```

```
inc4w3          double %15.0g      LABJ        Income allows to comfortably
                                                 afford luxury items NOW
avgcumdosew3    double %8.0g                   Avg Mean dose of CS137 ending
                                                 12/31/2009
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 = 0.8890 >= 0.1000  removing shjobw3
p = 0.7169 >= 0.1000  removing avgcumdosew3
p = 0.6181 >= 0.1000  removing ageXd3
p = 0.3884 >= 0.1000  removing suprtw3
p = 0.3741 >= 0.1000  removing havmilsq

Logistic regression                               Number of obs   =        340
                                                  LR chi2(2)      =      37.81
                                                  Prob > chi2     =     0.0000
Log likelihood = -153.96835                       Pseudo R2       =     0.1094
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
age	.050053	.0120837	4.14	0.000	.0263694	.0737367
illw3	.450018	.1335457	3.37	0.001	.1882732	.7117629
_cons	-4.209924	.6577161	-6.40	0.000	-5.499024	-2.920824

Logistic model for hp2hmcare, goodness-of-fit test

number of observations	=	**340**
number of covariate patterns	=	**108**
Pearson chi2(**105**)	=	**123.84**
Prob > chi2	=	**0.1012**

Logistic model for hp2hmcare

Classified	True D	True ~D	Total
+	**9**	**5**	**14**
-	**61**	**265**	**326**
Total	**70**	**270**	**340**

Classified + if predicted Pr(D) >= .5
True D defined as hp2hmcare != 0

Sensitivity	Pr(+| D)	**12.86%**
Specificity	Pr(-|~D)	**98.15%**
Positive predictive value	Pr(D| +)	**64.29%**
Negative predictive value	Pr(~D| -)	**81.29%**
False + rate for true ~D	Pr(+|~D)	**1.85%**
False - rate for true D	Pr(-| D)	**87.14%**
False + rate for classified +	Pr(~D| +)	**35.71%**
False - rate for classified -	Pr(D| -)	**18.71%**
Correctly classified		**80.59%**

Measures of Fit for **logistic** of **hp2hmcare**

Log-Lik Intercept Only:	**-172.873**	Log-Lik Full Model:	**-153.968**
D(337):	**307.937**	LR(2):	**37.809**
		Prob > LR:	**0.000**
McFadden's R2:	**0.109**	McFadden's Adj R2:	**0.092**
Maximum Likelihood R2:	**0.105**	Cragg & Uhler's R2:	**0.165**
McKelvey and Zavoina's R2:	**0.170**	Efron's R2:	**0.126**
Variance of y*:	**3.965**	Variance of error:	**3.290**
Count R2:	**0.806**	Adj Count R2:	**0.057**
AIC:	**0.923**	AIC*n:	**313.937**
BIC:	**-1656.418**	BIC':	**-26.151**

Trimmed gender=2 hp2hmcare impact of dose in wave 3

variable name	storage type	display format	value label	variable label
age	double	%8.0g		* **Respondent's age**
occ1w3	double	%15.0g	LABJ	**professional executive administration now**
occ2w3	double	%15.0g	LABJ	**technical sales admin support now**
occ3w3	double	%15.0g	LABJ	**service occup protective services now**
occ4w3	double	%15.0g	LABJ	**precision prod mechan craft construction now**
occ5w3	double	%15.0g	LABJ	**factory laborer machinist transp cleaner now**
occ6w3	double	%15.0g	LABJ	**farming agricul forestry fishing trapping logging now**
occ7w3	double	%15.0g	LABJ	**homemaking or caregiving now**
occ8w3	double	%15.0g	LABJ	**student now**
inc1w3	double	%15.0g	LABJ	**Income is not sufficient for basic neccessities NOW**
inc2w3	double	%15.0g	LABJ	**Income is just sufficient for basic neccessities NOW**
inc3w3	double	%15.0g	LABJ	**Income is sufficient for basics plus extra purchases/savings NOW**
inc4w3	double	%15.0g	LABJ	**Income allows to comfortably afford luxury items NOW**
avgcumdosew3	double	%8.0g		**Avg Mean dose of CS137 ending 12/31/2009**
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, neiwl - 85) * bf20
bf40             float  %9.0g                 bf40 = max(0, icdxcnt -
                                                1.01635E-007)
                        begin with full model
p = 0.8360 >= 0.1000  removing ageXd3
p = 0.7775 >= 0.1000  removing suprtw3
p = 0.3880 >= 0.1000  removing havmilsq
p = 0.3482 >= 0.1000  removing shjobw3
p = 0.2310 >= 0.1000  removing illw3
p = 0.1422 >= 0.1000  removing avgcumdosew3

Logistic regression                               Number of obs   =        362
                                                  LR chi2(1)      =      75.69
                                                  Prob > chi2     =     0.0000
Log likelihood = -195.46039                       Pseudo R2       =     0.1622
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0916735	.0119861	7.65	0.000	.0681811	.1151659
_cons	-5.391274	.6487	-8.31	0.000	-6.662703	-4.119845

Logistic model for hp2hmcare, goodness-of-fit test

```
       number of observations =       362
 number of covariate patterns =        49
             Pearson chi2(47) =        40.39
                  Prob > chi2 =         0.7413
```

Logistic model for hp2hmcare

Classified	True D	True ~D	Total
+	62	32	94
-	63	205	268
Total	125	237	362

```
Classified + if predicted Pr(D) >= .5
True D defined as hp2hmcare != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   49.60%
Specificity                     Pr( -|~D)   86.50%
Positive predictive value       Pr( D| +)   65.96%
Negative predictive value       Pr(~D| -)   76.49%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)   13.50%
False - rate for true D         Pr( -| D)   50.40%
False + rate for classified +   Pr(~D| +)   34.04%
False - rate for classified -   Pr( D| -)   23.51%
--------------------------------------------------
Correctly classified                        73.76%
--------------------------------------------------

Measures of Fit for logistic of hp2hmcare

Log-Lik Intercept Only:     -233.306   Log-Lik Full Model:         -195.460
D(360):                      390.921   LR(1):                        75.691
                                       Prob > LR:                     0.000
McFadden's R2:                 0.162   McFadden's Adj R2:             0.154
Maximum Likelihood R2:         0.189   Cragg & Uhler's R2:            0.260
McKelvey and Zavoina's R2:     0.264   Efron's R2:                    0.208
Variance of y*:                4.472   Variance of error:             3.290
Count R2:                      0.738   Adj Count R2:                  0.240
AIC:                           1.091   AIC*n:                       394.921
BIC:                       -1730.071   BIC':                        -69.799

.
. scalar hmcareModFw3 = "none"

.
.
.
. * age and illw3 are a female mediators of dose - home care impact
.
```

```
487 . * age is a male and female mediator with impact on home care
488 . glm age avgcumdosew3 if gender==1,  fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -1330.6336

    Generalized linear models                          No. of obs      =        340
    Optimization     : ML                              Residual df     =        338
                                                       Scale parameter =   147.7142
    Deviance         =  49927.38549                    (1/df) Deviance =   147.7142
    Pearson          =  49927.38549                    (1/df) Pearson  =   147.7142

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

                                                       AIC             =   7.839021
    Log likelihood   = -1330.633586                    BIC             =    47957.2

    ------------------------------------------------------------------------------
                 |                 OIM
             age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew3 |   .5433648   .2472657     2.20   0.028      .058733    1.027997
           _cons |   48.52021   .7247376    66.95   0.000     47.09975    49.94067
    ------------------------------------------------------------------------------

489 . 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
```

hp2hmcare	Coef.	EIM 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.)

```
490 .
491 . glm age avgcumdosew3 if gender==2,  fam(gaussian) link(identity)

Iteration 0:   log likelihood =  -1408.064

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   137.7687
Deviance         =  49734.51399                    (1/df) Deviance =   137.7687
Pearson          =  49734.51399                    (1/df) Pearson  =   137.7687

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

                                                   AIC             =   7.768948
Log likelihood   =  -1408.06405                    BIC             =   47606.63
```

age	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**1.058366**	**.3512614**	**3.01**	**0.003**	**.3699069**	**1.746826**
_cons	**48.94293**	**.7468173**	**65.54**	**0.000**	**47.47919**	**50.40666**

```
492 . 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.)

.
.
. * illw3 is a male mediator wrt dose home care impact
. glm illw3 avgcumdosew3 if gender==1, fam(gaussian) link(identity)

Iteration 0:   log likelihood = -461.99206

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  .8919217
Deviance         =   301.469521                    (1/df) Deviance =  .8919217
Pearson          =   301.469521                    (1/df) Pearson  =  .8919217

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

                                                   AIC             =  2.729365
Log likelihood   = -461.9920626                    BIC             = -1668.714

------------------------------------------------------------------------------
             |                 OIM
       illw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |    .038211   .0192139     1.99   0.047     .0005524    .0758696
       _cons |   .4504952   .0563162     8.00   0.000     .3401176    .5608729
------------------------------------------------------------------------------
```

```
497 . glm hp2hmcare illw3 if gender==1, fam(binomial) irls scale(dev) link(probit)

    Iteration 1:   deviance =   325.666
    Iteration 2:   deviance =  325.6236
    Iteration 3:   deviance =  325.6236
    Iteration 4:   deviance =  325.6236

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        338
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  325.6235917                    (1/df) Deviance =   .9633834
    Pearson          =    335.97027                    (1/df) Pearson  =   .9939949

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

                                                       BIC             =   -1644.56

    ------------------------------------------------------------------------------
                 |                 EIM
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
           illw3 |   .3422616   .0758391     4.51   0.000     .1936197    .4909035
           _cons |  -1.024423   .0902165   -11.36   0.000    -1.201244   -.8476019
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

498 .
499 . glm illw3 avgcumdosew3 if gender==2, fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -562.81042

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =   1.308042
    Deviance         =  472.2033151                    (1/df) Deviance =   1.308042
    Pearson          =  472.2033151                    (1/df) Pearson  =   1.308042

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

                                                       AIC             =   3.111903
    Log likelihood   = -562.8104237                    BIC             =  -1655.676
```

```
------------------------------------------------------------------------------
             |                 OIM
       illw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |   .1284565   .0342268     3.75   0.000     .0613733    .1955398
       _cons |   .5563644   .0727696     7.65   0.000     .4137387    .6989902
------------------------------------------------------------------------------

500 . glm hp2hmcare illw3 if gender==2, fam(binomial) irls scale(dev) link(probit)

    Iteration 1:   deviance =  463.6739
    Iteration 2:   deviance =   463.093
    Iteration 3:   deviance =  463.0929
    Iteration 4:   deviance =  463.0929

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  463.0929333                    (1/df) Deviance =  1.282806
    Pearson          =  362.4107813                    (1/df) Pearson  =  1.003908

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

                                                       BIC             = -1664.786

------------------------------------------------------------------------------
             |                 EIM
   hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw3 |   .1203099   .0649774     1.85   0.064    -.0070435    .2476634
       _cons |  -.4898124   .0909036    -5.39   0.000    -.6679803   -.3116445
------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

501 .
502 .
```

```
503 .
504 . scalar hmcareMedMw3 = "age illw3"

505 . scalar hmcareMedFw3 = "age illw3"

506 . scalar list
    VactnMedFw3 = age illw3 radhlw3
    VactnMedMw3 = age illw3
    VacatnModFw3 = none
    MainEffVactnFw3 = age radhlw3 deaw3
    SigDoseVactnFw3 = no
    vactnModMw3 = none
    MainEffVactnMw3 = age bf7m radhlw3
    SigDoseVactnMw3 = no
    sxLifeMedFw3 = age bf4 bf4m
    sxLifeMedMw3 = age illw3
    InthbModFw3 = none
    MainEffInthbFw3 = age radhlw3 bf4
    SigdoseInthbFw3 = no
      InthbMw3 = none
    MainEffInthbMw3 = age radhlw3 shfamw3
    SigDoseInthbMw3 = no
    sxlifeMedFw3 = age illw3 radhlw3 bf4 bf4m
    sxlifeMedMw3 = age illw3
    sxlifeModFw3 = none
    MainEffsxlifeFw3 = age radhlw3 bf4 bf4m shrelaw3 shfamw3
    SigDoseSxlifeFw3 = no
    sxlifeModMw3 = none
    SigDosesxlifeMw3 = no
    MainEffsxlifeMw3 = age bf4 illw3 radhlw3
    PrbfmhmMedFw3 = age bf4
    PrbfmhmMedMw3 = age
    PrbfmhmModFw3 = none
    MainEffPrbfmhmFw3 = age bf4 bf40
    SigDosePrbfmhmFw3 = no
    PrbfmhmModw3 = none
    SigDosePrbfmhmMw3 = no
    SigDosePrbfhmMw3 = no
    MainEffPrbfhmMw3 = bf1 bf4 dvcew3 bf7m
    ProbsocMedFw3 = age radhlw3
    ProbsocMedMw3 = age
    ProbsocModFw3 = none
    MainEffProbSocFw3 = age radhlw3 illw3 Shrelaw3 avgcumodsew3
    SigDoseProbsocFw3 = yes
    ProbSocModMw3 = none
    SigDoseProbsocMw3 = no
    MainEffPrbsocMw3 = age radhlw3 shjobw3
    hmcareMedFw3 = age illw3
    hmcareMedMw3 = age illw3
```

```
hmcareModFw3 = none
SigdoseHmcareFw3 = no
hmcareModMw3 = none
MainEffhmcareMw3 = none
SigDoseHmcareMw3 = no
  wkMedFw3 = radhlw3 age bf40 bf4m bf1
  wkMedMw3 = bf8 age illw3 ageXillw3
  wkModFw3 = none
  wkModMw3 = none
MainEffwkFw3 = age
MainEffwkMw3 = workM: age  bf8  illw3  shjobw3
SigDoseWKMw3 = no
SigDoseWkFw3 = no
 medsigFw2 =         1
  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
```

```
507 .
508 . * conclusion "age & illw3 are main effects as possible male & female mediato
    > rs"
509 . * conclusion title "their interaction is not a mediator"
510 .
511 .
512 .
513 .
514 . * Other non-signif test results for mediators of the dose-homecare impact
515 .
516 . glm illw3Xd3 illw3 avgcumdosew3 if gender==1, fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -910.27475

    Generalized linear models                         No. of obs      =        340
    Optimization     : ML                             Residual df     =        337
                                                      Scale parameter =   12.49768
    Deviance         =  4211.718004                   (1/df) Deviance =   12.49768
    Pearson          =  4211.718004                   (1/df) Pearson  =   12.49768

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

                                                      AIC             =   5.372204
    Log likelihood   = -910.2747528                   BIC             =   2247.363

    ------------------------------------------------------------------------------
                 |                 OIM
        illw3Xd3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
           illw3 |   1.785312   .2036071     8.77   0.000     1.386249    2.184374
    avgcumdosew3 |    1.08337   .0723425    14.98   0.000     .9415811    1.225159
           _cons |  -1.330357   .2298973    -5.79   0.000    -1.780947   -.8797666
    ------------------------------------------------------------------------------

517 . glm hp2hmcare illw3Xd3 illw3 avgcumdosew3 if gender==1, fam(binomial) ///
    >   irls scale(dev) link(probit)

    Iteration 1:   deviance =  324.9852
    Iteration 2:   deviance =  324.7765
    Iteration 3:   deviance =   324.755
    Iteration 4:   deviance =  324.7539
    Iteration 5:   deviance =  324.7539
    Iteration 6:   deviance =  324.7539
```

```
Generalized linear models                          No. of obs      =        340
Optimization     : MQL Fisher scoring              Residual df     =        336
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  324.7538899                    (1/df) Deviance =   .9665294
Pearson          =  334.7330022                    (1/df) Pearson  =   .9962292

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

                                                   BIC             =  -1633.772

------------------------------------------------------------------------------
             |                 EIM
   hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     illw3Xd3 |   .0296527   .0383533     0.77   0.439    -.0455184    .1048239
       illw3 |   .3037802   .0878109     3.46   0.001      .131674    .4758864
 avgcumdosew3 |  -.0397572   .0621297    -0.64   0.522    -.1615292    .0820148
       _cons |  -.9819848     .10943    -8.97   0.000    -1.196464    -.767506
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)
```

```
518 . glm illw3Xd3 illw3 avgcumdosew3 if gender==2, fam(gaussian) link(identity)

Iteration 0:   log likelihood = -985.70781

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        360
                                                   Scale parameter =   13.48151
Deviance         =  4853.341842                    (1/df) Deviance =   13.48151
Pearson          =  4853.341842                    (1/df) Pearson  =   13.48151

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

                                                   AIC             =   5.447426
Log likelihood   = -985.7078088                    BIC             =   2731.357

------------------------------------------------------------------------------
             |                 OIM
    illw3Xd3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw3 |   1.708471   .1689681    10.11   0.000     1.377299    2.039642
 avgcumdosew3 |   2.232994   .1120046    19.94   0.000     2.013469    2.452519
       _cons |  -2.648599    .251824   -10.52   0.000    -3.142165   -2.155033
------------------------------------------------------------------------------
```

```
519 . glm hp2hmcare illw3Xd3 illw3 avgcumdosew3 if gender==2, fam(binomial) ///
    >    irls scale(dev) link(probit)

    Iteration 1:   deviance =   460.104
    Iteration 2:   deviance =  459.2782
    Iteration 3:   deviance =  459.2401
    Iteration 4:   deviance =  459.2395
    Iteration 5:   deviance =  459.2395
    Iteration 6:   deviance =  459.2395

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       359
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  459.2395051                    (1/df) Deviance =  1.279219
    Pearson          =  360.8121049                    (1/df) Pearson  =  1.005048

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

                                                       BIC             = -1656.851

    ------------------------------------------------------------------------------
                 |                 EIM
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
        illw3Xd3 |  -.0506129   .0397971    -1.27   0.203    -.1286138    .0273881
           illw3 |   .1996924   .0831248     2.40   0.016     .0367707    .3626141
    avgcumdosew3 |   .0648611   .0733042     0.88   0.376    -.0788126    .2085348
           _cons |  -.5685167   .1207782    -4.71   0.000    -.8052376   -.3317958
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

520 .
521 .
522 . glm havmilsq avgcumdosew3 if gender==1, fam(gaussian) link(identity)

    Iteration 0:   log likelihood =   -4357.43

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  7.98e+09
    Deviance         =  2.69659e+12                    (1/df) Deviance =  7.98e+09
    Pearson          =  2.69659e+12                    (1/df) Pearson  =  7.98e+09

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

```
                                                  AIC             =  25.64371
Log likelihood   = -4357.430049                   BIC             =  2.70e+12
```

havmilsq	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	-1575.31	1817.197	-0.87	0.386	-5136.952	1986.331
_cons	18893.16	5326.219	3.55	0.000	8453.963	29332.36

```
523 . 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.)

```
524 . glm havmilsq avgcumdosew3 if gender==2, fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -5315.4087

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =   3.08e+11
    Deviance         =  1.11219e+14                    (1/df) Deviance =   3.08e+11
    Pearson          =  1.11219e+14                    (1/df) Pearson  =   3.08e+11

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

                                                       AIC             =   29.29702
    Log likelihood   = -5315.408686                    BIC             =   1.11e+14

    ------------------------------------------------------------------------------
                 |                 OIM
        havmilsq |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew3 |   8378.635   16610.83     0.50   0.614    -24177.99    40935.26
           _cons |   50752.51   35316.31     1.44   0.151    -18466.18    119971.2
    ------------------------------------------------------------------------------

525 . 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
```

hp2hmcare	Coef.	EIM 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.)

```
526 .
527 . glm radhlw3 avgcumdosew3 if gender==1, fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -1695.1855

    Generalized linear models                          No. of obs      =        340
    Optimization     : ML                              Residual df     =        338
                                                       Scale parameter =   1261.052
    Deviance         =  426235.7205                    (1/df) Deviance =   1261.052
    Pearson          =  426235.7205                    (1/df) Pearson  =   1261.052

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

                                                       AIC             =   9.983444
    Log likelihood   = -1695.185473                    BIC             =   424265.5
```

radhlw3	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**.9606492**	**.7224692**	**1.33**	**0.184**	**-.4553645**	**2.376663**
_cons	**46.19995**	**2.117563**	**21.82**	**0.000**	**42.0496**	**50.3503**

```
528 . glm hp2hmcare radhlw3 if gender==1, fam(binomial) irls scale(dev) link(probi
    > t)

    Iteration 1:   deviance =  319.2576
    Iteration 2:   deviance =  318.3456
    Iteration 3:   deviance =  318.3441
    Iteration 4:   deviance =  318.3441

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        338
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  318.3440747                    (1/df) Deviance =   .9418464
    Pearson          =  342.3257119                    (1/df) Pearson  =   1.012798
```

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

                                                 BIC             =  -1651.84
```

hp2hmcare	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
radhlw3	.0115758	.0022053	5.25	0.000	.0072534	.0158982
_cons	-1.437377	.1466803	-9.80	0.000	-1.724866	-1.149889

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

```
529 . glm radhlw3 avgcumdosew3 if gender==2, fam(gaussian) link(identity)

Iteration 0:   log likelihood = -1798.7074

Generalized linear models                        No. of obs      =        363
Optimization     : ML                            Residual df     =        361
                                                 Scale parameter =   1185.454
Deviance         =  427948.9522                  (1/df) Deviance =   1185.454
Pearson          =  427948.9522                  (1/df) Pearson  =   1185.454

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

                                                 AIC             =   9.921253
Log likelihood   = -1798.707367                  BIC             =   425821.1
```

radhlw3	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	2.751602	1.03038	2.67	0.008	.7320943	4.77111
_cons	57.70689	2.190692	26.34	0.000	53.41321	62.00057

```
530 . glm hp2hmcare radhlw3 if gender==2, fam(binomial) irls scale(dev) link(probi
    > t)

    Iteration 1:   deviance =  466.2486
    Iteration 2:   deviance =  465.6482
    Iteration 3:   deviance =  465.6481
    Iteration 4:   deviance =  465.6481

    Generalized linear models                          No. of obs      =        363
    Optimization     : MQL Fisher scoring              Residual df     =        361
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  465.6481297                    (1/df) Deviance =   1.289884
    Pearson          =  362.9350038                    (1/df) Pearson  =    1.00536

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

                                                       BIC             =  -1662.231

    ------------------------------------------------------------------------------
                 |                 EIM
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
         radhlw3 |   .0026441   .0022316     1.18   0.236    -.0017297    .0070179
           _cons |  -.5636837   .1583099    -3.56   0.000    -.8739654   -.2534021
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

531 .
532 . title4 "*------- summary matrix construction for dose home care"
    ------------------------------------------------------------------------------
    *------- summary matrix construction for dose home care
    ------------------------------------------------------------------------------

533 .
534 .  matrix define HP2hmcrMw3 = J(1,8, 0)
```

```
535 .         matrix define HP2hmcrFw3 = J(1,8, 0)

536 . matrix colnames HP2hmcrMw3=  hypnum ptnum wave gender medsig numMAsig numMod
    > sig ///
    >     numMed

537 . matrix colnames HP2hmcrFw3=  hypnum ptnum wave gender medsig numMAsig numMod
    > sig ///
    >     numMed

538 .     matrix rownames HP2hmcrMw3 = hmcareM

539 .     matrix rownames HP2hmcrFw3 = hmcareF

540 .     matrix define HP2hmcrFw3= (1, 2, 3, 2, 0 ,2,  0  , 2 )

541 .         matrix define HP2hmcrMw3= (1, 2, 3, 1, 0 , 4,  0  , 2 )

542 .         matrix define H1pt2w3 = (HP2wkMw3 \ HP2wkFw3 \ HP2hmcrMw3 \HP2hmcrFw
    > 3)

543 .     matrix colnames H1pt2w3 =  hypnum ptnum wave gender medsig numMAsig numM
    > odsig numMed

544 .     matrix colnames H1pt2w3 =  hypnum ptnum wave gender medsig numMAsig numM
    > odsig numMed

545 .     matrix rownames H1pt2w3 = HP2wkMw3 WHP2wkFw3 HP2hmcrMw3 HP2hmcrFw3

546 .         matlist H1pt2w3

                 |    hypnum      ptnum       wave     gender     medsig   numMAsi
    > g
    -------------+-------------------------------------------------------------
    > --
        HP2wkMw3 |         1          2          3          1          0
    > 4
       WHP2wkFw3 |         1          2          3          2          0
    > 1
      HP2hmcrMw3 |         1          2          3          1          0
    > 4
      HP2hmcrFw3 |         1          2          3          2          0
    > 2
```

	numModsig	numMed
HP2wkMw3	**0**	**4**
WHP2wkFw3	**0**	**6**
HP2hmcrMw3	**0**	**2**
HP2hmcrFw3	**0**	**2**

```
547 .
548 . * see scalar list for names of variables
549 . scalar list
    VactnMedFw3 = age illw3 radhlw3
    VactnMedMw3 = age illw3
    VacatnModFw3 = none
    MainEffVactnFw3 = age radhlw3 deaw3
    SigDoseVactnFw3 = no
    vactnModMw3 = none
    MainEffVactnMw3 = age bf7m radhlw3
    SigDoseVactnMw3 = no
    sxLifeMedFw3 = age bf4 bf4m
    sxLifeMedMw3 = age illw3
    InthbModFw3 = none
    MainEffInthbFw3 = age radhlw3 bf4
    SigdoseInthbFw3 = no
      InthbMw3 = none
    MainEffInthbMw3 = age radhlw3 shfamw3
    SigDoseInthbMw3 = no
    sxlifeMedFw3 = age illw3 radhlw3 bf4 bf4m
    sxlifeMedMw3 = age illw3
    sxlifeModFw3 = none
    MainEffsxlifeFw3 = age radhlw3 bf4 bf4m shrelaw3 shfamw3
    SigDoseSxlifeFw3 = no
    sxlifeModMw3 = none
    SigDosesxlifeMw3 = no
    MainEffsxlifeMw3 = age bf4 illw3 radhlw3
    PrbfmhmMedFw3 = age bf4
    PrbfmhmMedMw3 = age
    PrbfmhmModFw3 = none
    MainEffPrbfmhmFw3 = age bf4 bf40
    SigDosePrbfmhmFw3 = no
    PrbfmhmModw3 = none
    SigDosePrbfmhmMw3 = no
    SigDosePrbfhmMw3 = no
    MainEffPrbfhmMw3 = bf1 bf4 dvcew3 bf7m
    ProbsocMedFw3 = age radhlw3
    ProbsocMedMw3 = age
    ProbsocModFw3 = none
    MainEffProbSocFw3 = age radhlw3 illw3 Shrelaw3 avgcumodsew3
    SigDoseProbsocFw3 = yes
    ProbSocModMw3 = none
```

```
SigDoseProbsocMw3 = no
MainEffPrbsocMw3 = age radhlw3 shjobw3
hmcareMedFw3 = age illw3
hmcareMedMw3 = age illw3
hmcareModFw3 = none
SigdoseHmcareFw3 = no
hmcareModMw3 = none
MainEffhmcareMw3 = none
SigDoseHmcareMw3 = no
  wkMedFw3 = radhlw3 age bf40 bf4m bf1
  wkMedMw3 = bf8 age illw3 ageXillw3
  wkModFw3 = none
  wkModMw3 = none
MainEffwkFw3 = age
MainEffwkMw3 = workM: age  bf8  illw3  shjobw3
SigDoseWKMw3 = no
SigDoseWkFw3 = no
 medsigFw2 =          1
  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
```

```
550 .
551 . * X * missing the number of main effects in the trimmed models
552 .
553 . ////////////////////////////////////////////////////////////////////////
    > *--------- Chunk 4  Dose prob soc impact relationship HP2probsoc
554 . *---------------------------------------------------------------------------
    > ----
555 . *      General model for all part 2 of Nottingham Health Profile
556 .
557 . title " 3. Wave 3 part2   H1: Test of hypothesis 1 Part 2 "


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****        3. Wave 3 part2   H1: Test of hypothesis 1 Part 2            ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                                1 Jul 2012    20:37:19  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *


558 . title " Wave 3 Dose - HP2probsoc Main effects identification"
```

```
******************************************************************************
> *
******************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****        Wave 3 Dose - HP2probsoc Main effects identification        ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                      1 Jul 2012    20:37:19        ****
> *
******************************************************************************
> *
******************************************************************************
> *


559 . forvalues j=3/3 {
  2. set more off
  3.
560 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
>   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
  4.
561 .   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.
```

```
562 .       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
    marrw31         byte   %8.0g                  marrw3==1. single
    marrw32         byte   %8.0g                  marrw3==2. cohabitating
    marrw33         byte   %8.0g                  marrw3==3. married
    marrw34         byte   %8.0g                  marrw3==4. separated
    marrw35         byte   %8.0g                  marrw3==5. divorced
    marrw36         byte   %8.0g                  marrw3==6. widowed
    inc1w3          double %15.0g      LABJ       Income is not sufficient for
                                                    basic neccessities NOW
    inc2w3          double %15.0g      LABJ       Income is just sufficient for
                                                    basic neccessities NOW
    inc3w3          double %15.0g      LABJ       Income is sufficient for basics
                                                    plus extra purchases/savings
                                                    NOW
    inc4w3          double %15.0g      LABJ       Income allows to comfortably
                                                    afford luxury items NOW
    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= 3

chunk 4 H1 test:Gender= 1  model Wave =  3 for hp2hmcare



******************************************************************************
> *
******************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females   ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                                   1 Jul 2012    20:37:19  ****
> *
******************************************************************************
> *
******************************************************************************
> *


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: occ5w3 != 0 predicts failure perfectly
      occ5w3 dropped and 15 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used
```

```
note: marrw32 != 0 predicts failure perfectly
      marrw32 dropped and 20 obs not used

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

note: _Ieduc_6 omitted because of collinearity
note: occ8w3 omitted because of collinearity
note: marrw36 omitted because of collinearity
note: bf17 omitted because of collinearity

Logistic regression                               Number of obs   =        266
                                                  LR chi2(44)     =     125.89
                                                  Prob > chi2     =     0.0000
Log likelihood =  -51.38371                       Pseudo R2       =     0.5506
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1094616	.0479486	2.28	0.022	.015484	.2034392
_Ieduc_2	.7414425	1.297886	0.57	0.568	-1.802367	3.285252
_Ieduc_3	-1.614771	.8291042	-1.95	0.051	-3.239785	.0102435
_Ieduc_4	0	(omitted)				
_Ieduc_5	-1.309884	1.008415	-1.30	0.194	-3.286342	.6665737
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w3	-14.19493	1124.783	-0.01	0.990	-2218.729	2190.339
occ2w3	-12.80013	1124.783	-0.01	0.991	-2217.335	2191.734
occ3w3	-14.84881	1124.785	-0.01	0.989	-2219.387	2189.689
occ4w3	-13.35572	1124.784	-0.01	0.991	-2217.891	2191.18
occ5w3	0	(omitted)				
occ6w3	0	(omitted)				
occ7w3	-14.19043	1124.784	-0.01	0.990	-2218.726	2190.345
occ8w3	0	(omitted)				
marrw31	3.074981	1.891094	1.63	0.104	-.6314958	6.781458
marrw32	0	(omitted)				
marrw33	1.087086	1.851071	0.59	0.557	-2.540947	4.715119
marrw35	2.144183	1.926965	1.11	0.266	-1.632599	5.920964
marrw36	0	(omitted)				
inc1w3	12.66541	1124.784	0.01	0.991	-2191.87	2217.201
inc2w3	14.23621	1124.783	0.01	0.990	-2190.299	2218.771
inc3w3	11.68224	1124.783	0.01	0.992	-2192.853	2216.217
inc4w3	13.15717	1124.785	0.01	0.991	-2191.381	2217.695
radhlw3	.0116102	.013936	0.83	0.405	-.0157038	.0389242
havmil	.010259	.0190025	0.54	0.589	-.0269853	.0475032
avgcumdosew3	.013934	.0740721	0.19	0.851	-.1312447	.1591127
bf1	.0049612	.0648373	0.08	0.939	-.1221176	.1320399
bf4	.3309901	.3608169	0.92	0.359	-.376198	1.038178

bf2	.0003753	.0003121	1.20	0.229	-.0002364	.000987
bf4m	-.7073564	.3457629	-2.05	0.041	-1.385039	-.0296735
bf5m	.0055743	.0030295	1.84	0.066	-.0003633	.0115119
bf7m	.0005904	.001055	0.56	0.576	-.0014774	.0026582
bf8	-.0001253	.0000745	-1.68	0.093	-.0002713	.0000207
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0283325	.0488173	-0.58	0.562	-.1240127	.0673477
bf22	.000352	.0002932	1.20	0.230	-.0002227	.0009267
bf29	-.0000333	.0000588	-0.57	0.572	-.0001486	.000082
bf30	-.0013785	.0007131	-1.93	0.053	-.0027761	.0000191
bf40	-.3600239	.3692219	-0.98	0.330	-1.083686	.3636377
deaw3	-.5217994	.4891348	-1.07	0.286	-1.480486	.4368872
dvcew3	-.5047921	1.728469	-0.29	0.770	-3.892529	2.882945
sepaw3	1.877558	1.625412	1.16	0.248	-1.308191	5.063307
accdw3	-1.417017	1.419234	-1.00	0.318	-4.198664	1.364631
movew3	-1.057894	1.576256	-0.67	0.502	-4.1473	2.031511
illw3	.0330976	.3751226	0.09	0.930	-.7021292	.7683243
shfamw3	.012083	.0115403	1.05	0.295	-.0105354	.0347015
shhlw3	-.0165557	.0125582	-1.32	0.187	-.0411693	.0080578
shjobw3	.032774	.0134379	2.44	0.015	.0064363	.0591118
shrelaw3	-.0108059	.0117883	-0.92	0.359	-.0339106	.0122988
suprtw3	-.014138	.0155065	-0.91	0.362	-.0445303	.0162542
suchrw3	.0131393	.0111977	1.17	0.241	-.0088078	.0350865
havmilsq	-.000014	.0000386	-0.36	0.717	-.0000896	.0000616
_cons	.4495347	5.049973	0.09	0.929	-9.44823	10.3473

Note: 3 failures and 0 successes completely determined.

