```
. set seed 1010101

. set matsize 11000

.
.
. *******
.
. *   This script requires pre-installation of spost2 by J. Scott Long for fit
> stat command
. *   It also requires installation of title2.ado, title3.ado
. *
. *      for the fitstat command to function
. ******
.
. global User  "Robert Alan Yaffee"

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

```
. *  This approach identifies the moderating variables for our path analysis.
>    We analyze our
. *     final models for congruence with regression assumptions with the rdiag
>  program for a validity assessment
.
. *---------------------------------------------------------------------------
> -------------------------------
.
. *----------- Organization of the program -----------------------------------
> ---------------------------------------
. *  main effects regresssions are run for all part 1 health profile subscales
>  except that of emotional
. *    reaction for both males and females separately
. *  these models are trimmed with backward elimination to determine whether t
> he main effect of avg cumulative dose
. *     is significant for that wave
. *   If the main effect of average cumulative dose for that wave is not stati
> stically significant with the
. *     covariates controlled we do not go further along that path
. *   If the main effect of average cumulative dose for that wave is statistic
> ally significant, we trim the
. *     model to a p = .1
. *   If average cumulative dose is not significant, we stop
. *   If average cumulative dose is significant we perform a hierarchical regr
> ession with interactions between dose
. *      and other significant main effects
. *   We proceed to test for mediating effects of those other significant expl
> anatory variable
.
. ***-------------------------------------------------------------------------
> -----------------------------------------
.
. * Part 2 Nottingham subscales
. *  1: hp2work
. *  2: hp2hmcare
. *  3: hp2probsoc
. *  4: hp2pbfhm
```

```
54 . *  5: hp2sexlife
55 . *  6: hp2inthob
56 . *  7: hp2vacatn
57 .
58 . local dvwhole HP2work-HP2vacatn

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

60 .
61 .
62 .
63 . *************************************
64 . di "$User"
   Robert Alan Yaffee

65 .
66 . title "Testing Hypothesis 1 part 2  wave 1"


   ******************************************************************************
   > *
   ******************************************************************************
   > *
   *****                                                                    ****
   > *
   *****                                                                    ****
   > *
   *****                Testing Hypothesis 1 part 2  wave 1                  ****
   > *
   *****                                                                    ****
   > *
   *****                                                                    ****
   > *
   *****                                            18 Jun 2012    18:10:40  ****
   > *
   ******************************************************************************
   > *
   ******************************************************************************
   > *
```

```
67 .
68 . cd /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests/h1
   > pt2
   /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/h1tests/h1pt2

69 . use chwide16june2012, clear
   (Zero for missing on all icdx)

70 . cd /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/H1tests/h1
   > pt2
   /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/h1tests/h1pt2

71 .
72 .
73 . di "{hline}"
   ───────────────────────────────────────────────────────────────────────────────

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

75 . title2 "Chunk 1 Hyp 1:radiation dose and Nottingham Health profile subscales
   > "
   ───────────────────────────────────────────────────────────────────────────────

   title2: Chunk 1 Hyp 1:radiation dose and Nottingham Health profile subscales
                                           Date and time:  18 Jun 2012    18:10:41
                                           Working directory:  /Users/robertyaffee
   > /Documents/data/research/chwk/phase3/Htests/h1tests/h1pt2
                                           Stata data file:  chwide16june2012.dta
   >  has  2373  variables and  703  observations

   Chunk 1 Hyp 1:radiation dose and Nottingham Health profile subscales
   ───────────────────────────────────────────────────────────────────────────────

76 .
77 .
78 . //  there is substantial intercorrelation among the items warranting a
79 . //  multivariate regression model
```

```
80 . cap dummies educ

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

82 .
83 . * These variables are substantially correlated
84 . 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
             |
```

```
 85 .
 86 . cap gen havmilsq = havmil^2

 87 .
 88 . cap rename Havmil havmil

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

 95 . local w2bf bf1 bf4 bf6 bf7 bf14 bf15 bf40

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

 97 .
 98 . *-----------------------------------------------------------------------------
    > ----
 99 . *  Hypothesis 1   Part 2 wave 1 tests    male and female
100 . * endogneous Nottingham pt 2 subscales: HP2work HP2hmcare HP2probsoc HP2pbfh
    > m ///
    > *                                       HP2sxlife HP2inthob HP2vacatn
101 . *  structure of models
102 . *    1. general models on all Pt 2 subscales with all potential confounders
103 . *    2. trimmed models on all Pt 2 subscales with from all potential confoun
    > ders
104 . *    3. from trimmed models examination of possible moderator variables
105 . *    4. from trimmed models examination of possible mediator variables
106 . *    5. Summary analysis and model evaluation of final models only
107 . *   program is divided into 8 chunks one a general model and 1 for each
108 . *       endogenous variable
109 . *-----------------------------------------------------------------------------
    > ----
110 . * Chunk 1  General models for all part 2 of Nottingham Health Profile
```

```
111 .
112 .
113 . forvalues j=1/1 {
      2. des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      3.   }

              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
marrw11         byte   %8.0g                  marrw1==1. single
marrw12         byte   %8.0g                  marrw1==2. cohabitating
marrw13         byte   %8.0g                  marrw1==3. married
marrw14         byte   %8.0g                  marrw1==4. separated
marrw15         byte   %8.0g                  marrw1==5. divorced
marrw16         byte   %8.0g                  marrw1==6. widowed
inc1w1          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1986
inc2w1          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1986
inc3w1          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1986
inc4w1          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1986
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)
```

```
114 .
115 .
116 . title " H1: Test of hypothesis 1: Pt 2 wave 1 general models"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****        H1: Test of hypothesis 1: Pt 2 wave 1 general models        ****
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                         18 Jun 2012    18:10:41    ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *



117 . forvalues j=1/1 {
      2. set more off
      3.   foreach var in HP2work HP2hmcare HP2probsoc HP2pbfhm HP2sxlife HP2intho
    > b ///
    >       HP2vacatn  {
      4.       forvalues k=1/2 {
      5. local w1bf bf1 bf4 bf9 bf10 bf11 bf4m bf15m bf20 bf22 bf30 bf40
      6. di _skip(4)
      7.
```

```
118 . title4 "Full main model for `var' for wave= `j' "
      8. di _skip(4)
      9. title4 "chunk 2 H1 test:Gender= `k'  model Wave =  `j' for `e(depvar)' "
     10. di _skip(4)
     11. title4 "Full Nottingham Part 2 `var' subscale models" "wave `j' for gende
    > r==`k'"
     12.
119 .       xi: logit `var' age  ///
    >                 radhlw`j'  bf1 bf20   ///
    >                  deaw`j'   ///
    >               shhlw`j' shjobw`j' shrelaw`j' suprtw`j'  ///
    >                    if gender==`k',  difficult iterate(500) nolog
     13.                        estat class
     14.                        estat gof
     15.                        fitstat
     16. }
     17. }
     18. }
```

Full main model for HP2work for wave= 1

chunk 2 H1 test:Gender= 1 model Wave = 1 for hp2vactn

Full Nottingham Part 2 HP2work subscale models

```
Logistic regression                               Number of obs   =        340
                                                  LR chi2(9)      =      31.46
                                                  Prob > chi2     =     0.0002
Log likelihood = -157.14168                       Pseudo R2       =     0.0910
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0308396	.0127975	2.41	0.016	.005757	.0559223
radhlw1	.0011812	.0045458	0.26	0.795	-.0077284	.0100908
bf1	-.0366332	.0469292	-0.78	0.435	-.1286127	.0553463
bf20	.0453017	.0444164	1.02	0.308	-.0417528	.1323562
deaw1	-.0051463	.2892671	-0.02	0.986	-.5720994	.5618067
shhlw1	.0001023	.0055692	0.02	0.985	-.0108131	.0110176
shjobw1	.0091313	.0050059	1.82	0.068	-.0006801	.0189427
shrelaw1	.0025607	.0044585	0.57	0.566	-.0061777	.0112992
suprtw1	.0026986	.0050591	0.53	0.594	-.0072171	.0126143
_cons	-5.679852	1.827319	-3.11	0.002	-9.261332	-2.098372

Logistic model for HP2work

Classified	True D	True ~D	Total
+	**3**	**4**	**7**
-	**67**	**266**	**333**
Total	**70**	**270**	**340**

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

Sensitivity	Pr(+| D)	**4.29%**
Specificity	Pr(-|~D)	**98.52%**
Positive predictive value	Pr(D| +)	**42.86%**
Negative predictive value	Pr(~D| -)	**79.88%**
False + rate for true ~D	Pr(+|~D)	**1.48%**
False - rate for true D	Pr(-| D)	**95.71%**
False + rate for classified +	Pr(~D| +)	**57.14%**
False - rate for classified -	Pr(D| -)	**20.12%**
Correctly classified		**79.12%**

Logistic model for HP2work, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       333
            Pearson chi2(323) =       339.90
                  Prob > chi2 =         0.2483
```

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

Log-Lik Intercept Only:	**-172.873**	Log-Lik Full Model:	**-157.142**
D(330):	**314.283**	LR(9):	**31.462**
		Prob > LR:	**0.000**
McFadden's R2:	**0.091**	McFadden's Adj R2:	**0.033**
Maximum Likelihood R2:	**0.088**	Cragg & Uhler's R2:	**0.138**
McKelvey and Zavoina's R2:	**0.183**	Efron's R2:	**0.092**
Variance of y*:	**4.026**	Variance of error:	**3.290**
Count R2:	**0.791**	Adj Count R2:	**-0.014**
AIC:	**0.983**	AIC*n:	**334.283**
BIC:	**-1609.269**	BIC':	**20.998**

Full main model for HP2work for wave= 1

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

Full Nottingham Part 2 HP2work subscale models

Logistic regression

Number of obs	=	**361**
LR chi2(**9**)	=	**47.56**
Prob > chi2	=	**0.0000**
Pseudo R2	=	**0.1154**

Log likelihood = **-182.19002**

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0643256**	**.0124013**	**5.19**	**0.000**	**.0400194**	**.0886317**
radhlw1	**.0047546**	**.0039694**	**1.20**	**0.231**	**-.0030253**	**.0125344**
bf1	**.0004355**	**.0252089**	**0.02**	**0.986**	**-.0489731**	**.049844**
bf20	**.0056912**	**.0216782**	**0.26**	**0.793**	**-.0367972**	**.0481796**
deaw1	**-.1112272**	**.1659119**	**-0.67**	**0.503**	**-.4364086**	**.2139542**
shhlw1	**.0037005**	**.0053166**	**0.70**	**0.486**	**-.0067199**	**.0141209**
shjobw1	**.0025496**	**.0049315**	**0.52**	**0.605**	**-.0071159**	**.0122152**
shrelaw1	**-.0059036**	**.0043278**	**-1.36**	**0.173**	**-.0143859**	**.0025787**
suprtw1	**.0007605**	**.0038753**	**0.20**	**0.844**	**-.006835**	**.008356**
_cons	**-5.262441**	**1.017784**	**-5.17**	**0.000**	**-7.257261**	**-3.26762**

Logistic model for HP2work

```
              ———————— True ————————
Classified |          D            ~D  |      Total
-----------+---------------------------+-----------
     +     |         24            12  |         36
     -     |         69           256  |        325
-----------+---------------------------+-----------
   Total   |         93           268  |        361

Classified + if predicted Pr(D) >= .5
True D defined as HP2work != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   25.81%
Specificity                     Pr( -|~D)   95.52%
Positive predictive value       Pr( D| +)   66.67%
Negative predictive value       Pr(~D| -)   78.77%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    4.48%
False - rate for true D         Pr( -| D)   74.19%
False + rate for classified +   Pr(~D| +)   33.33%
False - rate for classified -   Pr( D| -)   21.23%
--------------------------------------------------
Correctly classified                        77.56%
--------------------------------------------------
```

Logistic model for HP2work, goodness-of-fit test

```
       number of observations =       361
 number of covariate patterns =       359
            Pearson chi2(349) =       374.34
                  Prob > chi2 =         0.1680

Measures of Fit for logit of HP2work

Log-Lik Intercept Only:     -205.969    Log-Lik Full Model:          -182.190
D(351):                      364.380    LR(9):                         47.557
                                        Prob > LR:                      0.000
McFadden's R2:                 0.115    McFadden's Adj R2:              0.067
Maximum Likelihood R2:         0.123    Cragg & Uhler's R2:             0.181
McKelvey and Zavoina's R2:     0.198    Efron's R2:                     0.141
Variance of y*:                4.100    Variance of error:              3.290
Count R2:                      0.776    Adj Count R2:                   0.129
AIC:                           1.065    AIC*n:                        384.380
BIC:                       -1702.616    BIC':                           5.443
```

Full main model for HP2hmcare for wave= 1

---

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

Full Nottingham Part 2 HP2hmcare subscale models

Logistic regression	Number of obs	=	**340**
	LR chi2(**9**)	=	**46.85**
	Prob > chi2	=	**0.0000**
Log likelihood = **-149.44808**	Pseudo R2	=	**0.1355**

HP2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.052336**	**.0131829**	**3.97**	**0.000**	**.026498**	**.0781739**
radhlw1	**.0043343**	**.0047058**	**0.92**	**0.357**	**-.0048889**	**.0135576**
bf1	**-.0149427**	**.033119**	**-0.45**	**0.652**	**-.0798548**	**.0499693**
bf20	**.0144084**	**.0298855**	**0.48**	**0.630**	**-.0441661**	**.0729829**
deaw1	**-.1108583**	**.2961578**	**-0.37**	**0.708**	**-.6913169**	**.4696004**
shhlw1	**.0046663**	**.0057067**	**0.82**	**0.414**	**-.0065187**	**.0158513**
shjobw1	**.0132629**	**.0053838**	**2.46**	**0.014**	**.0027109**	**.023815**
shrelaw1	**-.0051278**	**.0047295**	**-1.08**	**0.278**	**-.0143976**	**.0041419**
suprtw1	**-.0070556**	**.0059804**	**-1.18**	**0.238**	**-.018777**	**.0046658**
_cons	**-5.506222**	**1.326203**	**-4.15**	**0.000**	**-8.105532**	**-2.906912**

Logistic model for HP2hmcare

	True		
Classified	D	~D	Total
+	**15**	**6**	**21**
-	**55**	**264**	**319**
Total	**70**	**270**	**340**

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2hmcare != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   21.43%
Specificity                     Pr( -|~D)   97.78%
Positive predictive value       Pr( D| +)   71.43%
Negative predictive value       Pr(~D| -)   82.76%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    2.22%
False - rate for true D         Pr( -| D)   78.57%
False + rate for classified +   Pr(~D| +)   28.57%
False - rate for classified -   Pr( D| -)   17.24%
--------------------------------------------------
Correctly classified                        82.06%
--------------------------------------------------
```

Logistic model for HP2hmcare, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       333
            Pearson chi2(323) =       340.89
                  Prob > chi2 =         0.2365
```

Measures of Fit for **logit** of **HP2hmcare**

```
Log-Lik Intercept Only:     -172.873    Log-Lik Full Model:           -149.448
D(330):                      298.896    LR(9):                          46.850
                                        Prob > LR:                       0.000
McFadden's R2:                 0.136    McFadden's Adj R2:               0.078
Maximum Likelihood R2:         0.129    Cragg & Uhler's R2:              0.202
McKelvey and Zavoina's R2:     0.237    Efron's R2:                      0.150
Variance of y*:                4.310    Variance of error:               3.290
Count R2:                      0.821    Adj Count R2:                    0.129
AIC:                           0.938    AIC*n:                         318.896
BIC:                       -1624.656    BIC':                            5.611
```

Full main model for HP2hmcare for wave= 1

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

Full Nottingham Part 2 HP2hmcare subscale models

Logistic regression	Number of obs	=	**361**
	LR chi2(**9**)	=	**81.82**
	Prob > chi2	=	**0.0000**
Log likelihood = **-191.97101**	Pseudo R2	=	**0.1757**

HP2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0920059**	**.0127833**	**7.20**	**0.000**	**.0669511**	**.1170607**
radhlw1	**.0020253**	**.0038466**	**0.53**	**0.599**	**-.0055139**	**.0095645**
bf1	**-.00663**	**.0212107**	**-0.31**	**0.755**	**-.0482022**	**.0349423**
bf20	**-.0001616**	**.0177132**	**-0.01**	**0.993**	**-.0348789**	**.0345556**
deaw1	**-.084969**	**.1571368**	**-0.54**	**0.589**	**-.3929515**	**.2230135**
shhlw1	**-.0017213**	**.0052283**	**-0.33**	**0.742**	**-.0119686**	**.0085261**
shjobw1	**.0107311**	**.0048545**	**2.21**	**0.027**	**.0012164**	**.0202457**
shrelaw1	**-.0074675**	**.0042372**	**-1.76**	**0.078**	**-.0157724**	**.0008373**
suprtw1	**-.0008664**	**.0038272**	**-0.23**	**0.821**	**-.0083676**	**.0066348**
_cons	**-5.472133**	**.9016353**	**-6.07**	**0.000**	**-7.239306**	**-3.70496**

Logistic model for HP2hmcare

	True		
Classified	D	~D	Total
+	**62**	**28**	**90**
-	**63**	**208**	**271**
Total	**125**	**236**	**361**

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

Sensitivity	Pr(+| D)	**49.60%**
Specificity	Pr(-|~D)	**88.14%**
Positive predictive value	Pr(D| +)	**68.89%**
Negative predictive value	Pr(~D| -)	**76.75%**
False + rate for true ~D	Pr(+|~D)	**11.86%**
False - rate for true D	Pr(-| D)	**50.40%**
False + rate for classified +	Pr(~D| +)	**31.11%**
False - rate for classified -	Pr(D| -)	**23.25%**
Correctly classified		**74.79%**

Logistic model for HP2hmcare, goodness-of-fit test

number of observations =	**361**
number of covariate patterns =	**359**
Pearson chi2(**349**) =	**375.75**
Prob > chi2 =	**0.1555**

Measures of Fit for **logit** of **HP2hmcare**

Log-Lik Intercept Only:	**-232.881**	Log-Lik Full Model:	**-191.971**
D(351):	**383.942**	LR(9):	**81.821**
		Prob > LR:	**0.000**
McFadden's R2:	**0.176**	McFadden's Adj R2:	**0.133**
Maximum Likelihood R2:	**0.203**	Cragg & Uhler's R2:	**0.280**
McKelvey and Zavoina's R2:	**0.288**	Efron's R2:	**0.223**
Variance of y*:	**4.623**	Variance of error:	**3.290**
Count R2:	**0.748**	Adj Count R2:	**0.272**
AIC:	**1.119**	AIC*n:	**403.942**
BIC:	**-1683.054**	BIC':	**-28.821**

Full main model for HP2probsoc for wave= 1

---

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

Full Nottingham Part 2 HP2probsoc subscale models

Logistic regression	Number of obs	=	**340**
	LR chi2(**9**)	=	**66.20**
	Prob > chi2	=	**0.0000**
Log likelihood = **-92.051568**	Pseudo R2	=	**0.2645**

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.065801**	**.0176318**	**3.73**	**0.000**	**.0312434**	**.1003586**
radhlw1	**.004144**	**.0061988**	**0.67**	**0.504**	**-.0080054**	**.0162935**
bf1	**.0313968**	**.0422548**	**0.74**	**0.457**	**-.051421**	**.1142146**
bf20	**-.0193584**	**.0374978**	**-0.52**	**0.606**	**-.0928527**	**.0541359**
deaw1	**-.5581614**	**.4525925**	**-1.23**	**0.217**	**-1.445226**	**.3289037**
shhlw1	**.0137667**	**.0070908**	**1.94**	**0.052**	**-.000131**	**.0276644**
shjobw1	**.0236604**	**.0075625**	**3.13**	**0.002**	**.0088381**	**.0384826**
shrelaw1	**-.0149185**	**.006252**	**-2.39**	**0.017**	**-.0271722**	**-.0026648**
suprtw1	**.0010509**	**.0069016**	**0.15**	**0.879**	**-.012476**	**.0145778**
_cons	**-7.048599**	**1.70409**	**-4.14**	**0.000**	**-10.38855**	**-3.708644**

Logistic model for HP2probsoc

Classified	True D	True ~D	Total
+	**13**	**0**	**13**
-	**28**	**299**	**327**
Total	**41**	**299**	**340**

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

Sensitivity	Pr(+| D)	**31.71%**
Specificity	Pr(-|~D)	**100.00%**
Positive predictive value	Pr(D| +)	**100.00%**
Negative predictive value	Pr(~D| -)	**91.44%**
False + rate for true ~D	Pr(+|~D)	**0.00%**
False - rate for true D	Pr(-| D)	**68.29%**
False + rate for classified +	Pr(~D| +)	**0.00%**
False - rate for classified -	Pr(D| -)	**8.56%**
Correctly classified		**91.76%**

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       333
            Pearson chi2(323) =       450.80
                  Prob > chi2 =         0.0000
```

Measures of Fit for **logit** of **HP2probsoc**

Log-Lik Intercept Only:	**-125.152**	Log-Lik Full Model:	**-92.052**
D(330):	**184.103**	LR(9):	**66.202**
		Prob > LR:	**0.000**
McFadden's R2:	**0.264**	McFadden's Adj R2:	**0.185**
Maximum Likelihood R2:	**0.177**	Cragg & Uhler's R2:	**0.340**
McKelvey and Zavoina's R2:	**0.458**	Efron's R2:	**0.278**
Variance of y*:	**6.073**	Variance of error:	**3.290**
Count R2:	**0.918**	Adj Count R2:	**0.317**
AIC:	**0.600**	AIC*n:	**204.103**
BIC:	**-1739.449**	BIC':	**-13.741**

Full main model for HP2probsoc for wave= 1

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

Full Nottingham Part 2 HP2probsoc subscale models

Logistic regression

	Number of obs	=	361
	LR chi2(9)	=	102.23
	Prob > chi2	=	0.0000
Log likelihood = -131.99945	Pseudo R2	=	0.2791

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1172627	.0171673	6.83	0.000	.0836153	.1509101
radhlw1	.0111397	.0049416	2.25	0.024	.0014543	.0208251
bf1	.0362951	.0284738	1.27	0.202	-.0195124	.0921027
bf20	-.0253268	.0231741	-1.09	0.274	-.0707472	.0200936
deaw1	-.0870921	.1767587	-0.49	0.622	-.4335327	.2593485
shhlw1	.0025727	.0062142	0.41	0.679	-.009607	.0147524
shjobw1	.0087888	.0058839	1.49	0.135	-.0027435	.020321
shrelaw1	-.0093887	.0051896	-1.81	0.070	-.0195601	.0007827
suprtw1	.0013382	.0045531	0.29	0.769	-.0075856	.0102621
_cons	-8.243948	1.264801	-6.52	0.000	-10.72291	-5.764984

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	33	14	47
-	41	273	314
Total	74	287	361

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   44.59%
Specificity                     Pr( -|~D)   95.12%
Positive predictive value       Pr( D| +)   70.21%
Negative predictive value       Pr(~D| -)   86.94%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    4.88%
False - rate for true D         Pr( -| D)   55.41%
False + rate for classified +   Pr(~D| +)   29.79%
False - rate for classified -   Pr( D| -)   13.06%
--------------------------------------------------
Correctly classified                        84.76%
--------------------------------------------------
```

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       361
 number of covariate patterns =       359
            Pearson chi2(349) =       399.18
                  Prob > chi2 =         0.0329
```

Measures of Fit for **logit** of **HP2probsoc**

```
Log-Lik Intercept Only:     -183.113     Log-Lik Full Model:            -131.999
D(351):                      263.999     LR(9):                          102.227
                                         Prob > LR:                        0.000
McFadden's R2:                 0.279     McFadden's Adj R2:                0.225
Maximum Likelihood R2:         0.247     Cragg & Uhler's R2:               0.387
McKelvey and Zavoina's R2:     0.459     Efron's R2:                       0.306
Variance of y*:                6.086     Variance of error:                3.290
Count R2:                      0.848     Adj Count R2:                     0.257
AIC:                           0.787     AIC*n:                          283.999
BIC:                       -1802.997     BIC':                           -49.227
```

Full main model for HP2pbfhm for wave= 1

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

Full Nottingham Part 2 HP2pbfhm subscale models

Logistic regression

Number of obs	=	**340**
LR chi2(**9**)	=	**22.29**
Prob > chi2	=	**0.0080**
Pseudo R2	=	**0.1367**

Log likelihood = **-70.363535**

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0531285**	**.0215313**	**2.47**	**0.014**	**.0109279**	**.0953291**
radhlw1	**.0202681**	**.008252**	**2.46**	**0.014**	**.0040946**	**.0364417**
bf1	**-.0087893**	**.0546645**	**-0.16**	**0.872**	**-.1159298**	**.0983511**
bf20	**.007857**	**.0497616**	**0.16**	**0.875**	**-.0896739**	**.1053879**
deaw1	**-.0860305**	**.4565197**	**-0.19**	**0.851**	**-.9807926**	**.8087316**
shhlw1	**.005778**	**.0099994**	**0.58**	**0.563**	**-.0138205**	**.0253765**
shjobw1	**-.0120291**	**.0099428**	**-1.21**	**0.226**	**-.0315167**	**.0074584**
shrelaw1	**.0007624**	**.0073877**	**0.10**	**0.918**	**-.0137173**	**.015242**
suprtw1	**-.018106**	**.0125821**	**-1.44**	**0.150**	**-.0427664**	**.0065544**
_cons	**-6.445038**	**2.186355**	**-2.95**	**0.003**	**-10.73022**	**-2.159861**

Logistic model for HP2pbfhm

	True		
Classified	D	~D	Total
+	**0**	**0**	**0**
-	**22**	**318**	**340**
Total	**22**	**318**	**340**

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| -)	**93.53%**
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| -)	**6.47%**
Correctly classified		**93.53%**

Logistic model for HP2pbfhm, goodness-of-fit test

```
      number of observations =       340
 number of covariate patterns =       333
            Pearson chi2(323) =       349.26
                  Prob > chi2 =         0.1510
```

Measures of Fit for **logit** of **HP2pbfhm**

Log-Lik Intercept Only:	-81.506	Log-Lik Full Model:	-70.364
D(330):	140.727	LR(9):	22.285
		Prob > LR:	0.008
McFadden's R2:	0.137	McFadden's Adj R2:	0.014
Maximum Likelihood R2:	0.063	Cragg & Uhler's R2:	0.167
McKelvey and Zavoina's R2:	0.285	Efron's R2:	0.087
Variance of y*:	4.600	Variance of error:	3.290
Count R2:	0.935	Adj Count R2:	0.000
AIC:	0.473	AIC*n:	160.727
BIC:	-1782.825	BIC':	30.175

Full main model for HP2pbfhm for wave= 1

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

Full Nottingham Part 2 HP2pbfhm subscale models

```
Logistic regression                               Number of obs   =        361
                                                  LR chi2(9)      =      54.48
                                                  Prob > chi2     =     0.0000
Log likelihood = -112.37659                       Pseudo R2       =     0.1951
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0764706	.0168625	4.53	0.000	.0434207	.1095204
radhlw1	.0197767	.0060446	3.27	0.001	.0079295	.0316239
bf1	.0102198	.0319073	0.32	0.749	-.0523175	.072757
bf20	-.0098859	.0262026	-0.38	0.706	-.0612421	.0414703
deaw1	-.1694401	.2100502	-0.81	0.420	-.5811308	.2422507
shhlw1	.0028786	.0067993	0.42	0.672	-.0104478	.0162051
shjobw1	.0109885	.0066829	1.64	0.100	-.0021097	.0240866
shrelaw1	-.0061099	.0055939	-1.09	0.275	-.0170736	.0048539
suprtw1	-.0018698	.0055191	-0.34	0.735	-.012687	.0089474
_cons	-7.471036	1.391934	-5.37	0.000	-10.19918	-4.742896

Logistic model for HP2pbfhm

Classified	True D	~D	Total
+	9	3	12
-	38	311	349
Total	47	314	361

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

Sensitivity	Pr(+| D)	19.15%
Specificity	Pr(-|~D)	99.04%
Positive predictive value	Pr(D| +)	75.00%
Negative predictive value	Pr(~D| -)	89.11%
False + rate for true ~D	Pr(+|~D)	0.96%
False - rate for true D	Pr(-| D)	80.85%
False + rate for classified +	Pr(~D| +)	25.00%
False - rate for classified -	Pr(D| -)	10.89%
Correctly classified		88.64%

Logistic model for HP2pbfhm, goodness-of-fit test

```
       number of observations =       361
 number of covariate patterns =       359
            Pearson chi2(349) =       423.47
                  Prob > chi2 =         0.0039
```

Measures of Fit for **logit** of **HP2pbfhm**

Log-Lik Intercept Only:	-139.619	Log-Lik Full Model:	-112.377
D(351):	224.753	LR(9):	54.484
		Prob > LR:	0.000
McFadden's R2:	0.195	McFadden's Adj R2:	0.123
Maximum Likelihood R2:	0.140	Cragg & Uhler's R2:	0.260
McKelvey and Zavoina's R2:	0.363	Efron's R2:	0.208
Variance of y*:	5.164	Variance of error:	3.290
Count R2:	0.886	Adj Count R2:	0.128
AIC:	0.678	AIC*n:	244.753
BIC:	-1842.243	BIC':	-1.484

Full main model for HP2sxlife for wave= 1

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

Full Nottingham Part 2 HP2sxlife subscale models

Logistic regression		Number of obs	=	340
		LR chi2(9)	=	85.53
		Prob > chi2	=	0.0000
Log likelihood = -128.75122		Pseudo R2	=	0.2493

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0794939	.014719	5.40	0.000	.0506451	.1083426
radhlw1	.009177	.0050435	1.82	0.069	-.000708	.019062
bf1	.0255037	.0309771	0.82	0.410	-.0352102	.0862176
bf20	-.0168051	.0267683	-0.63	0.530	-.0692699	.0356598
deaw1	.3968761	.2712323	1.46	0.143	-.1347295	.9284817
shhlw1	.0053833	.0061644	0.87	0.383	-.0066986	.0174652
shjobw1	.0120161	.0057139	2.10	0.035	.0008171	.0232151
shrelaw1	-.0034493	.0049958	-0.69	0.490	-.0132409	.0063423
suprtw1	-.001828	.0055711	-0.33	0.743	-.0127471	.0090912
_cons	-6.639149	1.272534	-5.22	0.000	-9.133269	-4.145029

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	26	16	42
-	43	255	298
Total	69	271	340

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   37.68%
Specificity                     Pr( -|~D)   94.10%
Positive predictive value       Pr( D| +)   61.90%
Negative predictive value       Pr(~D| -)   85.57%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    5.90%
False - rate for true D         Pr( -| D)   62.32%
False + rate for classified +   Pr(~D| +)   38.10%
False - rate for classified -   Pr( D| -)   14.43%
--------------------------------------------------
Correctly classified                        82.65%
--------------------------------------------------
```

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       333
            Pearson chi2(323) =       317.29
                  Prob > chi2 =         0.5792
```

Measures of Fit for **logit** of **HP2sxlife**

```
Log-Lik Intercept Only:     -171.514    Log-Lik Full Model:            -128.751
D(330):                      257.502    LR(9):                           85.525
                                        Prob > LR:                        0.000
McFadden's R2:                 0.249    McFadden's Adj R2:                0.191
Maximum Likelihood R2:         0.222    Cragg & Uhler's R2:               0.350
McKelvey and Zavoina's R2:     0.413    Efron's R2:                       0.252
Variance of y*:                5.605    Variance of error:                3.290
Count R2:                      0.826    Adj Count R2:                     0.145
AIC:                           0.816    AIC*n:                          277.502
BIC:                       -1666.050    BIC':                           -33.065
```

Full main model for HP2sxlife for wave= 1

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

Full Nottingham Part 2 HP2sxlife subscale models

Logistic regression | | Number of obs = **361**
| | LR chi2(**9**) = **98.58**
| | Prob > chi2 = **0.0000**
Log likelihood = **-157.72791** | | Pseudo R2 = **0.2381**

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0955211**	**.0143598**	**6.65**	**0.000**	**.0673765**	**.1236658**
radhlw1	**.0076884**	**.0043462**	**1.77**	**0.077**	**-.00083**	**.0162068**
bf1	**.0126394**	**.0277031**	**0.46**	**0.648**	**-.0416577**	**.0669365**
bf20	**-.0012302**	**.0235195**	**-0.05**	**0.958**	**-.0473276**	**.0448672**
deaw1	**.0002926**	**.1487155**	**0.00**	**0.998**	**-.2911845**	**.2917697**
shhlw1	**-.0067303**	**.0056634**	**-1.19**	**0.235**	**-.0178304**	**.0043698**
shjobw1	**.0163073**	**.0053284**	**3.06**	**0.002**	**.0058638**	**.0267508**
shrelaw1	**-.0028221**	**.0044927**	**-0.63**	**0.530**	**-.0116277**	**.0059835**
suprtw1	**.001642**	**.0041364**	**0.40**	**0.691**	**-.0064651**	**.0097491**
_cons	**-7.57151**	**1.189708**	**-6.36**	**0.000**	**-9.903294**	**-5.239726**

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	**41**	**20**	**61**
-	**53**	**247**	**300**
Total	**94**	**267**	**361**

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

Sensitivity	Pr(+| D)	**43.62%**
Specificity	Pr(-|~D)	**92.51%**
Positive predictive value	Pr(D| +)	**67.21%**
Negative predictive value	Pr(~D| -)	**82.33%**
False + rate for true ~D	Pr(+|~D)	**7.49%**
False - rate for true D	Pr(-| D)	**56.38%**
False + rate for classified +	Pr(~D| +)	**32.79%**
False - rate for classified -	Pr(D| -)	**17.67%**
Correctly classified		**79.78%**

Logistic model for HP2sxlife, goodness-of-fit test

```
      number of observations =       361
 number of covariate patterns =       359
            Pearson chi2(349) =       354.34
                  Prob > chi2 =         0.4105
```

Measures of Fit for **logit** of **HP2sxlife**

Log-Lik Intercept Only:	-207.020	Log-Lik Full Model:	-157.728
D(351):	315.456	LR(9):	98.584
		Prob > LR:	0.000
McFadden's R2:	0.238	McFadden's Adj R2:	0.190
Maximum Likelihood R2:	0.239	Cragg & Uhler's R2:	0.350
McKelvey and Zavoina's R2:	0.392	Efron's R2:	0.265
Variance of y*:	5.408	Variance of error:	3.290
Count R2:	0.798	Adj Count R2:	0.223
AIC:	0.929	AIC*n:	335.456
BIC:	-1751.540	BIC':	-45.584

Full main model for HP2inthob for wave= 1

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

Full Nottingham Part 2 HP2inthob subscale models

```
Logistic regression                               Number of obs   =        340
                                                  LR chi2(9)      =      62.70
                                                  Prob > chi2     =     0.0000
Log likelihood = -87.714325                       Pseudo R2       =     0.2633
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0469277	.0177122	2.65	0.008	.0122124	.0816431
radhlw1	.0188772	.0066787	2.83	0.005	.0057871	.0319672
bf1	-1.367019	102.0878	-0.01	0.989	-201.4554	198.7214
bf20	1.370719	102.0878	0.01	0.989	-198.7177	201.4591
deaw1	-1.420629	.7247073	-1.96	0.050	-2.841029	-.000229
shhlw1	.0101692	.007213	1.41	0.159	-.0039681	.0243065
shjobw1	.0095172	.0070594	1.35	0.178	-.0043189	.0233533
shrelaw1	-.0074121	.00618	-1.20	0.230	-.0195247	.0047004
suprtw1	.0120175	.0067365	1.78	0.074	-.0011857	.0252207
_cons	-61.4171	4083.511	-0.02	0.988	-8064.952	7942.118

Note: 23 failures and 0 successes completely determined.