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	27	5	32
-	14	220	234
Total	41	225	266

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   65.85%
Specificity                     Pr( -|~D)   97.78%
Positive predictive value       Pr( D| +)   84.38%
Negative predictive value       Pr(~D| -)   94.02%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    2.22%
False - rate for true D         Pr( -| D)   34.15%
False + rate for classified +   Pr(~D| +)   15.62%
False - rate for classified -   Pr( D| -)    5.98%
--------------------------------------------------
Correctly classified                        92.86%
--------------------------------------------------
```

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       266
 number of covariate patterns =       266
            Pearson chi2(221) =       138.28
                  Prob > chi2 =         1.0000
```

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

```
Log-Lik Intercept Only:     -114.331   Log-Lik Full Model:            -51.384
D(210):                      102.767   LR(44):                        125.895
                                       Prob > LR:                       0.000
McFadden's R2:                 0.551   McFadden's Adj R2:               0.061
Maximum Likelihood R2:         0.377   Cragg & Uhler's R2:              0.654
McKelvey and Zavoina's R2:     0.833   Efron's R2:                      0.549
Variance of y*:               19.713   Variance of error:               3.290
Count R2:                      0.929   Adj Count R2:                    0.537
AIC:                           0.807   AIC*n:                         214.767
BIC:                       -1069.767   BIC':                          119.779
Full main model for HP2probsoc for wave= 3

chunk 4 H1 test:Gender= 2  model Wave =  3 for HP2probsoc
```

```
*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females   ****
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****                                          1 Jul 2012    20:37:20  ****
> *
*****************************************************************************
> *
*****************************************************************************
> *


i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: occ4w3 != 0 predicts failure perfectly
      occ4w3 dropped and 8 obs not used

note: occ5w3 != 0 predicts failure perfectly
      occ5w3 dropped and 5 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

note: occ8w3 != 0 predicts failure perfectly
      occ8w3 dropped and 1 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 11 obs not used

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

Logistic regression                               Number of obs   =        333
                                                  LR chi2(48)     =     182.65
                                                  Prob > chi2     =     0.0000
Log likelihood = -85.065495                       Pseudo R2       =     0.5177
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
age	.1095324	.0321452	3.41	0.001	.0465289	.1725358
_Ieduc_2	-13.53237	1231.492	-0.01	0.991	-2427.212	2400.147
_Ieduc_3	-13.52493	1231.492	-0.01	0.991	-2427.204	2400.154
_Ieduc_4	-12.60239	1231.492	-0.01	0.992	-2426.282	2401.077
_Ieduc_5	-12.71374	1231.492	-0.01	0.992	-2426.393	2400.966
_Ieduc_6	-14.01871	1231.492	-0.01	0.991	-2427.698	2399.66
_Ieduc_7	-14.42024	1231.563	-0.01	0.991	-2428.239	2399.398
_Ieduc_8	0	(omitted)				
occ1w3	-1.43031	4.480321	-0.32	0.750	-10.21158	7.350959
occ2w3	-.9422793	4.54239	-0.21	0.836	-9.8452	7.960641
occ3w3	-.9893619	4.495549	-0.22	0.826	-9.800476	7.821752
occ4w3	0	(omitted)				
occ5w3	0	(omitted)				
occ6w3	0	(omitted)				
occ7w3	-.3813499	4.479039	-0.09	0.932	-9.160105	8.397405
occ8w3	0	(omitted)				
marrw31	-1.356413	4.804963	-0.28	0.778	-10.77397	8.061141
marrw32	1.424321	4.907376	0.29	0.772	-8.193959	11.0426
marrw33	.9014745	4.669929	0.19	0.847	-8.251419	10.05437
marrw35	.1665893	4.645112	0.04	0.971	-8.937664	9.270842
marrw36	.3174753	4.648882	0.07	0.946	-8.794166	9.429116
inc1w3	.8600896	4.513897	0.19	0.849	-7.986987	9.707166
inc2w3	1.384829	4.490321	0.31	0.758	-7.416038	10.1857
inc3w3	.4792744	4.482989	0.11	0.915	-8.307222	9.26577
inc4w3	2.266942	4.835774	0.47	0.639	-7.211	11.74488
radhlw3	.0131788	.0108242	1.22	0.223	-.0080363	.0343939
havmil	.0001731	.0072695	0.02	0.981	-.0140748	.014421
avgcumdosew3	.4373021	.1594734	2.74	0.006	.12474	.7498642
bf1	.0565003	.0423978	1.33	0.183	-.0265978	.1395985
bf4	-.5202783	.2238014	-2.32	0.020	-.9589209	-.0816356
bf2	.0000421	.0001478	0.28	0.776	-.0002477	.0003318
bf4m	.2426577	.1977977	1.23	0.220	-.1450185	.630334
bf5m	-.0017451	.0026768	-0.65	0.514	-.0069915	.0035013
bf7m	.0007865	.0007919	0.99	0.321	-.0007656	.0023387
bf8	.0000207	.0000544	0.38	0.704	-.000086	.0001273
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0669294	.0330398	-2.03	0.043	-.1316862	-.0021726
bf22	-.0000944	.0001823	-0.52	0.605	-.0004517	.0002629
bf29	-.0000309	.000047	-0.66	0.511	-.0001229	.0000611
bf30	.0003246	.0004246	0.76	0.445	-.0005076	.0011567
bf40	.0606979	.1844629	0.33	0.742	-.3008427	.4222385
deaw3	.1696097	.2295421	0.74	0.460	-.2802844	.6195039
dvcew3	.3810548	1.285314	0.30	0.767	-2.138115	2.900224
sepaw3	-2.876602	1.529689	-1.88	0.060	-5.874737	.1215322
accdw3	.1226563	.714668	0.17	0.864	-1.278067	1.52338

movew3	1.918652	1.360681	1.41	0.159	-.7482334	4.585538
illw3	.2671943	.2045213	1.31	0.191	-.1336601	.6680487
shfamw3	-.0003116	.0095404	-0.03	0.974	-.0190104	.0183873
shhlw3	-.0026048	.0074647	-0.35	0.727	-.0172353	.0120256
shjobw3	.006075	.0086284	0.70	0.481	-.0108364	.0229864
shrelaw3	-.0267274	.010033	-2.66	0.008	-.0463918	-.007063
suprtw3	-.0065983	.0100162	-0.66	0.510	-.0262297	.0130331
suchrw3	.0015649	.0064519	0.24	0.808	-.0110806	.0142105
havmilsq	-3.19e-06	.0000124	-0.26	0.797	-.0000275	.0000211
_cons	6.986764	1231.505	0.01	0.995	-2406.718	2420.692

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2probsoc

Classified	True D	True ~D	Total
+	54	13	67
-	20	246	266
Total	74	259	333

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

Sensitivity	Pr(+| D)	72.97%
Specificity	Pr(-|~D)	94.98%
Positive predictive value	Pr(D| +)	80.60%
Negative predictive value	Pr(~D| -)	92.48%
False + rate for true ~D	Pr(+|~D)	5.02%
False - rate for true D	Pr(-| D)	27.03%
False + rate for classified +	Pr(~D| +)	19.40%
False - rate for classified -	Pr(D| -)	7.52%
Correctly classified		90.09%

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       333
 number of covariate patterns =       333
             Pearson chi2(284) =       335.12
                   Prob > chi2 =         0.0199
```

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

```
Log-Lik Intercept Only:     -176.392     Log-Lik Full Model:           -85.065
D(277):                      170.131     LR(48):                       182.653
                                         Prob > LR:                      0.000
McFadden's R2:                 0.518     McFadden's Adj R2:              0.200
Maximum Likelihood R2:         0.422     Cragg & Uhler's R2:             0.646
McKelvey and Zavoina's R2:     0.810     Efron's R2:                     0.561
Variance of y*:               17.273     Variance of error:              3.290
Count R2:                      0.901     Adj Count R2:                   0.554
AIC:                           0.847     AIC*n:                        282.131
BIC:                       -1438.724     BIC':                          96.138

563 . ************************  Possible signifi dose effect*********************
    > ****
564 . *-----Chunk 4 dose3 social problem impact---for women in wave three
565 . ****************************************************************************
    > ***
566 . title4 "Chunk 4 trimmed models of dose and HP2work relationship in wave 3"
    ------------------------------------------------------------------------------
    Chunk 4 trimmed models of dose and HP2work relationship in wave 3
    ------------------------------------------------------------------------------

567 . * male models
568 . set more off

569 .         forvalues j=3/3 {
      2. local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      3. title3 "trimmed HP2probsoc main effects models wave 3 for H1 part 2 with
    > dose ns"
      4. title "Wave 3 dose HP2probsoc relationship but avgcumdosew`j': Dose not s
    > ignif"
      5. xi:logit HP2probsoc age i.educ radhlw3 accdw`j' bf8  shjobw`j' suchrw3 ha
    > vmilsq ///
    >     avgcumdosew`j' if gender==1
      6.                         estat class
      7.                         estat gof
      8.                         fitstat
      9. }
    ------------------------------------------------------------------------------
    title3 : trimmed HP2probsoc main effects models wave 3 for H1 part 2 with dose
    >  ns
     1 Jul 2012
    20:37:22
    computer  Macintosh (Intel 64-bit)
    folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests
    > /h1pt2
    Data file  chwide1jul2012.dta  currrently has  2402  variables and  703  obser
    > vations
```

```
********************************************************************************
> *
********************************************************************************
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****Wave 3 dose HP2probsoc relationship but avgcumdosew3: Dose not signif****
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****                                                  1 Jul 2012    20:37:22  ****
> *
********************************************************************************
> *
********************************************************************************
> *


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 = -94.094194
Iteration 2:   log likelihood = -86.783267
Iteration 3:   log likelihood = -86.595645
Iteration 4:   log likelihood = -86.595407
Iteration 5:   log likelihood = -86.595407

Logistic regression                               Number of obs   =        320
                                                  LR chi2(11)     =      71.81
                                                  Prob > chi2     =     0.0000
Log likelihood = -86.595407                       Pseudo R2       =     0.2931
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0535719	.0238163	2.25	0.024	.0068928	.100251
_Ieduc_2	.3605111	.9297636	0.39	0.698	-1.461792	2.182814
_Ieduc_3	-.6699915	.4771602	-1.40	0.160	-1.605208	.2652253
_Ieduc_4	0	(omitted)				
_Ieduc_5	-.5495985	.5675642	-0.97	0.333	-1.662004	.5628069
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
radhlw3	.0305161	.0070656	4.32	0.000	.0166678	.0443643
accdw3	-1.646048	.8717553	-1.89	0.059	-3.354657	.0625614
bf8	-.0000366	.0000261	-1.40	0.161	-.0000877	.0000146
shjobw3	.0159184	.0057194	2.78	0.005	.0047085	.0271283
suchrw3	.0135001	.0055103	2.45	0.014	.0027001	.0243001
havmilsq	-1.21e-06	4.50e-06	-0.27	0.788	-.00001	7.61e-06
avgcumdosew3	.0300057	.0490462	0.61	0.541	-.0661232	.1261345
_cons	-7.526129	1.376102	-5.47	0.000	-10.22324	-4.829018

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	13	6	19
-	28	273	301
Total	41	279	320

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

Sensitivity	Pr(+| D)	31.71%
Specificity	Pr(-|~D)	97.85%
Positive predictive value	Pr(D| +)	68.42%
Negative predictive value	Pr(~D| -)	90.70%
False + rate for true ~D	Pr(+|~D)	2.15%
False - rate for true D	Pr(-| D)	68.29%
False + rate for classified +	Pr(~D| +)	31.58%
False - rate for classified -	Pr(D| -)	9.30%
Correctly classified		89.38%

```
Logistic model for HP2probsoc, goodness-of-fit test

       number of observations =       320
 number of covariate patterns =       319
            Pearson chi2(307) =       262.97
                  Prob > chi2 =         0.9673

Measures of Fit for logit of HP2probsoc

Log-Lik Intercept Only:     -122.498    Log-Lik Full Model:           -86.595
D(304):                      173.191    LR(11):                        71.806
                                        Prob > LR:                      0.000
McFadden's R2:                 0.293    McFadden's Adj R2:              0.162
Maximum Likelihood R2:         0.201    Cragg & Uhler's R2:             0.376
McKelvey and Zavoina's R2:     0.500    Efron's R2:                     0.271
Variance of y*:                6.583    Variance of error:              3.290
Count R2:                      0.894    Adj Count R2:                   0.171
AIC:                           0.641    AIC*n:                        205.191
BIC:                       -1580.379    BIC':                          -8.354

570 .
571 .
572 . forvalues j=3/3 {
  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 3             ****
> *
*****                    for H1 part 2 with dose ns                      ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                     1 Jul 2012    20:37:24         ****
> *
```

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

```
title2: Wave `j dose HP2work relationship but avgcumdosew3: Dose not signif
                                       Date and time:   1 Jul 2012    20:37:24
                                       Working directory:  /Users/robertyaffee
> /Documents/data/research/chwk/phase3/Htests/H1tests/h1pt2
                                       Stata data file:  chwide1jul2012.dta  h
> as  2402  variables and  703  observations

Wave `j dose HP2work relationship but avgcumdosew3: Dose not signif
```

```
573 .
574 . foreach var in suchrw3 radhlw3 shjobw3 {
  2.  cap gen `var'Xd3= `var'*avgcumdosew3
  3.  }

575 .
576 . forvalues j=3/3 {
  2.   title "Main effects Dose ProbSoc model for males"
  3.   logit HP2probsoc age avgcumdosew3 radhlw3 shjobw`j' if gender==1
  4.                         estat class
  5.                         estat gof
  6.                         fitstat
  7. }


********************************************************************************
> *
********************************************************************************
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****             Main effects Dose ProbSoc model for males                ****
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****                                            1 Jul 2012    20:37:24    ****
> *
********************************************************************************
```

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

```
Iteration 0:   log likelihood = -125.15243
Iteration 1:   log likelihood = -102.23967
Iteration 2:   log likelihood = -97.397123
Iteration 3:   log likelihood = -97.305516
Iteration 4:   log likelihood = -97.305496
Iteration 5:   log likelihood = -97.305496

Logistic regression                               Number of obs   =        340
                                                  LR chi2(4)      =      55.69
                                                  Prob > chi2     =     0.0000
Log likelihood = -97.305496                       Pseudo R2       =     0.2225
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0793863	.0196172	4.05	0.000	.0409372	.1178353
avgcumdosew3	.0349899	.0473999	0.74	0.460	-.0579122	.1278919
radhlw3	.0232266	.0060628	3.83	0.000	.0113437	.0351094
shjobw3	.0140642	.0050535	2.78	0.005	.0041595	.0239689
_cons	-8.338983	1.267447	-6.58	0.000	-10.82313	-5.854832

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	5	3	8
-	36	296	332
Total	41	299	340

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   12.20%
Specificity                     Pr( -|~D)   99.00%
Positive predictive value       Pr( D| +)   62.50%
Negative predictive value       Pr(~D| -)   89.16%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    1.00%
False - rate for true D         Pr( -| D)   87.80%
False + rate for classified +   Pr(~D| +)   37.50%
False - rate for classified -   Pr( D| -)   10.84%
--------------------------------------------------
Correctly classified                        88.53%
--------------------------------------------------
```

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       328
            Pearson chi2(323) =       293.19
                  Prob > chi2 =         0.8819
```

Measures of Fit for **logit** of **HP2probsoc**

```
Log-Lik Intercept Only:     -125.152   Log-Lik Full Model:            -97.305
D(335):                      194.611   LR(4):                          55.694
                                       Prob > LR:                       0.000
McFadden's R2:                 0.223   McFadden's Adj R2:               0.183
Maximum Likelihood R2:         0.151   Cragg & Uhler's R2:              0.290
McKelvey and Zavoina's R2:     0.409   Efron's R2:                      0.189
Variance of y*:                5.568   Variance of error:               3.290
Count R2:                      0.885   Adj Count R2:                    0.049
AIC:                           0.602   AIC*n:                         204.611
BIC:                       -1758.086   BIC':                          -32.378
```

```
577 .
578 . scalar MainEffPrbsocMw3 = "age radhlw3 shjobw3"

579 .
580 .
581 . forvalues j=3/3 {
  2.   logit HP2probsoc age  radhlw3 shjobw`j'  ///
>        avgcumdosew`j' ///
>         shjobw3Xd3 if gender==1
  3.                       estat class
  4.                       estat gof
  5.                       fitstat
  6. }

Iteration 0:   log likelihood = -125.15243
Iteration 1:   log likelihood = -99.524419
Iteration 2:   log likelihood = -94.068605
Iteration 3:   log likelihood = -93.949644
Iteration 4:   log likelihood = -93.948748
Iteration 5:   log likelihood = -93.948746

Logistic regression                               Number of obs   =        340
                                                  LR chi2(5)      =      62.41
                                                  Prob > chi2     =     0.0000
Log likelihood = -93.948746                       Pseudo R2       =     0.2493
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0751262	.0195236	3.85	0.000	.0368608	.1133917
radhlw3	.0251104	.0062707	4.00	0.000	.0128201	.0374008
shjobw3	-.0001631	.0088177	-0.02	0.985	-.0174456	.0171193
avgcumdosew3	-.2525242	.2724481	-0.93	0.354	-.7865126	.2814642
shjobw3Xd3	.0124767	.0071063	1.76	0.079	-.0014514	.0264049
_cons	-7.860581	1.288837	-6.10	0.000	-10.38665	-5.334508

```
Note: 0 failures and 1 success completely determined.

Logistic model for HP2probsoc
```

Classified	True D	True ~D	Total
+	6	3	9
-	35	296	331
Total	41	299	340

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   14.63%
Specificity                     Pr( -|~D)   99.00%
Positive predictive value       Pr( D| +)   66.67%
Negative predictive value       Pr(~D| -)   89.43%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    1.00%
False - rate for true D         Pr( -| D)   85.37%
False + rate for classified +   Pr(~D| +)   33.33%
False - rate for classified -   Pr( D| -)   10.57%
--------------------------------------------------
Correctly classified                        88.82%
--------------------------------------------------
```

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       328
            Pearson chi2(322) =       318.24
                  Prob > chi2 =         0.5488
```

Measures of Fit for **logit** of **HP2probsoc**

```
Log-Lik Intercept Only:     -125.152    Log-Lik Full Model:           -93.949
D(334):                      187.897    LR(5):                         62.407
                                        Prob > LR:                      0.000
McFadden's R2:                 0.249    McFadden's Adj R2:              0.201
Maximum Likelihood R2:         0.168    Cragg & Uhler's R2:             0.322
McKelvey and Zavoina's R2:     0.615    Efron's R2:                     0.228
Variance of y*:                8.541    Variance of error:              3.290
Count R2:                      0.888    Adj Count R2:                   0.073
AIC:                           0.588    AIC*n:                        199.897
BIC:                       -1758.970    BIC':                         -33.263
```

```
582 . scalar SigDoseProbsocMw3 = "no"

583 . * xx  no signific radhwl3 by dose effect
584 . * xx  for males no signif dose social problem effect
585 . * xx  for males no significant moderator in dose social problem effect
586 . scalar ProbSocModMw3 = "none"

587 .
588 .
589 . ************ Female social problems model possible significant dose relation
    > ship
590 .
591 . * female models
592 .
593 . forvalues j=3/3 {
      2. set more off
      3. local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
      4. title3 "trimmed HP2probsoc main effects models wave 3 for H1 part 2 with
    > dose ns"
      5. title "Wave 3 dose HP2probsoc relationship but avgcumdosew`j': Dose not s
    > ignif"
      6.  logit HP2probsoc age radhlw3 accdw`j' sepaw`j' illw`j' shjobw`j' ////
    >   shrelaw`j' suchrw3 havmilsq avgcumdosew`j' if gender==2
      7.                         estat class
      8.                         estat gof
      9.                         fitstat
     10. }
    -------------------------------------------------------------------------------
    title3 : trimmed HP2probsoc main effects models wave 3 for H1 part 2 with dose
    >  ns
     1 Jul 2012
    20:37:26
    computer  Macintosh (Intel 64-bit)
    folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests
    > /h1pt2
    Data file  chwide1jul2012.dta  currrently has  2402  variables and  703  obser
    > vations
```

```
********************************************************************************
> *
********************************************************************************
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****Wave 3 dose HP2probsoc relationship but avgcumdosew3: Dose not signif****
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****                                                 1 Jul 2012    20:37:26  ****
> *
********************************************************************************
> *
********************************************************************************
> *


Iteration 0:   log likelihood = -183.34177
Iteration 1:   log likelihood = -123.45484
Iteration 2:   log likelihood = -113.79263
Iteration 3:   log likelihood =    -112.73
Iteration 4:   log likelihood = -112.14405
Iteration 5:   log likelihood =  -112.0764
Iteration 6:   log likelihood = -112.07463
Iteration 7:   log likelihood = -112.07462

Logistic regression                               Number of obs   =        362
                                                  LR chi2(10)     =     142.53
                                                  Prob > chi2     =     0.0000
Log likelihood = -112.07462                       Pseudo R2       =     0.3887
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1199451	.020794	5.77	0.000	.0791897	.1607005
radhlw3	.0211303	.0055776	3.79	0.000	.0101983	.0320622
accdw3	-.0504717	.5021919	-0.10	0.920	-1.03475	.9338064
sepaw3	-1.843435	1.040782	-1.77	0.077	-3.883329	.1964598
illw3	.3907454	.1531736	2.55	0.011	.0905306	.6909602
shjobw3	-.0025249	.005367	-0.47	0.638	-.0130441	.0079943
shrelaw3	-.0165931	.0059102	-2.81	0.005	-.028177	-.0050093
suchrw3	.0025861	.0039833	0.65	0.516	-.0052211	.0103933
havmilsq	-7.39e-06	6.74e-06	-1.10	0.273	-.0000206	5.82e-06

avgcumdosew3	**.360538**	**.119122**	**3.03**	**0.002**	**.1270632**	**.5940128**
_cons	**-9.607496**	**1.314552**	**-7.31**	**0.000**	**-12.18397**	**-7.031022**

Note: 3 failures and 0 successes completely determined.

Logistic model for HP2probsoc

Classified	True D	True ~D	Total
+	**39**	**12**	**51**
-	**35**	**276**	**311**
Total	**74**	**288**	**362**

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

Sensitivity	Pr(+| D)	**52.70%**
Specificity	Pr(-|~D)	**95.83%**
Positive predictive value	Pr(D| +)	**76.47%**
Negative predictive value	Pr(~D| -)	**88.75%**
False + rate for true ~D	Pr(+|~D)	**4.17%**
False - rate for true D	Pr(-| D)	**47.30%**
False + rate for classified +	Pr(~D| +)	**23.53%**
False - rate for classified -	Pr(D| -)	**11.25%**
Correctly classified		**87.02%**

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       362
 number of covariate patterns =       362
            Pearson chi2(351) =       411.55
                  Prob > chi2 =         0.0142
```

Measures of Fit for **logit** of **HP2probsoc**

```
    Log-Lik Intercept Only:     -183.342     Log-Lik Full Model:          -112.075
    D(351):                      224.149     LR(10):                       142.534
                                             Prob > LR:                      0.000
    McFadden's R2:                 0.389     McFadden's Adj R2:              0.329
    Maximum Likelihood R2:         0.325     Cragg & Uhler's R2:             0.511
    McKelvey and Zavoina's R2:     0.867     Efron's R2:                     0.431
    Variance of y*:               24.799     Variance of error:              3.290
    Count R2:                      0.870     Adj Count R2:                   0.365
    AIC:                           0.680     AIC*n:                        246.149
    BIC:                       -1843.818     BIC':                         -83.618

594 .
595 . scalar SigDoseProbsocFw3 = "yes"

596 . scalar MainEffProbSocFw3 = "age radhlw3 illw3 Shrelaw3 avgcumodsew3"

597 .
598 . * trimmed female model with basis functions
599 . forvalues j=3/3 {
  2. set more off
  3. local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
    > bf40
  4. title "trimmed HP2probsoc main effects models wave 3 for H1 part 2 " "Dos
    > e is signif Females"
  5. title "Wave 3 dose HP2probsoc relationship but avgcumdosew`j': Dose signi
    > f"
  6. title "Possible agorithmic artifact needs checking"
  7. logit HP2probsoc age radhlw3  illw`j' `w3bf' ////
    >   shrelaw`j' avgcumdosew`j' if gender==2
  8.                          estat class
  9.                          estat gof
 10.                          fitstat
 11. }


    *******************************************************************************
    > *
    *******************************************************************************
    > *
    *****                                                                      ****
    > *
    *****                                                                      ****
    > *
    *****    trimmed HP2probsoc main effects models wave 3 for H1 part 2       ****
    > *
    *****                        Dose is signif Females                        ****
    > *
    *****                                                                      ****
    > *
```

```
*****                                                                      ****
> *
*****                                            1 Jul 2012    20:37:28  ****
> *
*******************************************************************************
> *
*******************************************************************************
> *
```

```
*******************************************************************************
> *
*******************************************************************************
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
***** Wave 3 dose HP2probsoc relationship but avgcumdosew3: Dose signif   ****
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****                                            1 Jul 2012    20:37:28  ****
> *
*******************************************************************************
> *
*******************************************************************************
> *
```

```
*******************************************************************************
> *
*******************************************************************************
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****           Possible agorithmic artifact needs checking               ****
> *
*****                                                                      ****
> *
*****                                                                      ****
```

```
> *
*****                                           1 Jul 2012    20:37:28  ****
> *
****************************************************************************
> *
****************************************************************************
> *



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

note: bf17 omitted because of collinearity
Iteration 0:   log likelihood =  -180.7823
Iteration 1:   log likelihood = -112.88537
Iteration 2:   log likelihood = -100.94644
Iteration 3:   log likelihood = -100.42263
Iteration 4:   log likelihood = -100.42122
Iteration 5:   log likelihood = -100.42122

Logistic regression                               Number of obs   =        351
                                                  LR chi2(17)     =     160.72
                                                  Prob > chi2     =     0.0000
Log likelihood = -100.42122                       Pseudo R2       =     0.4445
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1073124	.0208977	5.14	0.000	.0663537	.1482711
radhlw3	.0186595	.0090599	2.06	0.039	.0009026	.0364165
illw3	.2164694	.1656953	1.31	0.191	-.1082875	.5412263
bf1	.0336012	.0334153	1.01	0.315	-.0318916	.0990939
bf4	-.3133546	.1907491	-1.64	0.100	-.687216	.0605068
bf2	-4.52e-07	.0001044	-0.00	0.997	-.0002052	.0002043
bf4m	.1185749	.1733569	0.68	0.494	-.2211983	.4583481
bf5m	-.0032317	.0024163	-1.34	0.181	-.0079675	.0015042
bf7m	.0003788	.000645	0.59	0.557	-.0008853	.0016429
bf8	.0000426	.0000472	0.90	0.367	-.0000499	.000135
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0379984	.0263966	-1.44	0.150	-.0897347	.0137379
bf22	-.0000771	.0001567	-0.49	0.623	-.0003841	.00023
bf29	-3.07e-06	.0000388	-0.08	0.937	-.0000791	.0000729
bf30	.0001674	.0003328	0.50	0.615	-.0004848	.0008196
bf40	.0213847	.1643559	0.13	0.896	-.300747	.3435164
shrelaw3	-.0189004	.0066211	-2.85	0.004	-.0318775	-.0059234
avgcumdosew3	.393852	.138802	2.84	0.005	.121805	.665899
_cons	-6.458746	2.119349	-3.05	0.002	-10.61259	-2.304899

Logistic model for HP2probsoc

Classified	True D	True ~D	Total
+	**49**	**11**	**60**
-	**25**	**266**	**291**
Total	**74**	**277**	**351**

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

Sensitivity	Pr(+| D)	**66.22%**
Specificity	Pr(-|~D)	**96.03%**
Positive predictive value	Pr(D| +)	**81.67%**
Negative predictive value	Pr(~D| -)	**91.41%**
False + rate for true ~D	Pr(+|~D)	**3.97%**
False - rate for true D	Pr(-| D)	**33.78%**
False + rate for classified +	Pr(~D| +)	**18.33%**
False - rate for classified -	Pr(D| -)	**8.59%**
Correctly classified		**89.74%**

Logistic model for HP2probsoc, goodness-of-fit test

number of observations =	**351**
number of covariate patterns =	**351**
Pearson chi2(**333**) =	**457.28**
Prob > chi2 =	**0.0000**

Measures of Fit for **logit** of **HP2probsoc**

Log-Lik Intercept Only:	**-180.782**	Log-Lik Full Model:	**-100.421**
D(331):	**200.842**	LR(17):	**160.722**
		Prob > LR:	**0.000**
McFadden's R2:	**0.445**	McFadden's Adj R2:	**0.334**
Maximum Likelihood R2:	**0.367**	Cragg & Uhler's R2:	**0.571**
McKelvey and Zavoina's R2:	**0.662**	Efron's R2:	**0.488**
Variance of y*:	**9.746**	Variance of error:	**3.290**
Count R2:	**0.897**	Adj Count R2:	**0.514**
AIC:	**0.686**	AIC*n:	**240.842**
BIC:	**-1739.078**	BIC':	**-61.089**

```
600 .
601 . foreach var in bf4 shrelaw3  {
      2.  cap   gen `var'Xd3 = `var'*avgcumdosew3
      3. }

602 .
603 . * testing the female moderator model with basis functions
604 .
605 . set more off

606 . local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

607 . title "trimmed HP2socprob main effects  wv 3 for Hyp1 pt 2" "dose is signif
    > for females"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****        trimmed HP2socprob main effects  wv 3 for Hyp1 pt 2          ****
    > *
    *****                     dose is signif for females                      ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                             1 Jul 2012    20:37:29  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
608 . title "Wave 3 dose HP2socprob relationship but avgcumdosew`j'" " Dose is sig
    > nif for females"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****         Wave 3 dose HP2socprob relationship but avgcumdosew        ****
    > *
    *****                     Dose is signif for females                     ****
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                        1 Jul 2012    20:37:29  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *


609 . title "But this signif may be false positive due to backward stepwise algori
    > thm"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****But this signif may be false positive due to backward stepwise algorithm*
    > ****
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                        1 Jul 2012    20:37:29  ****
    > *
```

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



610 .
611 .
612 . logit HP2probsoc age radhlw3  illw3 bf4 ////
>   shrelaw3 avgcumdosew3 bf4Xd3 shrelaw3Xd3  ///
>     if gender==2

Iteration 0:   log likelihood =  -183.5701
Iteration 1:   log likelihood = -115.57598
Iteration 2:   log likelihood = -104.01427
Iteration 3:   log likelihood = -103.59509
Iteration 4:   log likelihood = -103.59367
Iteration 5:   log likelihood = -103.59367

Logistic regression                               Number of obs   =        363
                                                  LR chi2(8)      =     159.95
                                                  Prob > chi2     =     0.0000
Log likelihood = -103.59367                       Pseudo R2       =     0.4357
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1028004	.0196031	5.24	0.000	.064379	.1412218
radhlw3	.0177202	.0060309	2.94	0.003	.0058999	.0295405
illw3	.1431181	.1461189	0.98	0.327	-.1432697	.4295058
bf4	-.1143471	.0744815	-1.54	0.125	-.2603281	.031634
shrelaw3	-.0144139	.0099309	-1.45	0.147	-.0338781	.0050504
avgcumdosew3	1.092776	.6493144	1.68	0.092	-.1798569	2.365409
bf4Xd3	-.0638129	.0641358	-0.99	0.320	-.1895167	.0618909
shrelaw3Xd3	-.0059117	.0071313	-0.83	0.407	-.0198889	.0080654
_cons	-7.465103	1.452311	-5.14	0.000	-10.31158	-4.618627

613 .   estat class

```
Logistic model for HP2probsoc

              -------- True --------
Classified |         D            ~D  |      Total
-----------+--------------------------+-----------
     +     |        46            10  |         56
     -     |        28           279  |        307
-----------+--------------------------+-----------
   Total   |        74           289  |        363

Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   62.16%
Specificity                     Pr( -|~D)   96.54%
Positive predictive value       Pr( D| +)   82.14%
Negative predictive value       Pr(~D| -)   90.88%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    3.46%
False - rate for true D         Pr( -| D)   37.84%
False + rate for classified +   Pr(~D| +)   17.86%
False - rate for classified -   Pr( D| -)    9.12%
--------------------------------------------------
Correctly classified                        89.53%
--------------------------------------------------
```

614 .   estat gof

```
Logistic model for HP2probsoc, goodness-of-fit test
---------------------------------------------------

       number of observations =       363
 number of covariate patterns =       361
            Pearson chi2(352) =       427.83
                  Prob > chi2 =         0.0035
```

```
615 .                          fitstat

    Measures of Fit for logit of HP2probsoc

    Log-Lik Intercept Only:     -183.570     Log-Lik Full Model:            -103.594
    D(354):                      207.187     LR(8):                          159.953
                                             Prob > LR:                        0.000
    McFadden's R2:                 0.436     McFadden's Adj R2:                0.387
    Maximum Likelihood R2:         0.356     Cragg & Uhler's R2:               0.560
    McKelvey and Zavoina's R2:     0.677     Efron's R2:                       0.482
    Variance of y*:               10.184     Variance of error:                3.290
    Count R2:                      0.895     Adj Count R2:                     0.486
    AIC:                           0.620     AIC*n:                          225.187
    BIC:                       -1879.431     BIC':                          -112.798

616 .
617 . scalar ProbsocModFw3 = "none"

618 .
619 . title4 " testing for male and female dose probsoc mediators"
    ------------------------------------------------------------------------------
     testing for male and female dose probsoc mediators
    ------------------------------------------------------------------------------

620 . * Male mediator dose social problem response models
621 .
622 .
623 .
624 . // age is a male mediator
625 . glm age avgcumdosew3 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1330.6336

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  147.7142
    Deviance         =  49927.38549                    (1/df) Deviance =  147.7142
    Pearson          =  49927.38549                    (1/df) Pearson  =  147.7142

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

                                                       AIC             =  7.839021
    Log likelihood   = -1330.633586                    BIC             =   47957.2
```

age	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**.5433648**	**.2472657**	**2.20**	**0.028**	**.058733**	**1.027997**
_cons	**48.52021**	**.7247376**	**66.95**	**0.000**	**47.09975**	**49.94067**

```
626 . 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.)

627 .

```
628 . glm radhlw3 avgcumdosew3 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1695.1855

    Generalized linear models                         No. of obs      =        340
    Optimization     : ML                             Residual df     =        338
                                                      Scale parameter =   1261.052
    Deviance         =  426235.7205                   (1/df) Deviance =   1261.052
    Pearson          =  426235.7205                   (1/df) Pearson  =   1261.052

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

                                                      AIC             =   9.983444
    Log likelihood   = -1695.185473                   BIC             =   424265.5

    ------------------------------------------------------------------------------
                 |                 OIM
         radhlw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew3 |   .9606492   .7224692     1.33   0.184    -.4553645    2.376663
           _cons |   46.19995   2.117563    21.82   0.000      42.0496     50.3503
    ------------------------------------------------------------------------------

629 . glm HP2probsoc radhlw3 if gender==1,fam(bin) irls link(probit) scale(dev)

    Iteration 1:   deviance =  224.6665
    Iteration 2:   deviance =  216.1679
    Iteration 3:   deviance =  215.5978
    Iteration 4:   deviance =  215.5929
    Iteration 5:   deviance =  215.5929

    Generalized linear models                         No. of obs      =        340
    Optimization     : MQL Fisher scoring             Residual df     =        338
                       (IRLS EIM)                     Scale parameter =          1
    Deviance         =  215.5929138                   (1/df) Deviance =   .6378489
    Pearson          =  333.7963451                   (1/df) Pearson  =   .9875632

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

                                                      BIC             =  -1754.591
```

```
------------------------------------------------------------------------------
             |                 EIM
  HP2probsoc |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     radhlw3 |   .0156818   .0022898     6.85   0.000     .0111939    .0201697
       _cons |  -2.095692   .1691863   -12.39   0.000    -2.427291   -1.764093
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

630 .
631 . glm shjobw3 avgcumdosew3 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1720.6013

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  1464.409
Deviance         =   494970.193                    (1/df) Deviance =  1464.409
Pearson          =   494970.193                    (1/df) Pearson  =  1464.409

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

                                                   AIC             =  10.13295
Log likelihood   = -1720.601326                    BIC             =    493000

------------------------------------------------------------------------------
             |                 OIM
     shjobw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |  -.2000973   .7785454    -0.26   0.797    -1.726018    1.325824
       _cons |   41.22913   2.281923    18.07   0.000     36.75664    45.70162
------------------------------------------------------------------------------

632 . glm HP2probsoc shjobw3 if gender==1,fam(bin) irls link(probit) scale(dev)

Iteration 1:   deviance =  249.6649
Iteration 2:   deviance =  248.8792
Iteration 3:   deviance =  248.8773
Iteration 4:   deviance =  248.8773

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       338
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  248.8773343                    (1/df) Deviance =  .7363235
Pearson          =  340.8400768                    (1/df) Pearson  =  1.008403
```

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

                                                    BIC             = -1721.306

------------------------------------------------------------------------------
             |                 EIM
  HP2probsoc |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     shjobw3 |   .0026922   .0019572     1.38   0.169    -.0011439    .0065284
       _cons |  -1.288564   .1154816   -11.16   0.000    -1.514904   -1.062225
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

. 
. // shjobw3Xd3 is almost significant but not quite
. glm radhlw3 shjobw3 avgcumdosew3 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood =  -1694.063  

Generalized linear models                           No. of obs      =        340
Optimization     : ML                               Residual df     =        337
                                                    Scale parameter =   1256.471
Deviance         =  423430.6999                     (1/df) Deviance =   1256.471
Pearson          =  423430.6999                     (1/df) Pearson  =   1256.471

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

                                                    AIC             =   9.982724
Log likelihood   = -1694.063021                     BIC             =   421466.3

------------------------------------------------------------------------------
             |                 OIM
     radhlw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     shjobw3 |   .0752798   .0503833     1.49   0.135    -.0234697    .1740293
avgcumdosew3 |   .9757125   .7212261     1.35   0.176    -.4378647     2.38929
       _cons |   43.09623   2.963577    14.54   0.000     37.28772    48.90473
------------------------------------------------------------------------------
```

```
636 . glm HP2probsoc shjobw3 avgcumdosew3 shjobw3Xd3  if gender==1,fam(bin) ///
    >   irls scale(dev) link(probit)

    Iteration 1:   deviance =  244.6055
    Iteration 2:   deviance =  243.0617
    Iteration 3:   deviance =  241.3069
    Iteration 4:   deviance =   240.868
    Iteration 5:   deviance =  240.8657
    Iteration 6:   deviance =  240.8656
    Iteration 7:   deviance =  240.8656
    Iteration 8:   deviance =  240.8656

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        336
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  240.8656032                    (1/df) Deviance =   .7168619
    Pearson          =  340.9255101                    (1/df) Pearson  =   1.014659

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

                                                       BIC             =   -1717.66

    ------------------------------------------------------------------------------
                 |                 EIM
      HP2probsoc |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
         shjobw3 |  -.0045194   .0035953    -1.26   0.209    -.0115661    .0025273
    avgcumdosew3 |  -.0918458   .0746098    -1.23   0.218    -.2380783    .0543867
      shjobw3Xd3 |   .0066355    .002922     2.27   0.023     .0009086    .0123624
           _cons |  -1.180909   .1352851    -8.73   0.000    -1.446063   -.9157549
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

637 .
638 . scalar ProbsocMedMw3 = "age"
```

```
639 .
640 . * female mediator tests: age radhlw3 bf4
641 .
642 . // age is a female mediator
643 . glm age avgcumdosew3 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood =  -1408.064

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =   137.7687
    Deviance         =  49734.51399                    (1/df) Deviance =   137.7687
    Pearson          =  49734.51399                    (1/df) Pearson  =   137.7687

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

                                                       AIC             =   7.768948
    Log likelihood   =  -1408.06405                    BIC             =   47606.63
```

age	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	1.058366	.3512614	3.01	0.003	.3699069	1.746826
_cons	48.94293	.7468173	65.54	0.000	47.47919	50.40666

```
644 . 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.)

645 .
646 . // radhlw3 is a female mediator
647 . glm radhlw3 avgcumdosew3 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1798.7074

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  1185.454
Deviance         =  427948.9522                    (1/df) Deviance =  1185.454
Pearson          =  427948.9522                    (1/df) Pearson  =  1185.454

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

                                                   AIC             =  9.921253
Log likelihood   = -1798.707367                    BIC             =  425821.1

------------------------------------------------------------------------------
             |                 OIM
     radhlw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |   2.751602    1.03038     2.67   0.008     .7320943     4.77111
       _cons |   57.70689   2.190692    26.34   0.000     53.41321    62.00057
------------------------------------------------------------------------------

648 . glm HP2probsoc radhlw3 if gender==2,fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  332.0999
Iteration 2:   deviance =   329.376
Iteration 3:   deviance =  329.3467
Iteration 4:   deviance =  329.3467
Iteration 5:   deviance =  329.3467

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       361
                    (IRLS EIM)                     Scale parameter =         1
Deviance         =  329.3467003                    (1/df) Deviance =  .9123177
Pearson          =   374.561784                    (1/df) Pearson  =  1.037567
```

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

                                                  BIC             = -1798.533
```

HP2probsoc	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
radhlw3	.0145154	.0024198	6.00	0.000	.0097727	.0192582
_cons	-1.818717	.1912579	-9.51	0.000	-2.193576	-1.443859

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

```
649 .
650 .
651 . // bf4 is a mediator
652 . glm bf4 avgcumdosew3 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1109.6569

Generalized linear models                         No. of obs      =        363
Optimization     : ML                             Residual df     =        361
                                                  Scale parameter =    26.6146
Deviance         =  9607.869105                   (1/df) Deviance =    26.6146
Pearson          =  9607.869105                   (1/df) Pearson  =    26.6146

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

                                                  AIC             =   6.124831
Log likelihood   = -1109.656873                   BIC             =    7479.99
```

bf4	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	-.4386292	.1543885	-2.84	0.004	-.7412252	-.1360333
_cons	11.01475	.3282456	33.56	0.000	10.3714	11.6581

```
653 . glm HP2probsoc bf4 if gender==2,fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  295.3213
    Iteration 2:   deviance =  289.8751
    Iteration 3:   deviance =  289.6607
    Iteration 4:   deviance =  289.6591
    Iteration 5:   deviance =  289.6591
    Iteration 6:   deviance =  289.6591

    Generalized linear models                          No. of obs      =        363
    Optimization     : MQL Fisher scoring              Residual df     =        361
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  289.6591069                    (1/df) Deviance =   .8023798
    Pearson          =  306.7680355                    (1/df) Pearson  =    .849773

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

                                                       BIC             =   -1838.22

    ------------------------------------------------------------------------------
                 |                 EIM
      HP2probsoc |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             bf4 |  -.1364145   .0148745    -9.17   0.000     -.165568    -.107261
           _cons |   .3956217   .1443369     2.74   0.006     .1127267    .6785167
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

654 .
655 . glm shjobw3 avgcumdosew3 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1782.2022

    Generalized linear models                          No. of obs      =        362
    Optimization     : ML                              Residual df     =        360
                                                       Scale parameter =   1112.187
    Deviance         =  400387.4607                    (1/df) Deviance =   1112.187
    Pearson          =  400387.4607                    (1/df) Pearson  =   1112.187

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

                                                       AIC             =   9.857471
    Log likelihood   = -1782.202176                    BIC             =   398266.5
```

shjobw3	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**-1.527977**	**.9981622**	**-1.53**	**0.126**	**-3.484339**	**.4283847**
_cons	**32.25021**	**2.12484**	**15.18**	**0.000**	**28.0856**	**36.41482**

```
656 . glm HP2probsoc shjobw3 avgcumdosew3 if gender==2,fam(bin) ///
>    irls scale(dev) link(probit)

Iteration 1:   deviance =  329.6578
Iteration 2:   deviance =  328.2396
Iteration 3:   deviance =   328.227
Iteration 4:   deviance =  328.2269
Iteration 5:   deviance =  328.2269

Generalized linear models                         No. of obs      =        362
Optimization     : MQL Fisher scoring             Residual df     =        359
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  328.2269272                   (1/df) Deviance =   .9142811
Pearson          =  364.4863603                   (1/df) Pearson  =   1.015282

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

                                                  BIC             =  -1786.873
```

HP2probsoc	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
shjobw3	**-.0088534**	**.0025178**	**-3.52**	**0.000**	**-.0137883**	**-.0039185**
avgcumdosew3	**.2194295**	**.054413**	**4.03**	**0.000**	**.112782**	**.3260771**
_cons	**-.8734121**	**.1155844**	**-7.56**	**0.000**	**-1.099953**	**-.6468708**

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

```
657 .
658 . scalar ProbsocMedFw3 = "age radhlw3 bf4"

659 .
660 . title4  "summary matrix for dose Hp2probsoc impact in wave 3"
    ───────────────────────────────────────────────────────────────────────────────
    summary matrix for dose Hp2probsoc impact in wave 3
    ───────────────────────────────────────────────────────────────────────────────

661 . * male hp2spM w3  mediators: age
662 . * dose is not significant main effect for males
663 . * female hp2spF w3 mediators: age radhlw3 bf4
664 . * dose is not sig main effect for males
665 .
666 . scalar SigDoseProbsocMw3 = "no"

667 .
668 .     matrix define HP2spMw3 = J(1,8, 0)

669 .         matrix define HP2spFw3 = J(1,8, 0)

670 . matrix colnames HP2spMw3=  hypnum ptnum wave gender medsig numMAsig numModsi
    > g numMed

671 . matrix colnames HP2spFw3=  hypnum ptnum wave gender medsig numMAsig numModsi
    > g numMed

672 .     matrix define HP2spFw3= (1, 2, 3, 2, 1, 5, 5, 3 )

673 .         matrix define HP2spMw3= (1, 2, 3, 1, 0, 2, 0, 1 )

674 .         matrix rowname HP2spMw3 = HP2spMw3

675 .         matrix rowname HP2spFw3 = HP2spFw3

676 .         matlist HP2spMw3

                 |        c1          c2          c3          c4          c5          c
    > 6
    -------------+-----------------------------------------------------------------------
    > --
        HP2spMw3 |         1           2           3           1           0
    > 2

                 |        c7          c8
    -------------+------------------------
        HP2spMw3 |         0           1
```

```
677 .         matlist HP2spFw3

             |        c1          c2          c3          c4          c5           c
> 6
-------------+-------------------------------------------------------------------------
> --
    HP2spFw3 |         1           2           3           2           1
> 5

             |        c7          c8
-------------+------------------------
    HP2spFw3 |         5           3

678 .         matrix define H1pt2w3 = ( HP2wkMw3 \ HP2wkFw3 \ HP2hmcrMw3 \ HP2hmcr
> Fw3 \ HP2spMw3 \ HP2spFw3 )

679 .
680 .         matlist H1pt2w3

             |        c1          c2          c3          c4          c5           c
> 6
-------------+-------------------------------------------------------------------------
> --
          r1 |         1           2           3           1           0
> 4
          r1 |         1           2           3           2           0
> 1
          r1 |         1           2           3           1           0
> 4
          r1 |         1           2           3           2           0
> 2
    HP2spMw3 |         1           2           3           1           0
> 2
    HP2spFw3 |         1           2           3           2           1
> 5

             |        c7          c8
-------------+------------------------
          r1 |         0           4
          r1 |         0           6
          r1 |         0           2
          r1 |         0           2
    HP2spMw3 |         0           1
    HP2spFw3 |         5           3
```

```
681 .     matrix colnames H1pt2w3 =  hypnum ptnum wave gender medsig numMAsig numM
    > odsig numMed

682 .     matrix rownames H1pt2w3 =   HP2wkMw3 HP2wkFw3 HP2hmcrMw3 HP2hmcrFw3 HP2s
    > ocprbMw3 HP2socprbFw3

683 .     matlist H1pt2w3

                 |    hypnum      ptnum       wave     gender     medsig   numMAsi
    > g
    -------------+------------------------------------------------------------------
    > --
        HP2wkMw3 |         1          2          3          1          0
    > 4
        HP2wkFw3 |         1          2          3          2          0
    > 1
      HP2hmcrMw3 |         1          2          3          1          0
    > 4
      HP2hmcrFw3 |         1          2          3          2          0
    > 2
    HP2socprbMw3 |         1          2          3          1          0
    > 2
    HP2socprbFw3 |         1          2          3          2          1
    > 5

                 | numModsig     numMed
    -------------+----------------------
        HP2wkMw3 |         0          4
        HP2wkFw3 |         0          6
      HP2hmcrMw3 |         0          2
      HP2hmcrFw3 |         0          2
    HP2socprbMw3 |         0          1
    HP2socprbFw3 |         5          3

684 .
685 .
686 . *xx  significant dose effect for females
```

```
687 . scalar ProbsocModFw3 = "none"

688 . *xx  no female moderators for Dose Social problem impact relationship
689 . scalar list
    ProbsocMedFw3 = age radhlw3 bf4
    VactnMedFw3 = age illw3 radhlw3
    VactnMedMw3 = age illw3
    VacatnModFw3 = none
    MainEffVactnFw3 = age radhlw3 deaw3
    SigDoseVactnFw3 = no
    vactnModMw3 = none
    MainEffVactnMw3 = age bf7m radhlw3
    SigDoseVactnMw3 = no
    sxLifeMedFw3 = age bf4 bf4m
    sxLifeMedMw3 = age illw3
    InthbModFw3 = none
    MainEffInthbFw3 = age radhlw3 bf4
    SigdoseInthbFw3 = no
      InthbMw3 = none
    MainEffInthbMw3 = age radhlw3 shfamw3
    SigDoseInthbMw3 = no
    sxlifeMedFw3 = age illw3 radhlw3 bf4 bf4m
    sxlifeMedMw3 = age illw3
    sxlifeModFw3 = none
    MainEffsxlifeFw3 = age radhlw3 bf4 bf4m shrelaw3 shfamw3
    SigDoseSxlifeFw3 = no
    sxlifeModMw3 = none
    SigDosesxlifeMw3 = no
    MainEffsxlifeMw3 = age bf4 illw3 radhlw3
    PrbfmhmMedFw3 = age bf4
    PrbfmhmMedMw3 = age
    PrbfmhmModFw3 = none
    MainEffPrbfmhmFw3 = age bf4 bf40
    SigDosePrbfmhmFw3 = no
    PrbfmhmModw3 = none
    SigDosePrbfmhmMw3 = no
    SigDosePrbfhmMw3 = no
    MainEffPrbfhmMw3 = bf1 bf4 dvcew3 bf7m
    ProbsocMedMw3 = age
    ProbsocModFw3 = none
    MainEffProbSocFw3 = age radhlw3 illw3 Shrelaw3 avgcumodsew3
    SigDoseProbsocFw3 = yes
    ProbSocModMw3 = none
    SigDoseProbsocMw3 = no
    MainEffPrbsocMw3 = age radhlw3 shjobw3
    hmcareMedFw3 = age illw3
    hmcareMedMw3 = age illw3
    hmcareModFw3 = none
    SigdoseHmcareFw3 = no
```

```
hmcareModMw3 = none
MainEffhmcareMw3 = none
SigDoseHmcareMw3 = no
  wkMedFw3 = radhlw3 age bf40 bf4m bf1
  wkMedMw3 = bf8 age illw3 ageXillw3
  wkModFw3 = none
  wkModMw3 = none
MainEffwkFw3 = age
MainEffwkMw3 = workM: age  bf8  illw3  shjobw3
SigDoseWKMw3 = no
SigDoseWkFw3 = no
 medsigFw2 =         1
  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
```

```
690 .
691 . *----------- Chunk 5   Dose => Problems with the Family at home Impact
692 .
693 .
694 .
695 . title "4.  Wave 3 part2 hypothesis 1 Pt2 Probs with Fam at home"

    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****      4.  Wave 3 part2 hypothesis 1 Pt2 Probs with Fam at home      ****
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                          1 Jul 2012    20:37:53    ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *


696 . forvalues j=3/3 {
      2. set more off
      3.
697 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
```

```
698 .   foreach var in  HP2pbfhm  {
  5.       forvalues k=1/2 {
  6. local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
> bf40
  7.
699 . 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.
700 .       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. }
```

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**
marrw31	byte	%8.0g		**marrw3==1. single**
marrw32	byte	%8.0g		**marrw3==2. cohabitating**
marrw33	byte	%8.0g		**marrw3==3. married**
marrw34	byte	%8.0g		**marrw3==4. separated**
marrw35	byte	%8.0g		**marrw3==5. divorced**
marrw36	byte	%8.0g		**marrw3==6. widowed**
inc1w3	double	%15.0g	LABJ	**Income is not sufficient for**

```
                                                 basic neccessities NOW
inc2w3          double %15.0g      LABJ        Income is just sufficient for
                                                 basic neccessities NOW
inc3w3          double %15.0g      LABJ        Income is sufficient for basics
                                                 plus extra purchases/savings
                                                 NOW
inc4w3          double %15.0g      LABJ        Income allows to comfortably
                                                 afford luxury items NOW
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 main model for HP2pbfhm for wave= 3

chunk 5 H1 test:Gender= 1  model Wave =  3 for HP2probsoc


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females   ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                                  1 Jul 2012    20:37:53  ****
> *
******************************************************************************
> *
******************************************************************************
> *


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 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: occ5w3 != 0 predicts failure perfectly
      occ5w3 dropped and 13 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 17 obs not used

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

note: movew3 != 0 predicts failure perfectly
      movew3 dropped and 22 obs not used

note: _Ieduc_6 omitted because of collinearity
note: occ8w3 omitted because of collinearity
note: marrw36 omitted because of collinearity
note: bf17 omitted because of collinearity

Logistic regression                               Number of obs   =        248
                                                  LR chi2(42)     =      61.10
                                                  Prob > chi2     =     0.0286
Log likelihood = -43.736999                       Pseudo R2       =     0.4112
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0762859	.0508028	1.50	0.133	-.0232857	.1758575
_Ieduc_2	0	(omitted)				
_Ieduc_3	-.1477637	.8109786	-0.18	0.855	-1.737253	1.441725
_Ieduc_4	0	(omitted)				
_Ieduc_5	-.7596947	1.090598	-0.70	0.486	-2.897227	1.377837
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w3	-10.90364	2018.344	-0.01	0.996	-3966.785	3944.977
occ2w3	-10.89538	2018.344	-0.01	0.996	-3966.777	3944.986
occ3w3	-9.963313	2018.344	-0.00	0.996	-3965.846	3945.919
occ4w3	-10.3499	2018.344	-0.01	0.996	-3966.232	3945.532

occ5w3	0	(omitted)				
occ6w3	0	(omitted)				
occ7w3	-10.56369	2018.344	-0.01	0.996	-3966.445	3945.318
occ8w3	0	(omitted)				
marrw31	1.938945	1.834088	1.06	0.290	-1.655802	5.533692
marrw32	2.869349	2.03424	1.41	0.158	-1.117687	6.856385
marrw33	-2.070881	2.007923	-1.03	0.302	-6.006338	1.864576
marrw35	3.548252	2.186549	1.62	0.105	-.7373048	7.833809
marrw36	0	(omitted)				
inc1w3	12.37597	2018.344	0.01	0.995	-3943.505	3968.257
inc2w3	12.75723	2018.343	0.01	0.995	-3943.123	3968.637
inc3w3	11.01982	2018.344	0.01	0.996	-3944.861	3966.9
inc4w3	11.952	2018.345	0.01	0.995	-3943.931	3967.835
radhlw3	.032589	.0182947	1.78	0.075	-.0032679	.0684459
havmil	.0129536	.013774	0.94	0.347	-.0140429	.0399501
avgcumdosew3	-.3791136	.3273992	-1.16	0.247	-1.020804	.2625771
bf1	-.1029605	.0825755	-1.25	0.212	-.2648056	.0588846
bf4	-.1906164	.3464978	-0.55	0.582	-.8697396	.4885069
bf2	.0004772	.0003548	1.35	0.179	-.0002181	.0011725
bf4m	.0772469	.2972932	0.26	0.795	-.505437	.6599308
bf5m	-.0019382	.0047879	-0.40	0.686	-.0113224	.007446
bf7m	.0012129	.001013	1.20	0.231	-.0007725	.0031983
bf8	-3.27e-06	.0000957	-0.03	0.973	-.0001909	.0001843
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.0430617	.0653802	0.66	0.510	-.0850811	.1712045
bf22	-4.46e-06	.0002995	-0.01	0.988	-.0005915	.0005826
bf29	0	(omitted)				
bf30	.000126	.0007197	0.18	0.861	-.0012845	.0015365
bf40	.071783	.4795976	0.15	0.881	-.8682111	1.011777
deaw3	.3272315	.4280065	0.76	0.445	-.5116458	1.166109
dvcew3	1.631036	1.568401	1.04	0.298	-1.442973	4.705045
sepaw3	.2595898	1.605075	0.16	0.872	-2.886299	3.405479
accdw3	-.9114258	2.076173	-0.44	0.661	-4.980649	3.157798
movew3	0	(omitted)				
illw3	-.5480408	.5150453	-1.06	0.287	-1.557511	.4614294
shfamw3	.0143257	.0164517	0.87	0.384	-.017919	.0465703
shhlw3	-.0109085	.0129224	-0.84	0.399	-.0362359	.014419
shjobw3	-.0129256	.0143995	-0.90	0.369	-.0411481	.0152969
shrelaw3	-.0047884	.012683	-0.38	0.706	-.0296466	.0200697
suprtw3	.025454	.0177967	1.43	0.153	-.0094269	.0603349
suchrw3	.0037567	.0120299	0.31	0.755	-.0198214	.0273349
havmilsq	-.0000259	.0000249	-1.04	0.299	-.0000746	.0000229
_cons	-12.84498	6.147159	-2.09	0.037	-24.89319	-.79677

Note: 5 failures and 0 successes completely determined.

Logistic model for HP2pbfhm

Classified	True D	True ~D	Total
+	**9**	**4**	**13**
-	**13**	**222**	**235**
Total	**22**	**226**	**248**

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

Sensitivity	Pr(+| D)	**40.91%**
Specificity	Pr(-|~D)	**98.23%**
Positive predictive value	Pr(D| +)	**69.23%**
Negative predictive value	Pr(~D| -)	**94.47%**
False + rate for true ~D	Pr(+|~D)	**1.77%**
False - rate for true D	Pr(-| D)	**59.09%**
False + rate for classified +	Pr(~D| +)	**30.77%**
False - rate for classified -	Pr(D| -)	**5.53%**
Correctly classified		**93.15%**

Logistic model for HP2pbfhm, goodness-of-fit test

```
       number of observations =       248
 number of covariate patterns =       248
            Pearson chi2(205) =       151.48
                  Prob > chi2 =         0.9980
```

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

Log-Lik Intercept Only:	**-74.286**	Log-Lik Full Model:	**-43.737**
D(192):	**87.474**	LR(42):	**61.099**
		Prob > LR:	**0.029**
McFadden's R2:	**0.411**	McFadden's Adj R2:	**-0.343**
Maximum Likelihood R2:	**0.218**	Cragg & Uhler's R2:	**0.485**
McKelvey and Zavoina's R2:	**0.816**	Efron's R2:	**0.329**
Variance of y*:	**17.878**	Variance of error:	**3.290**
Count R2:	**0.931**	Adj Count R2:	**0.227**
AIC:	**0.804**	AIC*n:	**199.474**
BIC:	**-971.104**	BIC':	**170.465**

Full main model for HP2pbfhm for wave= 3

chunk 5 H1 test:Gender= 2 model Wave = 3 for HP2pbfhm

```
********************************************************************************
> *
********************************************************************************
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females    ****
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****                                                  1 Jul 2012    20:37:54  ****
> *
********************************************************************************
> *
********************************************************************************
> *


i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: occ2w3 != 0 predicts failure perfectly
      occ2w3 dropped and 37 obs not used

note: occ4w3 != 0 predicts failure perfectly
      occ4w3 dropped and 8 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

note: occ8w3 != 0 predicts failure perfectly
      occ8w3 dropped and 1 obs not used

note: marrw32 != 0 predicts failure perfectly
      marrw32 dropped and 7 obs not used

note: inc4w3 != 0 predicts failure perfectly
      inc4w3 dropped and 8 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 11 obs not used

note: movew3 != 0 predicts failure perfectly
      movew3 dropped and 9 obs not used
```

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

Logistic regression		Number of obs =	277
		LR chi2(45) =	88.17
		Prob > chi2 =	0.0001
Log likelihood =	-80.45257	Pseudo R2 =	0.3540

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0605232	.0301499	2.01	0.045	.0014305	.1196159
_Ieduc_2	14.33097	3050.48	0.00	0.996	-5964.5	5993.162
_Ieduc_3	14.57814	3050.48	0.00	0.996	-5964.253	5993.409
_Ieduc_4	14.71229	3050.48	0.00	0.996	-5964.118	5993.543
_Ieduc_5	14.46503	3050.48	0.00	0.996	-5964.366	5993.296
_Ieduc_6	14.13284	3050.48	0.00	0.996	-5964.698	5992.963
_Ieduc_7	16.45371	3050.482	0.01	0.996	-5962.381	5995.289
_Ieduc_8	0	(omitted)				
occ1w3	-.9142061	3.466224	-0.26	0.792	-7.70788	5.879468
occ2w3	0	(omitted)				
occ3w3	-.2867411	3.495557	-0.08	0.935	-7.137908	6.564426
occ4w3	0	(omitted)				
occ5w3	2.578209	4.53518	0.57	0.570	-6.310581	11.467
occ6w3	0	(omitted)				
occ7w3	-.5244179	3.46458	-0.15	0.880	-7.31487	6.266034
occ8w3	0	(omitted)				
marrw31	13.57521	900.684	0.02	0.988	-1751.733	1778.884
marrw32	0	(omitted)				
marrw33	15.5368	900.6835	0.02	0.986	-1749.77	1780.844
marrw35	15.43053	900.6834	0.02	0.986	-1749.877	1780.738
marrw36	15.00571	900.6833	0.02	0.987	-1750.301	1780.313
inc1w3	2.006505	3.516446	0.57	0.568	-4.885601	8.898612
inc2w3	2.111761	3.483985	0.61	0.544	-4.716724	8.940246
inc3w3	1.911831	3.463507	0.55	0.581	-4.876519	8.70018
inc4w3	0	(omitted)				
radhlw3	.0113673	.0123354	0.92	0.357	-.0128096	.0355442
havmil	-.0010166	.0142076	-0.07	0.943	-.0288629	.0268297
avgcumdosew3	-.0338506	.1440343	-0.24	0.814	-.3161526	.2484513
bf1	-.0040962	.0453653	-0.09	0.928	-.0930105	.0848181
bf4	-.3790747	.2483688	-1.53	0.127	-.8658686	.1077192
bf2	.0000525	.0001469	0.36	0.721	-.0002354	.0003404
bf4m	.1263528	.2275811	0.56	0.579	-.3196979	.5724036
bf5m	-.0049342	.0041169	-1.20	0.231	-.0130031	.0031348
bf7m	-.0004133	.0008454	-0.49	0.625	-.0020703	.0012437
bf8	.0001156	.0000755	1.53	0.125	-.0000323	.0002635
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0078983	.0366468	-0.22	0.829	-.0797248	.0639282

bf22	.000158	.0001863	0.85	0.396	-.0002071	.0005231
bf29	9.34e-06	.0000425	0.22	0.826	-.000074	.0000927
bf30	-.0000869	.0004483	-0.19	0.846	-.0009655	.0007917
bf40	-.2779981	.1983152	-1.40	0.161	-.6666887	.1106924
deaw3	-.0223131	.2253092	-0.10	0.921	-.4639109	.4192848
dvcew3	1.571998	1.037736	1.51	0.130	-.4619271	3.605923
sepaw3	-1.894764	1.527486	-1.24	0.215	-4.888582	1.099055
accdw3	-.2729555	.6926052	-0.39	0.694	-1.630437	1.084526
movew3	0	(omitted)				
illw3	-.1949663	.2468671	-0.79	0.430	-.6788169	.2888842
shfamw3	-.0082258	.0094908	-0.87	0.386	-.0268274	.0103758
shhlw3	.0062899	.0080613	0.78	0.435	-.00951	.0220898
shjobw3	-.0009012	.0093159	-0.10	0.923	-.0191601	.0173576
shrelaw3	-.0126452	.0092607	-1.37	0.172	-.0307958	.0055054
suprtw3	-.004099	.0105306	-0.39	0.697	-.0247385	.0165405
suchrw3	-.0078922	.0065901	-1.20	0.231	-.0208085	.0050241
havmilsq	-4.43e-06	.000039	-0.11	0.909	-.0000808	.000072
_cons	-32.88256	3180.671	-0.01	0.992	-6266.884	6201.119

Note: 5 failures and 0 successes completely determined.

Logistic model for HP2pbfhm

	True		
Classified	D	~D	Total
+	22	9	31
-	24	222	246
Total	46	231	277

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

Sensitivity	Pr(+| D)	47.83%
Specificity	Pr(-|~D)	96.10%
Positive predictive value	Pr(D| +)	70.97%
Negative predictive value	Pr(~D| -)	90.24%
False + rate for true ~D	Pr(+|~D)	3.90%
False - rate for true D	Pr(-| D)	52.17%
False + rate for classified +	Pr(~D| +)	29.03%
False - rate for classified -	Pr(D| -)	9.76%
Correctly classified		88.09%

Logistic model for HP2pbfhm, goodness-of-fit test

```
       number of observations =       277
 number of covariate patterns =       277
            Pearson chi2(231) =       439.38
                  Prob > chi2 =         0.0000
```

```
Measures of Fit for logistic of HP2pbfhm

Log-Lik Intercept Only:     -124.537     Log-Lik Full Model:           -80.453
D(221):                      160.905     LR(45):                        88.169
                                         Prob > LR:                      0.000
McFadden's R2:                 0.354     McFadden's Adj R2:             -0.096
Maximum Likelihood R2:         0.273     Cragg & Uhler's R2:             0.460
McKelvey and Zavoina's R2:     0.796     Efron's R2:                     0.384
Variance of y*:               16.128     Variance of error:              3.290
Count R2:                      0.881     Adj Count R2:                   0.283
AIC:                           0.985     AIC*n:                        272.905
BIC:                       -1082.003     BIC':                         164.912
```

```
701 .
702 .
703 . title "Partly Trimmed male wave 3  Dose => Problems with Family at home mode
    > ls"


    ****************************************************************************
    > *
    ****************************************************************************
    > *
    *****                                                                   ****
    > *
    *****                                                                   ****
    > *
    *****Partly Trimmed male wave 3  Dose => Problems with Family at home models**
    > ***
    *****                                                                   ****
    > *
    *****                                                                   ****
    > *
    *****                                            1 Jul 2012    20:37:56  ****
    > *
    ****************************************************************************
    > *
    ****************************************************************************
    > *
```

```
704 . local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

705 . logit HP2pbfhm age sepaw3 dvcew3 radhlw3 avgcumdosew3 suprtw3 ///
    >    havmilsq illw3 `w3bf' if gender==1, iterate(50)

    note: bf15m != 0 predicts failure perfectly
          bf15m dropped and 21 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 = -79.475349
    Iteration 1:   log likelihood =  -67.02422
    Iteration 2:   log likelihood = -60.135828
    Iteration 3:   log likelihood = -59.852788
    Iteration 4:   log likelihood = -59.850816
    Iteration 5:   log likelihood = -59.850815

    Logistic regression                               Number of obs   =        311
                                                      LR chi2(19)     =      39.25
                                                      Prob > chi2     =     0.0041
    Log likelihood = -59.850815                       Pseudo R2       =     0.2469
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.043687	.0250852	1.74	0.082	-.0054791	.092853
sepaw3	1.382077	1.196445	1.16	0.248	-.9629124	3.727067
dvcew3	1.720325	1.049833	1.64	0.101	-.3373098	3.77796
radhlw3	.0111639	.0118036	0.95	0.344	-.0119707	.0342986
avgcumdosew3	-.0948486	.2407308	-0.39	0.694	-.5666722	.376975
suprtw3	-.0049975	.0064124	-0.78	0.436	-.0175656	.0075705
havmilsq	-1.41e-06	6.40e-06	-0.22	0.826	-.000014	.0000111
illw3	-.190415	.3387342	-0.56	0.574	-.8543217	.4734918
bf1	-.0587243	.0691016	-0.85	0.395	-.194161	.0767123
bf4	-.2551053	.2251582	-1.13	0.257	-.6964073	.1861967
bf2	.0004205	.0002504	1.68	0.093	-.0000704	.0009113
bf4m	.0336013	.2032952	0.17	0.869	-.3648499	.4320525
bf5m	.0012898	.0029269	0.44	0.659	-.0044468	.0070264
bf7m	.0016168	.0007794	2.07	0.038	.0000891	.0031445
bf8	-.0000436	.0000621	-0.70	0.483	-.0001653	.0000781
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.0203096	.0573578	0.35	0.723	-.0921097	.1327289
bf22	-.0000858	.0002375	-0.36	0.718	-.0005514	.0003797
bf29	0	(omitted)				

```
        bf30 |   -.000487   .0004957    -0.98   0.326    -.0014586    .0004845
        bf40 |  -.0932224   .3574103    -0.26   0.794    -.7937336    .6072889
       _cons |  -4.855589   3.519856    -1.38   0.168    -11.75438    2.043202
------------------------------------------------------------------------------

706 .
707 . estat class

    Logistic model for HP2pbfhm

                  -------- True --------
    Classified |         D            ~D  |      Total
    -----------+--------------------------+-----------
         +     |         1             3  |          4
         -     |        21           286  |        307
    -----------+--------------------------+-----------
       Total   |        22           289  |        311

    Classified + if predicted Pr(D) >= .5
    True D defined as HP2pbfhm != 0
    --------------------------------------------------
    Sensitivity                     Pr( +| D)    4.55%
    Specificity                     Pr( -|~D)   98.96%
    Positive predictive value       Pr( D| +)   25.00%
    Negative predictive value       Pr(~D| -)   93.16%
    --------------------------------------------------
    False + rate for true ~D        Pr( +|~D)    1.04%
    False - rate for true D         Pr( -| D)   95.45%
    False + rate for classified +   Pr(~D| +)   75.00%
    False - rate for classified -   Pr( D| -)    6.84%
    --------------------------------------------------
    Correctly classified                        92.28%
    --------------------------------------------------

708 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    -------------------------------------------------

           number of observations =       311
     number of covariate patterns =       310
                Pearson chi2(290) =       253.04
                      Prob > chi2 =         0.9426
```

```
709 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:      -79.475    Log-Lik Full Model:           -59.851
    D(288):                      119.702    LR(19):                        39.249
                                            Prob > LR:                      0.004
    McFadden's R2:                 0.247    McFadden's Adj R2:             -0.042
    Maximum Likelihood R2:         0.119    Cragg & Uhler's R2:             0.296
    McKelvey and Zavoina's R2:     0.486    Efron's R2:                     0.165
    Variance of y*:                6.405    Variance of error:              3.290
    Count R2:                      0.923    Adj Count R2:                  -0.091
    AIC:                           0.533    AIC*n:                        165.702
    BIC:                       -1533.359    BIC':                          69.807

710 .
711 . 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    20:37:58     ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
712 . local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

713 . sw, pr(.1):logit HP2pbfhm age sepaw3 dvcew3 radhlw3 avgcumdosew3 suprtw3 ///
    >    havmilsq illw3 `w3bf' if gender==1, iterate(50)
    note: bf15m dropped because of estimability
    note: bf17 dropped because of estimability
    note: bf29 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: 29 obs. dropped because of estimability
                          begin with full model
    p = 0.8687 >= 0.1000  removing bf4m
    p = 0.8320 >= 0.1000  removing havmilsq
    p = 0.7873 >= 0.1000  removing bf40
    p = 0.7202 >= 0.1000  removing bf20
    p = 0.6874 >= 0.1000  removing avgcumdosew3
    p = 0.6350 >= 0.1000  removing bf5m
    p = 0.5258 >= 0.1000  removing bf8
    p = 0.4782 >= 0.1000  removing illw3
    p = 0.4550 >= 0.1000  removing radhlw3
    p = 0.4439 >= 0.1000  removing bf30
    p = 0.3545 >= 0.1000  removing suprtw3
    p = 0.2500 >= 0.1000  removing bf22
    p = 0.3169 >= 0.1000  removing sepaw3
    p = 0.1709 >= 0.1000  removing age