Logistic model for HP2inthob

Classified	True D	~D	Total
+	**8**	**1**	**9**
-	**30**	**301**	**331**
Total	**38**	**302**	**340**

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

Sensitivity	Pr(+| D)	**21.05%**
Specificity	Pr(-|~D)	**99.67%**
Positive predictive value	Pr(D| +)	**88.89%**
Negative predictive value	Pr(~D| -)	**90.94%**
False + rate for true ~D	Pr(+|~D)	**0.33%**
False - rate for true D	Pr(-| D)	**78.95%**
False + rate for classified +	Pr(~D| +)	**11.11%**
False - rate for classified -	Pr(D| -)	**9.06%**
Correctly classified		**90.88%**

Logistic model for HP2inthob, goodness-of-fit test

number of observations =	**340**
number of covariate patterns =	**333**
Pearson chi2(**323**) =	**332.44**
Prob > chi2 =	**0.3467**

Measures of Fit for **logit** of **HP2inthob**

Log-Lik Intercept Only:	-119.064	Log-Lik Full Model:	-87.714
D(330):	175.429	LR(9):	62.700
		Prob > LR:	0.000
McFadden's R2:	0.263	McFadden's Adj R2:	0.179
Maximum Likelihood R2:	0.168	Cragg & Uhler's R2:	0.334
McKelvey and Zavoina's R2:	0.965	Efron's R2:	0.239
Variance of y*:	94.491	Variance of error:	3.290
Count R2:	0.909	Adj Count R2:	0.184
AIC:	0.575	AIC*n:	195.429
BIC:	-1748.123	BIC':	-10.239

Full main model for HP2inthob for wave= 1

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

Full Nottingham Part 2 HP2inthob subscale models

Logistic regression

Number of obs	=	361
LR chi2(9)	=	79.74
Prob > chi2	=	0.0000
Pseudo R2	=	0.2322

Log likelihood = -131.84212

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0887071	.0158463	5.60	0.000	.0576489	.1197652
radhlw1	.0197231	.0053656	3.68	0.000	.0092067	.0302394
bf1	-.033217	.0371955	-0.89	0.372	-.1061189	.0396848
bf20	.0312708	.0332387	0.94	0.347	-.0338758	.0964173
deaw1	-.01341	.1602451	-0.08	0.933	-.3274847	.3006646
shhlw1	.0056196	.006261	0.90	0.369	-.0066516	.0178909
shjobw1	.0023075	.0060411	0.38	0.702	-.0095328	.0141479
shrelaw1	-.0033791	.0049976	-0.68	0.499	-.0131743	.0064161
suprtw1	.0018167	.0046916	0.39	0.699	-.0073787	.011012
_cons	-9.026372	1.602951	-5.63	0.000	-12.1681	-5.884647

Logistic model for HP2inthob

Classified	True D	True ~D	Total
+	**26**	**6**	**32**
-	**40**	**289**	**329**
Total	**66**	**295**	**361**

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

Sensitivity	Pr(+| D)	**39.39%**
Specificity	Pr(-|~D)	**97.97%**
Positive predictive value	Pr(D| +)	**81.25%**
Negative predictive value	Pr(~D| -)	**87.84%**
False + rate for true ~D	Pr(+|~D)	**2.03%**
False - rate for true D	Pr(-| D)	**60.61%**
False + rate for classified +	Pr(~D| +)	**18.75%**
False - rate for classified -	Pr(D| -)	**12.16%**
Correctly classified		**87.26%**

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       361
 number of covariate patterns =       359
            Pearson chi2(349) =       429.70
                  Prob > chi2 =         0.0020
```

Measures of Fit for **logit** of **HP2inthob**

Log-Lik Intercept Only:	**-171.710**	Log-Lik Full Model:	**-131.842**
D(351):	**263.684**	LR(9):	**79.736**
		Prob > LR:	**0.000**
McFadden's R2:	**0.232**	McFadden's Adj R2:	**0.174**
Maximum Likelihood R2:	**0.198**	Cragg & Uhler's R2:	**0.323**
McKelvey and Zavoina's R2:	**0.408**	Efron's R2:	**0.269**
Variance of y*:	**5.559**	Variance of error:	**3.290**
Count R2:	**0.873**	Adj Count R2:	**0.303**
AIC:	**0.786**	AIC*n:	**283.684**
BIC:	**-1803.312**	BIC':	**-26.736**

Full main model for HP2vacatn for wave= 1 chunk 2 H1 test:Gender= 1 model Wave = 1 for HP2inthob

Full Nottingham Part 2 HP2vacatn subscale models

Logistic regression	Number of obs	=	340
	LR chi2(9)	=	63.50
	Prob > chi2	=	0.0000
Log likelihood = -93.400079	Pseudo R2	=	0.2537

HP2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0680461	.0174883	3.89	0.000	.0337697	.1023225
radhlw1	.0124707	.0061517	2.03	0.043	.0004136	.0245278
bf1	-.0963654	.0889765	-1.08	0.279	-.2707562	.0780254
bf20	.0856524	.0861894	0.99	0.320	-.0832757	.2545804
deaw1	-1.062962	.5930123	-1.79	0.073	-2.225245	.0993207
shhlw1	.0106702	.0069711	1.53	0.126	-.0029929	.0243333
shjobw1	.0181404	.0071032	2.55	0.011	.0042184	.0320624
shrelaw1	-.0112469	.0061227	-1.84	0.066	-.0232473	.0007534
suprtw1	.0083536	.0065604	1.27	0.203	-.0045047	.0212118
_cons	-10.52227	3.506457	-3.00	0.003	-17.3948	-3.649741

Logistic model for HP2vacatn

	True		
Classified	D	~D	Total
+	8	4	12
-	33	295	328
Total	41	299	340

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2vacatn != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   19.51%
Specificity                     Pr( -|~D)   98.66%
Positive predictive value       Pr( D| +)   66.67%
Negative predictive value       Pr(~D| -)   89.94%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    1.34%
False - rate for true D         Pr( -| D)   80.49%
False + rate for classified +   Pr(~D| +)   33.33%
False - rate for classified -   Pr( D| -)   10.06%
--------------------------------------------------
Correctly classified                        89.12%
--------------------------------------------------
```

Logistic model for HP2vacatn, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       333
            Pearson chi2(323) =       324.00
                  Prob > chi2 =         0.4740
```

Measures of Fit for **logit** of **HP2vacatn**

```
Log-Lik Intercept Only:     -125.152    Log-Lik Full Model:            -93.400
D(330):                      186.800    LR(9):                          63.505
                                        Prob > LR:                       0.000
McFadden's R2:                 0.254    McFadden's Adj R2:               0.174
Maximum Likelihood R2:         0.170    Cragg & Uhler's R2:              0.327
McKelvey and Zavoina's R2:     0.472    Efron's R2:                      0.242
Variance of y*:                6.227    Variance of error:               3.290
Count R2:                      0.891    Adj Count R2:                    0.098
AIC:                           0.608    AIC*n:                         206.800
BIC:                       -1736.752    BIC':                          -11.044
```

Full main model for HP2vacatn for wave= 1

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

Full Nottingham Part 2 HP2vacatn subscale models

Logistic regression

Number of obs	=	**361**
LR chi2(**9**)	=	**82.63**
Prob > chi2	=	**0.0000**
Pseudo R2	=	**0.2472**

Log likelihood = **-125.82087**

HP2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0884841**	**.0163538**	**5.41**	**0.000**	**.0564313**	**.1205368**
radhlw1	**.0261977**	**.0057913**	**4.52**	**0.000**	**.014847**	**.0375484**
bf1	**-.0344464**	**.0312123**	**-1.10**	**0.270**	**-.0956214**	**.0267286**
bf20	**.0183328**	**.0265608**	**0.69**	**0.490**	**-.0337255**	**.070391**
deaw1	**-.0152546**	**.1698279**	**-0.09**	**0.928**	**-.3481113**	**.317602**
shhlw1	**-.0000247**	**.0063261**	**-0.00**	**0.997**	**-.0124237**	**.0123742**
shjobw1	**.0075507**	**.0061271**	**1.23**	**0.218**	**-.0044583**	**.0195596**
shrelaw1	**-.0045753**	**.0052069**	**-0.88**	**0.380**	**-.0147807**	**.0056301**
suprtw1	**.0082219**	**.0046149**	**1.78**	**0.075**	**-.0008231**	**.017267**
_cons	**-8.575778**	**1.434965**	**-5.98**	**0.000**	**-11.38826**	**-5.763298**

Logistic model for HP2vacatn

	True		
Classified	D	~D	Total
+	**23**	**6**	**29**
-	**40**	**292**	**332**
Total	**63**	**298**	**361**

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

Sensitivity	Pr(+| D)	**36.51%**
Specificity	Pr(-|~D)	**97.99%**
Positive predictive value	Pr(D| +)	**79.31%**
Negative predictive value	Pr(~D| -)	**87.95%**
False + rate for true ~D	Pr(+|~D)	**2.01%**
False - rate for true D	Pr(-| D)	**63.49%**
False + rate for classified +	Pr(~D| +)	**20.69%**
False - rate for classified -	Pr(D| -)	**12.05%**
Correctly classified		**87.26%**

Logistic model for HP2vacatn, goodness-of-fit test

```
       number of observations =       361
 number of covariate patterns =       359
            Pearson chi2(349) =       465.78
                  Prob > chi2 =         0.0000

Measures of Fit for logit of HP2vacatn

Log-Lik Intercept Only:      -167.134   Log-Lik Full Model:          -125.821
D(351):                       251.642   LR(9):                         82.625
                                        Prob > LR:                      0.000
McFadden's R2:                  0.247   McFadden's Adj R2:              0.187
Maximum Likelihood R2:          0.205   Cragg & Uhler's R2:             0.339
McKelvey and Zavoina's R2:      0.441   Efron's R2:                     0.288
Variance of y*:                 5.883   Variance of error:              3.290
Count R2:                       0.873   Adj Count R2:                   0.270
AIC:                            0.752   AIC*n:                        271.642
BIC:                        -1815.354   BIC':                         -29.626

120 .
121 . set more off

122 . *-----Chunk 2 dosew1 moderator paid employment impact-----------------------
    > ----
123 . title "1.  H1 pt2 wv 2 male cum rad dose wrt HP2work impact "


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****        1.  H1 pt2 wv 2 male cum rad dose wrt HP2work impact         ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                          18 Jun 2012    18:11:04    ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
124 . * male models
125 .         forvalues j=1/1 {
  2.          set more off
  3. title4 "trimmed HP2work main effects models wave 1 for H1 part 2 with dos
> e ns"
  4. title4 "Wave `j' dose HP2work relationship but avgcumdosew`j': Dose not s
> ignif"
  5. di _skip(2)
  6. di as input "Gender =1 HP2work model"
  7.          logit HP2work age bf4 bf40  illw`j' movew`j' shrelaw`j' ///
>            avgcumdosew`j' radhlw`j' if gender==1
  8.                          estat class
  9.                          estat gof
 10.                          fitstat
 11. }
-------------------------------------------------------------------------------
trimmed HP2work main effects models wave 1 for H1 part 2 with dose ns
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Wave 1 dose HP2work relationship but avgcumdosew1: Dose not signif
-------------------------------------------------------------------------------


Gender =1 HP2work model

Iteration 0:   log likelihood = -172.87291
Iteration 1:   log likelihood = -145.38341
Iteration 2:   log likelihood = -143.32275
Iteration 3:   log likelihood = -143.31043
Iteration 4:   log likelihood = -143.31043

Logistic regression                               Number of obs   =        340
                                                  LR chi2(8)      =      59.12
                                                  Prob > chi2     =     0.0000
Log likelihood = -143.31043                       Pseudo R2       =     0.1710

------------------------------------------------------------------------------
     HP2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0048446   .0141529     0.34   0.732    -.0228945    .0325838
         bf4 |  -.1400119   .0321951    -4.35   0.000    -.2031132   -.0769107
        bf40 |   .3309236   .0941317     3.52   0.000     .1464287    .5154184
       illw1 |  -.2284418   .3531212    -0.65   0.518    -.9205467    .4636631
      movew1 |   .4467728   .4500499     0.99   0.321    -.4353089    1.328854
    shrelaw1 |   .0013722   .0039941     0.34   0.731    -.0064562    .0092005
 avgcumdosew1 |    .014672   .0771675     0.19   0.849    -.1365736    .1659175
     radhlw1 |  -.0007224   .0043698    -0.17   0.869     -.009287    .0078422
       _cons |  -.8602236   .9469206    -0.91   0.364    -2.716154    .9957067
------------------------------------------------------------------------------
```

Logistic model for HP2work

Classified	True D	True ~D	Total
+	**17**	**15**	**32**
-	**53**	**255**	**308**
Total	**70**	**270**	**340**

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

Sensitivity	Pr(+| D)	**24.29%**
Specificity	Pr(-|~D)	**94.44%**
Positive predictive value	Pr(D| +)	**53.12%**
Negative predictive value	Pr(~D| -)	**82.79%**
False + rate for true ~D	Pr(+|~D)	**5.56%**
False - rate for true D	Pr(-| D)	**75.71%**
False + rate for classified +	Pr(~D| +)	**46.88%**
False - rate for classified -	Pr(D| -)	**17.21%**
Correctly classified		**80.00%**

Logistic model for HP2work, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       335
            Pearson chi2(326) =       303.46
                  Prob > chi2 =         0.8099
```

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

Log-Lik Intercept Only:	**-172.873**	Log-Lik Full Model:	**-143.310**
D(331):	**286.621**	LR(8):	**59.125**
		Prob > LR:	**0.000**
McFadden's R2:	**0.171**	McFadden's Adj R2:	**0.119**
Maximum Likelihood R2:	**0.160**	Cragg & Uhler's R2:	**0.250**
McKelvey and Zavoina's R2:	**0.254**	Efron's R2:	**0.166**
Variance of y*:	**4.413**	Variance of error:	**3.290**
Count R2:	**0.800**	Adj Count R2:	**0.029**
AIC:	**0.896**	AIC*n:	**304.621**
BIC:	**-1642.760**	BIC':	**-12.493**

```
126 .
127 . title4 "Constructing male moderators of HP2work in wave 1"

    Constructing male moderators of HP2work in wave 1


128 . * construction of potential moderators
129 .
130 . set more off

131 . foreach var in bf4 bf40 {
      2. cap gen `var'Xd1 = `var'*avgcumdosew1
      3. label var `var'Xd1  "interaction of avgcumdosew1 and `var'"
      4. }

132 .
133 .
134 .
135 .
136 . 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)

137 . forvalues j=1/1 {
      2. title4 "trimmed HP2work main effects models wave `j' " "male model for H1
    >  part 2 with dose ns"
      3. title2 "Wave `j dose HP2work relationship but avgcumdosew`j': Dose not si
    > gnif"
      4. }

    trimmed HP2work main effects models wave 1


    title2: Wave `j dose HP2work relationship but avgcumdosew1: Dose not signif
                                           Date and time:  18 Jun 2012    18:11:05
                                           Working directory:  /Users/robertyaffee
    > /Documents/data/research/chwk/phase3/Htests/h1tests/h1pt2
                                           Stata data file:  chwide16june2012.dta
    >  has  2369  variables and  703  observations

    Wave `j dose HP2work relationship but avgcumdosew1: Dose not signif
```

```
138 .
139 .
140 . set more off

141 .
142 . forvalues j=1/1 {
  2.                 sw, pr(.1):logistic HP2work age bf4 bf40 movew`j' shrelaw
> `j'  ///
>                 avgcumdosew`j' illw1 radhlw`j' bf4Xd1 bf40Xd1 if gender==1,
> coef
  3.                         estat class
  4.                         estat gof
  5.                         fitstat
  6. }
                      begin with full model
p = 0.8072 >= 0.1000  removing avgcumdosew1
p = 0.7761 >= 0.1000  removing shrelaw1
p = 0.7348 >= 0.1000  removing age
p = 0.7348 >= 0.1000  removing radhlw1
p = 0.3215 >= 0.1000  removing movew1
p = 0.2131 >= 0.1000  removing illw1
p = 0.2607 >= 0.1000  removing bf40Xd1
p = 0.9419 >= 0.1000  removing bf4Xd1

Logistic regression                               Number of obs   =        340
                                                  LR chi2(2)      =      57.60
                                                  Prob > chi2     =     0.0000
Log likelihood = -144.07356                       Pseudo R2       =     0.1666
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf40	.3278445	.0853217	3.84	0.000	.160617	.495072
bf4	-.1439508	.0277538	-5.19	0.000	-.1983472	-.0895544
_cons	-.5378471	.4253878	-1.26	0.206	-1.371592	.2958977

Logistic model for HP2work

Classified	True D	True ~D	Total
+	18	14	32
-	52	256	308
Total	70	270	340

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2work != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   25.71%
Specificity                     Pr( -|~D)   94.81%
Positive predictive value       Pr( D| +)   56.25%
Negative predictive value       Pr(~D| -)   83.12%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    5.19%
False - rate for true D         Pr( -| D)   74.29%
False + rate for classified +   Pr(~D| +)   43.75%
False - rate for classified -   Pr( D| -)   16.88%
--------------------------------------------------
Correctly classified                        80.59%
--------------------------------------------------
```

Logistic model for HP2work, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =        91
             Pearson chi2(88) =       104.61
                  Prob > chi2 =         0.1092
```

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

```
Log-Lik Intercept Only:     -172.873   Log-Lik Full Model:           -144.074
D(337):                      288.147   LR(2):                          57.599
                                       Prob > LR:                       0.000
McFadden's R2:                 0.167   McFadden's Adj R2:               0.149
Maximum Likelihood R2:         0.156   Cragg & Uhler's R2:              0.244
McKelvey and Zavoina's R2:     0.248   Efron's R2:                      0.162
Variance of y*:                4.375   Variance of error:               3.290
Count R2:                      0.806   Adj Count R2:                    0.057
AIC:                           0.865   AIC*n:                         294.147
BIC:                       -1676.208   BIC':                          -45.941
```

```
143 .
144 . logit hp2work bf4 bf40 avgcumdosew1 radhlw1 havmilsq if gender==1

    Iteration 0:   log likelihood = -172.87291
    Iteration 1:   log likelihood = -146.04951
    Iteration 2:   log likelihood = -144.07501
    Iteration 3:   log likelihood = -144.06434
    Iteration 4:   log likelihood = -144.06434

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(5)      =      57.62
                                                      Prob > chi2     =     0.0000
    Log likelihood = -144.06434                       Pseudo R2       =     0.1666
```

hp2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	-.1443876	.0307305	-4.70	0.000	-.2046181	-.084157
bf40	.3278933	.0856676	3.83	0.000	.1599879	.4957988
avgcumdosew1	.0103223	.0782446	0.13	0.895	-.1430344	.1636789
radhlw1	-.00017	.0043575	-0.04	0.969	-.0087106	.0083705
havmilsq	-5.54e-08	1.66e-06	-0.03	0.973	-3.32e-06	3.21e-06
_cons	-.5281323	.5641161	-0.94	0.349	-1.63378	.577515

```
145 . logit hp2work bf4 bf40  if gender==1

    Iteration 0:   log likelihood = -172.87291
    Iteration 1:   log likelihood = -146.01734
    Iteration 2:   log likelihood = -144.08312
    Iteration 3:   log likelihood = -144.07356
    Iteration 4:   log likelihood = -144.07356

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(2)      =      57.60
                                                      Prob > chi2     =     0.0000
    Log likelihood = -144.07356                       Pseudo R2       =     0.1666
```

hp2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	-.1439508	.0277538	-5.19	0.000	-.1983472	-.0895544
bf40	.3278445	.0853217	3.84	0.000	.160617	.495072
_cons	-.5378471	.4253878	-1.26	0.206	-1.371592	.2958977

146 . estat class

Logistic model for hp2work

Classified	True D	True ~D	Total
+	**18**	**14**	**32**
-	**52**	**256**	**308**
Total	**70**	**270**	**340**

Classified + if predicted Pr(D) >= .5
True D defined as hp2work != 0

Sensitivity	Pr(+| D)	**25.71%**
Specificity	Pr(-|~D)	**94.81%**
Positive predictive value	Pr(D| +)	**56.25%**
Negative predictive value	Pr(~D| -)	**83.12%**
False + rate for true ~D	Pr(+|~D)	**5.19%**
False - rate for true D	Pr(-| D)	**74.29%**
False + rate for classified +	Pr(~D| +)	**43.75%**
False - rate for classified -	Pr(D| -)	**16.88%**
Correctly classified		**80.59%**

147 . estat gof

Logistic model for hp2work, goodness-of-fit test

number of observations =	**340**
number of covariate patterns =	**91**
Pearson chi2(**88**) =	**104.61**
Prob > chi2 =	**0.1092**

```
148 . fitstat

    Measures of Fit for logit of hp2work

    Log-Lik Intercept Only:      -172.873    Log-Lik Full Model:           -144.074
    D(337):                       288.147    LR(2):                          57.599
                                             Prob > LR:                       0.000
    McFadden's R2:                  0.167    McFadden's Adj R2:               0.149
    Maximum Likelihood R2:          0.156    Cragg & Uhler's R2:              0.244
    McKelvey and Zavoina's R2:      0.248    Efron's R2:                      0.162
    Variance of y*:                 4.375    Variance of error:               3.290
    Count R2:                       0.806    Adj Count R2:                    0.057
    AIC:                            0.865    AIC*n:                         294.147
    BIC:                        -1676.208    BIC':                          -45.941

149 .
150 . * capturing significant vars from last analysis
151 . local cn1: colnames(e(b))

152 . di "`cn1'"
    bf4 bf40 _cons

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

154 . di `leng1'
    14

155 . local leng1b `leng1'-6

156 . di `leng1b'
    8

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

158 . di "`nuvlist'"
    bf4 bf40
```

```
159 . local rhsvars = "`nuvlist'"

160 . local nuvlist= "`nuvlist'"

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

162 . di "`nuvlist'"
    bf4 bf40

163 . sw, pr(.1):logit hp2hmcare `nuvlist' if gender==1
                          begin with full model
    p < 0.1000            for all terms in model

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(2)      =      81.32
                                                      Prob > chi2     =     0.0000
    Log likelihood = -132.21538                       Pseudo R2       =     0.2352
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	-.2248287	.0309809	-7.26	0.000	-.2855501	-.1641072
bf40	.1658314	.0893229	1.86	0.063	-.0092382	.340901
_cons	.7314062	.4552436	1.61	0.108	-.1608548	1.623667

```
164 . di "`rhsvars'"
    bf4 bf40

165 . matrix define c=e(b)

166 . local cn2: colnames(c)

167 . di "`cn2'"
    bf4 bf40 _cons

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

```
169 . local leng2b = `leng2'-6

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

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

    Iteration 0:   log likelihood = -172.87291
    Iteration 1:   log likelihood = -146.01734
    Iteration 2:   log likelihood = -144.08312
    Iteration 3:   log likelihood = -144.07356
    Iteration 4:   log likelihood = -144.07356

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(2)      =      57.60
                                                      Prob > chi2     =     0.0000
    Log likelihood = -144.07356                       Pseudo R2       =     0.1666

    ------------------------------------------------------------------------------
         hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             bf4 |  -.1439508   .0277538    -5.19   0.000    -.1983472   -.0895544
            bf40 |   .3278445   .0853217     3.84   0.000      .160617     .495072
           _cons |  -.5378471   .4253878    -1.26   0.206    -1.371592    .2958977
    ------------------------------------------------------------------------------

172 .
173 .
174 .
175 . di "`rhsvars'"
    bf4 bf40

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

177 . di "`varlist2'"
    bf4 bf40

178 .
```

```
179 .  * constructing potential moderators
180 . foreach var in bf4 bf40 {
      2. cap gen `var'Xd1 = `var'* avgcumdosew1
      3. }

181 .
182 . *x  no signif male moderators for paid employment
183 . set more off

184 . sw, pr(.1): logistic hp2work `rhsvars' bf4Xd1 bf40Xd1 if gender==1, coef
                      begin with full model
    p = 0.2607 >= 0.1000  removing bf40Xd1
    p = 0.9419 >= 0.1000  removing bf4Xd1

    Logistic regression                                 Number of obs   =        340
                                                        LR chi2(2)      =      57.60
                                                        Prob > chi2     =     0.0000
    Log likelihood = -144.07356                         Pseudo R2       =     0.1666

    ------------------------------------------------------------------------------
         hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             bf4 |  -.1439508   .0277538    -5.19   0.000    -.1983472   -.0895544
            bf40 |   .3278445   .0853217     3.84   0.000      .160617     .495072
           _cons |  -.5378471   .4253878    -1.26   0.206    -1.371592    .2958977
    ------------------------------------------------------------------------------

185 . fitstat

    Measures of Fit for logistic of hp2work

    Log-Lik Intercept Only:     -172.873   Log-Lik Full Model:           -144.074
    D(337):                      288.147   LR(2):                          57.599
                                           Prob > LR:                       0.000
    McFadden's R2:                 0.167   McFadden's Adj R2:               0.149
    Maximum Likelihood R2:         0.156   Cragg & Uhler's R2:              0.244
    McKelvey and Zavoina's R2:     0.248   Efron's R2:                      0.162
    Variance of y*:                4.375   Variance of error:               3.290
    Count R2:                      0.806   Adj Count R2:                    0.057
    AIC:                           0.865   AIC*n:                         294.147
    BIC:                       -1676.208   BIC':                          -45.941
```

```
186 .
187 . scalar wkModMw1 = "none"

188 . di _skip(2)


189 . title4 "testing the female moderator model Hp2work H1 Pt 2 wave 1"
    ──────────────────────────────────────────────────────────────────────────────

    testing the female moderator model Hp2work H1 Pt 2 wave 1
    ──────────────────────────────────────────────────────────────────────────────


190 . *  Testing female moderator model xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
    > xxxx
191 .
192 . title4 "testing general female moderator model for hp2work"
    ──────────────────────────────────────────────────────────────────────────────

    testing general female moderator model for hp2work
    ──────────────────────────────────────────────────────────────────────────────


193 . local w1bf bf1 bf4 bf9 bf10 bf11 bf4m bf15m bf20 bf22 bf30 bf40

194 . di _skip(4)


195 .
196 .
197 . forvalues j=1/1 {
      2. set more off
      3. di _skip(4)
      4. di as input "For females hp2work on wave 1 with dose ns"
      5. des  age occ1w`j'-occ8w`j' inc1w`j'-inc4w`j' avgcumdosew`j' `w1bf'
      6. sw, pr(.1): logistic HP2work  age  havmilsq ///
    >    avgcumdosew1  illw`j' shjobw`j' suprtw`j' radhlw`j' if gender==2, coef
      7. estat gof
      8. estat class
      9. fitstat
     10. }

    For females hp2work on wave 1 with dose ns
```

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

age              double %8.0g                  * Respondent's age
occ1w1           double %15.0g      LABJ         profess executive administration
                                                   in 1986
occ2w1           double %15.0g      LABJ         technical sales admin support in
                                                   1986
occ3w1           double %15.0g      LABJ         service occup protective
                                                   services in 1986
occ4w1           double %15.0g      LABJ         precision prod mechan craft
                                                   construction in 1986
occ5w1           double %15.0g      LABJ         factory laborer machinist transp
                                                   cleaner in 1986
occ6w1           double %15.0g      LABJ         farming agricul forestry fishing
                                                   trapping logging in 1986
occ7w1           double %15.0g      LABJ         homemaking or caregiving in 1986
occ8w1           double %15.0g      LABJ         student in 1986
inc1w1           double %15.0g      LABJ         Income is not sufficient for
                                                   basic neccessities in 1986
inc2w1           double %15.0g      LABJ         Income is just sufficient for
                                                   basic neccessities in 1986
inc3w1           double %15.0g      LABJ         Income is sufficient for basics
                                                   plus extra purchases/savings
                                                   in 1986
inc4w1           double %15.0g      LABJ         Income allows to comfortably
                                                   afford luxury items in 1986
avgcumdosew1     double %8.0g                    wave 1 avg mean CS137 dose in
                                                   mGy ending 12/31/1986
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)
bf10             float  %9.0g                    bf10= max(0, sufamw1 - 20)
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
bf20             float  %9.0g                    bf20 = max(0, kzchorn -
                                                   2.53946E-006)
bf22             float  %9.0g                    bf22 = max(0, icdxcnt -
                                                   1.01635E-007) * bf7m
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 = 0.9219 >= 0.1000  removing suprtw1
p = 0.8867 >= 0.1000  removing shjobw1
p = 0.6189 >= 0.1000  removing havmilsq
p = 0.1241 >= 0.1000  removing avgcumdosew1
```

```
Logistic regression                               Number of obs   =        361
                                                  LR chi2(3)      =      46.25
                                                  Prob > chi2     =     0.0000
Log likelihood = -182.84519                       Pseudo R2       =     0.1123
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0626548	.0119743	5.23	0.000	.0391855	.086124
radhlw1	.0071024	.0037129	1.91	0.056	-.0001748	.0143795
illw1	.4077261	.2382216	1.71	0.087	-.0591797	.8746319
_cons	-4.859841	.6646145	-7.31	0.000	-6.162461	-3.55722

Logistic model for HP2work, goodness-of-fit test

```
      number of observations =       361
 number of covariate patterns =       253
            Pearson chi2(249) =       271.11
                  Prob > chi2 =         0.1605
```

Logistic model for HP2work

Classified	True D	True ~D	Total
+	24	6	30
-	69	262	331
Total	93	268	361

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

Sensitivity	Pr(+| D)	25.81%
Specificity	Pr(-|~D)	97.76%
Positive predictive value	Pr(D| +)	80.00%
Negative predictive value	Pr(~D| -)	79.15%
False + rate for true ~D	Pr(+|~D)	2.24%
False - rate for true D	Pr(-| D)	74.19%
False + rate for classified +	Pr(~D| +)	20.00%
False - rate for classified -	Pr(D| -)	20.85%
Correctly classified		79.22%

```
Measures of Fit for logistic of HP2work

Log-Lik Intercept Only:      -205.969     Log-Lik Full Model:           -182.845
D(357):                       365.690     LR(3):                          46.247
                                          Prob > LR:                       0.000
McFadden's R2:                  0.112     McFadden's Adj R2:               0.093
Maximum Likelihood R2:          0.120     Cragg & Uhler's R2:              0.177
McKelvey and Zavoina's R2:      0.192     Efron's R2:                      0.141
Variance of y*:                 4.072     Variance of error:               3.290
Count R2:                       0.792     Adj Count R2:                    0.194
AIC:                            1.035     AIC*n:                         373.690
BIC:                        -1736.639     BIC':                          -28.580

.
. cap gen ageXd1 = age*avgcumdosew1

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

. di "`cn3'"
age radhlw1 illw1 _cons

. local leng3 = length( "`cn3'")

. di `leng3'
23

. local leng3b `leng3'-6

. di `leng3b'
17

. local nuvlist3 = substr("`cn3'",1,`leng3b')

. di "`nuvlist3'"
age radhlw1 illw1
```

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

211 . local rhsvars4= substr("`cn3'",1,`leng3b')

212 . di "`rhsvars4'"
    age radhlw1 illw1

213 .
214 . * moderators for hp2work female and male are saved as scalars:
215 . scalar wkModFw1="none"

216 . scalar wkModMw1="none"

217 . cap gen ageXd1 = age*avgcumdosew1

218 .
219 . *x no significant female moderator for paid employment
220 . forvalues j=1/1 {
      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'
      4. set more off
      5. sw, pr(.1): logistic HP2work  bf4 bf14  age  havmil ///
    >    avgcumdosew1  ageXd1 illw`j' accdw`j'  suprtw`j' if gender==2, coef
      6. estat gof
      7. estat class
      8. fitstat
      9. }
    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
    occ1w1          double %15.0g      LABJ       profess executive administration
                                                    in 1986
    occ2w1          double %15.0g      LABJ       technical sales admin support in
                                                    1986
    occ3w1          double %15.0g      LABJ       service occup protective
                                                    services in 1986
    occ4w1          double %15.0g      LABJ       precision prod mechan craft
                                                    construction in 1986
    occ5w1          double %15.0g      LABJ       factory laborer machinist transp
                                                    cleaner in 1986
    occ6w1          double %15.0g      LABJ       farming agricul forestry fishing
                                                    trapping logging in 1986
    occ7w1          double %15.0g      LABJ       homemaking or caregiving in 1986
    occ8w1          double %15.0g      LABJ       student in 1986
    inc1w1          double %15.0g      LABJ       Income is not sufficient for
                                                    basic neccessities in 1986
```

```
inc2w1          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1986
inc3w1          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1986
inc4w1          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1986
avgcumdosew1    double %8.0g                  wave 1 avg mean CS137 dose in
                                                mGy ending 12/31/1986
                      begin with full model
p = 0.9043 >= 0.1000  removing suprtw1
p = 0.5398 >= 0.1000  removing accdw1
p = 0.4992 >= 0.1000  removing havmil
p = 0.3576 >= 0.1000  removing illw1
p = 0.2119 >= 0.1000  removing ageXd1
p = 0.1822 >= 0.1000  removing avgcumdosew1
p = 0.2326 >= 0.1000  removing bf14

Logistic regression                               Number of obs   =        362
                                                  LR chi2(2)      =      59.51
                                                  Prob > chi2     =     0.0000
Log likelihood = -176.51284                       Pseudo R2       =     0.1442
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	-.1117282	.0265443	-4.21	0.000	-.163754	-.0597024
age	.0511864	.01239	4.13	0.000	.0269024	.0754704
_cons	-2.684594	.7848001	-3.42	0.001	-4.222774	-1.146414

Logistic model for HP2work, goodness-of-fit test

```
       number of observations =       362
 number of covariate patterns =       274
             Pearson chi2(271) =       303.76
                  Prob > chi2 =         0.0834
```

Logistic model for HP2work

Classified	True D	True ~D	Total
+	31	18	49
-	62	251	313
Total	93	269	362

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2work != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   33.33%
Specificity                     Pr( -|~D)   93.31%
Positive predictive value       Pr( D| +)   63.27%
Negative predictive value       Pr(~D| -)   80.19%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    6.69%
False - rate for true D         Pr( -| D)   66.67%
False + rate for classified +   Pr(~D| +)   36.73%
False - rate for classified -   Pr( D| -)   19.81%
--------------------------------------------------
Correctly classified                        77.90%
--------------------------------------------------

Measures of Fit for logistic of HP2work

Log-Lik Intercept Only:     -206.266   Log-Lik Full Model:         -176.513
D(359):                      353.026   LR(2):                        59.506
                                       Prob > LR:                     0.000
McFadden's R2:                 0.144   McFadden's Adj R2:             0.130
Maximum Likelihood R2:         0.152   Cragg & Uhler's R2:            0.223
McKelvey and Zavoina's R2:     0.234   Efron's R2:                    0.175
Variance of y*:                4.295   Variance of error:             3.290
Count R2:                      0.779   Adj Count R2:                  0.140
AIC:                           0.992   AIC*n:                       359.026
BIC:                       -1762.075   BIC':                        -47.723

221 .
222 . scalar SigDoseFw1 = "no"

223 . scalar MainEffwkFw1 = "bf4 age"

224 . ******   Moderator analysis for Dose=>paid employment wave one
225 . title4 "testing potential moderators for women and hp2work in wave 1"
------------------------------------------------------------------------------
testing potential moderators for women and hp2work in wave 1
------------------------------------------------------------------------------
```

```
226 . set more off

227 . forvalues j=1/1 {
  2.                 sw, pr(.1):logistic HP2work age occ1w1-occ8w1 bf8 illw`j'
>  shjobw`j' havmilsq ///
>                 avgcumdosew`j' ageXd1 if gender==2, coef
  3.                         estat class
  4.                         estat gof
  5.                         fitstat
  6. }
                      begin with full model
p = 0.9407 >= 0.1000  removing occ4w1
p = 0.7880 >= 0.1000  removing shjobw1
p = 0.7709 >= 0.1000  removing bf8
p = 0.7819 >= 0.1000  removing occ7w1
p = 0.7309 >= 0.1000  removing occ3w1
p = 0.6557 >= 0.1000  removing havmilsq
p = 0.3777 >= 0.1000  removing occ6w1
p = 0.4099 >= 0.1000  removing occ2w1
p = 0.2835 >= 0.1000  removing occ1w1
p = 0.1994 >= 0.1000  removing occ5w1
p = 0.1230 >= 0.1000  removing ageXd1
p = 0.1760 >= 0.1000  removing illw1
p = 0.1245 >= 0.1000  removing occ8w1
p = 0.1089 >= 0.1000  removing avgcumdosew1

Logistic regression                               Number of obs   =        363
                                                  LR chi2(1)      =      41.64
                                                  Prob > chi2     =     0.0000
Log likelihood = -185.74123                       Pseudo R2       =     0.1008
```