    Logistic regression                               Number of obs   =        311
                                                      LR chi2(5)      =      31.19
                                                      Prob > chi2     =     0.0000
    Log likelihood = -63.878677                       Pseudo R2       =     0.1962
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf1	-.0373492	.0219622	-1.70	0.089	-.0803943	.0056959
bf4	-.2457605	.0676591	-3.63	0.000	-.37837	-.1131511
dvcew3	2.001697	.80438	2.49	0.013	.4251407	3.578253
bf2	.0003872	.000212	1.83	0.068	-.0000283	.0008027
bf7m	.0014478	.0004687	3.09	0.002	.0005292	.0023664
_cons	-1.533868	.7653632	-2.00	0.045	-3.033953	-.0337839

```
714 .
715 . estat class

    Logistic model for HP2pbfhm

                  -------- True --------
    Classified |         D            ~D  |      Total
    -----------+--------------------------+-----------
         +     |         0             0  |          0
         -     |        22           289  |        311
    -----------+--------------------------+-----------
       Total   |        22           289  |        311

    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| -)   92.93%
    --------------------------------------------------
    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| -)    7.07%
    --------------------------------------------------
    Correctly classified                        92.93%
    --------------------------------------------------

716 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    -------------------------------------------------

           number of observations =       311
     number of covariate patterns =       263
                Pearson chi2(257) =       376.88
                      Prob > chi2 =         0.0000
```

```
717 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:      -79.475     Log-Lik Full Model:           -63.879
    D(305):                      127.757     LR(5):                         31.193
                                             Prob > LR:                      0.000
    McFadden's R2:                 0.196     McFadden's Adj R2:              0.121
    Maximum Likelihood R2:         0.095     Cragg & Uhler's R2:             0.238
    McKelvey and Zavoina's R2:     0.411     Efron's R2:                     0.128
    Variance of y*:                5.587     Variance of error:              3.290
    Count R2:                      0.929     Adj Count R2:                   0.000
    AIC:                           0.449     AIC*n:                        139.757
    BIC:                       -1622.879     BIC':                          -2.494

718 .
719 . scalar MainEffPrbfhmMw3 = "bf1 bf4 dvcew3 bf7m"

720 . scalar SigDosePrbfhmMw3 = "no"

721 . // construction of moderators for male model
722 .
723 . foreach var in bf1 bf4 dvcew3 bf2 bf7m {
      2.  cap gen `var'Xd3 = `var'*avgcumdosew3
      3.   }

724 .
725 .
726 .
727 .
728 . ************************************************************************
    > **
729 . *-------chunk 6  continued -testing moderators and none found for males
730 . local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

731 .
```

```
732 .
733 . 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    20:38:20    ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *



734 . local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

735 . sw, pr(.1):logit HP2pbfhm age sepaw3 dvcew3 radhlw3 avgcumdosew3 suprtw3 ///
    >    havmilsq illw3 `w3bf' bf1Xd3 bf4Xd3  bf2Xd3 bf7mXd3 dvcew3Xd3 if ///
    >     gender==1, iterate(50)
    note: bf15m dropped because of estimability
    note: bf17 dropped because of estimability
    note: bf29 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: 29 obs. dropped because of estimability
                          begin with full model
    p = 0.9832 >= 0.1000  removing bf2Xd3
    p = 0.8995 >= 0.1000  removing bf4m
    p = 0.8784 >= 0.1000  removing havmilsq
    p = 0.8427 >= 0.1000  removing bf7mXd3
    p = 0.8108 >= 0.1000  removing bf1Xd3
```

```
p = 0.7829 >= 0.1000  removing dvcew3Xd3
p = 0.7779 >= 0.1000  removing bf40
p = 0.6983 >= 0.1000  removing bf20
p = 0.6391 >= 0.1000  removing bf4Xd3
p = 0.6874 >= 0.1000  removing avgcumdosew3
p = 0.6350 >= 0.1000  removing bf5m
p = 0.5258 >= 0.1000  removing bf8
p = 0.4782 >= 0.1000  removing illw3
p = 0.4550 >= 0.1000  removing radhlw3
p = 0.4439 >= 0.1000  removing bf30
p = 0.3545 >= 0.1000  removing suprtw3
p = 0.2500 >= 0.1000  removing bf22
p = 0.3169 >= 0.1000  removing sepaw3
p = 0.1709 >= 0.1000  removing age

Logistic regression                               Number of obs   =        311
                                                  LR chi2(5)      =      31.19
                                                  Prob > chi2     =     0.0000
Log likelihood = -63.878677                       Pseudo R2       =     0.1962
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf1	-.0373492	.0219622	-1.70	0.089	-.0803943	.0056959
bf4	-.2457605	.0676591	-3.63	0.000	-.37837	-.1131511
dvcew3	2.001697	.80438	2.49	0.013	.4251407	3.578253
bf2	.0003872	.000212	1.83	0.068	-.0000283	.0008027
bf7m	.0014478	.0004687	3.09	0.002	.0005292	.0023664
_cons	-1.533868	.7653632	-2.00	0.045	-3.033953	-.0337839

```
736 .
737 . estat class

Logistic model for HP2pbfhm
```

Classified	True D	True ~D	Total
+	0	0	0
-	22	289	311
Total	22	289	311

```
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| -)   92.93%
--------------------------------------------------
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| -)    7.07%
--------------------------------------------------
Correctly classified                        92.93%
--------------------------------------------------
```

```
738 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    -------------------------------------------------

           number of observations =       311
     number of covariate patterns =       263
                 Pearson chi2(257) =       376.88
                       Prob > chi2 =         0.0000

739 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:      -79.475   Log-Lik Full Model:            -63.879
    D(305):                      127.757   LR(5):                          31.193
                                           Prob > LR:                       0.000
    McFadden's R2:                 0.196   McFadden's Adj R2:               0.121
    Maximum Likelihood R2:         0.095   Cragg & Uhler's R2:              0.238
    McKelvey and Zavoina's R2:     0.411   Efron's R2:                      0.128
    Variance of y*:                5.587   Variance of error:               3.290
    Count R2:                      0.929   Adj Count R2:                    0.000
    AIC:                           0.449   AIC*n:                         139.757
    BIC:                       -1622.879   BIC':                           -2.494
```

```
740 .
741 . scalar SigDosePrbfmhmMw3 = "no"

742 . scalar PrbfmhmModw3 = "none"

743 .
744 . * 3 main effects signif   no main effect for dose  for males
745 .
746 .
747 . ****************************************************************************
    > ****
748 . title4 "Chunk 6  continued -testing meditors for females"
    ------------------------------------------------------------------------------
    Chunk 6  continued -testing meditors for females
    ------------------------------------------------------------------------------

749 . title4 Simultaneous trimming to .1 female wave 3"  "Dose => Problems with Fa
    > mily at home models"
    ------------------------------------------------------------------------------
    Simultaneous trimming to
    ------------------------------------------------------------------------------

750 . local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf4
    > 0

751 . logit HP2pbfhm age  dvcew3 avgcumdosew3 bf4 ///
    >     if gender==2, iterate(50)

    Iteration 0:   log likelihood = -139.89675
    Iteration 1:   log likelihood = -113.53198
    Iteration 2:   log likelihood = -107.97258
    Iteration 3:   log likelihood = -107.87574
    Iteration 4:   log likelihood = -107.87549
    Iteration 5:   log likelihood = -107.87549

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(4)      =      64.04
                                                      Prob > chi2     =     0.0000
    Log likelihood = -107.87549                       Pseudo R2       =     0.2289
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0645234	.0172238	3.75	0.000	.0307654	.0982813
dvcew3	.8311533	.6285086	1.32	0.186	-.4007009	2.063007
avgcumdosew3	-.0017344	.0768006	-0.02	0.982	-.1522607	.148792
bf4	-.175564	.0365808	-4.80	0.000	-.2472611	-.1038669
_cons	-4.048039	1.095505	-3.70	0.000	-6.195189	-1.900889

```
752 .
753 . estat class
```

Logistic model for HP2pbfhm

Classified	True D	True ~D	Total
+	8	5	13
-	39	311	350
Total	47	316	363

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

Sensitivity	Pr(+| D)	17.02%
Specificity	Pr(-|~D)	98.42%
Positive predictive value	Pr(D| +)	61.54%
Negative predictive value	Pr(~D| -)	88.86%
False + rate for true ~D	Pr(+|~D)	1.58%
False - rate for true D	Pr(-| D)	82.98%
False + rate for classified +	Pr(~D| +)	38.46%
False - rate for classified -	Pr(D| -)	11.14%
Correctly classified		87.88%

```
754 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    _________________________________________________

           number of observations =       363
     number of covariate patterns =       357
                Pearson chi2(352) =       307.66
                      Prob > chi2 =         0.9574

755 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:     -139.897    Log-Lik Full Model:         -107.875
    D(358):                      215.751    LR(4):                        64.043
                                            Prob > LR:                     0.000
    McFadden's R2:                 0.229    McFadden's Adj R2:             0.193
    Maximum Likelihood R2:         0.162    Cragg & Uhler's R2:            0.301
    McKelvey and Zavoina's R2:     0.381    Efron's R2:                    0.194
    Variance of y*:                5.316    Variance of error:             3.290
    Count R2:                      0.879    Adj Count R2:                  0.064
    AIC:                           0.622    AIC*n:                       225.751
    BIC:                       -1894.445    BIC':                        -40.465

756 .
757 .
758 . title "Dose effect not significant when simultaneously trimmed for females"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****Dose effect not significant when simultaneously trimmed for females  ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                                1 Jul 2012   20:38:50  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
```

```
> *


759 .
760 . *-------Chunk 6  continued -testing meditors for females
761 . title "More partly female Trimmed wave 3"  "Dose => Problems with Family at
    > home models"


    *******************************************************************************
    > *
    *******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                  More partly female Trimmed wave 3                  ****
    > *
    *****             Dose => Problems with Family at home models             ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                         1 Jul 2012    20:38:50      ****
    > *
    *******************************************************************************
    > *
    *******************************************************************************
    > *


762 . local w3bf bf1 bf4 bf2 bf8 bf15m bf17 bf20 bf22 bf29 bf30 bf40
```

```
763 . 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
    ------------------------------------------------------------------------------

764 .
765 . estat class

    Logistic model for HP2pbfhm

                  -------- True --------
    Classified |         D            ~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%
    --------------------------------------------------

766 . 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

767 . 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

768 .
769 . scalar SigDosePrbfmhmFw3 = "no"

770 . scalar MainEffPrbfmhmFw3 = "age bf4 bf40"

771 . * 3 significant main effects for females
772 . * no significant main effect for dose
773 .
774 . * constructing moderators
```

```
775 .
776 . foreach var in bf4 bf40 {
      2. cap  gen `var'Xd3 = `var'*avgcumdosew3
      3.  }

777 .
778 .
779 . *- testing female moderator effects:  no moderator effects for females
780 .
781 . 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

```
782 . 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
```

783 . 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%
--------------------------------------------------
```

784 . 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
```

```
785 .
786 . scalar PrbfmhmModFw3="none"

787 .
788 . ***************************************************************************
> ****
789 . *---------Chunk 6 continued testing mediating effects for Problems with fami
> ly
790 .  *  at home
791 .
792 . * age is a mediating effect for males for Dose=> problems with family at hom
> e
793 . 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)

794 . glm age avgcumdosew3 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1330.6336

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  147.7142
Deviance         =  49927.38549                    (1/df) Deviance =  147.7142
Pearson          =  49927.38549                    (1/df) Pearson  =  147.7142

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

                                                   AIC             =  7.839021
Log likelihood   = -1330.633586                    BIC             =   47957.2

------------------------------------------------------------------------------
             |                 OIM
         age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |   .5433648   .2472657     2.20   0.028      .058733    1.027997
       _cons |   48.52021   .7247376    66.95   0.000     47.09975    49.94067
------------------------------------------------------------------------------
```

```
795 . 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

    ------------------------------------------------------------------------------
                 |                 EIM
        HP2pbfhm |      Coef.   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.)

796 . glm bf4  avgcumdosew3 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1027.1072

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  24.77487
    Deviance         =  8373.906252                    (1/df) Deviance =  24.77487
    Pearson          =  8373.906252                    (1/df) Pearson  =  24.77487

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

                                                       AIC             =  6.053572
    Log likelihood   = -1027.107224                    BIC             =  6403.723
```

bf4	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**-.0357675**	**.1012648**	**-0.35**	**0.724**	**-.2342429**	**.1627078**
_cons	**12.54064**	**.2968079**	**42.25**	**0.000**	**11.95891**	**13.12238**

```
797 . 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
```

HP2pbfhm	Coef.	EIM 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.)

```
798 .
799 . * age is a mediating effect for females for Dose=> Problems with family at h
    > ome
800 . glm age avgcumdosew3 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood =  -1408.064

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =  137.7687
    Deviance         =  49734.51399                    (1/df) Deviance =  137.7687
    Pearson          =  49734.51399                    (1/df) Pearson  =  137.7687

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

                                                       AIC             =  7.768948
    Log likelihood   =  -1408.06405                    BIC             =  47606.63

    ------------------------------------------------------------------------------
                 |                 OIM
             age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew3 |   1.058366   .3512614     3.01   0.003     .3699069    1.746826
           _cons |   48.94293   .7468173    65.54   0.000     47.47919    50.40666
    ------------------------------------------------------------------------------

801 . 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.)

```
802 .
803 . * bf4 is a mediting effect for females for Dose=> Problems with family at ho
    > me
804 . glm bf4  avgcumdosew3 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1109.6569

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =   26.6146
    Deviance         =  9607.869105                    (1/df) Deviance =   26.6146
    Pearson          =  9607.869105                    (1/df) Pearson  =   26.6146

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

                                                       AIC             =  6.124831
    Log likelihood   = -1109.656873                    BIC             =   7479.99
```

bf4	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	-.4386292	.1543885	-2.84	0.004	-.7412252	-.1360333
_cons	11.01475	.3282456	33.56	0.000	10.3714	11.6581

```
805 . 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.)

806 .
807 .
808 . glm bf40  avgcumdosew3 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -818.14796

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   5.340664
Deviance         =  1927.979854                    (1/df) Deviance =   5.340664
Pearson          =  1927.979854                    (1/df) Pearson  =   5.340664

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

                                                   AIC             =   4.518722
Log likelihood   = -818.1479598                    BIC             = -199.8996

------------------------------------------------------------------------------
             |                 OIM
        bf40 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |    .152897   .0691596     2.21   0.027     .0173466    .2884474
       _cons |   2.981537   .1470404    20.28   0.000     2.693343    3.269731
------------------------------------------------------------------------------
```

```
809 . 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.)

810 .
811 . scalar PrbfmhmMedMw3 = "age"

812 . scalar PrbfmhmMedFw3 = "age bf4"

813 .
814 . title4 " Summary of dose=problems with family at home  mediating effects "

     Summary of dose=problems with family at home  mediating effects
```

```
815 . * males mediators age 1
816 . * females mediators age and BSIsoma rescaled (bf4) 2
817 .
818 .    matrix define HP2prbfamMw3 = J(1,8, 0)

819 .         matrix define HP2prbfamFw3 = J(1,8, 0)

820 . matrix colnames HP2prbfamMw3 =  hypnum ptnum wave gender medsig numMAsig num
    > Modsig numMed

821 .         matrix colnames HP2prbfamFw3=  hypnum ptnum wave gender medsig numMA
    > sig numModsig numMed

822 .     matrix define HP2prbfamMw3= (1, 2, 3, 1, 0, 5, 0, 1 )

823 .         matrix define HP2prbfamFw3= (1, 2, 3, 2, 0, 2, 2, 2)

824 .         matrix rowname HP2prbfamMw3 = HP2prbfamM

825 .         matrix rowname HP2prbfamFw3 = HP2prbfamF

826 .         matlist HP2prbfamMw3

                 |         c1          c2          c3          c4          c5          c
    > 6
    -------------+-----------------------------------------------------------------------
    > --
      HP2prbfamM |          1           2           3           1           0
    > 5

                 |         c7          c8
    -------------+------------------------
      HP2prbfamM |          0           1

827 .         matlist HP2prbfamFw3

                 |         c1          c2          c3          c4          c5          c
    > 6
    -------------+-----------------------------------------------------------------------
    > --
      HP2prbfamF |          1           2           3           2           0
    > 2

                 |         c7          c8
    -------------+------------------------
      HP2prbfamF |          2           2
```

```
828 .         matrix define H1pt2w3 = ( HP2wkMw3 \ HP2wkFw3 \ HP2hmcrMw3 \ HP2hmcr
    > Fw3 \HP2spMw3 \HP2spFw3 \ HP2prbfamMw3 \ HP2prbfamFw3 )

829 .
830 .         matlist H1pt2w3

                 |        c1         c2         c3         c4         c5          c
    > 6
    -------------+---------------------------------------------------------------------
    > --
              r1 |         1          2          3          1          0
    > 4
              r1 |         1          2          3          2          0
    > 1
              r1 |         1          2          3          1          0
    > 4
              r1 |         1          2          3          2          0
    > 2
        HP2spMw3 |         1          2          3          1          0
    > 2
        HP2spFw3 |         1          2          3          2          1
    > 5
      HP2prbfamM |         1          2          3          1          0
    > 5
      HP2prbfamF |         1          2          3          2          0
    > 2

                 |        c7         c8
    -------------+----------------------
              r1 |         0          4
              r1 |         0          6
              r1 |         0          2
              r1 |         0          2
        HP2spMw3 |         0          1
        HP2spFw3 |         5          3
      HP2prbfamM |         0          1
      HP2prbfamF |         2          2
```

```
831 .     matrix colnames H1pt2w3 =  hypnum ptnum wave gender medsig numMAsig numM
    > odsig numMed

832 .     matrix rownames H1pt2w3 =   HP2wkMw3 HP2wkFw3 HP2hmcrMw3 HP2hmcrFw3 HP2p
    > rbfhmMw3 HP2prbfhmFw3

833 .     matlist H1pt2w3

                 |    hypnum      ptnum       wave     gender     medsig   numMAsi
    > g
    -------------+---------------------------------------------------------------
    > --
        HP2wkMw3 |         1          2          3          1          0
    > 4
        HP2wkFw3 |         1          2          3          2          0
    > 1
      HP2hmcrMw3 |         1          2          3          1          0
    > 4
      HP2hmcrFw3 |         1          2          3          2          0
    > 2
    HP2prbfhmMw3 |         1          2          3          1          0
    > 2
    HP2prbfhmFw3 |         1          2          3          2          1
    > 5
    HP2prbfhmFw3 |         1          2          3          1          0
    > 5
    HP2prbfhmFw3 |         1          2          3          2          0
    > 2

                 |  numModsig     numMed
    -------------+----------------------
        HP2wkMw3 |          0          4
        HP2wkFw3 |          0          6
      HP2hmcrMw3 |          0          2
      HP2hmcrFw3 |          0          2
    HP2prbfhmMw3 |          0          1
    HP2prbfhmFw3 |          5          3
    HP2prbfhmFw3 |          0          1
    HP2prbfhmFw3 |          2          2
```

```
834 .
835 .
836 . *--------------------------------------------------------------------------
    > ----
837 . ***************************************************************************
    > ****
838 . *-------Chunk 7   Dose==> problems with sex life impact
839 . * Chunk 7  General model for all part 2 of Nottingham Health Profile
840 .
841 . title "5.  Wave 3 part2 H1: Test of hypothesis 1 with Male and Female Respon
    > dents" ///
    >      " Wave 3 Main effects Dose=> sexlife impact identification"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****5.  Wave 3 part2 H1: Test of hypothesis 1 with Male and Female Respondent
    > s*****
    *****      Wave 3 Main effects Dose=> sexlife impact identification      ****
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                        1 Jul 2012    20:39:11      ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
842 . forvalues j=3/3 {
      2. set more off
      3.
843 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
844 .   foreach var in HP2sxlife  {
      5.       forvalues k=1/2 {
      6. local w3bf 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.
845 . di _skip(4)
     10.
846 .
847 .       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 radhlw3 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
```

```
marrw31          byte   %8.0g                  marrw3==1. single
marrw32          byte   %8.0g                  marrw3==2. cohabitating
marrw33          byte   %8.0g                  marrw3==3. married
marrw34          byte   %8.0g                  marrw3==4. separated
marrw35          byte   %8.0g                  marrw3==5. divorced
marrw36          byte   %8.0g                  marrw3==6. widowed
inc1w3           double %15.0g      LABJ       Income is not sufficient for
                                                 basic neccessities NOW
inc2w3           double %15.0g      LABJ       Income is just sufficient for
                                                 basic neccessities NOW
inc3w3           double %15.0g      LABJ       Income is sufficient for basics
                                                 plus extra purchases/savings
                                                 NOW
inc4w3           double %15.0g      LABJ       Income allows to comfortably
                                                 afford luxury items NOW
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= 3               ****
> *
*****      chunk 7 H1 test:Gender= 1  model Wave =  3 for HP2pbfhm        ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                                1 Jul 2012    20:39:11  ****
> *
******************************************************************************
> *
******************************************************************************
```

```
> *

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: _Ieduc_7 != 0 predicts failure perfectly
      _Ieduc_7 dropped and 4 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 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: _Ieduc_8 omitted because of collinearity
note: occ8w3 omitted because of collinearity
note: marrw36 omitted because of collinearity
note: bf17 omitted because of collinearity
note: radhlw3 omitted because of collinearity

Logistic regression                               Number of obs   =        304
                                                  LR chi2(47)     =     153.48
                                                  Prob > chi2     =     0.0000
Log likelihood = -86.082561                       Pseudo R2       =     0.4713
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1069256	.0319906	3.34	0.001	.0442252	.169626
_Ieduc_2	-.7455102	2.711615	-0.27	0.783	-6.060177	4.569157
_Ieduc_3	-1.187035	2.60622	-0.46	0.649	-6.295133	3.921063
_Ieduc_4	-2.546669	2.819292	-0.90	0.366	-8.072379	2.979041
_Ieduc_5	-.9083698	2.596245	-0.35	0.726	-5.996916	4.180177
_Ieduc_6	-.821989	2.54798	-0.32	0.747	-5.815938	4.17196
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w3	-13.83588	1847.337	-0.01	0.994	-3634.551	3606.879
occ2w3	-14.1177	1847.337	-0.01	0.994	-3634.833	3606.597
occ3w3	-15.12911	1847.338	-0.01	0.993	-3635.845	3605.586
occ4w3	-14.04877	1847.338	-0.01	0.994	-3634.764	3606.666
occ5w3	-13.39243	1847.338	-0.01	0.994	-3634.108	3607.323
occ6w3	0	(omitted)				
occ7w3	-14.25779	1847.337	-0.01	0.994	-3634.973	3606.457
occ8w3	0	(omitted)				
marrw31	1.917986	1.336919	1.43	0.151	-.7023282	4.538299

marrw32	-.8798595	1.841469	-0.48	0.633	-4.489073	2.729354
marrw33	.8814069	1.275273	0.69	0.489	-1.618082	3.380896
marrw35	1.398611	1.615954	0.87	0.387	-1.768602	4.565823
marrw36	0	(omitted)				
inc1w3	16.59262	1847.337	0.01	0.993	-3604.122	3637.307
inc2w3	16.41393	1847.337	0.01	0.993	-3604.3	3637.128
inc3w3	14.9931	1847.337	0.01	0.994	-3605.721	3635.708
inc4w3	13.76529	1847.339	0.01	0.994	-3606.952	3634.482
radhlw3	.0155883	.0090158	1.73	0.084	-.0020824	.0332591
havmil	.0032884	.0119659	0.27	0.783	-.0201643	.0267412
avgcumdosew3	.0366781	.0541231	0.68	0.498	-.0694012	.1427574
bf1	.0224773	.0438725	0.51	0.608	-.0635113	.108466
bf4	-.3119601	.2453847	-1.27	0.204	-.7929052	.168985
bf2	.0000786	.0001745	0.45	0.652	-.0002634	.0004207
bf4m	.0103662	.2174828	0.05	0.962	-.4158923	.4366247
bf5m	.0028825	.0019867	1.45	0.147	-.0010113	.0067763
bf7m	.0013372	.0006507	2.05	0.040	.0000618	.0026126
bf8	-.0000698	.0000479	-1.46	0.145	-.0001638	.0000241
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0288329	.0347084	-0.83	0.406	-.09686	.0391943
bf22	-.0000907	.0001888	-0.48	0.631	-.0004608	.0002793
bf29	0	(omitted)				
bf30	-5.44e-06	.0004196	-0.01	0.990	-.0008279	.0008171
bf40	.3549975	.2522025	1.41	0.159	-.1393104	.8493054
deaw3	-.1446966	.2515866	-0.58	0.565	-.6377974	.3484041
dvcew3	.2312151	1.685819	0.14	0.891	-3.07293	3.535361
sepaw3	1.563211	1.973158	0.79	0.428	-2.304108	5.430529
accdw3	-1.029126	.9986452	-1.03	0.303	-2.986435	.9281827
movew3	-.3161441	.7920977	-0.40	0.690	-1.868627	1.236339
illw3	.2509498	.2730406	0.92	0.358	-.2841998	.7860995
shfamw3	-.0049114	.0092237	-0.53	0.594	-.0229895	.0131668
shhlw3	-.0135671	.0078785	-1.72	0.085	-.0290087	.0018746
shjobw3	.0090088	.0079953	1.13	0.260	-.0066617	.0246793
shrelaw3	-.0052844	.0083104	-0.64	0.525	-.0215726	.0110037
suprtw3	.0083949	.0090554	0.93	0.354	-.0093533	.0261431
suchrw3	-.0115343	.0079215	-1.46	0.145	-.0270603	.0039916
havmilsq	-.0000122	.0000253	-0.48	0.630	-.0000618	.0000374
radhlw3	0	(omitted)				
_cons	-6.912277	3.93482	-1.76	0.079	-14.62438	.7998281

Note: 4 failures and 0 successes completely determined.

Logistic model for HP2sxlife

Classified	True D	True ~D	Total
+	**44**	**14**	**58**
-	**25**	**221**	**246**
Total	**69**	**235**	**304**

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

Sensitivity	Pr(+| D)	**63.77%**
Specificity	Pr(-|~D)	**94.04%**
Positive predictive value	Pr(D| +)	**75.86%**
Negative predictive value	Pr(~D| -)	**89.84%**
False + rate for true ~D	Pr(+|~D)	**5.96%**
False - rate for true D	Pr(-| D)	**36.23%**
False + rate for classified +	Pr(~D| +)	**24.14%**
False - rate for classified -	Pr(D| -)	**10.16%**
Correctly classified		**87.17%**

Logistic model for HP2sxlife, goodness-of-fit test

number of observations =	**304**
number of covariate patterns =	**304**
Pearson chi2(**256**) =	**202.32**
Prob > chi2 =	**0.9943**

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

Log-Lik Intercept Only:	**-162.820**	Log-Lik Full Model:	**-86.083**
D(247):	**172.165**	LR(47):	**153.476**
		Prob > LR:	**0.000**
McFadden's R2:	**0.471**	McFadden's Adj R2:	**0.121**
Maximum Likelihood R2:	**0.396**	Cragg & Uhler's R2:	**0.603**
McKelvey and Zavoina's R2:	**0.800**	Efron's R2:	**0.484**
Variance of y*:	**16.474**	Variance of error:	**3.290**
Count R2:	**0.872**	Adj Count R2:	**0.435**
AIC:	**0.941**	AIC*n:	**286.165**
BIC:	**-1239.941**	BIC':	**115.224**

```
******************************************************************************
> *
******************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****     Full Nottingham Part 2 subscale models for male & females      ****
> *
*****             Full main model for HP2sxlife for wave= 3              ****
> *
*****     chunk 7 H1 test:Gender= 2  model Wave =  3 for HP2sxlife       ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                      1 Jul 2012    20:39:12        ****
> *
******************************************************************************
> *
******************************************************************************
> *


i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: occ8w3 != 0 predicts failure perfectly
      occ8w3 dropped and 1 obs not used

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: bf17 omitted because of collinearity
note: radhlw3 omitted because of collinearity

Logistic regression                               Number of obs   =        345
                                                  LR chi2(50)     =     168.03
                                                  Prob > chi2     =     0.0000
Log likelihood = -114.00457                       Pseudo R2       =     0.4243
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0813848	.0244496	3.33	0.001	.0334644	.1293053
_Ieduc_2	-12.79022	653.1326	-0.02	0.984	-1292.907	1267.326
_Ieduc_3	-11.94607	653.1326	-0.02	0.985	-1292.062	1268.17
_Ieduc_4	-11.36768	653.1328	-0.02	0.986	-1291.484	1268.749
_Ieduc_5	-12.54328	653.1327	-0.02	0.985	-1292.66	1267.573
_Ieduc_6	-11.93918	653.1326	-0.02	0.985	-1292.055	1268.177
_Ieduc_7	-12.87216	653.1524	-0.02	0.984	-1293.027	1267.283
_Ieduc_8	0	(omitted)				
occ1w3	-2.703036	2.21975	-1.22	0.223	-7.053665	1.647593
occ2w3	-2.165029	2.323461	-0.93	0.351	-6.718929	2.388871
occ3w3	-2.030908	2.234964	-0.91	0.364	-6.411358	2.349542
occ4w3	-1.625969	2.528132	-0.64	0.520	-6.581016	3.329078
occ5w3	.7269315	2.820396	0.26	0.797	-4.800943	6.254806
occ6w3	-.7633882	2.518786	-0.30	0.762	-5.700118	4.173342
occ7w3	-1.433838	2.203631	-0.65	0.515	-5.752876	2.8852
occ8w3	0	(omitted)				
marrw31	.3247443	1.774101	0.18	0.855	-3.152431	3.801919
marrw32	.8501767	2.207491	0.39	0.700	-3.476427	5.17678
marrw33	1.557872	1.575773	0.99	0.323	-1.530585	4.646329
marrw35	-.4253418	1.619183	-0.26	0.793	-3.598882	2.748198
marrw36	1.703593	1.601915	1.06	0.288	-1.436102	4.843288
inc1w3	1.766812	2.253827	0.78	0.433	-2.650608	6.184231
inc2w3	2.269344	2.224897	1.02	0.308	-2.091374	6.630061
inc3w3	.9292343	2.201873	0.42	0.673	-3.386357	5.244826
inc4w3	1.449624	2.775037	0.52	0.601	-3.989349	6.888597
radhlw3	.0277216	.0091569	3.03	0.002	.0097745	.0456688
havmil	.0021336	.0032179	0.66	0.507	-.0041733	.0084405
avgcumdosew3	.1969924	.1165031	1.69	0.091	-.0313496	.4253343
bf1	.0285984	.0382244	0.75	0.454	-.04632	.1035168
bf4	-.4015139	.2038932	-1.97	0.049	-.8011373	-.0018905
bf2	-.0001649	.0001225	-1.35	0.178	-.0004051	.0000753
bf4m	.3523301	.1864609	1.89	0.059	-.0131266	.7177867
bf5m	-.0026053	.001955	-1.33	0.183	-.006437	.0012264
bf7m	-.0000741	.0006237	-0.12	0.905	-.0012966	.0011483
bf8	-5.22e-06	.0000423	-0.12	0.902	-.0000881	.0000777
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	-.0120216	.031995	-0.38	0.707	-.0747307	.0506874
bf22	-.0001004	.0001357	-0.74	0.459	-.0003664	.0001655
bf29	0	(omitted)				
bf30	-.0002441	.0003438	-0.71	0.478	-.0009179	.0004298
bf40	.095062	.1371931	0.69	0.488	-.1738314	.3639555
deaw3	.0760781	.1918427	0.40	0.692	-.2999267	.4520829
dvcew3	1.127371	.952705	1.18	0.237	-.7398962	2.994639
sepaw3	.5833047	.936842	0.62	0.534	-1.252872	2.419481
accdw3	-.5118992	.5859911	-0.87	0.382	-1.660421	.6366223

movew3	-.6063637	1.823477	-0.33	0.739	-4.180313	2.967586
illw3	.1168429	.1761008	0.66	0.507	-.2283082	.4619941
shfamw3	.0084815	.007536	1.13	0.260	-.0062888	.0232518
shhlw3	.0066923	.0066985	1.00	0.318	-.0064365	.0198212
shjobw3	-.0046191	.0070704	-0.65	0.514	-.0184767	.0092386
shrelaw3	-.0123617	.0074084	-1.67	0.095	-.0268819	.0021585
suprtw3	-.0091554	.0078461	-1.17	0.243	-.0245335	.0062227
suchrw3	-.0034248	.0055225	-0.62	0.535	-.0142486	.0073991
havmilsq	-2.54e-06	2.55e-06	-1.00	0.319	-7.52e-06	2.45e-06
radhlw3	0	(omitted)				
_cons	1.83356	653.1407	0.00	0.998	-1278.299	1281.966

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	60	12	72
-	30	243	273
Total	90	255	345

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

Sensitivity	Pr(+| D)	66.67%
Specificity	Pr(-|~D)	95.29%
Positive predictive value	Pr(D| +)	83.33%
Negative predictive value	Pr(~D| -)	89.01%
False + rate for true ~D	Pr(+|~D)	4.71%
False - rate for true D	Pr(-| D)	33.33%
False + rate for classified +	Pr(~D| +)	16.67%
False - rate for classified -	Pr(D| -)	10.99%
Correctly classified		87.83%

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       345
 number of covariate patterns =       345
             Pearson chi2(294) =       343.22
                   Prob > chi2 =         0.0254
```

```
Measures of Fit for logistic of HP2sxlife

Log-Lik Intercept Only:      -198.018   Log-Lik Full Model:          -114.005
D(288):                       228.009   LR(50):                       168.026
                                        Prob > LR:                      0.000
McFadden's R2:                  0.424   McFadden's Adj R2:              0.136
Maximum Likelihood R2:          0.386   Cragg & Uhler's R2:             0.565
McKelvey and Zavoina's R2:      0.693   Efron's R2:                     0.483
Variance of y*:                10.715   Variance of error:              3.290
Count R2:                       0.878   Adj Count R2:                   0.533
AIC:                            0.991   AIC*n:                        342.009
BIC:                        -1454.932   BIC':                         124.151

848 . *-----Chunk 7 dose3 moderator => sex life impact---------------------------
849 . title "Chunk 7 trimmed male model of dose and HP2sxlife relationship in wave
    >  3"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****Chunk 7 trimmed male model of dose and HP2sxlife relationship in wave 3**
    > ***
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                         1 Jul 2012    20:39:14     ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
850 . * male models
851 .         forvalues j=3/3 {
  2. di as input  "trimmed HP2sexlife main effects models wave 1 for H1 part 2
>  with dose ns"
  3. di as input  "Wave 3 male dose avgcumdosew`j' main effect not signif"
  4.          logit HP2sxlife age marrw31-marrw36 bf4 bf5m dvcew`j' illw`j' shh
> lw`j' ///
>           havmilsq shrelaw`j' ///
>           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 3 male dose avgcumdosew3 main effect not signif

note: marrw34 omitted because of collinearity
note: marrw36 omitted because of collinearity
Iteration 0:   log likelihood = -171.51396
Iteration 1:   log likelihood = -116.02941
Iteration 2:   log likelihood = -108.27742
Iteration 3:   log likelihood = -107.96025
Iteration 4:   log likelihood = -107.95802
Iteration 5:   log likelihood = -107.95802

Logistic regression                               Number of obs   =        340
                                                  LR chi2(14)     =     127.11
                                                  Prob > chi2     =     0.0000
Log likelihood = -107.95802                       Pseudo R2       =     0.3706
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0742276	.0176614	4.20	0.000	.0396119	.1088433
marrw31	1.295459	1.079283	1.20	0.230	-.8198963	3.410814
marrw32	-.2171872	1.393226	-0.16	0.876	-2.94786	2.513485
marrw33	.8215567	.8316513	0.99	0.323	-.80845	2.451563
marrw34	0	(omitted)				
marrw35	.6845196	1.274778	0.54	0.591	-1.813999	3.183038
marrw36	0	(omitted)				
bf4	-.1751874	.0433174	-4.04	0.000	-.2600878	-.0902869
bf5m	-.0005252	.001056	-0.50	0.619	-.002595	.0015447
dvcew3	.7519715	.9602947	0.78	0.434	-1.130172	2.634115
illw3	.4656174	.1837911	2.53	0.011	.1053935	.8258412
shhlw3	-.0078344	.0055669	-1.41	0.159	-.0187453	.0030765
havmilsq	-4.85e-06	5.73e-06	-0.85	0.398	-.0000161	6.39e-06
shrelaw3	-.0015114	.0058428	-0.26	0.796	-.0129631	.0099403
avgcumdosew3	.0567392	.0450409	1.26	0.208	-.0315395	.1450178
radhlw3	.0138841	.0063766	2.18	0.029	.0013861	.0263821

```
       _cons |  -4.875148   1.618703    -3.01   0.003    -8.047748   -1.702548
------------------------------------------------------------------------------
```

```
Logistic model for HP2sxlife

              -------- True --------
Classified |         D            ~D  |      Total
-----------+--------------------------+-----------
     +     |        37            17  |         54
     -     |        32           254  |        286
-----------+--------------------------+-----------
   Total   |        69           271  |        340

Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   53.62%
Specificity                     Pr( -|~D)   93.73%
Positive predictive value       Pr( D| +)   68.52%
Negative predictive value       Pr(~D| -)   88.81%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    6.27%
False - rate for true D         Pr( -| D)   46.38%
False + rate for classified +   Pr(~D| +)   31.48%
False - rate for classified -   Pr( D| -)   11.19%
--------------------------------------------------
Correctly classified                        85.59%
--------------------------------------------------
```