HP2work	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0695394	.011616	5.99	0.000	.0467724	.0923064
_cons	-4.709665	.6434135	-7.32	0.000	-5.970733	-3.448598

Logistic model for HP2work

Classified	True D	True ~D	Total
+	20	14	34
-	73	256	329
Total	93	270	363

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2work != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   21.51%
Specificity                     Pr( -|~D)   94.81%
Positive predictive value       Pr( D| +)   58.82%
Negative predictive value       Pr(~D| -)   77.81%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    5.19%
False - rate for true D         Pr( -| D)   78.49%
False + rate for classified +   Pr(~D| +)   41.18%
False - rate for classified -   Pr( D| -)   22.19%
--------------------------------------------------
Correctly classified                        76.03%
--------------------------------------------------
```

Logistic model for HP2work, goodness-of-fit test

```
       number of observations =       363
 number of covariate patterns =        49
             Pearson chi2(47) =        58.17
                  Prob > chi2 =         0.1274
```

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

```
Log-Lik Intercept Only:     -206.563   Log-Lik Full Model:           -185.741
D(361):                      371.482   LR(1):                          41.643
                                       Prob > LR:                       0.000
McFadden's R2:                 0.101   McFadden's Adj R2:               0.091
Maximum Likelihood R2:         0.108   Cragg & Uhler's R2:              0.159
McKelvey and Zavoina's R2:     0.172   Efron's R2:                      0.125
Variance of y*:                3.971   Variance of error:               3.290
Count R2:                      0.760   Adj Count R2:                    0.065
AIC:                           1.034   AIC*n:                         375.482
BIC:                       -1756.397   BIC':                          -35.748
```

```
228 .
229 . * capturing significant vars
230 . local cn5: colnames(e(b))

231 . di "`cn5'"
    age _cons

232 . local leng5 = length( "`cn5'")

233 . di `leng5'
    9

234 . local leng5b `leng5'-6

235 . di `leng5b'
    3

236 . local nuvlist5 = substr("`cn5'",1,`leng5b')

237 . di "`nuvlist5'"
    age

238 . local rhsvars5 = "`nuvlist2'"

239 . local nuvlist6= "`nuvlist2'"

240 . local nuvlist6= substr("`cn5'",1,`leng5b')

241 . di "`nuvlist6'"
    age

242 .
243 . foreach varx in `nuvlist6' {
      2. cap gen `varx'X`vary' =  `varx'*avgcumdosew1
      3.  }

244 .
```

```
245 . cap gen illw1Xd1 = illw1*avgcumdosew1

246 .
247 . logit hp2hmcare age avgcumdosew1 illw1 ageXd1 illw1Xd1 if gender==2
    >      // correct regress on previous

    Iteration 0:   log likelihood = -233.72859
    Iteration 1:   log likelihood = -189.61734
    Iteration 2:   log likelihood = -188.76377
    Iteration 3:   log likelihood = -188.76057
    Iteration 4:   log likelihood = -188.76057

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(5)      =      89.94
                                                      Prob > chi2     =     0.0000
    Log likelihood = -188.76057                       Pseudo R2       =     0.1924
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0970647	.0160129	6.06	0.000	.0656799	.1284495
avgcumdosew1	.884954	2.296761	0.39	0.700	-3.616615	5.386523
illw1	.9418439	.3176563	2.96	0.003	.319249	1.564439
ageXd1	-.0212632	.0412659	-0.52	0.606	-.1021429	.0596166
illw1Xd1	-.2742628	.427414	-0.64	0.521	-1.111979	.5634532
_cons	-5.742044	.8635113	-6.65	0.000	-7.434495	-4.049593

```
248 .
249 .
250 . scalar SigDoseWkFw1 = "no"

251 . scalar SigDoseWkMw1 = "no"

252 . des bf4 bf40
```

variable name	storage type	display format	value label	variable label
bf4	float	%9.0g		bf4 = max(0, 24 - BSIsoma)
bf40	float	%9.0g		bf40 = max(0, icdxcnt - 1.01635E-007)

```
253 . scalar MainEffwkMw1 = "bf4 bf40"

254 . scalar MainEffwkFw1 = "age "

255 . scalar WKModMw1 = "none"

256 . scalar WkModFw1 = "ageXd1"

257 .
258 .
259 . * male sign main effects in main effects model: 2- bf4, bf40
260 . * male and female main effects model avgcumdosew1 were not signif.
261 . * male hp2wk w1  mediators: bf4 and bf40
262 . * female signif main effects in main effects model
263 .
264 . title4  "H1 pt 2 wave 1 Mediation of paid employment testing for males"
    ------------------------------------------------------------------------------
    H1 pt 2 wave 1 Mediation of paid employment testing for males
    ------------------------------------------------------------------------------

265 .
266 . * male hp2wk w1 mediators:  testing b4 and b40
267 .
268 . cap gen ageXillw1 = age*illw1

269 . correlate bf4 age if gender==1
    (obs=340)

             |      bf4      age
    ---------+------------------
         bf4 |   1.0000
         age |  -0.4041   1.0000


270 .
271 .
272 . glm age avgcumdosew1 if gender==1, fam(gauss) link(identity)

    Iteration 0:   log likelihood =  -1331.608

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  148.5632
    Deviance         =  50214.37624                    (1/df) Deviance =  148.5632
    Pearson          =  50214.37624                    (1/df) Pearson  =  148.5632

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

```
                                                  AIC             =  7.844753
Log likelihood   = -1331.607976                   BIC             =  48244.19

------------------------------------------------------------------------------
             |                 OIM
         age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   .6719789   .3966839     1.69   0.090    -.1055072    1.449465
       _cons |   48.89394   .6825967    71.63   0.000     47.55607     50.2318
------------------------------------------------------------------------------
```

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

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.)
```

```
274 .
275 .
276 . des bf4

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)

277 . glm bf4 avgcumdosew1 if gender==1, fam(gauss) link(identity)

Iteration 0:   log likelihood = -1026.9659

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  24.75428
Deviance         =  8366.946191                    (1/df) Deviance =  24.75428
Pearson          =  8366.946191                    (1/df) Pearson  =  24.75428

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

                                                   AIC             =   6.05274
Log likelihood   = -1026.965868                    BIC             =  6396.763

------------------------------------------------------------------------------
             |                 OIM
         bf4 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |  -.1031788    .161925    -0.64   0.524    -.4205461    .2141884
       _cons |   12.54134   .2786337    45.01   0.000     11.99523    13.08746
------------------------------------------------------------------------------

278 . glm hp2work bf4 if gender==1, fam(binomial) link(probit) irls scale(dev)

Iteration 1:   deviance =  302.5414
Iteration 2:   deviance =  301.6138
Iteration 3:   deviance =  301.6078
Iteration 4:   deviance =  301.6078
Iteration 5:   deviance =  301.6078

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       338
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  301.6078179                    (1/df) Deviance =  .8923308
Pearson          =  318.2302284                    (1/df) Pearson  =  .9415096
```

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

                                                     BIC             = -1668.576

------------------------------------------------------------------------------
             |                 EIM
    hp2work  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bf4 |  -.1012401   .0146623    -6.90   0.000    -.1299776   -.0725026
       _cons |   .3470813   .1825598     1.90   0.057    -.0107293     .704892
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

279 .
280 .
281 .
282 .
283 . des bf40

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
bf40            float  %9.0g                  bf40 = max(0, icdxcnt -
                                                1.01635E-007)

284 . glm bf40  avgcumdosew1 if gender==1, fam(gauss) link(identity)

Iteration 0:   log likelihood = -659.60303

Generalized linear models                            No. of obs      =       340
Optimization     : ML                                Residual df     =       338
                                                     Scale parameter =  2.852057
Deviance         =  963.9952523                      (1/df) Deviance =  2.852057
Pearson          =  963.9952523                      (1/df) Pearson  =  2.852057

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

                                                     AIC             =  3.891783
Log likelihood   = -659.6030291                      BIC             = -1006.188
```

```
------------------------------------------------------------------------------
             |                 OIM
        bf40 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   .0453656   .0549627     0.83   0.409    -.0623593    .1530904
       _cons |   2.124647   .0945774    22.46   0.000     1.939278    2.310015
------------------------------------------------------------------------------
```

```
285 . glm hp2work bf40 if gender==1, fam(binomial) link(probit) ///
    >    irls scale(dev)

    Iteration 1:   deviance =  316.1036
    Iteration 2:   deviance =  315.5033
    Iteration 3:   deviance =  315.5021
    Iteration 4:   deviance =  315.5021

    Generalized linear models                          No. of obs      =       340
    Optimization     : MQL Fisher scoring              Residual df     =       338
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  315.5020956                    (1/df) Deviance =  .9334382
    Pearson          =  333.9910612                    (1/df) Pearson  =  .9881392

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

                                                       BIC             = -1654.682

    ------------------------------------------------------------------------------
                 |                 EIM
         hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
            bf40 |   .2493852    .044782     5.57   0.000      .161614    .3371563
           _cons |  -1.421911   .1366145   -10.41   0.000    -1.689671   -1.154152
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

286 . title4 "bf40 could be mediator for males h2wk in wave 1"
    ------------------------------------------------------------------------------
    bf40 could be mediator for males h2wk in wave 1
    ------------------------------------------------------------------------------
```

```
287 .
288 .
289 .
290 . glm illw1  avgcumdosew1 if gender==1, fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -151.48261

    Generalized linear models                         No. of obs      =        340
    Optimization     : ML                             Residual df     =        338
                                                      Scale parameter =   .1435742
    Deviance         =  48.52808533                   (1/df) Deviance =   .1435742
    Pearson          =  48.52808533                   (1/df) Pearson  =   .1435742

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

                                                      AIC             =   .9028389
    Log likelihood   = -151.4826069                   BIC             =  -1921.656

    ------------------------------------------------------------------------------
                 |                 OIM
           illw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew1 |   .0087277   .0123318     0.71   0.479    -.0154423    .0328976
           _cons |   .0962541   .0212201     4.54   0.000     .0546635    .1378446
    ------------------------------------------------------------------------------

291 . glm hp2work illw1  if gender==1, fam(binomial) irls ///
    >    scale(dev) link(probit)

    Iteration 1:   deviance =  345.5327
    Iteration 2:   deviance =  345.2889
    Iteration 3:   deviance =  345.2888
    Iteration 4:   deviance =  345.2888

    Generalized linear models                         No. of obs      =        340
    Optimization     : MQL Fisher scoring             Residual df     =        338
                       (IRLS EIM)                     Scale parameter =          1
    Deviance         =  345.2887981                   (1/df) Deviance =   1.021564
    Pearson          =  340.1227725                   (1/df) Pearson  =    1.00628

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

                                                      BIC             =  -1624.895
```

```
------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw1 |   .1303424   .1949057     0.67   0.504    -.2516658    .5123505
       _cons |  -.8347401    .080778   -10.33   0.000     -.993062   -.6764181
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

292 .
293 . scalar WkMedMw1 = "bf40"

294 .
295 .
296 .
297 . title4 "Testing possible female paid employment mediators for paid employmen
> t in wave 1"
------------------------------------------------------------------------------
Testing possible female paid employment mediators for paid employment in wave
> 1
------------------------------------------------------------------------------

298 .
299 . title4 "Test of age as possible female mediator in wave 1"
------------------------------------------------------------------------------
Test of age as possible female mediator in wave 1
------------------------------------------------------------------------------

300 . glm age avgcumdosew1 if gender==2, fam(gauss) link(identity)

Iteration 0:   log likelihood =  -1406.325

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =   136.455
Deviance         =  49260.25928                    (1/df) Deviance =   136.455
Pearson          =  49260.25928                    (1/df) Pearson  =   136.455

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

                                                   AIC             =  7.759366
Log likelihood   = -1406.325011                    BIC             =  47132.38
```

age	Coef. (OIM)	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	**3.973879**	**1.117679**	**3.56**	**0.000**	**1.783267**	**6.16449**
_cons	**48.88157**	**.7187038**	**68.01**	**0.000**	**47.47293**	**50.2902**

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

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.)

302 . title4 "age can be a wave 1 mediator for women with hp2work "

age can be a wave 1 mediator for women with hp2work
```

```
303 .
304 .
305 . title4 "Test of b40 as female mediator of paid employment in wave 1"
    ------------------------------------------------------------------------------
    Test of b40 as female mediator of paid employment in wave 1
    ------------------------------------------------------------------------------

306 . glm bf40 avgcumdosew1 if gender==2, fam(gauss) link(identity)

    Iteration 0:   log likelihood = -818.49948

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =  5.351018
    Deviance         =  1931.717442                    (1/df) Deviance =  5.351018
    Pearson          =  1931.717442                    (1/df) Pearson  =  5.351018

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

                                                       AIC             =  4.520658
    Log likelihood   = -818.4994757                    BIC             =  -196.162

    ------------------------------------------------------------------------------
                 |                 OIM
            bf40 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew1 |   .4524905   .2213302     2.04   0.041     .0186913    .8862898
           _cons |   3.013471   .1423225    21.17   0.000     2.734524    3.292417
    ------------------------------------------------------------------------------

307 . glm hp2work bf40 if gender==2, fam(binomial) link(probit) irls scale(dev)

    Iteration 1:   deviance =  406.4865
    Iteration 2:   deviance =  406.0549
    Iteration 3:   deviance =  406.0547
    Iteration 4:   deviance =  406.0547

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  406.0547444                    (1/df) Deviance =  1.124805
    Pearson          =  360.1809662                    (1/df) Pearson  =  .9977312

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

                                                       BIC             = -1721.825
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf40	**.080565**	**.0316866**	**2.54**	**0.011**	**.0184603**	**.1426696**
_cons	**-.921639**	**.1303745**	**-7.07**	**0.000**	**-1.177168**	**-.6661097**

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

308 . title4 "b40 could be a wv 1 mediator for women"

b40 could be a wv 1 mediator for women

309 .
310 .
311 . title4 "bf4 Test of female mediation of paid employment in wave 1"

bf4 Test of female mediation of paid employment in wave 1

312 . glm bf4 avgcumdosew1 if gender==2, fam(gauss) link(identity)

```
Iteration 0:   log likelihood = -1109.0162

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   26.52082
Deviance         =  9574.015672                    (1/df) Deviance =   26.52082
Pearson          =  9574.015672                    (1/df) Pearson  =   26.52082

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

                                                   AIC             =   6.121302
Log likelihood   = -1109.016226                    BIC             =   7446.136
```

bf4	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	**-1.508835**	**.4927379**	**-3.06**	**0.002**	**-2.474583**	**-.5430862**
_cons	**10.99384**	**.3168463**	**34.70**	**0.000**	**10.37284**	**11.61485**

```
313 . glm hp2work bf4 if gender==2, fam(binomial) link(probit) irls scale(dev)

    Iteration 1:   deviance =  370.9717
    Iteration 2:   deviance =  370.7179
    Iteration 3:   deviance =  370.7176
    Iteration 4:   deviance =  370.7176

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  370.7176349                    (1/df) Deviance =  1.026919
    Pearson          =  356.8979308                    (1/df) Pearson  =  .9886369

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

                                                       BIC             = -1757.162

    ------------------------------------------------------------------------------
                 |                 EIM
         hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             bf4 |   -.090794   .0144985    -6.26   0.000    -.1192106   -.0623775
           _cons |   .2257867   .1560342     1.45   0.148    -.0800347     .531608
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

314 . title4 "bf4 alone is a mediator for women"
    ------------------------------------------------------------------------------
    bf4 alone is a mediator for women
    ------------------------------------------------------------------------------

315 .
316 .
317 . title "bf4 Test of female mediation of paid employment in wave 1"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****     bf4 Test of female mediation of paid employment in wave 1       ****
    > *
    *****                                                                     ****
    > *
```

```
*****                                                                     ****
> *
*****                                             18 Jun 2012    18:12:37  ****
> *
******************************************************************************
> *
******************************************************************************
> *
```

```
318 . glm bf4 avgcumdosew1 if gender==2, fam(gauss) link(identity)

    Iteration 0:   log likelihood = -1109.0162

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =   26.52082
    Deviance         =  9574.015672                    (1/df) Deviance =   26.52082
    Pearson          =  9574.015672                    (1/df) Pearson  =   26.52082

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

                                                       AIC             =   6.121302
    Log likelihood   = -1109.016226                    BIC             =   7446.136
```

bf4	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	-1.508835	.4927379	-3.06	0.002	-2.474583	-.5430862
_cons	10.99384	.3168463	34.70	0.000	10.37284	11.61485

```
319 . glm hp2work bf4 if gender==2, fam(binomial) link(probit) irls scale(dev)

    Iteration 1:   deviance =  370.9717
    Iteration 2:   deviance =  370.7179
    Iteration 3:   deviance =  370.7176
    Iteration 4:   deviance =  370.7176

    Generalized linear models                          No. of obs      =        363
    Optimization     : MQL Fisher scoring              Residual df     =        361
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  370.7176349                    (1/df) Deviance =   1.026919
    Pearson          =  356.8979308                    (1/df) Pearson  =   .9886369
```

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

                                                     BIC             = -1757.162

------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bf4 |   -.090794   .0144985    -6.26   0.000    -.1192106   -.0623775
       _cons |   .2257867   .1560342     1.45   0.148    -.0800347     .531608
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

320 . title4 "bf4 could be a mediator for women"
------------------------------------------------------------------------------
    bf4 could be a mediator for women
------------------------------------------------------------------------------


321 .
322 .
323 .
324 . title "Test of female mediation of illw1 and paid employment in wave 1"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****  Test of female mediation of illw1 and paid employment in wave 1    ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                        18 Jun 2012    18:12:40      ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
325 . glm illw1 avgcumdosew1 if gender==2, fam(gauss) link(identity)

    Iteration 0:   log likelihood = -259.70777

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =  .2462383
    Deviance         =  88.89203958                    (1/df) Deviance =  .2462383
    Pearson          =  88.89203958                    (1/df) Pearson  =  .2462383

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

                                                       AIC             =  1.441916
    Log likelihood   = -259.7077741                    BIC             = -2038.987

    ------------------------------------------------------------------------------
                 |                 OIM
           illw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew1 |   .0655142   .0474789     1.38   0.168    -.0275426    .1585711
           _cons |   .1570822   .0305304     5.15   0.000     .0972436    .2169207
    ------------------------------------------------------------------------------

326 . glm hp2work illw1 if gender==2, fam(binomial) link(probit) irls scale(dev)

    Iteration 1:   deviance =  408.8941
    Iteration 2:   deviance =  408.3909
    Iteration 3:   deviance =  408.3907
    Iteration 4:   deviance =  408.3907

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  408.3907209                    (1/df) Deviance =  1.131276
    Pearson          =  362.2934789                    (1/df) Pearson  =  1.003583

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

                                                       BIC             = -1719.489
```

```
------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw1 |    .294665   .1449437     2.03   0.042     .0105805    .5787495
       _cons |  -.7143685   .0815701    -8.76   0.000    -.8742431   -.554494
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

327 . title4 "illw1 alone is a mediator for women"
------------------------------------------------------------------------------
    illw1 alone is a mediator for women
------------------------------------------------------------------------------

328 .
329 .
330 .
331 .
332 . title "Test of female mediation of paid employment in wave 1"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****       Test of female mediation of paid employment in wave 1        ****
    > *
    *****                                                                    ****
    > *
    *****                                                                    ****
    > *
    *****                                     18 Jun 2012    18:12:42        ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
333 . mvreg bf4 age bf40 = avgcumdosew1 if gender==2

    Equation             Obs  Parms        RMSE    "R-sq"          F        P
    ---------------------------------------------------------------------------
    bf4                  363      2    5.149837    0.0253   9.376729   0.0024
    age                  363      2     11.6814    0.0338   12.64139   0.0004
    bf40                 363      2    2.313227    0.0114   4.179627   0.0416


    ------------------------------------------------------------------------------
                 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    bf4          |
    avgcumdosew1 |  -1.508835   .4927379    -3.06   0.002    -2.477832   -.5398375
           _cons |   10.99384   .3168463    34.70   0.000     10.37075    11.61694
    -------------+----------------------------------------------------------------
    age          |
    avgcumdosew1 |   3.973879   1.117679     3.56   0.000     1.775898    6.171859
           _cons |   48.88157   .7187038    68.01   0.000      47.4682    50.29494
    -------------+----------------------------------------------------------------
    bf40         |
    avgcumdosew1 |   .4524905   .2213302     2.04   0.042      .017232     .887749
           _cons |   3.013471   .1423225    21.17   0.000     2.733585    3.293356
    ------------------------------------------------------------------------------

334 . glm hp2work bf4 age bf40 if gender==2, fam(binomial) link(probit) irls ///
    >   scale(dev)

    Iteration 1:   deviance =  354.2404
    Iteration 2:   deviance =  353.2021
    Iteration 3:   deviance =  353.1978
    Iteration 4:   deviance =  353.1978
    Iteration 5:   deviance =  353.1978

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       359
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  353.1977844                    (1/df) Deviance =  .9838378
    Pearson          =  373.3187421                    (1/df) Pearson  =  1.039885

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

                                                       BIC             = -1762.893
```

hp2work	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf. Interval]	
bf4	-.0639211	.0157071	-4.07	0.000	-.0947065	-.0331358
age	.0282268	.007046	4.01	0.000	.0144169	.0420367
bf40	.0293818	.0331211	0.89	0.375	-.0355344	.0942981
_cons	-1.597741	.4643893	-3.44	0.001	-2.507928	-.6875549

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

```
335 . title4  "age & b4  together could be  wave 1 mediators for women"
```

age & b4 together could be wave 1 mediators for women

```
336 .
337 .
338 .
339 .
340 . title "Test of female mediation of paid employment in wave 1"

******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****       Test of female mediation of paid employment in wave 1         ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                          18 Jun 2012    18:12:45    ****
> *
******************************************************************************
> *
******************************************************************************
> *
```

```
341 . mvreg bf4 age bf40 illw1 = avgcumdosew1 if gender==2

Equation          Obs  Parms        RMSE    "R-sq"          F        P
----------------------------------------------------------------------
bf4               363      2    5.149837    0.0253   9.376729   0.0024
age               363      2     11.6814    0.0338   12.64139   0.0004
bf40              363      2    2.313227    0.0114   4.179627   0.0416
illw1             363      2    .4962241    0.0052   1.904017   0.1685

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
bf4          |
avgcumdosew1 |  -1.508835   .4927379    -3.06   0.002    -2.477832   -.5398375
       _cons |   10.99384   .3168463    34.70   0.000     10.37075    11.61694
-------------+----------------------------------------------------------------
age          |
avgcumdosew1 |   3.973879   1.117679     3.56   0.000     1.775898    6.171859
       _cons |   48.88157   .7187038    68.01   0.000      47.4682    50.29494
-------------+----------------------------------------------------------------
bf40         |
avgcumdosew1 |   .4524905   .2213302     2.04   0.042      .017232     .887749
       _cons |   3.013471   .1423225    21.17   0.000     2.733585    3.293356
-------------+----------------------------------------------------------------
illw1        |
avgcumdosew1 |   .0655142   .0474789     1.38   0.168    -.0278557    .1588841
       _cons |   .1570822   .0305304     5.15   0.000     .0970423     .217122
------------------------------------------------------------------------------

342 . glm hp2work bf4 age bf40 illw1 if gender==2, fam(binomial) ///
    >    link(probit) irls scale(dev)

Iteration 1:   deviance =   354.001
Iteration 2:   deviance =  352.9698
Iteration 3:   deviance =  352.9654
Iteration 4:   deviance =  352.9654
Iteration 5:   deviance =  352.9654

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       358
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =   352.965421                    (1/df) Deviance =  .9859369
Pearson          =  374.1304084                    (1/df) Pearson  =  1.045057

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

                                                   BIC             = -1757.231
```

```
------------------------------------------------------------------------------
             |                 EIM
     hp2work |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bf4 |  -.0628029   .0158842    -3.95   0.000    -.0939353   -.0316706
         age |   .0280305   .0070628     3.97   0.000     .0141877    .0418734
        bf40 |   .0276234   .0334236     0.83   0.409    -.0378856    .0931324
       illw1 |   .0692009   .1432947     0.48   0.629    -.2116515    .3500534
       _cons |   -1.60672   .4655573    -3.45   0.001    -2.519195   -.6942446
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

343 . qui: {
When all are together only age and b4 are a wave 1 mediators for women

344 .
345 .
346 . scalar wkMedMw1 = "bf40 "

347 .
348 . scalar SigDoseWkMw1 = "no"

349 . scalar MainEffwkMw1 = "age"

350 . scalar MainEffwkFw1 = "age"

351 . scalar wkMedFw1 = "age b4"

352 . * male hp2wk w1 mediators:  testing b4 and b40
353 .
354 . title4 "*---1.- Summary matrix construction Paid employment partition: first
>  two rows"
------------------------------------------------------------------------------
*---1.- Summary matrix construction Paid employment partition: first two rows
------------------------------------------------------------------------------

355 .
```

```
356 .     matrix define wkMw1 = J(1,8, 0)

357 .         matrix define  wkFw1 = J(1,8, 0)

358 . matrix colnames  wkMw1=  hypnum ptnum wave gender medsig numMAsig numModsig
    > numMed

359 . matrix colnames  wkFw1=  hypnum ptnum wave gender medsig numMAsig numModsig
    > numMed

360 .     matrix rownames  wkMw1 = workMw1

361 .     matrix rownames  wkFw1 = workFw1

362 .         matrix define  wkMw1= (1, 2, 1, 1, 0 ,2,  0  , 1 )

363 .         matrix define  wkFw1= (1, 2, 1, 2, 0, 1,  1  , 2 )

364 .
365 .         matrix define H1pt2w1 = ( wkMw1 \  wkFw1)

366 .     matrix colnames H1pt2w1 =  hypnum ptnum wave  medsig numMAsig numModsig
    > numMed

367 .     matrix rownames H1pt2w1 =  wkMw1 wkFw1

368 .     matlist H1pt2w1

             |     hypnum      ptnum       wave     medsig   numMAsig  numModsi
    > g      numMed      numMed
-------------+-------------------------------------------------------------------
    > -------------------------
       wkMw1 |          1          2          1          1          0
    > 2          0          1
       wkFw1 |          1          2          1          2          0
    > 1          1          2
```

```
369 .
370 . set more off

371 . scalar list
    MainEffwkFw1 = age
    MainEffwkMw1 = age
    MainEffVactnMw1 = age radhlw1
    VactnMedFw1 = age illw1 radhlw1
    VactnMedMw1 = age
    VacatnModFw1 = none
    MainEffVactnFw1 = age radhlw1 bf7m
    SigDoseVactnFw1 = no
    VactnModMw1 = none
    inthobMedFw1 = age bf4 illw1 bf4m
    inthobMedMw1 = age
     inthobMw1 = age
    InthbModFw1 = none
    MainEffInthbFw1 = age radhlw1 bf4
    SigdoseInthbFw1 = no
    InthbModMw1 = none
    MainEffInthbMw1 = age radhlw1 shfamw1
    SigDoseInthbMw1 = no
    MainEffMw1 = radhlw1 bf4 bf40
    sxlifeMedMw1 = radhlw1
    sxlifeMedFw1 = age illw1 radhlw1 bf4 bf4m
    MainEffsxlifeFw1 = age bf4 bf4m
    SigDoseSxlifeFw1 = no
    SigDosesxlifeMw1 = no
    MainEffsxlifeMw1 = age bf4 bf40
    MainEffhmcrFw1 = age
    MainEffhmcrMw1 = age
    hmcrMedFw1 = age bf4
    hmcrMedMw1 = radhlw1
    SigDosePrbfmhmMw1 = no
    vactnModMw1 = none
    SigDoseVactnMw1 = no
    SxLifeModFw1 = no
    sxlifeModFw1 = none
    sxlifeModMw1 = none
    MaineffhmcrMw1 = age bf4 bf40
    SigDoseMEhmcrW1 = no
    PrbfmhmMedFw1 = age bf4
    PrbfmhmMedMw1 = age
    MainEffPrbfmhmFw1 = age radhlw1 bf4
    MainEffPrbfmhmMw1 = age bf4
    PrbfmhmModFw1 = none
    PrbfmhmModMw1 = none
    SigDosePrbfmhmFw1 = no
    SigDosePrbfhmMw1 = no
```

MainEffPrbfhmMw1 = **age bf4**
MainEffVactnMw2 = **age radhlw2**
sxlifeMedMw2 = **age illw2**
SigDoseSxlifeFw2 = **no**
MainEffsxlifeFw2 = **age radhlw2 bf4 bf4m**
MainEffPrbsocMw2 = **age radhlw2 shjobw2**
MainEffhmcrFw2 = **age**
hmcrMedFw2 = **age bf4**
MainEffwkFw2 = **age**
MainEffwkMw2 = **age**
MainEffPrbsocMw1 = **age bf4m**
SigdoseMw1 = **no**
ProbsocMedFw1 = **age bf4**
ProbsocMedMw1 = **radhlw1**
ProbsocModFw1 = **none**
SigDoseProbsocMw1 = **no**
hmcrmedMw1 = **radhlw1**
hmcrmedFw1 = **age b4 b40**
SigdosehmcrFw1 = **no**
MainEffProbSocFw1 = **age radhlw1 avgcumdosew1 shrelaw1 bf4**
SigDoseProbsocFw1 = **yes**
PrbsocModMw1 = **shjobw1Xd1 shrelaw1Xd1**
 WkhmcrMw1 = **age b4**
  WkModFw1 = **ageXd1**
hmcareMedFw1 = **age illw1**
hmcareMedMw1 = **age**
SigDosehmcrFw1 = **no**
  wkMedMw1 = **bf40**
hmcrModFw1 = **none**
SigDoseHmcrFw1 = **yes**
  WkMedMw1 = **bf40**
hmcrModMw1 = **none**
SigDosehmcrMw1 = **no**
  wkMedFw1 = **age b4**
  WKModMw1 = **none**
SigDoseWkMw1 = **no**
SigDoseWkFw1 = **no**
SigDoseFw1 = **no**
  wkModFw1 = **none**
  wkModMw1 = **none**
VactnMedMw2 = **age**
inthobMedMw2 = **age**
 inthobMw2 = **age**
PrbfmhmModMw2 = **none**
MainEffProbSocFw2 = **age radhlw2 avgcumdosew2 bf4**
hmcrModMw2 = **none**
MainEffhmcrMw2 = **age**
  wkMedFw2 = **age b4**
  wkMedMw2 = **age bf4**

MainEffsxlifeMw2 = **age bf4 bf40 shjobw2 shrelaw2 radhlw2**
MainEffPrbfmhmMw2 = **bf4 bf6 bf7**
ProbsocMedFw2 = **age bf4 radhlw2**
hmcareMedFw2 = **age bf4**
 WkhmcrMw2 = **age b4**
MainEffhmcrw2 = **age**
hmcrModFw2 = **none**
SigDoseHmcrFw2 = **yes**
NumhmcrModMw2 = **none**
SigDosehmcrMw2 = **no**
SigdosehmcrFw2 = **yes**
hmcrMedMw2 = **age ageXillw2**
SigDosehmcrFw2 = **no**
MainEffhmcareMw2 = **age**
  WkMedMw2 = **age ageXillw2**
  wkMedFw3 = **radhlw3 age ageXillw3 bf40 bf4m bf1**
VactnMedFw2 = **age illw2 radhlw2**
VacatnModFw2 = **none**
MainEffVactnFw2 = **age radhlw2 bf7m**
SigDoseVactnFw2 = **no**
VactnModMw2 = **none**
vactnModMw2 = **none**
SigDoseVactnMw2 = **no**
inthobMedFw2 = **age bf4 illw2 bf4m**
InthbModFw2 = **none**
MainEffInthbFw2 = **age radhlw2 bf4**
SigdoseInthbFw2 = **no**
InthbModMw2 = **none**
MainEffInthbMw2 = **age radhlw2 shfamw2**
SigDoseInthbMw2 = **no**
MainEffMw2 = **radhlw2 bf4 bf40**
SigdoseMEinthob = **no**
sxlifeMedFw2 = **age illw2 radhlw2 bf4 bf4m**
SxLifeModFw2 = **no**
sxlifeModFw2 = **none**
sxlifeModMw2 = **none**
SigDosesxlifeMw2 = **no**
PrbfmhmMedFw2 = **age bf4**
PrbfmhmMedMw2 = **age**
PrbfmhmModFw2 = **none**
MainEffPrbfmhmFw2 = **age bf4 bf40**
SigDosePrbfmhmFw2 = **no**
PrbfmhmModw2 = **none**
SigDosePrbfmhmMw2 = **no**
SigDosePrbfhmMw2 = **no**
MainEffPrbfhmMw2 = **bf4 bf6 bf7**
ProbsocMedMw2 = **age**
ProbsocModFw2 = **none**
SigDoseProbsocFw2 = **yes**

```
ProbSocModMw2 = none
SigDoseProbsocMw2 = no
PrbsocModMw2 = none
SigdoseMw2 = none
hmcareMedMw2 = age
hmcareModFw2 = none
MainEffhmcarew2 = age
SigdoseHmcareFw2 = no
hmcareModMw2 = none
SigDoseHmcareMw2 = no
NameMedMw2 = age ageXillw2
 NumModMw2 = none
SigDosehmcareMw2 = no
SigDoseWKMw2 = no
  WkMedFw2 = age bf4
  WkModFw2 = none
  WKModMw2 = none
SigDoseWkMw2 = no
SigDoseWkFw2 = no
SigDoseFw2 = no
  wkModFw2 = none
  wkModMw2 = none
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
  wkMedMw3 = bf8 age illw3 ageXillw3
  wkModFw3 = none
  wkModMw3 = none
MainEffwkFw3 = age
MainEffwkMw3 = workM: age  bf8  illw3  shjobw3
SigDoseWKMw3 = no
SigDoseWkFw3 = no

. * moderator construction
. * none ussed because basic dose work relationship washes out
.
. title "2. Hyp 1 pt 2 wave 1 male dose Hp2hmcare impact explored"


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****      2. Hyp 1 pt 2 wave 1 male dose Hp2hmcare impact explored       ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
```

```
*****                                         18 Jun 2012    18:12:48  ****
> *
*******************************************************************************
> *
*******************************************************************************
> *



376 .
377 . * -------  testing male and female moderators-wave 1 for hmcare-------------
    > ----
378 .
379 . cap gen hp2hmcare=HP2hmcare

380 .
381 . forvalues j=1/1 {
  2. set more off
  3. local w1bf bf1 bf4 bf9 bf10 bf11 bf4m bf15m bf20 bf22 bf30 bf40
  4. di as input "For females hp2hmcare on wave 1 with dose ns"
  5.         des  age occ1w`j'-occ8w`j' inc1w`j'-inc4w`j' avgcumdosew`j' bf8 /
> //
>            marrw`j'1-marrw`j'6  `w1bf' radhlw`j'
  6.         sw, pr(.1): logistic hp2hmcare marrw`j'3-marrw`j'6 age  havmilsq
> ///
>                 avgcumdosew1 bf8 illw`j' shjobw`j' suprtw`j' if gender==1, c
> oef
  7.         estat gof
  8.         estat class
  9.         fitstat
 10.         }
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
occ1w1          double %15.0g      LABJ       profess executive administration
                                                in 1986
occ2w1          double %15.0g      LABJ       technical sales admin support in
                                                1986
occ3w1          double %15.0g      LABJ       service occup protective
                                                services in 1986
occ4w1          double %15.0g      LABJ       precision prod mechan craft
                                                construction in 1986
occ5w1          double %15.0g      LABJ       factory laborer machinist transp
                                                cleaner in 1986
occ6w1          double %15.0g      LABJ       farming agricul forestry fishing
                                                trapping logging in 1986
```

```
occ7w1          double %15.0g      LABJ       homemaking or caregiving in 1986
occ8w1          double %15.0g      LABJ       student in 1986
inc1w1          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1986
inc2w1          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1986
inc3w1          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1986
inc4w1          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1986
avgcumdosew1    double %8.0g                  wave 1 avg mean CS137 dose in
                                                mGy ending 12/31/1986
bf8             float  %9.0g                  bf8 = max(0, radtlw3 - 40) *
                                                bf5m
marrw11         byte   %8.0g                  marrw1==1. single
marrw12         byte   %8.0g                  marrw1==2. cohabitating
marrw13         byte   %8.0g                  marrw1==3. married
marrw14         byte   %8.0g                  marrw1==4. separated
marrw15         byte   %8.0g                  marrw1==5. divorced
marrw16         byte   %8.0g                  marrw1==6. widowed
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)
bf10            float  %9.0g                  bf10= max(0, sufamw1 - 20)
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
bf20            float  %9.0g                  bf20 = max(0, kzchorn -
                                                2.53946E-006)
bf22            float  %9.0g                  bf22 = max(0, icdxcnt -
                                                1.01635E-007) * bf7m
bf30            float  %9.0g                  bf30 = max(0, neiw1 - 85) * bf20
bf40            float  %9.0g                  bf40 = max(0, icdxcnt -
                                                1.01635E-007)
radhlw1         double %8.0g                  how much believed personal
                                                health is affected by
                                                radiation in 1986
note: marrw14 dropped because of collinearity
note: marrw16 dropped because of collinearity
                      begin with full model
p = 0.8518 >= 0.1000  removing marrw13
p = 0.6179 >= 0.1000  removing avgcumdosew1
p = 0.5000 >= 0.1000  removing havmilsq
p = 0.5276 >= 0.1000  removing bf8
p = 0.5433 >= 0.1000  removing illw1
p = 0.4921 >= 0.1000  removing marrw15
p = 0.1693 >= 0.1000  removing suprtw1
```

```
Logistic regression                               Number of obs   =        340
                                                  LR chi2(2)      =      41.30
                                                  Prob > chi2     =     0.0000
Log likelihood = -152.22537                       Pseudo R2       =     0.1194

------------------------------------------------------------------------------
   hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0525652   .0122122     4.30   0.000     .0286297    .0765007
     shjobw1 |   .0156714   .0041469     3.78   0.000     .0075436    .0237992
       _cons |  -4.957356   .7134246    -6.95   0.000    -6.355643    -3.55907
------------------------------------------------------------------------------
```