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       338
            Pearson chi2(323) =       289.05
                  Prob > chi2 =         0.9130
```

Measures of Fit for **logit** of **HP2sxlife**

Log-Lik Intercept Only:	**-171.514**	Log-Lik Full Model:	**-107.958**
D(323):	**215.916**	LR(14):	**127.112**
		Prob > LR:	**0.000**
McFadden's R2:	**0.371**	McFadden's Adj R2:	**0.271**
Maximum Likelihood R2:	**0.312**	Cragg & Uhler's R2:	**0.491**
McKelvey and Zavoina's R2:	**0.534**	Efron's R2:	**0.390**
Variance of y*:	**7.057**	Variance of error:	**3.290**
Count R2:	**0.856**	Adj Count R2:	**0.290**
AIC:	**0.735**	AIC*n:	**249.916**
BIC:	**-1666.833**	BIC':	**-45.507**

```
852 . title "Chunk 7 trimmed male model of dose and HP2sxlife relationship in wave
    >  3"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****Chunk 7 trimmed male model of dose and HP2sxlife relationship in wave 3**
    > ***
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                        1 Jul 2012    20:39:15      ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
853 . * male models
854 .         forvalues j=3/3 {
  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 3 male dose avgcumdosew`j' main effect not signif"
  5.         logit HP2sxlife age  bf4  illw`j' shhlw`j' ///
>           havmilsq  ///
>           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 3 male dose avgcumdosew3 main effect not signif

Iteration 0:   log likelihood = -171.51396
Iteration 1:   log likelihood = -116.88501
Iteration 2:   log likelihood = -109.88634
Iteration 3:   log likelihood =  -109.5831
Iteration 4:   log likelihood = -109.58073
Iteration 5:   log likelihood = -109.58073

Logistic regression                               Number of obs   =        340
                                                  LR chi2(7)      =     123.87
                                                  Prob > chi2     =     0.0000
Log likelihood = -109.58073                       Pseudo R2       =     0.3611
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
age	.0642517	.0157234	4.09	0.000	.0334344	.095069
bf4	-.1765469	.0392111	-4.50	0.000	-.2533993	-.0996945
illw3	.4690318	.1644894	2.85	0.004	.1466384	.7914252
shhlw3	-.0087591	.0051634	-1.70	0.090	-.0188791	.001361
havmilsq	-6.11e-06	5.71e-06	-1.07	0.285	-.0000173	5.09e-06
avgcumdosew3	.0558129	.0448722	1.24	0.214	-.032135	.1437607
radhlw3	.0122374	.0056656	2.16	0.031	.001133	.0233417
_cons	-3.483368	1.099461	-3.17	0.002	-5.638272	-1.328464

Logistic model for HP2sxlife

Classified	True D	~D	Total
+	**37**	**17**	**54**
-	**32**	**254**	**286**
Total	**69**	**271**	**340**

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

Sensitivity	Pr(+| D)	**53.62%**
Specificity	Pr(-|~D)	**93.73%**
Positive predictive value	Pr(D| +)	**68.52%**
Negative predictive value	Pr(~D| -)	**88.81%**
False + rate for true ~D	Pr(+|~D)	**6.27%**
False - rate for true D	Pr(-| D)	**46.38%**
False + rate for classified +	Pr(~D| +)	**31.48%**
False - rate for classified -	Pr(D| -)	**11.19%**
Correctly classified		**85.59%**

Logistic model for HP2sxlife, goodness-of-fit test

number of observations = **340**
number of covariate patterns = **333**
Pearson chi2(**325**) = **283.30**
Prob > chi2 = **0.9540**

Measures of Fit for **logit** of **HP2sxlife**

Log-Lik Intercept Only:	**-171.514**	Log-Lik Full Model:	**-109.581**
D(332):	**219.161**	LR(7):	**123.866**
		Prob > LR:	**0.000**
McFadden's R2:	**0.361**	McFadden's Adj R2:	**0.314**
Maximum Likelihood R2:	**0.305**	Cragg & Uhler's R2:	**0.481**
McKelvey and Zavoina's R2:	**0.515**	Efron's R2:	**0.378**
Variance of y*:	**6.788**	Variance of error:	**3.290**
Count R2:	**0.856**	Adj Count R2:	**0.290**
AIC:	**0.692**	AIC*n:	**235.161**
BIC:	**-1716.048**	BIC':	**-83.064**

```
855 .
856 . scalar MainEffsxlifeMw3 = "age bf4 illw3 radhlw3"

857 . scalar SigDosesxlifeMw3 = "no"

858 .
859 .
860 . forvalues j=3/3 {
  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 3 for H1 part 2 with dose ns**
> ***
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                                1 Jul 2012    20:39:17  ****
> *
*******************************************************************************
> *
*******************************************************************************
> *


-------------------------------------------------------------------------------
title2: Wave `j dose HPsxlife relationship but avgcumdosew3: Dose not signif
                                       Date and time:   1 Jul 2012    20:39:17
                                       Working directory:  /Users/robertyaffee
> /Documents/data/research/chwk/phase3/Htests/H1tests/h1pt2
                                       Stata data file:  chwide1jul2012.dta  h
> as  2402  variables and  703  observations

Wave `j dose HPsxlife relationship but avgcumdosew3: Dose not signif
-------------------------------------------------------------------------------
```

```
861 .
862 .
863 . cap gen radhlw3Xd3 = radhlw3*avgcumdosew3

864 .
865 . set more off

866 . des bf4

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)

867 . forvalues j=3/3 {
  2.                 sw, pr(.1):logistic HP2sxlife age bf4 illw`j' ///
>                 avgcumdosew`j' radhlw`j' ageXd3 radhlw3Xd3 illw3Xd3 if gende
> r==1, coef nolog
  3.                         estat class
  4.                         estat gof
  5.                         fitstat
  6. }
                      begin with full model
p = 0.9949 >= 0.1000  removing illw3Xd3
p = 0.2976 >= 0.1000  removing radhlw3Xd3
p = 0.1716 >= 0.1000  removing avgcumdosew3
p = 0.1751 >= 0.1000  removing ageXd3

Logistic regression                               Number of obs   =        340
                                                  LR chi2(4)      =     117.89
                                                  Prob > chi2     =     0.0000
Log likelihood = -112.56939                       Pseudo R2       =     0.3437

------------------------------------------------------------------------------
   HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0655592   .0156078     4.20   0.000     .0349684      .09615
         bf4 |  -.1526795   .0362827    -4.21   0.000    -.2237922   -.0815668
       illw3 |   .3916574   .1538103     2.55   0.011     .0901948      .69312
     radhlw3 |   .0122253   .0056017     2.18   0.029     .0012461    .0232046
       _cons |  -4.135046   1.063355    -3.89   0.000    -6.219184   -2.050907
------------------------------------------------------------------------------

Logistic model for HP2sxlife
```

Classified	True D	True ~D	Total
+	**37**	**15**	**52**
-	**32**	**256**	**288**
Total	**69**	**271**	**340**

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

Sensitivity	Pr(+| D)	**53.62%**
Specificity	Pr(-|~D)	**94.46%**
Positive predictive value	Pr(D| +)	**71.15%**
Negative predictive value	Pr(~D| -)	**88.89%**
False + rate for true ~D	Pr(+|~D)	**5.54%**
False - rate for true D	Pr(-| D)	**46.38%**
False + rate for classified +	Pr(~D| +)	**28.85%**
False - rate for classified -	Pr(D| -)	**11.11%**
Correctly classified		**86.18%**

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       309
            Pearson chi2(304) =       278.23
                  Prob > chi2 =         0.8529
```

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

Log-Lik Intercept Only:	**-171.514**	Log-Lik Full Model:	**-112.569**
D(335):	**225.139**	LR(4):	**117.889**
		Prob > LR:	**0.000**
McFadden's R2:	**0.344**	McFadden's Adj R2:	**0.315**
Maximum Likelihood R2:	**0.293**	Cragg & Uhler's R2:	**0.461**
McKelvey and Zavoina's R2:	**0.477**	Efron's R2:	**0.359**
Variance of y*:	**6.295**	Variance of error:	**3.290**
Count R2:	**0.862**	Adj Count R2:	**0.319**
AIC:	**0.692**	AIC*n:	**235.139**
BIC:	**-1727.558**	BIC':	**-94.573**

```
868 .
869 . scalar sxlifeModMw3 = "none"

870 . *xx male moderators: no main significant dose effect
871 . *xx no male moderators for sexlife impact
872 .
873 .
874 . * female models
875 .  *-----Chunk 7 dose3 moderator => sex life impact--------------------------
    > -
876 . di as input "chunk 7  female wave=3"
    chunk 7  female wave=3

877 . title "Chunk 7 trimmed female model:" "dose and HP2sxlife relationship in wa
    > ve 3"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                   Chunk 7 trimmed female model:                     ****
    > *
    *****             dose and HP2sxlife relationship in wave 3               ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                          1 Jul 2012    20:39:25     ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
878 . * female models
879 .         forvalues j=3/3 {
      2. 
880 . set more off
      3. des bf4 bf4m shfamw3 shrelaw3 avgcumdosew3
      4. title "trimmed HP2sexlife main effects models" "wave 3 for H1 part 2 with
    >  dose ns"
      5. title "Wave 3 dose HP2sexlife relationship" "avgcumdosew`j' Dose not sign
    > if"
      6.         logit HP2sxlife age marrw31-marrw36  radhlw`j' bf4 bf4m   ///
    >            shfamw`j' shrelaw`j' avgcumdosew`j'  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)
    shfamw3         double %8.0g                  Percentage of strains and
                                                    hassles related to family NOW
    shrelaw3        double %8.0g                  Percentage of strains and
                                                    hassles related to
                                                    relationships NOW
    avgcumdosew3    double %8.0g                  Avg Mean dose of CS137 ending
                                                    12/31/2009


    *******************************************************************************
    > *
    *******************************************************************************
    > *
    *****                                                                      ****
    > *
    *****                                                                      ****
    > *
    *****               trimmed HP2sexlife main effects models                 ****
    > *
    *****                 wave 3 for H1 part 2 with dose ns                    ****
    > *
    *****                                                                      ****
    > *
    *****                                                                      ****
    > *
    *****                                              1 Jul 2012    20:39:25  ****
    > *
    *******************************************************************************
```

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*******************************************************************************
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****                 Wave 3 dose HP2sexlife relationship                  ****
> *
*****                     avgcumdosew3 Dose not signif                     ****
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****                                              1 Jul 2012    20:39:25  ****
> *
*******************************************************************************
> *
*******************************************************************************
> *


note: marrw36 omitted because of collinearity
Iteration 0:   log likelihood = -207.62116
Iteration 1:   log likelihood = -144.17685
Iteration 2:   log likelihood = -138.48259
Iteration 3:   log likelihood = -138.36775
Iteration 4:   log likelihood = -138.36738
Iteration 5:   log likelihood = -138.36738

Logistic regression                               Number of obs   =        363
                                                  LR chi2(12)     =     138.51
                                                  Prob > chi2     =     0.0000
Log likelihood = -138.36738                       Pseudo R2       =     0.3336
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0754579	.0170423	4.43	0.000	.0420555	.1088603
marrw31	-.9421212	.8010808	-1.18	0.240	-2.512211	.6279684
marrw32	-.440823	1.344699	-0.33	0.743	-3.076384	2.194738
marrw33	-.9501207	.4286832	-2.22	0.027	-1.790324	-.109917
marrw34	-.9642797	1.745537	-0.55	0.581	-4.38547	2.45691
marrw35	-.8586239	.6388872	-1.34	0.179	-2.11082	.393572
marrw36	0	(omitted)				
radhlw3	.0100484	.0049263	2.04	0.041	.000393	.0197038
bf4	-.5151847	.1744193	-2.95	0.003	-.8570402	-.1733292
bf4m	.3491023	.1586783	2.20	0.028	.0380985	.6601061
shfamw3	.0106246	.0054177	1.96	0.050	6.14e-06	.0212431
shrelaw3	-.0125055	.00593	-2.11	0.035	-.024128	-.0008829
avgcumdosew3	.1255823	.0854354	1.47	0.142	-.0418679	.2930326
_cons	-6.549884	1.704204	-3.84	0.000	-9.890063	-3.209705

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	57	16	73
-	37	253	290
Total	94	269	363

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

Sensitivity	Pr(+| D)	60.64%
Specificity	Pr(-|~D)	94.05%
Positive predictive value	Pr(D| +)	78.08%
Negative predictive value	Pr(~D| -)	87.24%
False + rate for true ~D	Pr(+|~D)	5.95%
False - rate for true D	Pr(-| D)	39.36%
False + rate for classified +	Pr(~D| +)	21.92%
False - rate for classified -	Pr(D| -)	12.76%
Correctly classified		85.40%

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       363
 number of covariate patterns =       362
            Pearson chi2(349) =       482.36
                  Prob > chi2 =         0.0000

Measures of Fit for logit of HP2sxlife

Log-Lik Intercept Only:     -207.621     Log-Lik Full Model:          -138.367
D(349):                      276.735     LR(12):                       138.508
                                         Prob > LR:                      0.000
McFadden's R2:                 0.334     McFadden's Adj R2:              0.266
Maximum Likelihood R2:         0.317     Cragg & Uhler's R2:             0.466
McKelvey and Zavoina's R2:     0.500     Efron's R2:                     0.407
Variance of y*:                6.573     Variance of error:              3.290
Count R2:                      0.854     Adj Count R2:                   0.436
AIC:                           0.839     AIC*n:                        304.735
BIC:                       -1780.412     BIC':                         -67.775

881 . scalar SigDoseSxlifeFw3 = "no"

882 . scalar MainEffsxlifeFw3 = "age marrw33 radhlw3 bf4 bf4m shrelaw3"

883 . *-----  constructing possible moderators
884 .
885 .       foreach var in marrw31 marrw32 marrw33 marrw34 marrw35 marrw36 ///
    >           bf4 bf4m shfamw3 shrelaw3 radhlw3 {
  2.        cap gen `var'Xd3 = `var'*avgcumdosew3
  3.          }

886 .
887 . title "Chunk 7 trimmed female model:" "dose and HP2sxlife relationship in wa
> ve 3"


******************************************************************************
> *
******************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                  Chunk 7 trimmed female model:                     ****
> *
*****            dose and HP2sxlife relationship in wave 3               ****
> *
*****                                                                    ****
> *
*****                                                                    ****
```

```
> *
*****                                               1 Jul 2012    20:39:26  ****
> *
********************************************************************************
> *
********************************************************************************
> *
```

```
888 . * female models
889 .         forvalues j=3/3 {
  2.
890 . set more off
  3. des bf4 bf4m shfamw3 shrelaw3 avgcumdosew3
  4. title "trimmed HP2sexlife main effects models" "wave 3 for H1 part 2 with
>  dose ns"
  5. title "Wave 3 dose HP2sexlife relationship" "avgcumdosew`j' Dose not sign
> if"
  6.         logit HP2sxlife age marrw31-marrw36  radhlw`j' bf4 bf4m   ///
>            shfamw`j' shrelaw`j' avgcumdosew`j'  ageXd3 marrw31Xd3 marrw32Xd3
>  ///
>            marrw33Xd3 marrw34Xd3 marrw35Xd3 bf4Xd3 bf4mXd3 shrelaw3Xd3 ///
>              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)
shfamw3         double %8.0g                  Percentage of strains and
                                                hassles related to family NOW
shrelaw3        double %8.0g                  Percentage of strains and
                                                hassles related to
                                                relationships NOW
avgcumdosew3    double %8.0g                  Avg Mean dose of CS137 ending
                                                12/31/2009
```

```
********************************************************************************
> *
********************************************************************************
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*****                                                                       ****
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*****                                                                       ****
> *
*****               trimmed HP2sexlife main effects models                  ****
> *
*****                 wave 3 for H1 part 2 with dose ns                     ****
> *
*****                                                                       ****
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*****                                                  1 Jul 2012    20:39:26  ****
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> *
*****                                                                       ****
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*****                                                                       ****
> *
*****                Wave 3 dose HP2sexlife relationship                    ****
> *
*****                   avgcumdosew3 Dose not signif                        ****
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****                                                  1 Jul 2012    20:39:26  ****
> *
********************************************************************************
> *
********************************************************************************
> *
```

```
note: marrw36 omitted because of collinearity
Iteration 0:   log likelihood = -207.62116
Iteration 1:   log likelihood =  -141.7263
Iteration 2:   log likelihood =  -135.5357
Iteration 3:   log likelihood = -135.21704
Iteration 4:   log likelihood = -135.16073
Iteration 5:   log likelihood = -135.14259
Iteration 6:   log likelihood =   -135.139
Iteration 7:   log likelihood = -135.13799
Iteration 8:   log likelihood = -135.13774
Iteration 9:   log likelihood = -135.13769
Iteration 10:  log likelihood = -135.13768

Logistic regression                               Number of obs   =        363
                                                  LR chi2(21)     =     144.97
                                                  Prob > chi2     =     0.0000
Log likelihood = -135.13768                       Pseudo R2       =     0.3491
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.092952	.0233865	3.97	0.000	.0471154	.1387886
marrw31	-1.341334	1.898438	-0.71	0.480	-5.062204	2.379537
marrw32	2.268161	4.581638	0.50	0.621	-6.711685	11.24801
marrw33	-.8067892	.6165677	-1.31	0.191	-2.01524	.4016614
marrw34	-32.82787	1800.902	-0.02	0.985	-3562.53	3496.875
marrw35	-.858144	1.080921	-0.79	0.427	-2.976711	1.260423
marrw36	0	(omitted)				
radhlw3	.0109474	.0050586	2.16	0.030	.0010328	.0208621
bf4	-.3690314	.3776717	-0.98	0.329	-1.109254	.3711915
bf4m	.245895	.3444988	0.71	0.475	-.4293101	.9211002
shfamw3	.0116586	.005533	2.11	0.035	.0008141	.0225031
shrelaw3	-.0021905	.0093988	-0.23	0.816	-.0206118	.0162308
avgcumdosew3	1.180905	2.36415	0.50	0.617	-3.452744	5.814553
ageXd3	-.0203615	.0150978	-1.35	0.177	-.0499527	.0092297
marrw31Xd3	.399261	1.599068	0.25	0.803	-2.734855	3.533377
marrw32Xd3	-3.261172	5.78271	-0.56	0.573	-14.59508	8.072732
marrw33Xd3	-.061554	.4565407	-0.13	0.893	-.9563573	.8332492
marrw34Xd3	17.30052	1074.65	0.02	0.987	-2088.975	2123.576
marrw35Xd3	.0357107	.7782966	0.05	0.963	-1.489723	1.561144
bf4Xd3	-.1255356	.3211828	-0.39	0.696	-.7550423	.5039711
bf4mXd3	.0907915	.2884138	0.31	0.753	-.4744893	.6560722
shrelaw3Xd3	-.0097172	.0069227	-1.40	0.160	-.0232854	.0038511
_cons	-7.579904	3.069205	-2.47	0.014	-13.59544	-1.564373

Note: 4 failures and 0 successes completely determined.

Logistic model for HP2sxlife

Classified	True D	True ~D	Total
+	**55**	**15**	**70**
-	**39**	**254**	**293**
Total	**94**	**269**	**363**

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

Sensitivity	Pr(+| D)	**58.51%**
Specificity	Pr(-|~D)	**94.42%**
Positive predictive value	Pr(D| +)	**78.57%**
Negative predictive value	Pr(~D| -)	**86.69%**
False + rate for true ~D	Pr(+|~D)	**5.58%**
False - rate for true D	Pr(-| D)	**41.49%**
False + rate for classified +	Pr(~D| +)	**21.43%**
False - rate for classified -	Pr(D| -)	**13.31%**
Correctly classified		**85.12%**

Logistic model for HP2sxlife, goodness-of-fit test

number of observations =	**363**
number of covariate patterns =	**362**
Pearson chi2(**340**) =	**452.30**
Prob > chi2 =	**0.0000**

Measures of Fit for **logit** of **HP2sxlife**

Log-Lik Intercept Only:	**-207.621**	Log-Lik Full Model:	**-135.138**
D(340):	**270.275**	LR(21):	**144.967**
		Prob > LR:	**0.000**
McFadden's R2:	**0.349**	McFadden's Adj R2:	**0.238**
Maximum Likelihood R2:	**0.329**	Cragg & Uhler's R2:	**0.483**
McKelvey and Zavoina's R2:	**0.779**	Efron's R2:	**0.416**
Variance of y*:	**14.905**	Variance of error:	**3.290**
Count R2:	**0.851**	Adj Count R2:	**0.426**
AIC:	**0.871**	AIC*n:	**316.275**
BIC:	**-1733.822**	BIC':	**-21.185**

```
891 . scalar sxlifeModFw3="none"

892 .
893 .
894 .
895 .
896 .  *----- testing female moderators
897 . 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    20:39:28  ****
    > *
    *******************************************************************************
    > *
    *******************************************************************************
    > *



898 . * male models
899 .         forvalues j=3/3 {
      2. set more off
      3. des bf4 bf4m shfamw3 shrelaw3 avgcumdosew3
      4. title3 "trimmed HP2sexlife main effects models wave 1 for H1 part 2 with
    > dose ns"
      5. title "Wave 3 dose HP2sexlife relationship but avgcumdosew`j': Dose not s
    > ignif"
      6.         logit HP2sxlife age marrw31-marrw36 radhlw`j' bf4 bf4m   ///
    >            shfamw`j' shrelaw`j' avgcumdosew`j' marrw31Xd3 marrw32Xd3 ///
    >            marrw33Xd3 marrw34Xd3 marrw35Xd3 marrw36Xd3 radhlw`j'Xd3 ///
    >            bf4Xd3 shfamw3Xd3 shrelaw3Xd3 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)
shfamw3           double  %8.0g                    Percentage of strains and
                                                     hassles related to family NOW
shrelaw3          double  %8.0g                    Percentage of strains and
                                                     hassles related to
                                                     relationships NOW
avgcumdosew3      double  %8.0g                    Avg Mean dose of CS137 ending
                                                     12/31/2009
-------------------------------------------------------------------------------
title3 : trimmed HP2sexlife main effects models wave 1 for H1 part 2 with dose
>  ns
 1 Jul 2012
20:39:28
computer  Macintosh (Intel 64-bit)
folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests
> /h1pt2
Data file  chwide1jul2012.dta  currrently has  2402  variables and  703  obser
> vations


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****Wave 3 dose HP2sexlife relationship but avgcumdosew3: Dose not signif****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                                  1 Jul 2012    20:39:28  ****
> *
******************************************************************************
> *
******************************************************************************
> *
```

```
note: marrw36 omitted because of collinearity
note: marrw36Xd3 omitted because of collinearity
Iteration 0:   log likelihood = -207.62116
Iteration 1:   log likelihood = -141.24621
Iteration 2:   log likelihood = -135.45322
Iteration 3:   log likelihood = -135.06483
Iteration 4:   log likelihood =  -134.9957
Iteration 5:   log likelihood = -134.97466
Iteration 6:   log likelihood =  -134.9706
Iteration 7:   log likelihood = -134.96946
Iteration 8:   log likelihood = -134.96923
Iteration 9:   log likelihood = -134.96917
Iteration 10:  log likelihood = -134.96916
Iteration 11:  log likelihood = -134.96915

Logistic regression                               Number of obs   =        363
                                                  LR chi2(21)     =     145.30
                                                  Prob > chi2     =     0.0000
Log likelihood = -134.96915                       Pseudo R2       =     0.3499
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0704827	.0174387	4.04	0.000	.0363034	.104662
marrw31	-1.526734	1.875648	-0.81	0.416	-5.202936	2.149468
marrw32	1.103621	4.081036	0.27	0.787	-6.895063	9.102305
marrw33	-.8740582	.7389686	-1.18	0.237	-2.32241	.5742937
marrw34	-36.63611	3874.821	-0.01	0.992	-7631.146	7557.874
marrw35	-1.152859	1.129412	-1.02	0.307	-3.366467	1.060749
marrw36	0	(omitted)				
radhlw3	.0014141	.0096951	0.15	0.884	-.0175881	.0204162
bf4	-.4636015	.1826527	-2.54	0.011	-.8215941	-.1056089
bf4m	.3302633	.1629809	2.03	0.043	.0108266	.6497
shfamw3	.0067642	.0105079	0.64	0.520	-.0138309	.0273592
shrelaw3	.0028404	.0117929	0.24	0.810	-.0202733	.0259542
avgcumdosew3	-.2391157	1.08948	-0.22	0.826	-2.374458	1.896226
marrw31Xd3	.5553424	1.593846	0.35	0.728	-2.568538	3.679223
marrw32Xd3	-1.935909	5.073174	-0.38	0.703	-11.87915	8.007329
marrw33Xd3	-.0368709	.6566922	-0.06	0.955	-1.323964	1.250222
marrw34Xd3	19.23126	2306.55	0.01	0.993	-4501.524	4539.987
marrw35Xd3	.3214642	.8715872	0.37	0.712	-1.386815	2.029744
marrw36Xd3	0	(omitted)				
radhlw3Xd3	.0091172	.0095954	0.95	0.342	-.0096893	.0279238
bf4Xd3	-.0273194	.0643627	-0.42	0.671	-.1534679	.0988292
shfamw3Xd3	.0037913	.0100871	0.38	0.707	-.015979	.0235616
shrelaw3Xd3	-.0141156	.0103071	-1.37	0.171	-.0343171	.0060859
_cons	-5.898959	2.139999	-2.76	0.006	-10.09328	-1.704637

Note: 6 failures and 0 successes completely determined.

Logistic model for HP2sxlife

Classified	True D	True ~D	Total
+	**56**	**17**	**73**
-	**38**	**252**	**290**
Total	**94**	**269**	**363**

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

Sensitivity	Pr(+| D)	**59.57%**
Specificity	Pr(-|~D)	**93.68%**
Positive predictive value	Pr(D| +)	**76.71%**
Negative predictive value	Pr(~D| -)	**86.90%**
False + rate for true ~D	Pr(+|~D)	**6.32%**
False - rate for true D	Pr(-| D)	**40.43%**
False + rate for classified +	Pr(~D| +)	**23.29%**
False - rate for classified -	Pr(D| -)	**13.10%**
Correctly classified		**84.85%**

Logistic model for HP2sxlife, goodness-of-fit test

number of observations =	**363**
number of covariate patterns =	**362**
Pearson chi2(**340**) =	**451.96**
Prob > chi2 =	**0.0000**

Measures of Fit for **logit** of **HP2sxlife**

Log-Lik Intercept Only:	**-207.621**	Log-Lik Full Model:	**-134.969**
D(339):	**269.938**	LR(21):	**145.304**
		Prob > LR:	**0.000**
McFadden's R2:	**0.350**	McFadden's Adj R2:	**0.234**
Maximum Likelihood R2:	**0.330**	Cragg & Uhler's R2:	**0.484**
McKelvey and Zavoina's R2:	**0.810**	Efron's R2:	**0.421**
Variance of y*:	**17.337**	Variance of error:	**3.290**
Count R2:	**0.848**	Adj Count R2:	**0.415**
AIC:	**0.876**	AIC*n:	**317.938**
BIC:	**-1728.264**	BIC':	**-21.522**

```
900 .
901 . 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    20:39:29  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *


902 . title2 "Signif female dose main effect "
    ------------------------------------------------------------------------------
    title2: Signif female dose main effect
                                           Date and time:   1 Jul 2012    20:39:29
                                           Working directory:  /Users/robertyaffee
    > /Documents/data/research/chwk/phase3/Htests/H1tests/h1pt2
                                           Stata data file:  chwide1jul2012.dta  h
    > as  2402  variables and  703  observations

    Signif female dose main effect
    ------------------------------------------------------------------------------
```

```
903 .
904 . * female models
905 .         forvalues j=3/3 {
      2. des bf4 bf4m shfamw3 shrelaw3 avgcumdosew3
      3. title3 "trimmed HP2sexlife main effects models wave 1 for H1 part 2 with
    > dose ns"
      4. title "Wave 3 dose HP2sexlife relationship but avgcumdosew`j': Dose not s
    > ignif"
      5.         logit HP2sxlife age  radhlw`j' bf4 bf4m   ///
    >            shrelaw3 shfamw`j'  avgcumdosew`j'  ///
    >           shrelaw3Xd3 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)
shfamw3         double %8.0g                  Percentage of strains and
                                                hassles related to family NOW
shrelaw3        double %8.0g                  Percentage of strains and
                                                hassles related to
                                                relationships NOW
avgcumdosew3    double %8.0g                  Avg Mean dose of CS137 ending
                                                12/31/2009
-------------------------------------------------------------------------------

title3 : trimmed HP2sexlife main effects models wave 1 for H1 part 2 with dose
>  ns
 1 Jul 2012
20:39:29
computer  Macintosh (Intel 64-bit)
folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests
> /h1pt2
Data file  chwide1jul2012.dta  currrently has  2402  variables and  703  obser
> vations
```

```
*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****Wave 3 dose HP2sexlife relationship but avgcumdosew3: Dose not signif****
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****                                         1 Jul 2012    20:39:29  ****
> *
*****************************************************************************
> *
*****************************************************************************
> *
```

```
Iteration 0:   log likelihood = -207.62116
Iteration 1:   log likelihood =  -144.9565
Iteration 2:   log likelihood = -139.33502
Iteration 3:   log likelihood = -139.24024
Iteration 4:   log likelihood = -139.24007
Iteration 5:   log likelihood = -139.24007

Logistic regression                               Number of obs   =        363
                                                  LR chi2(8)      =     136.76
                                                  Prob > chi2     =     0.0000
Log likelihood = -139.24007                       Pseudo R2       =     0.3294
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0850443	.0159459	5.33	0.000	.0537908	.1162978
radhlw3	.0101855	.0048586	2.10	0.036	.0006629	.0197081
bf4	-.5127452	.1800997	-2.85	0.004	-.8657342	-.1597562
bf4m	.3584755	.1654365	2.17	0.030	.034226	.682725
shrelaw3	-.0011763	.0085087	-0.14	0.890	-.017853	.0155004
shfamw3	.0102584	.0053613	1.91	0.056	-.0002495	.0207662
avgcumdosew3	.4196812	.2507095	1.67	0.094	-.0717004	.9110629
shrelaw3Xd3	-.0090959	.0060346	-1.51	0.132	-.0209235	.0027318
_cons	-8.337805	1.647879	-5.06	0.000	-11.56759	-5.108021

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	**53**	**21**	**74**
-	**41**	**248**	**289**
Total	**94**	**269**	**363**

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

Sensitivity	Pr(+| D)	**56.38%**
Specificity	Pr(-|~D)	**92.19%**
Positive predictive value	Pr(D| +)	**71.62%**
Negative predictive value	Pr(~D| -)	**85.81%**
False + rate for true ~D	Pr(+|~D)	**7.81%**
False - rate for true D	Pr(-| D)	**43.62%**
False + rate for classified +	Pr(~D| +)	**28.38%**
False - rate for classified -	Pr(D| -)	**14.19%**
Correctly classified		**82.92%**

Logistic model for HP2sxlife, goodness-of-fit test

number of observations = **363**
number of covariate patterns = **362**
Pearson chi2(**353**) = **444.64**
Prob > chi2 = **0.0007**

Measures of Fit for **logit** of **HP2sxlife**

Log-Lik Intercept Only:	**-207.621**	Log-Lik Full Model:	**-139.240**
D(354):	**278.480**	LR(8):	**136.762**
		Prob > LR:	**0.000**
McFadden's R2:	**0.329**	McFadden's Adj R2:	**0.286**
Maximum Likelihood R2:	**0.314**	Cragg & Uhler's R2:	**0.461**
McKelvey and Zavoina's R2:	**0.509**	Efron's R2:	**0.394**
Variance of y*:	**6.704**	Variance of error:	**3.290**
Count R2:	**0.829**	Adj Count R2:	**0.340**
AIC:	**0.817**	AIC*n:	**296.480**
BIC:	**-1808.138**	BIC':	**-89.607**

```
906 . * female models
907 .         forvalues j=3/3 {
  2. des bf4 bf4m shfamw3 shrelaw3 avgcumdosew3
  3. title3 "trimmed HP2sexlife main effects models wave 1 for H1 part 2 with
> dose ns"
  4. title "Wave 3 dose HP2sexlife relationship but avgcumdosew`j': Dose not s
> ignif"
  5.         logit HP2sxlife age  radhlw`j' bf4 bf4m   ///
>            shrelaw3 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)
shfamw3         double %8.0g                  Percentage of strains and
                                                hassles related to family NOW
shrelaw3        double %8.0g                  Percentage of strains and
                                                hassles related to
                                                relationships NOW
avgcumdosew3    double %8.0g                  Avg Mean dose of CS137 ending
                                                12/31/2009
-------------------------------------------------------------------------------
title3 : trimmed HP2sexlife main effects models wave 1 for H1 part 2 with dose
>  ns
 1 Jul 2012
20:39:31
computer  Macintosh (Intel 64-bit)
folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests
> /h1pt2
Data file  chwide1jul2012.dta  currrently has  2402  variables and  703  obser
> vations
```

```
*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****Wave 3 dose HP2sexlife relationship but avgcumdosew3: Dose not signif****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                             1 Jul 2012    20:39:31  ****
> *
*****************************************************************************
> *
*****************************************************************************
> *
```

```
Iteration 0:   log likelihood = -207.62116
Iteration 1:   log likelihood = -148.10457
Iteration 2:   log likelihood = -142.10924
Iteration 3:   log likelihood = -142.00423
Iteration 4:   log likelihood = -142.00406
Iteration 5:   log likelihood = -142.00406

Logistic regression                               Number of obs   =        363
                                                  LR chi2(6)      =     131.23
                                                  Prob > chi2     =     0.0000
Log likelihood = -142.00406                       Pseudo R2       =     0.3160
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0888985	.0158716	5.60	0.000	.0577907	.1200062
radhlw3	.0104339	.0048228	2.16	0.031	.0009812	.0198865
bf4	-.5221133	.1784046	-2.93	0.003	-.8717799	-.1724467
bf4m	.3612435	.1636356	2.21	0.027	.0405235	.6819635
shrelaw3	-.0123377	.0056981	-2.17	0.030	-.0235058	-.0011696
shfamw3	.0113877	.005213	2.18	0.029	.0011705	.0216049
_cons	-8.106812	1.61823	-5.01	0.000	-11.27848	-4.93514

Logistic model for HP2sxlife

Classified	True D	~D	Total
+	**58**	**21**	**79**
-	**36**	**248**	**284**
Total	**94**	**269**	**363**

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

Sensitivity	Pr(+| D)	**61.70%**
Specificity	Pr(-|~D)	**92.19%**
Positive predictive value	Pr(D| +)	**73.42%**
Negative predictive value	Pr(~D| -)	**87.32%**
False + rate for true ~D	Pr(+|~D)	**7.81%**
False - rate for true D	Pr(-| D)	**38.30%**
False + rate for classified +	Pr(~D| +)	**26.58%**
False - rate for classified -	Pr(D| -)	**12.68%**
Correctly classified		**84.30%**

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       363
 number of covariate patterns =       359
            Pearson chi2(352) =       469.29
                  Prob > chi2 =         0.0000
```

Measures of Fit for **logit** of **HP2sxlife**

Log-Lik Intercept Only:	**-207.621**	Log-Lik Full Model:	**-142.004**
D(356):	**284.008**	LR(6):	**131.234**
		Prob > LR:	**0.000**
McFadden's R2:	**0.316**	McFadden's Adj R2:	**0.282**
Maximum Likelihood R2:	**0.303**	Cragg & Uhler's R2:	**0.445**
McKelvey and Zavoina's R2:	**0.483**	Efron's R2:	**0.385**
Variance of y*:	**6.366**	Variance of error:	**3.290**
Count R2:	**0.843**	Adj Count R2:	**0.394**
AIC:	**0.821**	AIC*n:	**298.008**
BIC:	**-1814.399**	BIC':	**-95.868**

```
908 .
909 . scalar MainEffsxlifeFw3 = "age radhlw3 bf4 bf4m shrelaw3 shfamw3"

910 . scalar SigDoseSxlifeFw3="no"

911 . * xx female main effects model: no sign dose main effect
912 . * xx 6 signif main effects
913 . * xx no moderator effects significant
914 .
915 . *-----------  mediator models for Dose => sexlife impact
916 .
917 . di as input "testing possible sex life mediator effects for males"
    testing possible sex life mediator effects for males

918 .
919 . * age is a mediating effect for males for Dose=> sex life for men
920 . 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)

921 . glm age avgcumdosew3 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1330.6336

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  147.7142
    Deviance         =  49927.38549                    (1/df) Deviance =  147.7142
    Pearson          =  49927.38549                    (1/df) Pearson  =  147.7142

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

                                                       AIC             =  7.839021
    Log likelihood   = -1330.633586                    BIC             =   47957.2

    ------------------------------------------------------------------------------
                 |                 OIM
             age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew3 |   .5433648   .2472657     2.20   0.028      .058733    1.027997
           _cons |   48.52021   .7247376    66.95   0.000     47.09975    49.94067
    ------------------------------------------------------------------------------
```

```
922 . 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.)

923 .
924 . * illness is a mediating effect for males = > sex life for men
925 . des illw3

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------
    illw3           double %8.0g                  Total number of illnesses
                                                    experienced in time period
                                                    1996-NOW
```

```
926 . glm illw3 avgcumdosew3 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -461.99206

    Generalized linear models                          No. of obs      =        340
    Optimization     : ML                              Residual df     =        338
                                                       Scale parameter =   .8919217
    Deviance         =   301.469521                    (1/df) Deviance =   .8919217
    Pearson          =   301.469521                    (1/df) Pearson  =   .8919217

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

                                                       AIC             =   2.729365
    Log likelihood   = -461.9920626                    BIC             =  -1668.714
```

illw3	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	.038211	.0192139	1.99	0.047	.0005524	.0758696
_cons	.4504952	.0563162	8.00	0.000	.3401176	.5608729

```
927 . glm HP2sxlife illw3 if gender==1, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  314.6325
    Iteration 2:   deviance =   314.577
    Iteration 3:   deviance =  314.5769
    Iteration 4:   deviance =  314.5769

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        338
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  314.5769306                    (1/df) Deviance =    .930701
    Pearson          =  334.8347324                    (1/df) Pearson  =   .9906353

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

                                                       BIC             =  -1655.607
```

HP2sxlife	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
illw3	**.406576**	**.0768494**	**5.29**	**0.000**	**.2559539**	**.5571981**
_cons	**-1.080731**	**.0906035**	**-11.93**	**0.000**	**-1.258311**	**-.9031518**

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

```
928 .
929 . des radhlw3
```

variable name	storage type	display format	value label	variable label
radhlw3	double	%8.0g		**Self-perceived Chornobyl health threat in wave 3**

```
930 . glm radhlw3 avgcumdosew3 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1695.1855

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =   1261.052
Deviance         =  426235.7205                    (1/df) Deviance =   1261.052
Pearson          =  426235.7205                    (1/df) Pearson  =   1261.052

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

                                                   AIC             =   9.983444
Log likelihood   = -1695.185473                    BIC             =   424265.5
```

radhlw3	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**.9606492**	**.7224692**	**1.33**	**0.184**	**-.4553645**	**2.376663**
_cons	**46.19995**	**2.117563**	**21.82**	**0.000**	**42.0496**	**50.3503**

```
931 . glm HP2sxlife radhlw3 if gender==1, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  292.0816
    Iteration 2:   deviance =   288.766
    Iteration 3:   deviance =  288.7109
    Iteration 4:   deviance =  288.7109
    Iteration 5:   deviance =  288.7109

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        338
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  288.7109182                    (1/df) Deviance =   .8541743
    Pearson          =   337.697009                    (1/df) Pearson  =   .9991036

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

                                                       BIC             =  -1681.473

    ------------------------------------------------------------------------------
                 |                 EIM
       HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
         radhlw3 |   .0170927   .0022806     7.49   0.000     .0126228    .0215625
           _cons |  -1.790621   .1598163   -11.20   0.000    -2.103856   -1.477387
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

932 .
933 .
934 . des bf4

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------
    bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
```

```
935 . glm bf4  avgcumdosew3 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1027.1072

    Generalized linear models                          No. of obs      =        340
    Optimization     : ML                              Residual df     =        338
                                                       Scale parameter =   24.77487
    Deviance         =  8373.906252                    (1/df) Deviance =   24.77487
    Pearson          =  8373.906252                    (1/df) Pearson  =   24.77487

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

                                                       AIC             =   6.053572
    Log likelihood   = -1027.107224                    BIC             =   6403.723

    ------------------------------------------------------------------------------
                 |                 OIM
             bf4 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew3 |  -.0357675   .1012648    -0.35   0.724    -.2342429    .1627078
           _cons |   12.54064   .2968079    42.25   0.000     11.95891    13.12238
    ------------------------------------------------------------------------------

936 . 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.)

937 .

938 . des bf4m

variable name	storage type	display format	value label	variable label
bf4m	float	%9.0g		**bf4m = max(0, 32 - BSIsoma)**

939 . glm bf4m avgcumdosew3 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = **-1060.7697**

Generalized linear models		No. of obs =	**340**
Optimization :	**ML**	Residual df =	**338**
		Scale parameter =	**30.20008**
Deviance =	**10207.62832**	(1/df) Deviance =	**30.20008**
Pearson =	**10207.62832**	(1/df) Pearson =	**30.20008**
Variance function:	**V(u) = 1**	[**Gaussian**]	
Link function :	**g(u) = u**	[**Identity**]	
		AIC =	**6.251587**
Log likelihood =	**-1060.769747**	BIC =	**8237.445**

bf4m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**-.0292413**	**.1118039**	**-0.26**	**0.794**	**-.2483729**	**.1898903**
_cons	**20.35328**	**.327698**	**62.11**	**0.000**	**19.711**	**20.99556**

```
940 . 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
```

HP2sxlife	Coef.	EIM 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.)

941 .
942 .
943 . * age is a mediating effect for females for Dose=> sex life for women
944 . glm age avgcumdosew3 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood =  -1408.064

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =  137.7687
    Deviance         =  49734.51399                    (1/df) Deviance =  137.7687
    Pearson          =  49734.51399                    (1/df) Pearson  =  137.7687

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

                                                       AIC             =  7.768948
    Log likelihood   =  -1408.06405                    BIC             =  47606.63
```

```
              |                 OIM
          age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
--------------+----------------------------------------------------------------
  avgcumdosew3 |   1.058366   .3512614     3.01   0.003     .3699069    1.746826
         _cons |   48.94293   .7468173    65.54   0.000     47.47919    50.40666
-------------------------------------------------------------------------------
```

```
945 . 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.)

946 .
```

```
947 . * illness is a mediating effect for females = > sex life for men
948 . des illw3

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
illw3           double %8.0g                  Total number of illnesses
                                                experienced in time period
                                                1996-NOW

949 . glm illw3 avgcumdosew3 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -562.81042

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  1.308042
Deviance         =  472.2033151                    (1/df) Deviance =  1.308042
Pearson          =  472.2033151                    (1/df) Pearson  =  1.308042

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

                                                   AIC             =  3.111903
Log likelihood   = -562.8104237                    BIC             = -1655.676

------------------------------------------------------------------------------
             |                 OIM
       illw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |   .1284565   .0342268     3.75   0.000     .0613733    .1955398
       _cons |   .5563644   .0727696     7.65   0.000     .4137387    .6989902
------------------------------------------------------------------------------

950 . glm HP2sxlife illw3 if gender==2, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  400.2066
Iteration 2:   deviance =  399.9405
Iteration 3:   deviance =  399.9404
Iteration 4:   deviance =  399.9404

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       361
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  399.9403905                    (1/df) Deviance =  1.107868
Pearson          =  359.3006709                    (1/df) Pearson  =  .9952927
```

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

                                                     BIC             = -1727.939
```

HP2sxlife	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
illw3	.2312781	.0622433	3.72	0.000	.1092835	.3532726
_cons	-.8313252	.0911599	-9.12	0.000	-1.009995	-.6526552

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

```
951 .
952 . des radhlw3
```

variable name	storage type	display format	value label	variable label
radhlw3	double	%8.0g		Self-perceived Chornobyl health threat in wave 3

```
953 . glm radhlw3 avgcumdosew3 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1798.7074

Generalized linear models                            No. of obs      =        363
Optimization     : ML                                Residual df     =        361
                                                     Scale parameter =   1185.454
Deviance         =  427948.9522                      (1/df) Deviance =   1185.454
Pearson          =  427948.9522                      (1/df) Pearson  =   1185.454

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

                                                     AIC             =   9.921253
Log likelihood   = -1798.707367                      BIC             =   425821.1
```

radhlw3	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	2.751602	1.03038	2.67	0.008	.7320943	4.77111
_cons	57.70689	2.190692	26.34	0.000	53.41321	62.00057

```
954 . glm HP2sxlife radhlw3 if gender==2, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  385.4256
    Iteration 2:   deviance =  385.0487
    Iteration 3:   deviance =  385.0486
    Iteration 4:   deviance =  385.0486

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  385.0485907                    (1/df) Deviance =  1.066617
    Pearson          =  374.8310541                    (1/df) Pearson  =  1.038313

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

                                                       BIC             = -1742.831

    ------------------------------------------------------------------------------
                 |                 EIM
       HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
         radhlw3 |   .0117559   .0023184     5.07   0.000     .0072119    .0162999
           _cons |  -1.417393   .1757229    -8.07   0.000    -1.761803   -1.072982
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

955 .
956 . des bf4   // soma recentered

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------
    bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)

957 . * bf4 is a mediting effect for females for Dose=>  sex life for women
958 . glm bf4  avgcumdosew3 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1109.6569

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =   26.6146
    Deviance         =  9607.869105                    (1/df) Deviance =   26.6146
    Pearson          =  9607.869105                    (1/df) Pearson  =   26.6146

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

```
                                                  AIC             =  6.124831
Log likelihood   = -1109.656873                   BIC             =   7479.99

------------------------------------------------------------------------------
             |                 OIM
         bf4 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |  -.4386292   .1543885    -2.84   0.004    -.7412252   -.1360333
       _cons |   11.01475   .3282456    33.56   0.000      10.3714     11.6581
------------------------------------------------------------------------------

959 . 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.)
```

```
960 .
961 . des bf4m // soma recentered

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)

962 . * bf4m is a possible mediating effect for female sex life
963 . glm bf4m  avgcumdosew3 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1141.3116

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  31.68572
Deviance         =  11438.54371                    (1/df) Deviance =  31.68572
Pearson          =  11438.54371                    (1/df) Pearson  =  31.68572

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

                                                   AIC             =  6.299237
Log likelihood   = -1141.311602                    BIC             =  9310.664

------------------------------------------------------------------------------
             |                 OIM
        bf4m |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |   -.441173   .1684561    -2.62   0.009     -.771341   -.1110051
       _cons |   18.82772   .3581548    52.57   0.000     18.12575    19.52969
------------------------------------------------------------------------------

964 . 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.)

965 .
966 . des shfamw3

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
shfamw3         double %8.0g                  Percentage of strains and
                                                hassles related to family NOW

967 . glm shfamw3  avgcumdosew3 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1798.0166

Generalized linear models                           No. of obs      =       363
Optimization     : ML                               Residual df     =       361
                                                    Scale parameter =  1180.951
Deviance         =  426323.4314                     (1/df) Deviance =  1180.951
Pearson          =  426323.4314                     (1/df) Pearson  =  1180.951

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

                                                    AIC             =  9.917447
Log likelihood   = -1798.016645                     BIC             =  424195.6

------------------------------------------------------------------------------
             |                 OIM
     shfamw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |   3.038333   1.028421     2.95   0.003     1.022665    5.054002
       _cons |   48.29894   2.186528    22.09   0.000     44.01342    52.58445
------------------------------------------------------------------------------
```

```
968 . glm HP2sxlife shfamw3 if gender==2, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  412.3031
    Iteration 2:   deviance =  411.7515
    Iteration 3:   deviance =  411.7513
    Iteration 4:   deviance =  411.7513

    Generalized linear models                          No. of obs      =        363
    Optimization     : MQL Fisher scoring              Residual df     =        361
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  411.7512965                    (1/df) Deviance =   1.140585
    Pearson          =  363.5689973                    (1/df) Pearson  =   1.007116

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

                                                       BIC             = -1716.128

    ------------------------------------------------------------------------------
                 |                 EIM
       HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
         shfamw3 |    .003818   .0022067     1.73   0.084     -.000507    .0081429
           _cons |   -.850427   .1417252    -6.00   0.000    -1.128203   -.5726507
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

969 .
970 . des shrelaw3

                  storage  display     value
    variable name   type   format      label      variable label
    ------------------------------------------------------------------------------
    shrelaw3        double %8.0g                  Percentage of strains and
                                                    hassles related to
                                                    relationships NOW
```

```
971 . glm shrelaw3  avgcumdosew3 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1781.6583

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =   1079.169
    Deviance         =  389580.0745                    (1/df) Deviance =   1079.169
    Pearson          =  389580.0745                    (1/df) Pearson  =   1079.169

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

                                                       AIC             =   9.827318
    Log likelihood   = -1781.658257                    BIC             =   387452.2

    ------------------------------------------------------------------------------
                 |                 OIM
        shrelaw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew3 |    .719866   .9831048     0.73   0.464    -1.206984    2.646716
           _cons |   27.62247    2.09018    13.22   0.000     23.52579    31.71915
    ------------------------------------------------------------------------------

972 . glm HP2sxlife shrelaw3 if gender==2, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  415.8457
    Iteration 2:   deviance =  415.1882
    Iteration 3:   deviance =  415.1879
    Iteration 4:   deviance =  415.1879

    Generalized linear models                          No. of obs      =        363
    Optimization     : MQL Fisher scoring              Residual df     =        361
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  415.1879244                    (1/df) Deviance =   1.150105
    Pearson          =  363.0035925                    (1/df) Pearson  =    1.00555

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

                                                       BIC             =  -1712.691
```

```
                                  EIM
   HP2sxlife        Coef.   Std. Err.       z     P>|z|      [95% Conf. Interval]

    shrelaw3     .0005023    .0023156     0.22    0.828     -.0040363     .0050408
       _cons    -.6609704     .101163    -6.53    0.000     -.8592462    -.4626947

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

973 .
974 .
975 .
976 . *xx summary of mediating effects:  age and illness mediate sex life for men
977 . *                                  age illnesss radhlw3 bf4 bf4m (soma) medi
    > ate sex life for women
978 .
979 . scalar sxlifeMedMw3 = "age illw3"

980 . scalar sxlifeMedFw3 = "age illw3 radhlw3 bf4 bf4m"

981 . title4 "5. summary matrix contstruction for dose -> sexlife impact"

    5. summary matrix contstruction for dose -> sexlife impact


982 .
983 .   matrix define HP2sxlifeMw3 = J(1,8, 0)

984 .         matrix define HP2sxlifeFw3 = J(1,8, 0)

985 . matrix colnames HP2sxlifeMw3 =  hypnum ptnum wave gender medsig numMAsig num
    > Modsig numMed

986 .         matrix colnames HP2sxlifeFw3 =  hypnum ptnum wave gender medsig numM
    > Asig numModsig numMed

987 .     matrix define HP2sxlifeMw3 = (1, 2, 3, 1, 0, 4, 0, 2 )
```

```
988 .         matrix define HP2sxlifeFw3 = (1, 2, 3, 2, 1, 6, 0, 5)

989 .         matrix rowname HP2sxlifeMw3 = HP2sxlifeMw3

990 .         matrix rowname HP2sxlifeFw3 = HP2sxlifeFw3

991 .         matlist HP2sxlifeMw3

             |        c1          c2          c3          c4          c5          c
> 6
-------------+---------------------------------------------------------------------
> --
HP2sxlifeMw3 |         1           2           3           1           0
> 4

             |        c7          c8
-------------+-----------------------
HP2sxlifeMw3 |         0           2

992 .         matlist HP2sxlifeFw3

             |        c1          c2          c3          c4          c5          c
> 6
-------------+---------------------------------------------------------------------
> --
HP2sxlifeFw3 |         1           2           3           2           1
> 6

             |        c7          c8
-------------+-----------------------
HP2sxlifeFw3 |         0           5

993 . matrix define H1pt2w3 = ( HP2wkMw3 \ HP2wkFw3 \ HP2hmcrMw3 \ HP2hmcrFw3 \ HP
> 2spMw3 \ HP2spFw3 \ HP2prbfamMw3 \ HP2prbfamFw3 \ HP2sxlifeMw3 \ HP2sxlifeFw
> 3 )

994 .
```

```
995 .           matlist H1pt2w3

             |        c1         c2         c3         c4         c5          c
> 6
-------------+-----------------------------------------------------------------
> --
          r1 |         1          2          3          1          0
> 4
          r1 |         1          2          3          2          0
> 1
          r1 |         1          2          3          1          0
> 4
          r1 |         1          2          3          2          0
> 2
    HP2spMw3 |         1          2          3          1          0
> 2
    HP2spFw3 |         1          2          3          2          1
> 5
  HP2prbfamM |         1          2          3          1          0
> 5
  HP2prbfamF |         1          2          3          2          0
> 2
HP2sxlifeMw3 |         1          2          3          1          0
> 4
HP2sxlifeFw3 |         1          2          3          2          1
> 6

             |        c7         c8
-------------+----------------------
          r1 |         0          4
          r1 |         0          6
          r1 |         0          2
          r1 |         0          2
    HP2spMw3 |         0          1
    HP2spFw3 |         5          3
  HP2prbfamM |         0          1
  HP2prbfamF |         2          2
HP2sxlifeMw3 |         0          2
HP2sxlifeFw3 |         0          5
```

```
996 .     matrix colnames H1pt2w3 =  hypnum ptnum wave gender medsig numMAsig numM
    > odsig numMed

997 .     matrix rownames H1pt2w3 =   HP2wkMw3 HP2wkFw3 HP2hmcrMw3 HP2hmcrFw3 HP2p
    > rbfhmMw3 HP2prbfhmFw3

998 .     matlist H1pt2w3

                 |    hypnum      ptnum       wave     gender     medsig   numMAsi
    > g
    -------------+-----------------------------------------------------------------
    > --
        HP2wkMw3 |         1          2          3          1          0
    > 4
        HP2wkFw3 |         1          2          3          2          0
    > 1
      HP2hmcrMw3 |         1          2          3          1          0
    > 4
      HP2hmcrFw3 |         1          2          3          2          0
    > 2
    HP2prbfhmMw3 |         1          2          3          1          0
    > 2
    HP2prbfhmFw3 |         1          2          3          2          1
    > 5
    HP2prbfhmFw3 |         1          2          3          1          0
    > 5
    HP2prbfhmFw3 |         1          2          3          2          0
    > 2
    HP2prbfhmFw3 |         1          2          3          1          0
    > 4
    HP2prbfhmFw3 |         1          2          3          2          1
    > 6

                 | numModsig     numMed
    -------------+----------------------
        HP2wkMw3 |         0          4
        HP2wkFw3 |         0          6
      HP2hmcrMw3 |         0          2
      HP2hmcrFw3 |         0          2
    HP2prbfhmMw3 |         0          1
    HP2prbfhmFw3 |         5          3
    HP2prbfhmFw3 |         0          1
    HP2prbfhmFw3 |         2          2
    HP2prbfhmFw3 |         0          2
    HP2prbfhmFw3 |         0          5
```

```
.
.
.
.
. *================== Chunk 8    Dose => interests and Hobbies relationship
. 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    20:40:05  ****
> *
******************************************************************************
> *
******************************************************************************
> *


.
. title4 " Hyp. 1. pt 2 Wave 3 Main effects Dose=> Interests and Hobbies impac
> t identification"
------------------------------------------------------------------------------
 Hyp. 1. pt 2 Wave 3 Main effects Dose=> Interests and Hobbies impact identifi
> cation
------------------------------------------------------------------------------
```

```
1007 .
1008 . * Chunk 8 ---male models
1009 . forvalues j=3/3 {
       2. set more off
       3.
1010 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
     >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
       4.
1011 .   foreach var in HP2inthob  {
       5.       forvalues k=1/2 {
       6. local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
     > bf40
       7.
1012 . 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 radhlw3 if gender==`k', coef nolog  difficult iter
     > ate(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
marrw31           byte   %8.0g                   marrw3==1. single
marrw32           byte   %8.0g                   marrw3==2. cohabitating
marrw33           byte   %8.0g                   marrw3==3. married
marrw34           byte   %8.0g                   marrw3==4. separated
marrw35           byte   %8.0g                   marrw3==5. divorced
marrw36           byte   %8.0g                   marrw3==6. widowed
inc1w3            double %15.0g      LABJ        Income is not sufficient for
                                                   basic neccessities NOW
inc2w3            double %15.0g      LABJ        Income is just sufficient for
                                                   basic neccessities NOW
inc3w3            double %15.0g      LABJ        Income is sufficient for basics
                                                   plus extra purchases/savings
                                                   NOW
inc4w3            double %15.0g      LABJ        Income allows to comfortably
                                                   afford luxury items NOW
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= 3

chunk 8 H1 test:Gender= 1  model Wave =  3 for HP2sxlife



******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females   ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                          1 Jul 2012    20:40:05     ****
> *
```

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


Model for gender==1 and wave == 3

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: occ5w3 != 0 predicts failure perfectly
      occ5w3 dropped and 15 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 18 obs not used

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

note: _Ieduc_6 omitted because of collinearity
note: occ8w3 omitted because of collinearity
note: marrw36 omitted because of collinearity
note: bf17 omitted because of collinearity
note: radhlw3 omitted because of collinearity
convergence not achieved

Logistic regression                               Number of obs   =        276
                                                  LR chi2(42)     =     117.91
                                                  Prob > chi2     =     0.0000
Log likelihood = -51.649162                       Pseudo R2       =     0.5330
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0817005	.0490304	1.67	0.096	-.0143972	.1777983
_Ieduc_2	-1.531634	1.790651	-0.86	0.392	-5.041245	1.977977
_Ieduc_3	-1.560462	.8580327	-1.82	0.069	-3.242176	.1212508
_Ieduc_4	0	(omitted)				
_Ieduc_5	-.5489736	.8124194	-0.68	0.499	-2.141286	1.043339
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w3	-16.51737	2.253408	-7.33	0.000	-20.93397	-12.10077
occ2w3	-19.33038	2.062721	-9.37	0.000	-23.37324	-15.28752
occ3w3	-17.4588	2.676679	-6.52	0.000	-22.70499	-12.2126
occ4w3	-16.4147	2.207406	-7.44	0.000	-20.74113	-12.08826
occ5w3	0	(omitted)				
occ6w3	0	(omitted)				
occ7w3	-16.18451	2.199404	-7.36	0.000	-20.49527	-11.87376
occ8w3	0	(omitted)				
marrw31	.8557338	1.989444	0.43	0.667	-3.043506	4.754973
marrw32	1.067638	2.133137	0.50	0.617	-3.113233	5.248509
marrw33	-.0597494	1.809944	-0.03	0.974	-3.607174	3.487675
marrw35	4.178796	2.178555	1.92	0.055	-.091092	8.448685
marrw36	0	(omitted)				
inc1w3	14.99624	2.039372	7.35	0.000	10.99915	18.99334
inc2w3	15.54638	1.847372	8.42	0.000	11.92559	19.16716
inc3w3	16.08957	1.659414	9.70	0.000	12.83718	19.34196
inc4w3	20.06926	.	.	.	.	.
radhlw3	.0608448	.0162567	3.74	0.000	.0289822	.0927074
havmil	.004278	.0106932	0.40	0.689	-.0166802	.0252362
avgcumdosew3	-.3594081	.1656258	-2.17	0.030	-.6840288	-.0347874
bf1	-1.832947	.1402107	-13.07	0.000	-2.107755	-1.558139
bf4	-.1459909	.3386475	-0.43	0.666	-.8097278	.5177459
bf2	-.0007134	.0002919	-2.44	0.015	-.0012855	-.0001412
bf4m	-.0648788	.3169386	-0.20	0.838	-.6860671	.5563094
bf5m	-.0059221	.0033107	-1.79	0.074	-.0124109	.0005667
bf7m	-.00068	.0010134	-0.67	0.502	-.0026661	.0013062
bf8	.0000248	.0000707	0.35	0.726	-.0001137	.0001633
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	1.839453	.1331884	13.81	0.000	1.578408	2.100497
bf22	.000278	.0003035	0.92	0.360	-.0003168	.0008728
bf29	0	(omitted)				
bf30	.0006467	.000603	1.07	0.284	-.0005352	.0018286
bf40	.2996033	.3950361	0.76	0.448	-.4746533	1.07386
deaw3	-.6086988	.5212369	-1.17	0.243	-1.630304	.4129068
dvcew3	-.2319255	1.621511	-0.14	0.886	-3.410029	2.946178
sepaw3	-1.758194	2.087814	-0.84	0.400	-5.850234	2.333846
accdw3	.9189185	1.049895	0.88	0.381	-1.138839	2.976676

movew3	-1.391188	1.335043	-1.04	0.297	-4.007824	1.225448
illw3	-.3817302	.3999312	-0.95	0.340	-1.165581	.4021205
shfamw3	.0654585	.0176224	3.71	0.000	.0309192	.0999978
shhlw3	-.0105181	.0103515	-1.02	0.310	-.0308067	.0097705
shjobw3	-.0144707	.0115767	-1.25	0.211	-.0371606	.0082192
shrelaw3	-.0392022	.0137786	-2.85	0.004	-.0662077	-.0121967
suprtw3	.0070974	.0130297	0.54	0.586	-.0184403	.0326352
suchrw3	-.00232	.0110986	-0.21	0.834	-.0240728	.0194327
havmilsq	-7.67e-06	.0000192	-0.40	0.690	-.0000453	.00003
radhlw3	0	(omitted)				
_cons	-80.28913	.	.	.	.	.

Note: 32 failures and 0 successes completely determined.
Warning: convergence not achieved

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	23	7	30
-	15	231	246
Total	38	238	276

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

Sensitivity	Pr(+| D)	60.53%
Specificity	Pr(-|~D)	97.06%
Positive predictive value	Pr(D| +)	76.67%
Negative predictive value	Pr(~D| -)	93.90%
False + rate for true ~D	Pr(+|~D)	2.94%
False - rate for true D	Pr(-| D)	39.47%
False + rate for classified +	Pr(~D| +)	23.33%
False - rate for classified -	Pr(D| -)	6.10%
Correctly classified		92.03%

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       276
 number of covariate patterns =       276
             Pearson chi2(231) =       123.26
                   Prob > chi2 =         1.0000
```

```
Measures of Fit for logistic of HP2inthob

Log-Lik Intercept Only:     -110.602   Log-Lik Full Model:          -51.649
D(219):                      103.298   LR(42):                      117.906
                                       Prob > LR:                     0.000
McFadden's R2:                 0.533   McFadden's Adj R2:             0.018
Maximum Likelihood R2:         0.348   Cragg & Uhler's R2:            0.631
McKelvey and Zavoina's R2:     0.982   Efron's R2:                    0.500
Variance of y*:              180.636   Variance of error:             3.290
Count R2:                      0.920   Adj Count R2:                  0.421
AIC:                           0.787   AIC*n:                       217.298
BIC:                       -1127.569   BIC':                        118.151
Full main model for HP2inthob for wave= 3

chunk 8 H1 test:Gender= 2  model Wave =  3 for HP2inthob



******************************************************************************
> *
******************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females   ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                          1 Jul 2012    20:40:07   ****
> *
******************************************************************************
> *
******************************************************************************
> *


Model for gender==2 and wave == 3

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: occ4w3 != 0 predicts failure perfectly
      occ4w3 dropped and 8 obs not used

note: occ5w3 != 0 predicts failure perfectly
      occ5w3 dropped and 5 obs not used
```

```
note: occ8w3 != 0 predicts failure perfectly
      occ8w3 dropped and 1 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 11 obs not used

note: _Ieduc_8 omitted because of collinearity
note: bf17 omitted because of collinearity
note: radhlw3 omitted because of collinearity

Logistic regression                               Number of obs   =        337
                                                  LR chi2(49)     =     118.21
                                                  Prob > chi2     =     0.0000
Log likelihood = -107.57156                       Pseudo R2       =     0.3546
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0683881	.0247447	2.76	0.006	.0198893	.1168869
_Ieduc_2	-13.79024	962.4068	-0.01	0.989	-1900.073	1872.492
_Ieduc_3	-12.92792	962.4068	-0.01	0.989	-1899.211	1873.355
_Ieduc_4	-12.05387	962.4069	-0.01	0.990	-1898.337	1874.229
_Ieduc_5	-12.19345	962.407	-0.01	0.990	-1898.476	1874.09
_Ieduc_6	-13.09489	962.4068	-0.01	0.989	-1899.378	1873.188
_Ieduc_7	-13.1998	962.4102	-0.01	0.989	-1899.489	1873.089
_Ieduc_8	0	(omitted)				
occ1w3	-1.2723	3.511631	-0.36	0.717	-8.154969	5.61037
occ2w3	-2.590551	3.713618	-0.70	0.485	-9.869108	4.688006
occ3w3	-.8635752	3.536644	-0.24	0.807	-7.79527	6.06812
occ4w3	0	(omitted)				
occ5w3	0	(omitted)				
occ6w3	-.2036246	3.739879	-0.05	0.957	-7.533652	7.126403
occ7w3	-.4066434	3.50728	-0.12	0.908	-7.280786	6.467499
occ8w3	0	(omitted)				
marrw31	-2.820802	1.835568	-1.54	0.124	-6.418449	.776846
marrw32	-2.10882	2.397053	-0.88	0.379	-6.806958	2.589318
marrw33	-2.047151	1.625637	-1.26	0.208	-5.233341	1.13904
marrw35	-2.933509	1.682447	-1.74	0.081	-6.231043	.3640262
marrw36	-2.100943	1.718745	-1.22	0.222	-5.469621	1.267736
inc1w3	1.771469	3.538577	0.50	0.617	-5.164014	8.706952
inc2w3	1.229926	3.52319	0.35	0.727	-5.675399	8.13525
inc3w3	1.602207	3.508288	0.46	0.648	-5.273911	8.478326
inc4w3	2.650063	3.832399	0.69	0.489	-4.861301	10.16143
radhlw3	.0254128	.010363	2.45	0.014	.0051018	.0457239
havmil	.0052121	.0043654	1.19	0.232	-.003344	.0137682
avgcumdosew3	.0592875	.0898505	0.66	0.509	-.1168163	.2353913
bf1	-.0386178	.0465636	-0.83	0.407	-.1298807	.0526452
bf4	-.3299735	.2318908	-1.42	0.155	-.7844712	.1245242
bf2	5.14e-06	.0001261	0.04	0.967	-.000242	.0002523

bf4m	.24058	.2177227	1.10	0.269	-.1861487	.6673088
bf5m	-.0019924	.0019912	-1.00	0.317	-.0058951	.0019104
bf7m	-.000918	.0006896	-1.33	0.183	-.0022697	.0004336
bf8	6.91e-06	.0000428	0.16	0.872	-.0000771	.0000909
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.0290415	.0410365	0.71	0.479	-.0513885	.1094715
bf22	.000145	.000139	1.04	0.297	-.0001275	.0004175
bf29	.0000291	.0000389	0.75	0.455	-.0000472	.0001054
bf30	.0005863	.0003477	1.69	0.092	-.0000953	.0012679
bf40	-.1903404	.1540477	-1.24	0.217	-.4922683	.1115876
deaw3	-.0727208	.201017	-0.36	0.718	-.4667069	.3212652
dvcew3	-.3675995	.8921998	-0.41	0.680	-2.116279	1.38108
sepaw3	1.146748	.9391994	1.22	0.222	-.6940491	2.987545
accdw3	-.0400125	.5697822	-0.07	0.944	-1.156765	1.07674
movew3	.1242816	1.400684	0.09	0.929	-2.621008	2.869572
illw3	.0326786	.1772251	0.18	0.854	-.3146761	.3800333
shfamw3	-.0089451	.0081686	-1.10	0.273	-.0249552	.0070651
shhlw3	-.0019331	.0067351	-0.29	0.774	-.0151336	.0112673
shjobw3	.0022608	.0074164	0.30	0.760	-.012275	.0167966
shrelaw3	.0045217	.0078937	0.57	0.567	-.0109497	.0199931
suprtw3	-.0034378	.0085075	-0.40	0.686	-.0201123	.0132366
suchrw3	-.0106093	.0056039	-1.89	0.058	-.0215928	.0003741
havmilsq	-4.33e-06	6.65e-06	-0.65	0.515	-.0000174	8.70e-06
radhlw3	0	(omitted)				
_cons	7.330327	962.4125	0.01	0.994	-1878.964	1893.624

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	33	12	45
-	33	259	292
Total	66	271	337

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2inthob != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   50.00%
Specificity                     Pr( -|~D)   95.57%
Positive predictive value       Pr( D| +)   73.33%
Negative predictive value       Pr(~D| -)   88.70%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    4.43%
False - rate for true D         Pr( -| D)   50.00%
False + rate for classified +   Pr(~D| +)   26.67%
False - rate for classified -   Pr( D| -)   11.30%
--------------------------------------------------
Correctly classified                        86.65%
--------------------------------------------------
```

Logistic model for HP2inthob, goodness-of-fit test

```
--------------------------------------------------

       number of observations =       337
 number of covariate patterns =       337
             Pearson chi2(287) =       317.53
                   Prob > chi2 =         0.1040
```

Measures of Fit for **logistic** of **HP2inthob**

```
Log-Lik Intercept Only:     -166.677    Log-Lik Full Model:        -107.572
D(280):                      215.143    LR(49):                     118.210
                                        Prob > LR:                    0.000
McFadden's R2:                 0.355    McFadden's Adj R2:            0.013
Maximum Likelihood R2:         0.296    Cragg & Uhler's R2:           0.471
McKelvey and Zavoina's R2:     0.678    Efron's R2:                   0.373
Variance of y*:               10.209    Variance of error:            3.290
Count R2:                      0.866    Adj Count R2:                 0.318
AIC:                           0.977    AIC*n:                      329.143
BIC:                       -1414.480    BIC':                       166.974
```

```
1013 .
1014 .  label var radhlw3 "Self-perceived Chornobyl health threat in wave 3"

1015 .
1016 . title4 "6. trimmed Moderators of male Dose => Interests and Hobbies Impact"
     ------------------------------------------------------------------------------
     6. trimmed Moderators of male Dose => Interests and Hobbies Impact
     ------------------------------------------------------------------------------

1017 .
1018 . di as input "Wave 3 Main effects Dose=> Interests and Hobbies impact identif
     > ication"
     Wave 3 Main effects Dose=> Interests and Hobbies impact identification

1019 . forvalues j=3/3 {
       2. set more off
       3.
1020 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
     >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
       4.
1021 . foreach var in HP2inthob  {
       5. local w3bf 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 shfamw3 radhlw3 bf4m
      13.       xi: logistic `var' age radhlw3 avgcumdosew3 shfamw3  ///
     >                    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. }
```

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**
marrw31	byte	%8.0g		**marrw3==1. single**
marrw32	byte	%8.0g		**marrw3==2. cohabitating**
marrw33	byte	%8.0g		**marrw3==3. married**
marrw34	byte	%8.0g		**marrw3==4. separated**
marrw35	byte	%8.0g		**marrw3==5. divorced**
marrw36	byte	%8.0g		**marrw3==6. widowed**
inc1w3	double	%15.0g	LABJ	**Income is not sufficient for basic neccessities NOW**
inc2w3	double	%15.0g	LABJ	**Income is just sufficient for basic neccessities NOW**
inc3w3	double	%15.0g	LABJ	**Income is sufficient for basics plus extra purchases/savings NOW**
inc4w3	double	%15.0g	LABJ	**Income allows to comfortably afford luxury items NOW**
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= 3

chunk 8 H1 test:Gender= male model Wave = 3 for HP2inthob

```
********************************************************************************
> *
********************************************************************************
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****             Full Nottingham Part 2 subscale models                    ****
> *
*****                         males on  wave=3                              ****
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****                                             1 Jul 2012    20:40:09    ****
> *
********************************************************************************
> *
********************************************************************************
> *
```

```
              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
bf5m            float  %9.0g                  bf5m = max(0, ecprw3 - 75) *
                                                bf4m
shfamw3         double %8.0g                  Percentage of strains and
                                                hassles related to family NOW
radhlw3         double %8.0g                  Self-perceived Chornobyl health
                                                threat in wave 3
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)
```

```
Logistic regression                               Number of obs   =        340
                                                  LR chi2(5)      =      68.96
                                                  Prob > chi2     =     0.0000
Log likelihood = -84.583465                       Pseudo R2       =     0.2896
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
age	**.0503393**	**.0177324**	**2.84**	**0.005**	**.0155844**	**.0850941**
radhlw3	**.036284**	**.0076652**	**4.73**	**0.000**	**.0212606**	**.0513075**
avgcumdosew3	**-.1055965**	**.1287622**	**-0.82**	**0.412**	**-.3579659**	**.1467728**
shfamw3	**.015864**	**.0063173**	**2.51**	**0.012**	**.0034822**	**.0282458**
bf5m	**-.002198**	**.001127**	**-1.95**	**0.051**	**-.0044068**	**.0000109**
_cons	**-7.784484**	**1.20097**	**-6.48**	**0.000**	**-10.13834**	**-5.430625**

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	**11**	**6**	**17**
-	**27**	**296**	**323**
Total	**38**	**302**	**340**

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

Sensitivity	Pr(+| D)	**28.95%**
Specificity	Pr(-|~D)	**98.01%**
Positive predictive value	Pr(D| +)	**64.71%**
Negative predictive value	Pr(~D| -)	**91.64%**
False + rate for true ~D	Pr(+|~D)	**1.99%**
False - rate for true D	Pr(-| D)	**71.05%**
False + rate for classified +	Pr(~D| +)	**35.29%**
False - rate for classified -	Pr(D| -)	**8.36%**
Correctly classified		**90.29%**

Logistic model for HP2inthob, goodness-of-fit test

number of observations = **340**
number of covariate patterns = **336**
Pearson chi2(**330**) = **249.07**
Prob > chi2 = **0.9997**

Measures of Fit for **logistic** of **HP2inthob**

```
Log-Lik Intercept Only:      -119.064     Log-Lik Full Model:            -84.583
D(334):                       169.167     LR(5):                          68.962
                                          Prob > LR:                       0.000
McFadden's R2:                  0.290     McFadden's Adj R2:               0.239
Maximum Likelihood R2:          0.184     Cragg & Uhler's R2:              0.365
McKelvey and Zavoina's R2:      0.495     Efron's R2:                      0.236
Variance of y*:                 6.512     Variance of error:               3.290
Count R2:                       0.903     Adj Count R2:                    0.132
AIC:                            0.533     AIC*n:                         181.167
BIC:                        -1777.701     BIC':                          -39.817

Note: bf4m is necssary for bf5 but if bf4m is in model bf5 is not signif.
 Therefore, bf5 is not deemed significant.