Logistic model for hp2hmcare, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       215
            Pearson chi2(212) =       221.53
                  Prob > chi2 =         0.3127
```

Logistic model for hp2hmcare

```
              -------- True --------
Classified |         D            ~D  |      Total
-----------+--------------------------+-----------
     +     |        14             4  |         18
     -     |        56           266  |        322
-----------+--------------------------+-----------
   Total   |        70           270  |        340

Classified + if predicted Pr(D) >= .5
True D defined as hp2hmcare != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   20.00%
Specificity                     Pr( -|~D)   98.52%
Positive predictive value       Pr( D| +)   77.78%
Negative predictive value       Pr(~D| -)   82.61%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    1.48%
False - rate for true D         Pr( -| D)   80.00%
False + rate for classified +   Pr(~D| +)   22.22%
False - rate for classified -   Pr( D| -)   17.39%
--------------------------------------------------
Correctly classified                        82.35%
--------------------------------------------------
```

Measures of Fit for **logistic** of **hp2hmcare**

```
Log-Lik Intercept Only:      -172.873   Log-Lik Full Model:          -152.225
D(337):                       304.451   LR(2):                         41.295
                                        Prob > LR:                      0.000
McFadden's R2:                  0.119   McFadden's Adj R2:              0.102
Maximum Likelihood R2:          0.114   Cragg & Uhler's R2:             0.179
McKelvey and Zavoina's R2:      0.217   Efron's R2:                     0.130
Variance of y*:                 4.204   Variance of error:              3.290
Count R2:                       0.824   Adj Count R2:                   0.143
AIC:                            0.913   AIC*n:                        310.451
BIC:                        -1659.904   BIC':                         -29.637

382 .
383 . cap gen shjobw1Xd1 = shjobw1*avgcumdosew1

384 .
385 . logit hp2hmcare age avgcumdosew1 shjobw1 ageXd1 shjobw1Xd1 if gender==1

Iteration 0:   log likelihood = -172.87291
Iteration 1:   log likelihood = -152.72837
Iteration 2:   log likelihood = -151.52069
Iteration 3:   log likelihood = -151.51061
Iteration 4:   log likelihood = -151.51059
Iteration 5:   log likelihood = -151.51059

Logistic regression                               Number of obs   =        340
                                                  LR chi2(5)      =      42.72
                                                  Prob > chi2     =     0.0000
Log likelihood = -151.51059                       Pseudo R2       =     0.1236
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0459744	.0152127	3.02	0.003	.0161581	.0757907
avgcumdosew1	-2.020359	2.276313	-0.89	0.375	-6.481851	2.441132
shjobw1	.0138632	.0047443	2.92	0.003	.0045646	.0231618
ageXd1	.0271336	.0358792	0.76	0.449	-.0431882	.0974555
shjobw1Xd1	.0056837	.007561	0.75	0.452	-.0091355	.020503
_cons	-4.439055	.908991	-4.88	0.000	-6.220645	-2.657466

```
386 .
387 . scalar SigDosehmcrMw1 = "no"

388 . scalar MainEffhmcrMw1 = "age shjobw1"

389 . scalar hmcrModMw1 = "none"

390 .
391 .
392 .
393 . title4 "Trimmed female Hp2hmcare moderator model"
    ------------------------------------------------------------------------------
    Trimmed female Hp2hmcare moderator model
    ------------------------------------------------------------------------------

394 .
395 . cap gen ageXd1= age*avgcumdosew1

396 .
397 . forvalues j=1/1 {
      2. set more off
      3. local w1bf bf1 bf4 bf9 bf10 bf11 bf4m bf15m bf20 bf22 bf30 bf40
      4. di as input "For females HP2hmcare on wave 1 with dose ns"
      5.         des  age  avgcumdosew`j' ///
    >            marrw`j'1-marrw`j'6  `w1bf' radhlw`j'
      6.         logistic hp2hmcare marrw`j'3-marrw`j'6 age  havmilsq ///
    >                 avgcumdosew1 illw`j' ageXd1 if gender==2, coef
      7.         estat gof
      8.         estat class
      9.         fitstat
     10.         }
    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
    avgcumdosew1    double %8.0g                  wave 1 avg mean CS137 dose in
                                                    mGy ending 12/31/1986
    marrw11         byte   %8.0g                  marrw1==1. single
    marrw12         byte   %8.0g                  marrw1==2. cohabitating
    marrw13         byte   %8.0g                  marrw1==3. married
    marrw14         byte   %8.0g                  marrw1==4. separated
    marrw15         byte   %8.0g                  marrw1==5. divorced
    marrw16         byte   %8.0g                  marrw1==6. widowed
    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)
    bf10            float  %9.0g                  bf10= max(0, sufamw1 - 20)
```

```
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
bf20             float  %9.0g                 bf20 = max(0, kzchorn -
                                                2.53946E-006)
bf22             float  %9.0g                 bf22 = max(0, icdxcnt -
                                                1.01635E-007) * bf7m
bf30             float  %9.0g                 bf30 = max(0, neiwl - 85) * bf20
bf40             float  %9.0g                 bf40 = max(0, icdxcnt -
                                                1.01635E-007)
radhlw1          double %8.0g                 how much believed personal
                                                health is affected by
                                                radiation in 1986
note: marrw14 != 0 predicts success perfectly
      marrw14 dropped and 3 obs not used


Logistic regression                               Number of obs   =        360
                                                  LR chi2(8)      =      90.30
                                                  Prob > chi2     =     0.0000
Log likelihood = -185.35656                       Pseudo R2       =     0.1959
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
marrw13	-.3849014	.3723136	-1.03	0.301	-1.114623	.3448198
marrw14	0	(omitted)				
marrw15	-.9153623	1.029513	-0.89	0.374	-2.93317	1.102445
marrw16	-.9459556	1.17984	-0.80	0.423	-3.258399	1.366488
age	.1113504	.0191706	5.81	0.000	.0737767	.1489241
havmilsq	-2.13e-06	2.61e-06	-0.82	0.413	-7.24e-06	2.97e-06
avgcumdosew1	1.596621	2.0241	0.79	0.430	-2.370543	5.563785
illw1	.8779977	.2787263	3.15	0.002	.3317043	1.424291
ageXd1	-.0367027	.0350736	-1.05	0.295	-.1054456	.0320402
_cons	-6.146477	.9034853	-6.80	0.000	-7.917275	-4.375678

```
Note: 1 failure and 0 successes completely determined.
```

Logistic model for hp2hmcare, goodness-of-fit test

```
       number of observations =       360
 number of covariate patterns =       338
             Pearson chi2(329) =       329.08
                   Prob > chi2 =         0.4884

Logistic model for hp2hmcare
```

Classified	True D	True ~D	Total
+	**61**	**28**	**89**
-	**61**	**210**	**271**
Total	**122**	**238**	**360**

Classified + if predicted Pr(D) >= .5
True D defined as hp2hmcare != 0

Sensitivity	Pr(+| D)	**50.00%**
Specificity	Pr(-|~D)	**88.24%**
Positive predictive value	Pr(D| +)	**68.54%**
Negative predictive value	Pr(~D| -)	**77.49%**
False + rate for true ~D	Pr(+|~D)	**11.76%**
False - rate for true D	Pr(-| D)	**50.00%**
False + rate for classified +	Pr(~D| +)	**31.46%**
False - rate for classified -	Pr(D| -)	**22.51%**
Correctly classified		**75.28%**

Measures of Fit for **logistic** of **hp2hmcare**

Log-Lik Intercept Only:	**-230.506**	Log-Lik Full Model:	**-185.357**
D(350):	**370.713**	LR(8):	**90.300**
		Prob > LR:	**0.000**
McFadden's R2:	**0.196**	McFadden's Adj R2:	**0.152**
Maximum Likelihood R2:	**0.222**	Cragg & Uhler's R2:	**0.307**
McKelvey and Zavoina's R2:	**0.468**	Efron's R2:	**0.243**
Variance of y*:	**6.185**	Variance of error:	**3.290**
Count R2:	**0.753**	Adj Count R2:	**0.270**
AIC:	**1.085**	AIC*n:	**390.713**
BIC:	**-1689.423**	BIC':	**-43.211**

```
398 .
399 . title4 "Trimmed model of hp2work for women in wave 1"
    ─────────────────────────────────────────────────────────────────────────────
    Trimmed model of hp2work for women in wave 1
    ─────────────────────────────────────────────────────────────────────────────


400 . forvalues j=1/1 {
      2. set more off
      3. local w1bf bf1 bf4 bf9 bf10 bf11 bf4m bf15m bf20 bf22 bf30 bf40
      4. di as input "For females HP2hmcare on wave 1 with dose ns"
      5.         des  age  avgcumdosew`j' ///
    >            marrw`j'1-marrw`j'6  `w1bf' radhlw`j'
      6.         logistic hp2hmcare age avgcumdosew1 illw`j'  if gender==2, coef
      7.         estat gof
      8.         estat class
      9.         fitstat
     10.         }
    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
    avgcumdosew1    double %8.0g                  wave 1 avg mean CS137 dose in
                                                    mGy ending 12/31/1986
    marrw11         byte   %8.0g                  marrw1==1. single
    marrw12         byte   %8.0g                  marrw1==2. cohabitating
    marrw13         byte   %8.0g                  marrw1==3. married
    marrw14         byte   %8.0g                  marrw1==4. separated
    marrw15         byte   %8.0g                  marrw1==5. divorced
    marrw16         byte   %8.0g                  marrw1==6. widowed
    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)
    bf10            float  %9.0g                  bf10= max(0, sufamw1 - 20)
    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
    bf20            float  %9.0g                  bf20 = max(0, kzchorn -
                                                    2.53946E-006)
    bf22            float  %9.0g                  bf22 = max(0, icdxcnt -
                                                    1.01635E-007) * bf7m
    bf30            float  %9.0g                  bf30 = max(0, neiw1 - 85) * bf20
    bf40            float  %9.0g                  bf40 = max(0, icdxcnt -
                                                    1.01635E-007)
    radhlw1         double %8.0g                  how much believed personal
                                                    health is affected by
                                                    radiation in 1986
```

```
Logistic regression                               Number of obs   =        363
                                                  LR chi2(3)      =      88.59
                                                  Prob > chi2     =     0.0000
Log likelihood = -189.43609                       Pseudo R2       =     0.1895
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0919881	.0122684	7.50	0.000	.0679425	.1160337
avgcumdosew1	-.5411658	.2831823	-1.91	0.056	-1.096193	.0138613
illw1	.8054954	.2675545	3.01	0.003	.2810981	1.329893
_cons	-5.38915	.6535341	-8.25	0.000	-6.670053	-4.108247

Logistic model for hp2hmcare, goodness-of-fit test

```
      number of observations =       363
number of covariate patterns =       313
            Pearson chi2(309) =       323.98
                  Prob > chi2 =         0.2677
```

Logistic model for hp2hmcare

	True		
Classified	D	~D	Total
+	64	28	92
-	61	210	271
Total	125	238	363

Classified + if predicted Pr(D) >= .5
True D defined as hp2hmcare != 0

Sensitivity	Pr(+| D)	51.20%
Specificity	Pr(-|~D)	88.24%
Positive predictive value	Pr(D| +)	69.57%
Negative predictive value	Pr(~D| -)	77.49%
False + rate for true ~D	Pr(+|~D)	11.76%
False - rate for true D	Pr(-| D)	48.80%
False + rate for classified +	Pr(~D| +)	30.43%
False - rate for classified -	Pr(D| -)	22.51%
Correctly classified		75.48%

```
Measures of Fit for logistic of hp2hmcare

Log-Lik Intercept Only:      -233.729    Log-Lik Full Model:          -189.436
D(359):                       378.872    LR(3):                         88.585
                                         Prob > LR:                      0.000
McFadden's R2:                  0.190    McFadden's Adj R2:              0.172
Maximum Likelihood R2:          0.217    Cragg & Uhler's R2:             0.299
McKelvey and Zavoina's R2:      0.304    Efron's R2:                     0.241
Variance of y*:                 4.725    Variance of error:              3.290
Count R2:                       0.755    Adj Count R2:                   0.288
AIC:                            1.066    AIC*n:                        386.872
BIC:                        -1737.218    BIC':                         -70.902

401 .
402 . qui {
```

Caveat: We drop bf8 because it is dependent on a variable in a future wave.

If it depended on a past wave variable we might have kept it.

But when it is dependent on something that has not happened yet,

it is too latent to consider in a wave specific analysis.

```
403 . des bf8 bf5m bf4m
```

variable name	storage type	display format	value label	variable label
bf8	float	%9.0g		**bf8 = max(0, radtlw3 - 40) * bf5m**
bf5m	float	%9.0g		**bf5m = max(0, ecprw3 - 75) * bf4m**
bf4m	float	%9.0g		**bf4m = max(0, 32 - BSIsoma)**

```
404 . scalar SigDosehmcrFw1 = "no"

405 . scalar MainEffhmcrFw1 = "illw1 age"

406 .
407 .
408 . title4 "home care wave 1 male mediator analysis"
    ------------------------------------------------------------------------------
    home care wave 1 male mediator analysis
    ------------------------------------------------------------------------------

409 .
410 . title4 "age is a possible male mediator of home care in wave 1"
    ------------------------------------------------------------------------------
    age is a possible male mediator of home care in wave 1
    ------------------------------------------------------------------------------

411 . glm age avgcumdosew1 if gender==1, fam(gaussian) link(identity)

    Iteration 0:   log likelihood =  -1331.608

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  148.5632
    Deviance         =  50214.37624                    (1/df) Deviance =  148.5632
    Pearson          =  50214.37624                    (1/df) Pearson  =  148.5632

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

                                                       AIC             =  7.844753
    Log likelihood   = -1331.607976                    BIC             =  48244.19

    ------------------------------------------------------------------------------
                 |                 OIM
             age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew1 |   .6719789   .3966839     1.69   0.090    -.1055072    1.449465
           _cons |   48.89394   .6825967    71.63   0.000     47.55607     50.2318
    ------------------------------------------------------------------------------
```

```
412 . glm hp2hmcare age if gender==1, fam(binomial) irls scale(dev) link(probit)

    Iteration 1:   deviance =  320.8295
    Iteration 2:   deviance =  320.0337
    Iteration 3:   deviance =  320.0328
    Iteration 4:   deviance =  320.0328

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        338
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  320.0327771                    (1/df) Deviance =   .9468425
    Pearson          =   341.699231                    (1/df) Pearson  =   1.010944

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

                                                       BIC             =  -1650.151
```

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.)