1022 .
1023 . cap gen bf5mXd3 = bf5m*avgcumdosew3

1024 .
1025 .
1026 .
1027 . title3 "Wave 3 Main effects Dose=> Interests and Hobbies impact identificati
     > on"
     ------------------------------------------------------------------------------
     title3 : Wave 3 Main effects Dose=> Interests and Hobbies impact identificatio
     > n
      1 Jul 2012
     20:40:10
     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

1028 . forvalues j=3/3 {
       2. set more off
       3.
1029 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
     >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
       4.
```

```
1030 . foreach var in HP2inthob  {
       5. local w3bf 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.
1031 .       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
     marrw31         byte   %8.0g                  marrw3==1. single
     marrw32         byte   %8.0g                  marrw3==2. cohabitating
     marrw33         byte   %8.0g                  marrw3==3. married
     marrw34         byte   %8.0g                  marrw3==4. separated
     marrw35         byte   %8.0g                  marrw3==5. divorced
     marrw36         byte   %8.0g                  marrw3==6. widowed
     inc1w3          double %15.0g      LABJ       Income is not sufficient for
                                                     basic neccessities NOW
     inc2w3          double %15.0g      LABJ       Income is just sufficient for
                                                     basic neccessities NOW
     inc3w3          double %15.0g      LABJ       Income is sufficient for basics
                                                     plus extra purchases/savings
                                                     NOW
```

```
inc4w3           double %15.0g      LABJ       Income allows to comfortably
                                                 afford luxury items NOW
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= 3

chunk 8 H1 test:Gender= male  model Wave =  3 for HP2inthob


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****     Full Nottingham Part 2 subscale models for males in wave=3      ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                        1 Jul 2012    20:40:10       ****
> *
******************************************************************************
> *
******************************************************************************
> *


Logistic regression                               Number of obs   =        340
                                                  LR chi2(7)      =      69.85
                                                  Prob > chi2     =     0.0000
Log likelihood = -84.141731                       Pseudo R2       =     0.2933
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0427782	.0194796	2.20	0.028	.004599	.0809575
radhlw3	.0323992	.0086278	3.76	0.000	.015489	.0493095
avgcumdosew3	-.0334024	.265555	-0.13	0.900	-.5538806	.4870758
shfamw3	.0129086	.006987	1.85	0.065	-.0007857	.0266028
bf4m	-.0374129	.040869	-0.92	0.360	-.1175146	.0426889
bf5m	-.0015707	.0014827	-1.06	0.289	-.0044767	.0013353
bf5mXd3	-.0002159	.0008473	-0.25	0.799	-.0018766	.0014448
_cons	-6.355059	1.990746	-3.19	0.001	-10.25685	-2.453267

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	11	8	19
-	27	294	321
Total	38	302	340

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

Sensitivity	Pr(+| D)	28.95%
Specificity	Pr(-|~D)	97.35%
Positive predictive value	Pr(D| +)	57.89%
Negative predictive value	Pr(~D| -)	91.59%
False + rate for true ~D	Pr(+|~D)	2.65%
False - rate for true D	Pr(-| D)	71.05%
False + rate for classified +	Pr(~D| +)	42.11%
False - rate for classified -	Pr(D| -)	8.41%
Correctly classified		89.71%

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       338
            Pearson chi2(330) =       244.95
                  Prob > chi2 =         0.9999
```

Measures of Fit for **logistic** of **HP2inthob**

```
     Log-Lik Intercept Only:     -119.064     Log-Lik Full Model:           -84.142
     D(332):                      168.283     LR(7):                         69.845
                                              Prob > LR:                      0.000
     McFadden's R2:                 0.293     McFadden's Adj R2:              0.226
     Maximum Likelihood R2:         0.186     Cragg & Uhler's R2:             0.369
     McKelvey and Zavoina's R2:     0.469     Efron's R2:                     0.238
     Variance of y*:                6.195     Variance of error:              3.290
     Count R2:                      0.897     Adj Count R2:                   0.079
     AIC:                           0.542     AIC*n:                        184.283
     BIC:                       -1766.926     BIC':                         -29.042

1032 . scalar SigDoseInthbMw3 = "no"

1033 . scalar MainEffInthbMw3 = "age radhlw3 shfamw3"

1034 . scalar InthbMw3 = "none"

1035 .
1036 . *------chunk 8  female moderator models
1037 . title "trimmed Moderators of female Dose => Interests and Hobbies Impact"


     ******************************************************************************
     > *
     ******************************************************************************
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     ***** trimmed Moderators of female Dose => Interests and Hobbies Impact   ****
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     *****                                             1 Jul 2012    20:40:11  ****
     > *
     ******************************************************************************
     > *
     ******************************************************************************
     > *
```

```
1038 .
1039 .
1040 . forvalues j=3/3 {
       2. set more off
       3.
1041 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
     >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
       4.
1042 . foreach var in HP2inthob  {
       5. local w3bf 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.
1043 .       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
marrw31         byte   %8.0g                   marrw3==1. single
marrw32         byte   %8.0g                   marrw3==2. cohabitating
marrw33         byte   %8.0g                   marrw3==3. married
marrw34         byte   %8.0g                   marrw3==4. separated
marrw35         byte   %8.0g                   marrw3==5. divorced
marrw36         byte   %8.0g                   marrw3==6. widowed
```

```
inc1w3          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities NOW
inc2w3          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities NOW
inc3w3          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                NOW
inc4w3          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items NOW
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 main model for HP2inthob for wave= 3

chunk 8 H1 test:Gender= male  model Wave =  3 for HP2inthob



*******************************************************************************
> *
*******************************************************************************
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****         Full Nottingham Part 2 subscale models for females           ****
> *
*****                                                                      ****
> *
*****                                                                      ****
> *
*****                                                     1 Jul 2012    20:40:11  ****
> *
*******************************************************************************
> *
*******************************************************************************
> *
```

```
Logistic regression                               Number of obs   =        363
                                                  LR chi2(4)      =      85.17
                                                  Prob > chi2     =     0.0000
Log likelihood = -129.52718                       Pseudo R2       =     0.2474

------------------------------------------------------------------------------
   HP2inthob |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0747817   .0159584     4.69   0.000     .0435038    .1060596
     radhlw3 |   .0177314   .0055334     3.20   0.001     .0068862    .0285766
avgcumdosew3 |   .0423064   .0679809     0.62   0.534    -.0909337    .1755466
         bf4 |   -.092667   .0312315    -2.97   0.003    -.1538797   -.0314543
       _cons |  -6.042759   1.092151    -5.53   0.000    -8.183336   -3.902181
------------------------------------------------------------------------------

Logistic model for HP2inthob

              -------- True --------
Classified |         D            ~D  |      Total
-----------+--------------------------+-----------
     +     |        27            10  |         37
     -     |        39           287  |        326
-----------+--------------------------+-----------
   Total   |        66           297  |        363

Classified + if predicted Pr(D) >= .5
True D defined as HP2inthob != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   40.91%
Specificity                     Pr( -|~D)   96.63%
Positive predictive value       Pr( D| +)   72.97%
Negative predictive value       Pr(~D| -)   88.04%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    3.37%
False - rate for true D         Pr( -| D)   59.09%
False + rate for classified +   Pr(~D| +)   27.03%
False - rate for classified -   Pr( D| -)   11.96%
--------------------------------------------------
Correctly classified                        86.50%
--------------------------------------------------

Logistic model for HP2inthob, goodness-of-fit test
--------------------------------------------------

       number of observations =       363
 number of covariate patterns =       361
           Pearson chi2(356) =       495.06
                 Prob > chi2 =         0.0000
```

```
Measures of Fit for logistic of HP2inthob

Log-Lik Intercept Only:     -172.113   Log-Lik Full Model:          -129.527
D(358):                      259.054   LR(4):                         85.171
                                       Prob > LR:                      0.000
McFadden's R2:                 0.247   McFadden's Adj R2:              0.218
Maximum Likelihood R2:         0.209   Cragg & Uhler's R2:             0.341
McKelvey and Zavoina's R2:     0.412   Efron's R2:                     0.299
Variance of y*:                5.592   Variance of error:              3.290
Count R2:                      0.865   Adj Count R2:                   0.258
AIC:                           0.741   AIC*n:                        269.054
BIC:                       -1851.142   BIC':                         -61.593

1044 . scalar SigdoseInthbFw3 = "no"

1045 . scalar MainEffInthbFw3 = "age radhlw3 bf4"

1046 .
1047 . *------chunk 8 testing female moderators
1048 . title "trimmed Moderators of female Dose => Interests and Hobbies Impact"


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
***** trimmed Moderators of female Dose => Interests and Hobbies Impact   ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                             1 Jul 2012    20:40:13  ****
> *
******************************************************************************
> *
******************************************************************************
> *
```

```
1049 .
1050 .
1051 . forvalues j=3/3 {
       2. set more off
       3.
1052 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
     >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
       4.
1053 . foreach var in HP2inthob  {
       5. local w3bf 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.
1054 .       xi: logistic `var' age   ///
     >                radhlw`j' avgcumdosew`j' ///
     >                   bf4  bf4Xd3 ageXd3 radhlw3Xd3 ///
     >                 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
     marrw31         byte   %8.0g                  marrw3==1. single
     marrw32         byte   %8.0g                  marrw3==2. cohabitating
     marrw33         byte   %8.0g                  marrw3==3. married
     marrw34         byte   %8.0g                  marrw3==4. separated
     marrw35         byte   %8.0g                  marrw3==5. divorced
     marrw36         byte   %8.0g                  marrw3==6. widowed
```

```
inc1w3          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities NOW
inc2w3          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities NOW
inc3w3          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                NOW
inc4w3          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items NOW
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= 3

chunk 8 H1 test:Gender= male  model Wave =  3 for HP2inthob



******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****   Full Nottingham Part 2 subscale models for females in wave=3      ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                            1 Jul 2012    20:40:13  ****
> *
******************************************************************************
> *
******************************************************************************
> *
```

```
Logistic regression                               Number of obs   =        363
                                                  LR chi2(7)      =      85.42
                                                  Prob > chi2     =     0.0000
Log likelihood = -129.40062                       Pseudo R2       =     0.2482
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.07069	.0194156	3.64	0.000	.032636	.1087439
radhlw3	.0190385	.0070172	2.71	0.007	.0052851	.0327919
avgcumdosew3	-.0765606	.6162688	-0.12	0.901	-1.284425	1.131304
bf4	-.0964948	.0400004	-2.41	0.016	-.1748942	-.0180954
bf4Xd3	.0029229	.020246	0.14	0.885	-.0367585	.0426043
ageXd3	.0035645	.0097808	0.36	0.716	-.0156055	.0227346
radhlw3Xd3	-.0011667	.003632	-0.32	0.748	-.0082854	.0059519
_cons	-5.898722	1.310131	-4.50	0.000	-8.466531	-3.330913

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	28	10	38
-	38	287	325
Total	66	297	363

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

Sensitivity	Pr(+| D)	42.42%
Specificity	Pr(-|~D)	96.63%
Positive predictive value	Pr(D| +)	73.68%
Negative predictive value	Pr(~D| -)	88.31%
False + rate for true ~D	Pr(+|~D)	3.37%
False - rate for true D	Pr(-| D)	57.58%
False + rate for classified +	Pr(~D| +)	26.32%
False - rate for classified -	Pr(D| -)	11.69%
Correctly classified		86.78%

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       363
 number of covariate patterns =       361
            Pearson chi2(353) =       496.78
                  Prob > chi2 =         0.0000

Measures of Fit for logistic of HP2inthob

Log-Lik Intercept Only:     -172.113    Log-Lik Full Model:          -129.401
D(355):                      258.801    LR(7):                         85.424
                                        Prob > LR:                      0.000
McFadden's R2:                 0.248    McFadden's Adj R2:              0.202
Maximum Likelihood R2:         0.210    Cragg & Uhler's R2:             0.342
McKelvey and Zavoina's R2:     0.413    Efron's R2:                     0.301
Variance of y*:                5.602    Variance of error:              3.290
Count R2:                      0.868    Adj Count R2:                   0.273
AIC:                           0.757    AIC*n:                        274.801
BIC:                       -1833.712    BIC':                         -44.163
```

```
1055 . scalar InthbModFw3 = "none"

1056 .
1057 . title4 "Chunk 8  interests and hobbies testing mediator effects "
```

Chunk 8 interests and hobbies testing mediator effects

```
1058 .
1059 . * age is a mediating effect for males for Dose=> sex life for men
1060 .
1061 . glm age avgcumdosew3 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1330.6336

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  147.7142
Deviance         =  49927.38549                    (1/df) Deviance =  147.7142
Pearson          =  49927.38549                    (1/df) Pearson  =  147.7142

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

                                                   AIC             =  7.839021
Log likelihood   = -1330.633586                    BIC             =   47957.2
```

age	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**.5433648**	**.2472657**	**2.20**	**0.028**	**.058733**	**1.027997**
_cons	**48.52021**	**.7247376**	**66.95**	**0.000**	**47.09975**	**49.94067**

```
1062 . 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	Coef.	EIM 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.)

1063 .

```
1064 . * illness is a mediating effect for males = > sex life for men
1065 . des illw3

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
illw3           double %8.0g                  Total number of illnesses
                                                experienced in time period
                                                1996-NOW

1066 . glm illw3 avgcumdosew3 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -461.99206

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  .8919217
Deviance         =   301.469521                    (1/df) Deviance =  .8919217
Pearson          =   301.469521                    (1/df) Pearson  =  .8919217

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

                                                   AIC             =  2.729365
Log likelihood   = -461.9920626                    BIC             = -1668.714

------------------------------------------------------------------------------
             |                 OIM
       illw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |    .038211   .0192139     1.99   0.047     .0005524    .0758696
       _cons |   .4504952   .0563162     8.00   0.000     .3401176    .5608729
------------------------------------------------------------------------------

1067 . glm HP2inthob illw3 if gender==1, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  234.8681
Iteration 2:   deviance =  233.1574
Iteration 3:   deviance =  233.1444
Iteration 4:   deviance =  233.1444
Iteration 5:   deviance =  233.1444

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       338
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =   233.144425                    (1/df) Deviance =  .6897764
Pearson          =  334.1788359                    (1/df) Pearson  =  .9886948
```

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

                                                  BIC             = -1737.039

------------------------------------------------------------------------------
             |                 EIM
   HP2inthob |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw3 |   .1917072   .0680987     2.82   0.005     .0582362    .3251781
       _cons |  -1.333765    .087554   -15.23   0.000    -1.505368   -1.162163
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

1068 .
1069 . des radhlw3

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
radhlw3         double %8.0g                  Self-perceived Chornobyl health
                                                threat in wave 3

1070 . glm radhlw3 avgcumdosew3 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1695.1855

Generalized linear models                         No. of obs      =        340
Optimization     : ML                             Residual df     =        338
                                                  Scale parameter =   1261.052
Deviance         =  426235.7205                   (1/df) Deviance =   1261.052
Pearson          =  426235.7205                   (1/df) Pearson  =   1261.052

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

                                                  AIC             =   9.983444
Log likelihood   = -1695.185473                   BIC             =   424265.5

------------------------------------------------------------------------------
             |                 OIM
     radhlw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |   .9606492   .7224692     1.33   0.184    -.4553645    2.376663
       _cons |   46.19995   2.117563    21.82   0.000      42.0496     50.3503
------------------------------------------------------------------------------
```

```
1071 . glm HP2inthob radhlw3 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  203.3027
     Iteration 2:   deviance =  188.4084
     Iteration 3:   deviance =  186.1904
     Iteration 4:   deviance =  186.0891
     Iteration 5:   deviance =  186.0888
     Iteration 6:   deviance =  186.0888

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =   186.088809                    (1/df) Deviance =   .5505586
     Pearson          =  318.4835319                    (1/df) Pearson  =    .942259

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

                                                        BIC             =  -1784.095

     ------------------------------------------------------------------------------
                  |                 EIM
        HP2inthob |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
          radhlw3 |   .0212428   .0025645     8.28   0.000     .0162164    .0262691
            _cons |  -2.562769   .2038548   -12.57   0.000    -2.962317   -2.163221
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1072 .
1073 .
1074 . des shfamw3

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     shfamw3         double %8.0g                  Percentage of strains and
                                                     hassles related to family NOW
```

```
1075 . glm shfamw3  avgcumdosew3 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1708.9012

     Generalized linear models                          No. of obs      =        340
     Optimization     : ML                              Residual df     =        338
                                                        Scale parameter =   1367.012
     Deviance         =  462050.0805                    (1/df) Deviance =   1367.012
     Pearson          =  462050.0805                    (1/df) Pearson  =   1367.012

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

                                                        AIC             =   10.06412
     Log likelihood   = -1708.901202                    BIC             =   460079.9

     ------------------------------------------------------------------------------
                  |                 OIM
          shfamw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew3 |  -.1212312   .7522098    -0.16   0.872    -1.595535    1.353073
            _cons |   54.35361   2.204733    24.65   0.000     50.03242    58.67481
     ------------------------------------------------------------------------------

1076 . glm HP2inthob shfamw3 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  226.2154
     Iteration 2:   deviance =  220.7262
     Iteration 3:   deviance =  220.4926
     Iteration 4:   deviance =  220.4922
     Iteration 5:   deviance =  220.4922

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  220.4922229                    (1/df) Deviance =   .6523439
     Pearson          =  359.3118386                    (1/df) Pearson  =   1.063053

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

                                                        BIC             =  -1749.691
```

HP2inthob	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
shfamw3	**.0109039**	**.0022452**	**4.86**	**0.000**	**.0065034**	**.0153045**
_cons	**-1.9049**	**.171268**	**-11.12**	**0.000**	**-2.240579**	**-1.56922**

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

```
1077 .
1078 . des bf5m
```

variable name	storage type	display format	value label	variable label
bf5m	float	%9.0g		**bf5m = max(0, ecprw3 - 75) * bf4m**

```
1079 . glm bf5m  avgcumdosew3 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood =  -2273.014

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =    37748.2
Deviance         =  12758891.39                    (1/df) Deviance =    37748.2
Pearson          =  12758891.39                    (1/df) Pearson  =    37748.2

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

                                                   AIC             =   13.38244
Log likelihood   = -2273.013968                    BIC             =   1.28e+07
```

bf5m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**9.087842**	**3.952764**	**2.30**	**0.021**	**1.340566**	**16.83512**
_cons	**102.4403**	**11.58558**	**8.84**	**0.000**	**79.73302**	**125.1477**

1080 . 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
```

HP2inthob	Coef.	EIM 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.)

1081 .
1082 . glm bf4 avgcumdosew3 if gender==1, fam(gaus) link(identity)

```
Iteration 0:   log likelihood = -1027.1072

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =   24.77487
Deviance         =  8373.906252                    (1/df) Deviance =   24.77487
Pearson          =  8373.906252                    (1/df) Pearson  =   24.77487

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

                                                   AIC             =   6.053572
Log likelihood   = -1027.107224                    BIC             =   6403.723
```

bf4	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf. Interval]	
avgcumdosew3	**-.0357675**	**.1012648**	**-0.35**	**0.724**	**-.2342429**	**.1627078**
_cons	**12.54064**	**.2968079**	**42.25**	**0.000**	**11.95891**	**13.12238**

1083 . 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
```

HP2inthob	Coef.	EIM 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.)

```
1084 .
1085 .
1086 . * age is a mediating effect for females for Dose=> sex life for women
1087 . glm age avgcumdosew3 if gender==2, fam(gaus) link(identity)

     Iteration 0:   log likelihood =  -1408.064

     Generalized linear models                         No. of obs      =       363
     Optimization     : ML                             Residual df     =       361
                                                       Scale parameter =  137.7687
     Deviance         =  49734.51399                   (1/df) Deviance =  137.7687
     Pearson          =  49734.51399                   (1/df) Pearson  =  137.7687

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

                                                       AIC             =  7.768948
     Log likelihood   =  -1408.06405                   BIC             =  47606.63

     ------------------------------------------------------------------------------
                  |                 OIM
              age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew3 |   1.058366   .3512614     3.01   0.003     .3699069    1.746826
            _cons |   48.94293   .7468173    65.54   0.000     47.47919    50.40666
     ------------------------------------------------------------------------------

1088 . 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.)

```
1089 .
1090 . des bf4   // soma recentered
```

variable name	storage type	display format	value label	variable label
bf4	float	%9.0g		**bf4 = max(0, 24 - BSIsoma)**

```
1091 . * bf4 is a mediting effect for females for Dose=>  sex life for women
1092 . glm bf4  avgcumdosew3 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1109.6569

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =    26.6146
Deviance         =  9607.869105                    (1/df) Deviance =    26.6146
Pearson          =  9607.869105                    (1/df) Pearson  =    26.6146

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

                                                   AIC             =   6.124831
Log likelihood   = -1109.656873                    BIC             =    7479.99
```

bf4	Coef. (OIM)	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	-.4386292	.1543885	-2.84	0.004	-.7412252	-.1360333
_cons	11.01475	.3282456	33.56	0.000	10.3714	11.6581

```
1093 . 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

     ------------------------------------------------------------------------------
                  |                 EIM
        HP2inthob |      Coef.   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.)

1094 .
1095 . des bf4m // soma recentered

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)

1096 . * bf4m is a possible mediating effect for female sex life
```

```
1097 . glm bf4m  avgcumdosew3 if gender==2, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1141.3116

     Generalized linear models                          No. of obs      =        363
     Optimization     : ML                              Residual df     =        361
                                                        Scale parameter =   31.68572
     Deviance         =  11438.54371                    (1/df) Deviance =   31.68572
     Pearson          =  11438.54371                    (1/df) Pearson  =   31.68572

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

                                                        AIC             =   6.299237
     Log likelihood   = -1141.311602                    BIC             =   9310.664

     ------------------------------------------------------------------------------
                  |                 OIM
             bf4m |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew3 |   -.441173   .1684561    -2.62   0.009     -.771341   -.1110051
            _cons |   18.82772   .3581548    52.57   0.000     18.12575    19.52969
     ------------------------------------------------------------------------------

1098 . 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
```

HP2sxlife	Coef. (EIM)	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.)

1099 .
1100 . des shfamw3

variable name	storage type	display format	value label	variable label
shfamw3	double	%8.0g		**Percentage of strains and hassles related to family NOW**

1101 . glm shfamw3 avgcumdosew3 if gender==1, fam(gaus) link(identity)

```
Iteration 0:   log likelihood = -1708.9012

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =   1367.012
Deviance         =  462050.0805                    (1/df) Deviance =   1367.012
Pearson          =  462050.0805                    (1/df) Pearson  =   1367.012

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

                                                   AIC             =   10.06412
Log likelihood   = -1708.901202                    BIC             =   460079.9
```

shfamw3	Coef. (OIM)	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**-.1212312**	**.7522098**	**-0.16**	**0.872**	**-1.595535**	**1.353073**
_cons	**54.35361**	**2.204733**	**24.65**	**0.000**	**50.03242**	**58.67481**

```
1102 . glm HP2sxlife shfamw3 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  329.7746
     Iteration 2:   deviance =  329.2454
     Iteration 3:   deviance =  329.2451
     Iteration 4:   deviance =  329.2451

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  329.2450963                    (1/df) Deviance =   .9740979
     Pearson          =  344.0536463                    (1/df) Pearson  =    1.01791

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

                                                        BIC             =  -1640.939

     ------------------------------------------------------------------------------
                  |                 EIM
       HP2sxlife  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
         shfamw3  |   .0079286   .0021676     3.66   0.000     .0036802     .012177
           _cons  |  -1.296137   .1536069    -8.44   0.000    -1.597201   -.9950731
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1103 .
1104 . des shrelaw3

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     shrelaw3        double %8.0g                  Percentage of strains and
                                                     hassles related to
                                                     relationships NOW
```

1105 . glm shrelaw3 avgcumdosew3 if gender==1, fam(gaus) link(identity)

```
Iteration 0:   log likelihood = -1712.5647

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  1396.791
Deviance         =  472115.4213                    (1/df) Deviance =  1396.791
Pearson          =  472115.4213                    (1/df) Pearson  =  1396.791

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

                                                   AIC             =  10.08567
Log likelihood   = -1712.564737                    BIC             =  470145.2
```

shrelaw3	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	-.043239	.7603587	-0.06	0.955	-1.533515	1.447037
_cons	34.40857	2.228617	15.44	0.000	30.04056	38.77658

1106 . glm HP2sxlife shrelaw3 if gender==1, fam(bin) irls scale(dev) link(probit)

```
Iteration 1:   deviance =  334.5762
Iteration 2:   deviance =  334.3197
Iteration 3:   deviance =  334.3197
Iteration 4:   deviance =  334.3197

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       338
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  334.3196545                    (1/df) Deviance =  .9891114
Pearson          =  339.7061699                    (1/df) Pearson  =  1.005048

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

                                                   BIC             = -1635.864
```

```
------------------------------------------------------------------------------
             |                 EIM
  HP2sxlife  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    shrelaw3 |   .0060138    .002025     2.97   0.003     .0020449    .0099827
       _cons |  -1.058186   .1113913    -9.50   0.000    -1.276509   -.8398629
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

1107 .
1108 .
1109 . *xx summary of mediating effects: males only age and illw3  2
1110 . *xx           females: age
1111 .
1112 .
1113 .
1114 . * summary of sxlife moderator effects  none
1115 . scalar sxLifeMedMw3 = "age illw3"

1116 . scalar sxLifeMedFw3 = "age bf4 bf4m"

1117 .
1118 . * no sign main dose effect for males
1119 . * no male moderators
1120 . * 3 signif main effects in male main effect model
1121 .
1122 .
1123 . * no signif dose main effect for females
1124 . * 3 main female effects
1125 . * no significant female moderators
1126 .  matrix define HP2inthbMw3 = J(1,8, 0)

1127 .         matrix define HP2inthbFw3 = J(1,8, 0)

1128 . matrix colnames HP2inthbMw3 =  hypnum ptnum wave gender medsig numMAsig numM
     > odsig numMed
```

```
1129 . matrix colnames HP2inthbFw3 =  hypnum ptnum wave gender medsig numMAsig numM
> odsig numMed

1130 .     matrix define HP2inthbMw3 = (1, 2, 3, 1, 0, 3, 0, 2 )

1131 .         matrix define HP2inthbFw3 = (1, 2, 3, 2, 0, 3, 0, 3 )

1132 .         matrix rowname HP2inthbMw3 = HP2inthbM

1133 .         matrix rowname HP2inthbFw3 = HP2inthobF

1134 .         matlist HP2inthbMw3

             |        c1         c2         c3         c4         c5          c
> 6
-------------+-----------------------------------------------------------------
> --
   HP2inthbM |         1          2          3          1          0
> 3

             |        c7         c8
-------------+----------------------
   HP2inthbM |         0          2

1135 .         matlist HP2inthbFw3

             |        c1         c2         c3         c4         c5          c
> 6
-------------+-----------------------------------------------------------------
> --
  HP2inthobF |         1          2          3          2          0
> 3

             |        c7         c8
-------------+----------------------
  HP2inthobF |         0          3
```

```
1136 .         matrix define H1pt2w3 = ( HP2wkMw3 \ HP2wkFw3 \ HP2hmcrMw3 \ HP2hmcr
     > Fw3 \ HP2spMw3 ///
     >              \ HP2spFw3 \ HP2prbfamMw3 \ HP2prbfamFw3 \ HP2inthbMw3 \ HP2inth
     > bFw3 )

1137 .         matlist H1pt2w3

                  |        c1          c2          c3          c4          c5           c
     > 6
     -------------+---------------------------------------------------------------------------
     > --
               r1 |         1           2           3           1           0
     > 4
               r1 |         1           2           3           2           0
     > 1
               r1 |         1           2           3           1           0
     > 4
               r1 |         1           2           3           2           0
     > 2
         HP2spMw3 |         1           2           3           1           0
     > 2
         HP2spFw3 |         1           2           3           2           1
     > 5
       HP2prbfamM |         1           2           3           1           0
     > 5
       HP2prbfamF |         1           2           3           2           0
     > 2
        HP2inthbM |         1           2           3           1           0
     > 3
       HP2inthobF |         1           2           3           2           0
     > 3

                  |        c7          c8
     -------------+-----------------------
               r1 |         0           4
               r1 |         0           6
               r1 |         0           2
               r1 |         0           2
         HP2spMw3 |         0           1
         HP2spFw3 |         5           3
       HP2prbfamM |         0           1
       HP2prbfamF |         2           2
        HP2inthbM |         0           2
       HP2inthobF |         0           3
```

```
1138 .     matrix colnames H1pt2w3 =  hypnum ptnum wave gender medsig numMAsig numM
     > odsig numMed

1139 .     matrix rownames H1pt2w3 =   HP2wkMw3 HP2wkFw3 HP2hmcrMw3 HP2hmcrFw3 HP2s
     > pMw3 HP2spFw3 HP2prbfamMw3 HP2prbfamFw3 HP2inthbMw3 HP2inthbFw3

1140 .     matlist H1pt2w3

                   |    hypnum       ptnum        wave      gender      medsig   numMAsi
     > g
     --------------+-------------------------------------------------------------------
     > --
         HP2wkMw3 |         1           2           3           1           0
     > 4
         HP2wkFw3 |         1           2           3           2           0
     > 1
       HP2hmcrMw3 |         1           2           3           1           0
     > 4
       HP2hmcrFw3 |         1           2           3           2           0
     > 2
         HP2spMw3 |         1           2           3           1           0
     > 2
         HP2spFw3 |         1           2           3           2           1
     > 5
     HP2prbfamMw3 |         1           2           3           1           0
     > 5
     HP2prbfamFw3 |         1           2           3           2           0
     > 2
      HP2inthbMw3 |         1           2           3           1           0
     > 3
      HP2inthbFw3 |         1           2           3           2           0
     > 3

                  |  numModsig      numMed
     -------------+-----------------------
         HP2wkMw3 |          0           4
         HP2wkFw3 |          0           6
       HP2hmcrMw3 |          0           2
       HP2hmcrFw3 |          0           2
         HP2spMw3 |          0           1
         HP2spFw3 |          5           3
     HP2prbfamMw3 |          0           1
     HP2prbfamFw3 |          2           2
      HP2inthbMw3 |          0           2
      HP2inthbFw3 |          0           3
```

```
1141 .
1142 . *xxxxxxxxxxxxxxx  chunk 9  Dose=> vacation plans impactxxxxxxxxxxxxxxxxxxxx
     > xxxx
1143 . title "7. Hypothesis 1 pt 2 wave 3 dose vacation plans impact"


     ******************************************************************************
     > *
     ******************************************************************************
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     *****       7. Hypothesis 1 pt 2 wave 3 dose vacation plans impact       ****
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     *****                                        1 Jul 2012    20:40:45      ****
     > *
     ******************************************************************************
     > *
     ******************************************************************************
     > *



1144 .
1145 . cap gen hp2vacatn = HP2vacatn

1146 .
1147 . forvalues j=3/3 {
       2. title " Wave 3 Dose = >hp2vacatn 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 w3bf bf1 bf4 bf6 bf7 bf14 bf15 bf40
       6. local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
     > bf40
       7. di _skip(3)
       8.
```

```
1148 . di as input "Male model wave 3 dose-hp2vactn moderator model "
      9. di _skip(4)
     10. xi: logistic 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==1, coef nolog
     11.  di _skip(4)
     12.  title3 "trimmed hp2hmcare main effects models for H1 no direct dose effe
    > ct for male"
     13.  pwcorr hp2hmcare age  deaw3 shjobw3 bf7m shjobw3 havmilsq ///
    >    radhlw3 avgcumdosew3 if gender==1, sig obs sidak star(.05) listwise
     14. di _skip(1)
     15. di as input "For males hp2hmcare on wave3 and d3 is not signif "
     16. di _skip(1)
     17.   logistic hp2hmcare age  deaw3 shjobw3 bf7m  havmilsq ///
    >    radhlw3 avgcumdosew3 if ///
    >     gender==1, coef nolog
     18. }


    ********************************************************************************
    > *
    ********************************************************************************
    > *
    *****                                                                       ****
    > *
    *****                                                                       ****
    > *
    *****       Wave 3 Dose = >hp2vacatn main effects models for H1 pt2         ****
    > *
    *****                                                                       ****
    > *
    *****                                                                       ****
    > *
    *****                                                1 Jul 2012   20:40:45  ****
    > *
    ********************************************************************************
    > *
    ********************************************************************************
    > *
```

```
Male model wave 3 dose-hp2vactn moderator model

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
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: occ5w3 != 0 predicts failure perfectly
      occ5w3 dropped and 18 obs not used

note: occ6w3 != 0 predicts failure perfectly
      occ6w3 dropped and 4 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 19 obs not used

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

note: _Ieduc_6 omitted because of collinearity
note: occ8w3 omitted because of collinearity
note: marrw36 omitted because of collinearity
note: bf17 omitted because of collinearity
note: radhlw3 omitted because of collinearity
note: avgcumdosew3 omitted because of collinearity

Logistic regression                               Number of obs   =        286
                                                  LR chi2(45)     =     130.35
                                                  Prob > chi2     =     0.0000
Log likelihood = -52.374274                       Pseudo R2       =     0.5544
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1141267	.0450696	2.53	0.011	.025792	.2024615
_Ieduc_2	1.212945	1.630503	0.74	0.457	-1.982782	4.408672
_Ieduc_3	-1.181748	.8345653	-1.42	0.157	-2.817465	.4539703
_Ieduc_4	-.2703336	1.707405	-0.16	0.874	-3.616786	3.076119
_Ieduc_5	.0781642	.821705	0.10	0.924	-1.532348	1.688676
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w3	-13.38278	1622.421	-0.01	0.993	-3193.27	3166.504
occ2w3	-12.82938	1622.421	-0.01	0.994	-3192.717	3167.058
occ3w3	-12.16922	1622.422	-0.01	0.994	-3192.057	3167.719
occ4w3	-9.847245	1622.421	-0.01	0.995	-3189.735	3170.04

occ5w3	0	(omitted)				
occ6w3	0	(omitted)				
occ7w3	-10.21639	1622.421	-0.01	0.995	-3190.104	3169.671
occ8w3	0	(omitted)				
marrw31	2.471663	1.877772	1.32	0.188	-1.208702	6.152028
marrw32	3.882172	2.040109	1.90	0.057	-.116367	7.880711
marrw33	.7861586	1.848468	0.43	0.671	-2.836772	4.409089
marrw35	5.481699	2.097529	2.61	0.009	1.370617	9.592781
marrw36	0	(omitted)				
inc1w3	12.51469	1622.421	0.01	0.994	-3167.373	3192.402
inc2w3	14.55722	1622.421	0.01	0.993	-3165.329	3194.444
inc3w3	14.35316	1622.421	0.01	0.993	-3165.533	3194.24
inc4w3	15.92527	1622.422	0.01	0.992	-3163.963	3195.813
radhlw3	.0197321	.0147075	1.34	0.180	-.0090941	.0485583
havmil	.0234742	.0160068	1.47	0.143	-.0078985	.054847
avgcumdosew3	.1032883	.1755565	0.59	0.556	-.240796	.4473726
bf1	-.4769574	.3289335	-1.45	0.147	-1.121655	.1677405
bf4	-.1442369	.2873042	-0.50	0.616	-.7073429	.4188691
bf2	.0000186	.0002978	0.06	0.950	-.0005651	.0006023
bf4m	-.1956152	.2497206	-0.78	0.433	-.6850586	.2938281
bf5m	-.0071533	.0043294	-1.65	0.098	-.0156388	.0013321
bf7m	.0000185	.0010386	0.02	0.986	-.0020172	.0020542
bf8	-.0000173	.0000922	-0.19	0.851	-.0001981	.0001635
bf15m	0	(omitted)				
bf17	0	(omitted)				
bf20	.4362509	.3222411	1.35	0.176	-.1953299	1.067832
bf22	.0001349	.0003106	0.43	0.664	-.0004739	.0007437
bf29	0	(omitted)				
bf30	-.0009931	.0006553	-1.52	0.130	-.0022775	.0002912
bf40	.5185801	.3611964	1.44	0.151	-.1893518	1.226512
deaw3	.2097501	.3135963	0.67	0.504	-.4048875	.8243876
dvcew3	2.012022	1.543197	1.30	0.192	-1.012588	5.036632
sepaw3	-2.054184	1.443349	-1.42	0.155	-4.883097	.7747288
accdw3	.2022258	1.25899	0.16	0.872	-2.265349	2.669801
movew3	-4.177869	1.807922	-2.31	0.021	-7.721331	-.6344073
illw3	-.4549089	.4293751	-1.06	0.289	-1.296469	.3866508
shfamw3	.0141549	.0145895	0.97	0.332	-.0144399	.0427498
shhlw3	.004885	.011315	0.43	0.666	-.0172919	.0270619
shjobw3	-.0003857	.0112584	-0.03	0.973	-.0224516	.0216803
shrelaw3	-.008433	.0120996	-0.70	0.486	-.0321477	.0152817
suprtw3	.0050194	.0152005	0.33	0.741	-.0247729	.0348118
suchrw3	-.0175411	.0097951	-1.79	0.073	-.0367391	.0016569
havmilsq	-.000046	.0000341	-1.35	0.178	-.0001129	.0000209
radhlw3	0	(omitted)				
avgcumdosew3	0	(omitted)				
_cons	-25.70032	13.82795	-1.86	0.063	-52.80261	1.40197

Note: 8 failures and 0 successes completely determined.

```
title3 : trimmed hp2hmcare main effects models for H1 no direct dose effect fo
> r male
 1 Jul 2012
20:40:46
computer  Macintosh (Intel 64-bit)
folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests
> /h1pt2
Data file  chwide1jul2012.dta  currrently has  2402  variables and  703  obser
> vations
```

	hp2hmc~e	age	deaw3	shjobw3	bf7m	shjobw3	havmilsq
hp2hmcare	**1.0000**						
	340						
age	**0.2761***	**1.0000**					
	0.0000						
	340	**340**					
deaw3	**-0.0456**	**0.1402**	**1.0000**				
	1.0000	**0.2940**					
	340	**340**	**340**				
shjobw3	**-0.1006**	**-0.2840***	**-0.1099**	**1.0000**			
	0.9068	**0.0000**	**0.7935**				
	340	**340**	**340**	**340**			
bf7m	**-0.1339**	**-0.0182**	**0.1015**	**-0.0869**	**1.0000**		
	0.3860	**1.0000**	**0.8986**	**0.9848**			
	340	**340**	**340**	**340**	**340**		
shjobw3	**-0.1006**	**-0.2840***	**-0.1099**	**1.0000***	**-0.0869**	**1.0000**	
	0.9068	**0.0000**	**0.7935**	**0.0000**	**0.9848**		
	340	**340**	**340**	**340**	**340**	**340**	
havmilsq	**-0.0347**	**0.0207**	**0.0454**	**-0.0558**	**-0.0420**	**-0.0558**	**1.0000**
	1.0000	**1.0000**	**1.0000**	**1.0000**	**1.0000**	**1.0000**	
	340	**340**	**340**	**340**	**340**	**340**	**340**
radhlw3	**0.2838***	**0.3440***	**-0.0287**	**0.0799**	**0.1399**	**0.0799**	**-0.0586**
	0.0000	**0.0000**	**1.0000**	**0.9959**	**0.2988**	**0.9959**	**1.0000**
	340	**340**	**340**	**340**	**340**	**340**	**340**
avgcumdosew3	**0.0272**	**0.1187**	**0.0324**	**-0.0140**	**0.0339**	**-0.0140**	**-0.0471**
	1.0000	**0.6490**	**1.0000**	**1.0000**	**1.0000**	**1.0000**	**1.0000**
	340	**340**	**340**	**340**	**340**	**340**	**340**

	radhlw3	avgcu~w3
radhlw3	1.0000	
	340	
avgcumdosew3	0.0721	1.0000
	0.9994	
	340	340

For males hp2hmcare on wave3 and d3 is not signif

Logistic regression   Number of obs = 340
                                       LR chi2(7) = 52.51
                                       Prob > chi2 = 0.0000
Log likelihood = -146.61786   Pseudo R2 = 0.1519

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0355627	.0137739	2.58	0.010	.0085664	.062559
deaw3	-.1753451	.1955831	-0.90	0.370	-.558681	.2079907
shjobw3	-.0061002	.0041748	-1.46	0.144	-.0142827	.0020822
bf7m	-.0006241	.0002098	-2.97	0.003	-.0010353	-.0002129
havmilsq	-1.46e-06	2.84e-06	-0.51	0.608	-7.03e-06	4.11e-06
radhlw3	.0182143	.0044455	4.10	0.000	.0095012	.0269274
avgcumdosew3	.0012605	.0491638	0.03	0.980	-.0950988	.0976199
_cons	-3.220671	.8063703	-3.99	0.000	-4.801128	-1.640214

```
1149 .
1150 . scalar SigDoseVactnMw3 = "no"

1151 . scalar MainEffVactnMw3 = "age bf7m radhlw3 "
```

```
1152 .
1153 . local cn7:colnames(e(b))

1154 . di "`cn7'"
     age deaw3 shjobw3 bf7m havmilsq radhlw3 avgcumdosew3 _cons

1155 . local len7 = length("`cn7'")

1156 . di `len7'
     58

1157 . local len7b = `len7' - 6

1158 . di `len7b'
     52

1159 . local myvarlist = substr("`cn7'",1,`len7b')

1160 . di "`myvarlist'"
     age deaw3 shjobw3 bf7m havmilsq radhlw3 avgcumdosew3

1161 .
1162 . foreach var in `myvarlist' {
       2. cap gen `var'Xd3 = `var'*avgcumdosew3
       3. }

1163 .
1164 . title " Trimmed male main effects dose=> vacation plans  model"


     ******************************************************************************
     > *
     ******************************************************************************
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     *****       Trimmed male main effects dose=> vacation plans  model       ****
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     *****                                        1 Jul 2012    20:40:47  ****
     > *
     ******************************************************************************
     > *
     ******************************************************************************
```

```
> *

1165 . di as input "No sig main male dose main effects model"
     No sig main male dose main effects model

1166 . sw, pr(.1): logit hp2vacatn `myvarlist' if gender==1
                           begin with full model
     p = 0.8250 >= 0.1000  removing avgcumdosew3
     p = 0.4319 >= 0.1000  removing deaw3
     p = 0.4230 >= 0.1000  removing havmilsq
     p = 0.2153 >= 0.1000  removing shjobw3

     Logistic regression                               Number of obs   =        340
                                                       LR chi2(3)      =      38.31
                                                       Prob > chi2     =     0.0000
     Log likelihood = -105.99881                       Pseudo R2       =     0.1530
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0582498	.0159119	3.66	0.000	.027063	.0894366
radhlw3	.0163308	.0053758	3.04	0.002	.0057944	.0268671
bf7m	-.0003954	.0002402	-1.65	0.100	-.0008662	.0000754
_cons	-5.639649	.9231625	-6.11	0.000	-7.449014	-3.830284

```
1167 .
1168 .
1169 . local cn8:colnames(e(b))

1170 . di "`cn8'"
     age radhlw3 bf7m _cons

1171 . local len8 = length("`cn8'")
```

```
1172 . di `len7'
     58

1173 . local len8b = `len8' - 6

1174 . di `len8b'
     16

1175 . local myvarlist = substr("`cn8'",1,`len8b')

1176 . di "`myvarlist'"
     age radhlw3 bf7m

1177 .
1178 .
1179 .
1180 .  title4 "Trimmed male interaction dose=> vacation plans model"
     ──────────────────────────────────────────────────────────────────────────────
     Trimmed male interaction dose=> vacation plans model
     ──────────────────────────────────────────────────────────────────────────────

1181 .  logit hp2vacatn age radhlw3 ageXd3 bf7m avgcumdosew3 bf4m bf4mXd3 bf7mXd3 i
     > f gender==1

     Iteration 0:   log likelihood = -125.15243
     Iteration 1:   log likelihood =   -103.468
     Iteration 2:   log likelihood = -95.130161
     Iteration 3:   log likelihood = -94.528514
     Iteration 4:   log likelihood =  -94.47901
     Iteration 5:   log likelihood = -94.478195
     Iteration 6:   log likelihood = -94.478195

     Logistic regression                               Number of obs   =        340
                                                       LR chi2(8)      =      61.35
                                                       Prob > chi2     =     0.0000
     Log likelihood = -94.478195                       Pseudo R2       =     0.2451
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0800514	.0379791	2.11	0.035	.0056137	.1544891
radhlw3	-.0025156	.0070187	-0.36	0.720	-.0162721	.0112409
ageXd3	-.0428824	.0401478	-1.07	0.285	-.1215705	.0358058
bf7m	.0002096	.000436	0.48	0.631	-.0006449	.001064
avgcumdosew3	3.600094	3.230198	1.11	0.265	-2.730977	9.931165
bf4m	-.1155875	.069371	-1.67	0.096	-.2515523	.0203772
bf4mXd3	-.0793872	.0595624	-1.33	0.183	-.1961273	.037353
bf7mXd3	.0002138	.0002797	0.76	0.445	-.0003343	.000762
_cons	-4.31894	3.045103	-1.42	0.156	-10.28723	1.649352

```
Note: 1 failure and 0 successes completely determined.

1182 .
1183 .  scalar vactnModMw3 ="none"

1184 .
1185 .  di as input "Trimmed Female model wave 3 main effects dose-hp2vacatn model
     > "
     Trimmed Female model wave 3 main effects dose-hp2vacatn model

1186 .  forvalues j=3/3 {
       2.  local w3bf bf1 bf4 bf2 bf4m bf5m bf7m bf8 bf15m bf17 bf20 bf22 bf29 bf30
     >  bf40
       3.
1187 .   xi: logistic hp2vacatn age  radhlw`j' avgcumdosew`j'   ///
     >   deaw`j'  suchrw`j'   ///
     >     if gender==2, coef nolog difficult iterate(50)
       4.
1188 . }

Logistic regression                               Number of obs   =        363
                                                  LR chi2(5)      =      69.60
                                                  Prob > chi2     =     0.0000
Log likelihood = -132.71672                       Pseudo R2       =     0.2077
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0916152	.0157813	5.81	0.000	.0606844	.1225459
radhlw3	.0117344	.0050394	2.33	0.020	.0018573	.0216115
avgcumdosew3	.0985606	.0692713	1.42	0.155	-.0372087	.2343299
deaw3	.3433813	.158229	2.17	0.030	.0332581	.6535045
suchrw3	-.0061918	.0037117	-1.67	0.095	-.0134666	.0010831
_cons	-7.50211	.9350027	-8.02	0.000	-9.334682	-5.669539

```
1189 .
1190 . scalar SigDoseVactnMw3 = "no"

1191 .
1192 .  * summary of male moderating effects: no sign main dose effect in main effe
     > cts model
1193 .  *         no signif male moderators
1194 .  *         3 significant main effects in main effects model
1195 .
1196 .  * summary of female moderation main effects:  no signif main dose effect
1197 .  *                   3 signif main effects
1198 .
1199 . local cn9:colnames(e(b))

1200 . di "`cn9'"
     age radhlw3 avgcumdosew3 deaw3 suchrw3 _cons

1201 . local len9 = length("`cn9'")

1202 . di `len9'
     44

1203 . local len9b = `len9' - 6

1204 . di `len9b'
     38

1205 . local myvarlist = substr("`cn9'",1,`len9b')

1206 . di "`myvarlist'"
     age radhlw3 avgcumdosew3 deaw3 suchrw3

1207 .
1208 .
1209 . foreach var in `myvarlist' {
       2.   cap gen `var'Xd3 = `var'*avgcumdosew3
       3.   }
```

```
1210 .
1211 .
1212 . * female dose vacatn w3 models
1213 .
1214 . title4 "trimmed hp2vacatn wave3 main effects models for H1"
     ------------------------------------------------------------------------------
     trimmed hp2vacatn wave3 main effects models for H1
     ------------------------------------------------------------------------------

1215 . di as input "For females hp2vacatn on wave3"
     For females hp2vacatn on wave3

1216 . sw, pr(.1):logit hp2vacatn `myvarlist' if gender==2
                           begin with full model
     p = 0.1548 >= 0.1000  removing avgcumdosew3
     p = 0.1174 >= 0.1000  removing suchrw3

     Logistic regression                               Number of obs   =        363
                                                       LR chi2(3)      =      65.18
                                                       Prob > chi2     =     0.0000
     Log likelihood = -134.92371                       Pseudo R2       =     0.1946

     ------------------------------------------------------------------------------
        hp2vacatn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
              age |   .0872837   .0154104     5.66   0.000     .0570799    .1174875
          radhlw3 |   .0131054   .0049947     2.62   0.009      .003316    .0228948
            deaw3 |   .2791769   .1537034     1.82   0.069    -.0220763    .5804301
            _cons |  -7.430633   .9404734    -7.90   0.000    -9.273927   -5.587339
     ------------------------------------------------------------------------------

1217 . estat class

     Logistic model for hp2vacatn

                   -------- True --------
     Classified |         D            ~D  |      Total
     -----------+--------------------------+-----------
          +     |        15             5  |         20
          -     |        48           295  |        343
     -----------+--------------------------+-----------
        Total   |        63           300  |        363
```

```
Classified + if predicted Pr(D) >= .5
True D defined as hp2vacatn != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   23.81%
Specificity                     Pr( -|~D)   98.33%
Positive predictive value       Pr( D| +)   75.00%
Negative predictive value       Pr(~D| -)   86.01%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    1.67%
False - rate for true D         Pr( -| D)   76.19%
False + rate for classified +   Pr(~D| +)   25.00%
False - rate for classified -   Pr( D| -)   13.99%
--------------------------------------------------
Correctly classified                        85.40%
--------------------------------------------------
```

```
1218 . estat gof
```

```
Logistic model for hp2vacatn, goodness-of-fit test
--------------------------------------------------

       number of observations =       363
 number of covariate patterns =       291
            Pearson chi2(287) =       335.34
                  Prob > chi2 =         0.0261
```

```
1219 . fitstat
```

```
Measures of Fit for logit of hp2vacatn

Log-Lik Intercept Only:     -167.516   Log-Lik Full Model:         -134.924
D(359):                      269.847   LR(3):                        65.185
                                       Prob > LR:                     0.000
McFadden's R2:                 0.195   McFadden's Adj R2:             0.171
Maximum Likelihood R2:         0.164   Cragg & Uhler's R2:            0.273
McKelvey and Zavoina's R2:     0.341   Efron's R2:                    0.227
Variance of y*:                4.992   Variance of error:             3.290
Count R2:                      0.854   Adj Count R2:                  0.159
AIC:                           0.765   AIC*n:                       277.847
BIC:                       -1846.243   BIC':                        -47.501
```

```
1220 .
1221 . scalar SigDoseVactnFw3 = "no"

1222 . scalar MainEffVactnFw3 = "age radhlw3 deaw3"

1223 .
1224 . di as result " Full moderator model for females for dose=> Vacation plans"
      Full moderator model for females for dose=> Vacation plans

1225 . logit hp2vacatn age radhlw3 deaw3 suchrw3 avgcumdosew3 ageXd3 radhlw3Xd3 dea
     > w3Xd3  ///
     >     suchrw3Xd3 havmilsq if gender==2

     Iteration 0:   log likelihood =   -167.516
     Iteration 1:   log likelihood = -131.66933
     Iteration 2:   log likelihood = -127.22328
     Iteration 3:   log likelihood = -127.01792
     Iteration 4:   log likelihood = -127.01661
     Iteration 5:   log likelihood =  -127.0166

     Logistic regression                               Number of obs   =        363
                                                       LR chi2(10)     =      81.00
                                                       Prob > chi2     =     0.0000
     Log likelihood =  -127.0166                       Pseudo R2       =     0.2418
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1051773	.0237507	4.43	0.000	.0586268	.1517279
radhlw3	.0086474	.0071994	1.20	0.230	-.0054632	.0227581
deaw3	-.018111	.2299772	-0.08	0.937	-.4688582	.4326361
suchrw3	-.0131465	.0051799	-2.54	0.011	-.0232988	-.0029941
avgcumdosew3	-.4455554	1.249774	-0.36	0.721	-2.895067	2.003957
ageXd3	-.0067688	.0178685	-0.38	0.705	-.0417904	.0282529
radhlw3Xd3	.0045845	.0048868	0.94	0.348	-.0049935	.0141625
deaw3Xd3	.3320908	.1608104	2.07	0.039	.0169081	.6472735
suchrw3Xd3	.0055826	.0032326	1.73	0.084	-.0007533	.0119184
havmilsq	-3.31e-07	8.64e-07	-0.38	0.701	-2.02e-06	1.36e-06
_cons	-7.357805	1.47262	-5.00	0.000	-10.24409	-4.471523

```
1226 .
1227 . di as result "trimmed female moderator model for dose=> vacation plans"
     trimmed female moderator model for dose=> vacation plans

1228 . logit hp2vacatn age avgcumdosew3 suchrw3 deaw3 deaw3Xd3  if gender==2

     Iteration 0:   log likelihood =   -167.516
     Iteration 1:   log likelihood = -136.37785
     Iteration 2:   log likelihood = -133.24846
     Iteration 3:   log likelihood = -133.21681
     Iteration 4:   log likelihood = -133.21679
     Iteration 5:   log likelihood = -133.21679

     Logistic regression                               Number of obs   =        363
                                                       LR chi2(5)      =      68.60
                                                       Prob > chi2     =     0.0000
     Log likelihood = -133.21679                       Pseudo R2       =     0.2048
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0997666	.0154683	6.45	0.000	.0694493	.1300839
avgcumdosew3	.0469958	.0857324	0.55	0.584	-.1210366	.2150283
suchrw3	-.0068988	.0037456	-1.84	0.065	-.01424	.0004423
deaw3	.1355918	.2007115	0.68	0.499	-.2577956	.5289792
deaw3Xd3	.2112882	.1167631	1.81	0.070	-.0175632	.4401397
_cons	-7.069816	.8971072	-7.88	0.000	-8.828114	-5.311518

```
1229 .
1230 . scalar VacatnModFw3 = "none"

1231 . *xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
     > xxxx
1232 . cap gen hp2vactn = HP2vacatn

1233 . title4 "Chunk 9 HP2vacatn plans mediator models for males"

     Chunk 9 HP2vacatn plans mediator models for males
```

```
1234 .
1235 . * age is a mediator for males
1236 . glm age avgcumdosew3 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1330.6336

     Generalized linear models                          No. of obs      =        340
     Optimization     : ML                              Residual df     =        338
                                                        Scale parameter =   147.7142
     Deviance         =  49927.38549                    (1/df) Deviance =   147.7142
     Pearson          =  49927.38549                    (1/df) Pearson  =   147.7142

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

                                                        AIC             =   7.839021
     Log likelihood   = -1330.633586                    BIC             =    47957.2

     ------------------------------------------------------------------------------
                  |                 OIM
              age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew3 |   .5433648   .2472657     2.20   0.028      .058733    1.027997
            _cons |   48.52021   .7247376    66.95   0.000     47.09975    49.94067
     ------------------------------------------------------------------------------

1237 . 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.)

1238 .
1239 . * illness is a mediating effect for males = > vacatn for men
1240 . des illw3

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
illw3           double %8.0g                  Total number of illnesses
                                                experienced in time period
                                                1996-NOW

1241 . glm illw3 avgcumdosew3 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -461.99206

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  .8919217
Deviance         =   301.469521                    (1/df) Deviance =  .8919217
Pearson          =   301.469521                    (1/df) Pearson  =  .8919217

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

                                                   AIC             =  2.729365
Log likelihood   = -461.9920626                    BIC             = -1668.714

------------------------------------------------------------------------------
             |                 OIM
       illw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew3 |    .038211   .0192139     1.99   0.047     .0005524    .0758696
       _cons |   .4504952   .0563162     8.00   0.000     .3401176    .5608729
------------------------------------------------------------------------------
```

```
1242 . glm hp2vactn illw3 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  247.0817
     Iteration 2:   deviance =  245.9165
     Iteration 3:   deviance =  245.9101
     Iteration 4:   deviance =  245.9101
     Iteration 5:   deviance =  245.9101

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  245.9100555                    (1/df) Deviance =   .7275445
     Pearson          =  334.9802312                    (1/df) Pearson  =   .9910658

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

                                                        BIC             =  -1724.274

     ------------------------------------------------------------------------------
                  |                 EIM
        hp2vactn  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
           illw3  |   .1787158   .0693787     2.58   0.010     .0427362    .3146955
           _cons  |  -1.278417   .0876012   -14.59   0.000    -1.450112   -1.106721
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1243 .
1244 . des radhlw3

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     radhlw3         double %8.0g                  Self-perceived Chornobyl health
                                                     threat in wave 3
```

```
1245 . glm radhlw3 avgcumdosew3 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1695.1855

     Generalized linear models                          No. of obs      =        340
     Optimization     : ML                              Residual df     =        338
                                                        Scale parameter =   1261.052
     Deviance         =  426235.7205                    (1/df) Deviance =   1261.052
     Pearson          =  426235.7205                    (1/df) Pearson  =   1261.052

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

                                                        AIC             =   9.983444
     Log likelihood   = -1695.185473                    BIC             =   424265.5

     ------------------------------------------------------------------------------
                  |                 OIM
          radhlw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew3 |   .9606492   .7224692     1.33   0.184    -.4553645    2.376663
            _cons |   46.19995   2.117563    21.82   0.000      42.0496     50.3503
     ------------------------------------------------------------------------------

1246 . glm hp2vactn radhlw3 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  235.0568
     Iteration 2:   deviance =  230.1721
     Iteration 3:   deviance =  230.0122
     Iteration 4:   deviance =  230.0119
     Iteration 5:   deviance =  230.0119

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  230.0118626                    (1/df) Deviance =   .6805085
     Pearson          =  338.3882304                    (1/df) Pearson  =   1.001149

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

                                                        BIC             =  -1740.172
```

hp2vactn	Coef. (EIM)	Std. Err. (EIM)	z	P>|z|	[95% Conf.	Interval]
radhlw3	**.0115045**	**.0021825**	**5.27**	**0.000**	**.0072269**	**.0157822**
_cons	**-1.814894**	**.1529622**	**-11.86**	**0.000**	**-2.114694**	**-1.515093**

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

```
1247 .
1248 . title4 "HP2vacatn plans mediator models for females"
```

HP2vacatn plans mediator models for females

```
1249 .
1250 . * age is a mediator for females
1251 . glm age avgcumdosew3 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood =  -1408.064

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   137.7687
Deviance         =  49734.51399                    (1/df) Deviance =   137.7687
Pearson          =  49734.51399                    (1/df) Pearson  =   137.7687

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

                                                   AIC             =   7.768948
Log likelihood   = -1408.06405                     BIC             =   47606.63
```

age	Coef. (OIM)	Std. Err. (OIM)	z	P>|z|	[95% Conf.	Interval]
avgcumdosew3	**1.058366**	**.3512614**	**3.01**	**0.003**	**.3699069**	**1.746826**
_cons	**48.94293**	**.7468173**	**65.54**	**0.000**	**47.47919**	**50.40666**

```
1252 . 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.)

1253 .
1254 . * illness is a mediating effect for females = > vacatn
1255 . des illw3

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     illw3           double %8.0g                  Total number of illnesses
                                                     experienced in time period
                                                     1996-NOW
```

```
1256 . glm illw3 avgcumdosew3 if gender==2, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -562.81042

     Generalized linear models                          No. of obs      =        363
     Optimization     : ML                              Residual df     =        361
                                                        Scale parameter =   1.308042
     Deviance         =  472.2033151                    (1/df) Deviance =   1.308042
     Pearson          =  472.2033151                    (1/df) Pearson  =   1.308042

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

                                                        AIC             =   3.111903
     Log likelihood   = -562.8104237                    BIC             =  -1655.676

     ------------------------------------------------------------------------------
                  |                 OIM
            illw3 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew3 |   .1284565   .0342268     3.75   0.000     .0613733    .1955398
            _cons |   .5563644   .0727696     7.65   0.000     .4137387    .6989902
     ------------------------------------------------------------------------------

1257 . glm hp2vactn illw3 if gender==2, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  334.6961
     Iteration 2:   deviance =  334.6441
     Iteration 3:   deviance =  334.6441
     Iteration 4:   deviance =  334.6441

     Generalized linear models                          No. of obs      =        363
     Optimization     : MQL Fisher scoring              Residual df     =        361
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =   334.644123                    (1/df) Deviance =    .926992
     Pearson          =  362.8044598                    (1/df) Pearson  =   1.004999

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

                                                        BIC             =  -1793.235
```

```
                              EIM
    hp2vactn        Coef.   Std. Err.       z    P>|z|      [95% Conf. Interval]

       illw3      .041243   .0622857     0.66   0.508     -.0808348    .1633209
       _cons    -.9706284   .0880746   -11.02   0.000     -1.143252   -.7980053

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

1258 .
1259 . * radhlw3 is a mediating effect for females => vactn
1260 . des radhlw3

              storage  display     value
variable name   type   format      label      variable label

radhlw3         double %8.0g                  Self-perceived Chornobyl health
                                                threat in wave 3

1261 . glm radhlw3 avgcumdosew3 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1798.7074

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  1185.454
Deviance         =  427948.9522                    (1/df) Deviance =  1185.454
Pearson          =  427948.9522                    (1/df) Pearson  =  1185.454

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

                                                   AIC             =  9.921253
Log likelihood   = -1798.707367                    BIC             =  425821.1

                              OIM
     radhlw3        Coef.   Std. Err.       z    P>|z|      [95% Conf. Interval]

avgcumdosew3     2.751602    1.03038     2.67   0.008      .7320943     4.77111
       _cons     57.70689   2.190692    26.34   0.000      53.41321    62.00057
```

```
1262 . glm hp2vactn radhlw3 if gender==2, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =   316.824
     Iteration 2:   deviance =  314.9168
     Iteration 3:   deviance =   314.905
     Iteration 4:   deviance =   314.905
     Iteration 5:   deviance =   314.905

     Generalized linear models                          No. of obs      =        363
     Optimization     : MQL Fisher scoring              Residual df     =        361
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  314.9050287                    (1/df) Deviance =   .8723131
     Pearson          =  371.6251351                    (1/df) Pearson  =   1.029433

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

                                                        BIC             =  -1812.974

     ------------------------------------------------------------------------------
                  |                 EIM
        hp2vactn  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
         radhlw3  |   .0106148   .0023181     4.58   0.000     .0060715    .0151582
           _cons  |  -1.651184    .179583    -9.19   0.000    -2.003161   -1.299208
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1263 .
1264 .  * summary of male moderating effects: no sign main dose effect in main effe
     > cts model
1265 .  *          no signif male moderators
1266 .  *          3 significant main effects in main effects model
1267 .
1268 . scalar VactnMedMw3 = "age illw3"

1269 . scalar VactnMedFw3 = "age illw3 radhlw3"
```

```
1270 .
1271 . *xx summary of moderator effects for females:
1272 .     * no signif main dose effect
1273 .     * 3 signif main effects in main effect model
1274 .     * 1 moderator: deaw3Xd3
1275 . title4 "7. SUMMARY MATRIX of dose - vacation plans impact"
     ------------------------------------------------------------------------------
     7. SUMMARY MATRIX of dose - vacation plans impact
     ------------------------------------------------------------------------------

1276 . set more off

1277 .   matrix define HP2vactnMw3 = J(1,8, 0)

1278 .         matrix define HP2vactnFw3 = J(1,8, 0)

1279 . matrix colnames HP2vactnMw3=  hypnum ptnum wave gender medsig numMAsig numMo
     > dsig numMed

1280 . matrix colnames HP2vactnFw3=  hypnum ptnum wave gender medsig numMAsig numMo
     > dsig numMed

1281 .     matrix define HP2vactnMw3= (1, 2, 3, 1, 0, 3, 0, 2 )

1282 .         matrix define HP2vactnFw3= (1, 2, 3, 2, 0, 3, 1, 3 )

1283 .         matrix rowname HP2vactnMw3 = HP2vactnM

1284 .         matrix rowname HP2vactnFw3 = HP2vactnF

1285 .         matlist HP2vactnMw3

             |        c1          c2          c3          c4          c5          c
     > 6
     -------------+------------------------------------------------------------------
     > --
       HP2vactnM |         1           2           3           1           0
     > 3

             |        c7          c8
     -------------+------------------------
       HP2vactnM |         0           2
```

```
1286 .         matlist HP2vactnFw3

             |        c1         c2         c3         c4         c5          c
> 6
-------------+-----------------------------------------------------------------
> --
    HP2vactnF |         1          2          3          2          0
> 3

             |        c7         c8
-------------+-----------------------
    HP2vactnF |         1          3

1287 . matrix define H1pt2w3=(HP2wkMw3 \ HP2wkFw3 \ HP2hmcrMw3 \ HP2hmcrFw3 \ HP2sp
     > Mw3 \ HP2spFw3 \ HP2prbfamMw3 \ HP2prbfamFw3 \ HP2inthbMw3 \ HP2inthbFw3 \ H
     > P2vactnMw3 \ HP2vactnFw3 )

1288 .
1289 .         matlist H1pt2w3

             |        c1         c2         c3         c4         c5          c
> 6
-------------+-----------------------------------------------------------------
> --
          r1 |         1          2          3          1          0
> 4
          r1 |         1          2          3          2          0
> 1
          r1 |         1          2          3          1          0
> 4
          r1 |         1          2          3          2          0
> 2
     HP2spMw3 |         1          2          3          1          0
> 2
     HP2spFw3 |         1          2          3          2          1
> 5
   HP2prbfamM |         1          2          3          1          0
> 5
   HP2prbfamF |         1          2          3          2          0
> 2
    HP2inthbM |         1          2          3          1          0
> 3
   HP2inthobF |         1          2          3          2          0
> 3
    HP2vactnM |         1          2          3          1          0
> 3
    HP2vactnF |         1          2          3          2          0
> 3
```

```
             |        c7          c8
-------------+-------------------------
          r1 |         0           4
          r1 |         0           6
          r1 |         0           2
          r1 |         0           2
    HP2spMw3 |         0           1
    HP2spFw3 |         5           3
  HP2prbfamM |         0           1
  HP2prbfamF |         2           2
   HP2inthbM |         0           2
  HP2inthobF |         0           3
   HP2vactnM |         0           2
   HP2vactnF |         1           3

1290 .     matrix colnames H1pt2w3 =  hypnum ptnum wave gender medsig numMAsig numM
     > odsig numMed

1291 . matrix rownames H1pt2w3 =HP2wkMw3 HP2wkFw3 HP2hmcrMw3 HP2hmcrFw3 HP2socprbMw
     > 3 HP2socprbFw3 HP2prbfamMw3 HP2prbfamFw3 HP2inthbMw3 HP2inthbFw3 HP2vacatnMw
     > 3 HP2vacatnFw3

1292 .     matlist H1pt2w3

             |    hypnum       ptnum        wave      gender      medsig    numMAsi
     > g
-------------+------------------------------------------------------------------
     > --
    HP2wkMw3 |         1           2           3           1           0
     > 4
    HP2wkFw3 |         1           2           3           2           0
     > 1
  HP2hmcrMw3 |         1           2           3           1           0
     > 4
  HP2hmcrFw3 |         1           2           3           2           0
     > 2
HP2socprbMw3 |         1           2           3           1           0
     > 2
HP2socprbFw3 |         1           2           3           2           1
     > 5
HP2prbfamMw3 |         1           2           3           1           0
     > 5
HP2prbfamFw3 |         1           2           3           2           0
     > 2
 HP2inthbMw3 |         1           2           3           1           0
     > 3
 HP2inthbFw3 |         1           2           3           2           0
     > 3
HP2vacatnMw3 |         1           2           3           1           0
```

```
> 3
HP2vacatnFw3 |          1          2          3          2          0
> 3
```

	numModsig	numMed
HP2wkMw3	0	4
HP2wkFw3	0	6
HP2hmcrMw3	0	2
HP2hmcrFw3	0	2
HP2socprbMw3	0	1
HP2socprbFw3	5	3
HP2prbfamMw3	0	1
HP2prbfamFw3	2	2
HP2inthbMw3	0	2
HP2inthbFw3	0	3
HP2vacatnMw3	0	2
HP2vacatnFw3	1	3

```
.
.
.
.
.
.
. sjlog close, replace
```