413 .
414 . scalar hmcrMedMw1 = "age ageXillw1"

415 .
416 . di as input "age is a possible male mediator for home care in wave 1"
    age is a possible male mediator for home care in wave 1

417 .
418 .
419 . di as input "age and illw1 as main effects together suppress illw1"
    age and illw1 as main effects together suppress illw1
```

```
420 . glm illw1 age avgcumdosew1 if gender==1, family(gaussian) link(identity)

    Iteration 0:   log likelihood = -149.77052

    Generalized linear models                          No. of obs      =        340
    Optimization     : ML                              Residual df     =        337
                                                       Scale parameter =   .1425573
    Deviance         =  48.04180784                    (1/df) Deviance =   .1425573
    Pearson          =  48.04180784                    (1/df) Pearson  =   .1425573

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

                                                       AIC             =   .8986501
    Log likelihood   = -149.7705231                    BIC             =  -1916.313

    ------------------------------------------------------------------------------
                 |                 OIM
           illw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             age |   .0031119   .0016849     1.85   0.065    -.0001905    .0064143
    avgcumdosew1 |   .0066365   .0123401     0.54   0.591    -.0175497    .0308227
           _cons |  -.0558998   .0850529    -0.66   0.511    -.2226005    .1108009
    ------------------------------------------------------------------------------

421 . glm hp2hmcare illw1 age  if gender==1, family(binomial) irls scale(dev) link
    > (probit)

    Iteration 1:   deviance =  320.7839
    Iteration 2:   deviance =  319.9774
    Iteration 3:   deviance =  319.9764
    Iteration 4:   deviance =  319.9764

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        337
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  319.9764494                    (1/df) Deviance =    .949485
    Pearson          =  341.9238822                    (1/df) Pearson  =   1.014611

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

                                                       BIC             =  -1644.378
```

```
------------------------------------------------------------------------------
             |                 EIM
   hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw1 |   .0470226   .1922185     0.24   0.807    -.3297186    .4237639
         age |    .032421   .0064525     5.02   0.000     .0197743    .0450676
       _cons |  -2.482523     .34428    -7.21   0.000      -3.1573   -1.807747
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

422 .
423 .
424 . di as input "Interaction of age and wave 1 illness for males is mediator-mod
    > erator on hmcare"
    Interaction of age and wave 1 illness for males is mediator-moderator on hmcar
    > e

425 .
426 . cap gen ageXillw1 = age*illw1

427 . glm illw1 avgcumdosew1 if gender==1, family(gaussian) link(identity)

    Iteration 0:   log likelihood = -151.48261

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  .1435742
    Deviance         =  48.52808533                    (1/df) Deviance =  .1435742
    Pearson          =  48.52808533                    (1/df) Pearson  =  .1435742

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

                                                       AIC             =  .9028389
    Log likelihood   = -151.4826069                    BIC             = -1921.656

------------------------------------------------------------------------------
             |                 OIM
       illw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   .0087277   .0123318     0.71   0.479    -.0154423    .0328976
       _cons |   .0962541   .0212201     4.54   0.000     .0546635    .1378446
------------------------------------------------------------------------------
```

```
428 . glm hp2hmcare illw1 avgcumdosew1 ageXillw1 if gender==1, family(binomial) //
    > /
    >    irls scale(dev) link(probit)

    Iteration 1:   deviance =  344.1427
    Iteration 2:   deviance =    343.92
    Iteration 3:   deviance =  343.9199
    Iteration 4:   deviance =  343.9199

    Generalized linear models                          No. of obs      =       340
    Optimization     : MQL Fisher scoring              Residual df     =       336
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  343.9198791                    (1/df) Deviance =  1.023571
    Pearson          =   339.000371                    (1/df) Pearson  =   1.00893

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

                                                       BIC             = -1614.606

    ------------------------------------------------------------------------------
                 |                 EIM
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
           illw1 |  -1.213319   1.209268    -1.00   0.316    -3.583441    1.156803
    avgcumdosew1 |  -.0042013   .0484889    -0.09   0.931    -.0992378    .0908352
       ageXillw1 |   .0242393   .0213349     1.14   0.256    -.0175764    .0660551
           _cons |  -.8321418   .0831923   -10.00   0.000    -.9951958   -.6690878
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

429 .
430 .
431 .
432 . * Saving mediators as scalars for Dose=work relationship
433 . **** female mediators of dose-paid employment: radhlw1, age, bf40, bf4m, bf4
    > , bf1
```

```
434 .
435 . scalar hmcrMedMw1 = "age"

436 . scalar hmcrMedFw1 = "age avgcumdosew1 bf4 bf4m "

437 .
438 . cap gen hp2vacatn = HP2vacatn

439 .
440 .
441 . title "2. H1 pt2 wave 1 Dose female moderator Homecare impact  "


    *******************************************************************************
    > *
    *******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****      2. H1 pt2 wave 1 Dose female moderator Homecare impact         ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                            18 Jun 2012    18:13:14  ****
    > *
    *******************************************************************************
    > *
    *******************************************************************************
    > *



442 .
```

```
443 .
444 . *  review of general model for men and women
445 .
446 . forvalues j=1/1 {
  2.  set more off
  3.
447 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
  4.
448 .   foreach var in HP2hmcare  {
  5.
449 . local w1bf bf1 bf4 bf9 bf10 bf11 bf4m bf15m bf20 bf22 bf30 bf40
  6.    title  "chunk 3 H1 test pt 2 :Gender= `k'  model Wave =  `j' for `e(de
    > pvar)' "
  7.                 di _skip(4)
  8.
450 .
451 .       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' radhlw1 ///
    >                 illw`j' shfamw`j' shhlw`j' shjobw`j' shrelaw`j' suprtw`j' su
    > chrw`j' ///
    >                  havmilsq if gender==2, coef  difficult iterate(50)
  9.                         estat class
 10.                         estat gof
 11.                         fitstat
 12.
452 . }
 13. }

              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
marrw11         byte   %8.0g                  marrw1==1. single
marrw12         byte   %8.0g                  marrw1==2. cohabitating
```

```
marrw13          byte   %8.0g                   marrw1==3. married
marrw14          byte   %8.0g                   marrw1==4. separated
marrw15          byte   %8.0g                   marrw1==5. divorced
marrw16          byte   %8.0g                   marrw1==6. widowed
inc1w1           double %15.0g      LABJ        Income is not sufficient for
                                                  basic neccessities in 1986
inc2w1           double %15.0g      LABJ        Income is just sufficient for
                                                  basic neccessities in 1986
inc3w1           double %15.0g      LABJ        Income is sufficient for basics
                                                  plus extra purchases/savings
                                                  in 1986
inc4w1           double %15.0g      LABJ        Income allows to comfortably
                                                  afford luxury items in 1986
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)


****************************************************************************
> *
****************************************************************************
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****   chunk 3 H1 test pt 2 :Gender=   model Wave =  1 for hp2hmcare    ****
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****                                         18 Jun 2012    18:13:14  ****
> *
****************************************************************************
> *
****************************************************************************
> *
```

```
i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: _Ieduc_8 omitted because of collinearity
note: radhlw1 omitted because of collinearity

Logistic regression                               Number of obs   =        358
                                                  LR chi2(51)     =     163.36
                                                  Prob > chi2     =     0.0000
Log likelihood =  -149.9205                       Pseudo R2       =     0.3527
```

HP2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1322255	.0241652	5.47	0.000	.0848625	.1795885
_Ieduc_2	-10.0193	754.0186	-0.01	0.989	-1487.869	1467.83
_Ieduc_3	-10.49152	754.0185	-0.01	0.989	-1488.341	1467.358
_Ieduc_4	-8.71423	754.0188	-0.01	0.991	-1486.564	1469.135
_Ieduc_5	-10.4068	754.0186	-0.01	0.989	-1488.256	1467.443
_Ieduc_6	-10.68819	754.0185	-0.01	0.989	-1488.537	1467.161
_Ieduc_7	-10.94334	754.0203	-0.01	0.988	-1488.796	1466.909
_Ieduc_8	0	(omitted)				
occ1w1	-2.443994	1.415397	-1.73	0.084	-5.218121	.3301329
occ2w1	-2.519671	1.458446	-1.73	0.084	-5.378173	.3388315
occ3w1	-2.372771	1.446929	-1.64	0.101	-5.2087	.4631575
occ4w1	-3.256872	1.570864	-2.07	0.038	-6.335709	-.1780355
occ5w1	-3.906156	1.725894	-2.26	0.024	-7.288845	-.5234666
occ6w1	-5.192057	1.956306	-2.65	0.008	-9.026346	-1.357767
occ7w1	-.9645317	1.49363	-0.65	0.518	-3.891993	1.962929
occ8w1	-1.541951	1.448029	-1.06	0.287	-4.380037	1.296134
marrw11	-.4640303	1.925158	-0.24	0.810	-4.237272	3.309211
marrw12	-1.711412	2.266816	-0.75	0.450	-6.15429	2.731467
marrw13	-1.34516	1.914926	-0.70	0.482	-5.098345	2.408026
marrw15	-2.648889	2.280264	-1.16	0.245	-7.118125	1.820346
marrw16	-3.140349	2.467603	-1.27	0.203	-7.976762	1.696063
inc1w1	1.997721	1.384475	1.44	0.149	-.7157992	4.711242
inc2w1	2.374508	1.354203	1.75	0.080	-.2796802	5.028697
inc3w1	2.719588	1.365246	1.99	0.046	.0437547	5.395421
inc4w1	2.169417	1.522601	1.42	0.154	-.8148263	5.15366
radhlw1	.000015	.0054568	0.00	0.998	-.0106801	.0107101
havmil	-.003359	.0026195	-1.28	0.200	-.008493	.0017751
avgcumdosew1	-.9556895	.3881039	-2.46	0.014	-1.716359	-.1950199
bf1	-.0087777	.0246959	-0.36	0.722	-.0571808	.0396254
bf4	-.5899724	.228594	-2.58	0.010	-1.038008	-.1419365
bf9	-.0436396	.0223962	-1.95	0.051	-.0875353	.0002562
bf10	.0090231	.0130434	0.69	0.489	-.0165414	.0345877
bf11	.0532598	.0430698	1.24	0.216	-.0311554	.1376749
bf4m	.4051708	.2117859	1.91	0.056	-.0099218	.8202635
bf15m	.0002493	.0003321	0.75	0.453	-.0004015	.0009002
bf20	-.0059985	.0202682	-0.30	0.767	-.0457235	.0337264

bf22	-.0000321	.0000692	-0.46	0.643	-.0001678	.0001036
bf30	.0002449	.0002901	0.84	0.398	-.0003236	.0008135
bf40	.0632557	.0911174	0.69	0.488	-.115331	.2418425
deaw1	.158171	.2197751	0.72	0.472	-.2725802	.5889222
dvcew1	.1254408	2.091225	0.06	0.952	-3.973284	4.224166
sepaw1	-.6497514	2.414062	-0.27	0.788	-5.381225	4.081722
accdw1	.2831415	.8314301	0.34	0.733	-1.346432	1.912715
movew1	.2074149	.4471555	0.46	0.643	-.6689937	1.083823
radhlw1	0	(omitted)				
illw1	1.106215	.3492383	3.17	0.002	.4217202	1.790709
shfamw1	-.0002582	.0064446	-0.04	0.968	-.0128893	.0123729
shhlw1	-.006468	.0095563	-0.68	0.499	-.025198	.012262
shjobw1	.0002575	.007117	0.04	0.971	-.0136915	.0142066
shrelaw1	-.0148903	.0065942	-2.26	0.024	-.0278146	-.001966
suprtw1	-.0041909	.0088489	-0.47	0.636	-.0215344	.0131526
suchrw1	.0319242	.0187143	1.71	0.088	-.0047551	.0686035
havmilsq	5.48e-07	1.88e-06	0.29	0.771	-3.14e-06	4.23e-06
_cons	3.542841	754.0254	0.00	0.996	-1474.32	1481.405

Logistic model for HP2hmcare

	True		
Classified	D	~D	Total
+	85	27	112
-	40	206	246
Total	125	233	358

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

Sensitivity	Pr(+| D)	68.00%
Specificity	Pr(-|~D)	88.41%
Positive predictive value	Pr(D| +)	75.89%
Negative predictive value	Pr(~D| -)	83.74%
False + rate for true ~D	Pr(+|~D)	11.59%
False - rate for true D	Pr(-| D)	32.00%
False + rate for classified +	Pr(~D| +)	24.11%
False - rate for classified -	Pr(D| -)	16.26%
Correctly classified		81.28%

Logistic model for HP2hmcare, goodness-of-fit test

```
       number of observations =       358
 number of covariate patterns =       358
            Pearson chi2(306) =       314.35
                  Prob > chi2 =         0.3590

Measures of Fit for logistic of HP2hmcare

Log-Lik Intercept Only:     -231.600   Log-Lik Full Model:          -149.920
D(304):                      299.841   LR(51):                       163.358
                                       Prob > LR:                      0.000
McFadden's R2:                 0.353   McFadden's Adj R2:              0.120
Maximum Likelihood R2:         0.366   Cragg & Uhler's R2:             0.505
McKelvey and Zavoina's R2:     0.599   Efron's R2:                     0.401
Variance of y*:                8.211   Variance of error:              3.290
Count R2:                      0.813   Adj Count R2:                   0.464
AIC:                           1.139   AIC*n:                        407.841
BIC:                       -1487.841   BIC':                         136.549

453 .
454 . title4 "Partly trimmed Female Main effects model for dose=> homecare wave 1"
    >
```

Partly trimmed Female Main effects model for dose=> homecare wave 1

```
455 .   logit hp2hmcare age radhlw1  ///
    >      avgcumdosew1 bf4  if gender==2

Iteration 0:   log likelihood = -233.30573
Iteration 1:   log likelihood = -184.19159
Iteration 2:   log likelihood = -183.06271
Iteration 3:   log likelihood = -183.05768
Iteration 4:   log likelihood = -183.05768

Logistic regression                               Number of obs   =        362
                                                  LR chi2(4)      =     100.50
                                                  Prob > chi2     =     0.0000
Log likelihood = -183.05768                       Pseudo R2       =     0.2154
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0770328	.0130012	5.93	0.000	.0515508	.1025148
radhlw1	-.0011136	.0035739	-0.31	0.755	-.0081184	.0058911
avgcumdosew1	-.5567889	.2722015	-2.05	0.041	-1.090294	-.0232837
bf4	-.1227731	.0262991	-4.67	0.000	-.1743185	-.0712277
_cons	-3.173011	.7808961	-4.06	0.000	-4.703539	-1.642482

```
456 .
457 .  title4 "Partly trimmed Female Main effects model for dose=> homecare wave 1
    > "
    ────────────────────────────────────────────────────────────────────────────────

    Partly trimmed Female Main effects model for dose=> homecare wave 1
    ────────────────────────────────────────────────────────────────────────────────

458 .   logit hp2hmcare age avgcumdosew1 bf4  if gender==2

    Iteration 0:   log likelihood = -233.72859
    Iteration 1:   log likelihood = -184.31143
    Iteration 2:   log likelihood = -183.15831
    Iteration 3:   log likelihood = -183.15306
    Iteration 4:   log likelihood = -183.15306

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(3)      =     101.15
                                                      Prob > chi2     =     0.0000
    Log likelihood = -183.15306                       Pseudo R2       =     0.2164

    ────────────────────────────────────────────────────────────────────────────────
       hp2hmcare       Coef.   Std. Err.       z    P>|z|      [95% Conf. Interval]
    ────────────────────────────────────────────────────────────────────────────────
             age    .0763754   .0127317     6.00   0.000      .0514218    .1013291
    avgcumdosew1   -.5587715   .2733515    -2.04   0.041     -1.094531   -.0230124
             bf4    -.122574   .0262798    -4.66   0.000     -.1740815   -.0710665
           _cons   -3.204746    .777467    -4.12   0.000     -4.728553   -1.680939
    ────────────────────────────────────────────────────────────────────────────────

459 .
460 .
461 .
462 . di as input "female trimmed model for dose-home care impact in wv 1wave 1: d
    > ose not signif"
    female trimmed model for dose-home care impact in wv 1wave 1: dose not signif

463 . di as input " female dose is not signif as main effect in dose - homecare im
    > pact "
     female dose is not signif as main effect in dose - homecare impact
```

```
464 . di as input  " no female moderate interactions for dose-homecare impact"
     no female moderate interactions for dose-homecare impact

465 .
466 . scalar SigDoseHmcrFw1 = "yes"

467 . scalar MainEffhmcrFw1= "age  b4 avgcumdosew1"

468 . scalar list
    MainEffhmcrFw1 = age  b4 avgcumdosew1
    hmcrMedFw1 = age avgcumdosew1 bf4 bf4m
    hmcrMedMw1 = age
    MainEffhmcrMw1 = age shjobw1
    MainEffwkFw1 = age
    MainEffwkMw1 = age
    MainEffVactnMw1 = age radhlw1
    VactnMedFw1 = age illw1 radhlw1
    VactnMedMw1 = age
    VacatnModFw1 = none
    MainEffVactnFw1 = age radhlw1 bf7m
    SigDoseVactnFw1 = no
    VactnModMw1 = none
    inthobMedFw1 = age bf4 illw1 bf4m
    inthobMedMw1 = age
     inthobMw1 = age
    InthbModFw1 = none
    MainEffInthbFw1 = age radhlw1 bf4
    SigdoseInthbFw1 = no
    InthbModMw1 = none
    MainEffInthbMw1 = age radhlw1 shfamw1
    SigDoseInthbMw1 = no
    MainEffMw1 = radhlw1 bf4 bf40
    sxlifeMedMw1 = radhlw1
    sxlifeMedFw1 = age illw1 radhlw1 bf4 bf4m
    MainEffsxlifeFw1 = age bf4 bf4m
    SigDoseSxlifeFw1 = no
    SigDosesxlifeMw1 = no
    MainEffsxlifeMw1 = age bf4 bf40
    SigDosePrbfmhmMw1 = no
    vactnModMw1 = none
    SigDoseVactnMw1 = no
    SxLifeModFw1 = no
    sxlifeModFw1 = none
    sxlifeModMw1 = none
    MaineffhmcrMw1 = age bf4 bf40
    SigDoseMEhmcrW1 = no
    PrbfmhmMedFw1 = age bf4
    PrbfmhmMedMw1 = age
    MainEffPrbfmhmFw1 = age radhlw1 bf4
```

MainEffPrbfmhmMw1 = **age bf4**
PrbfmhmModFw1 = **none**
PrbfmhmModMw1 = **none**
SigDosePrbfmhmFw1 = **no**
SigDosePrbfhmMw1 = **no**
MainEffPrbfhmMw1 = **age bf4**
MainEffVactnMw2 = **age radhlw2**
sxlifeMedMw2 = **age illw2**
SigDoseSxlifeFw2 = **no**
MainEffsxlifeFw2 = **age radhlw2 bf4 bf4m**
MainEffPrbsocMw2 = **age radhlw2 shjobw2**
MainEffhmcrFw2 = **age**
hmcrMedFw2 = **age bf4**
MainEffwkFw2 = **age**
MainEffwkMw2 = **age**
MainEffPrbsocMw1 = **age bf4m**
SigdoseMw1 = **no**
ProbsocMedFw1 = **age bf4**
ProbsocMedMw1 = **radhlw1**
ProbsocModFw1 = **none**
SigDoseProbsocMw1 = **no**
hmcrmedMw1 = **radhlw1**
hmcrmedFw1 = **age b4 b40**
SigdosehmcrFw1 = **no**
MainEffProbSocFw1 = **age radhlw1 avgcumdosew1 shrelaw1 bf4**
SigDoseProbsocFw1 = **yes**
PrbsocModMw1 = **shjobw1Xd1 shrelaw1Xd1**
WkhmcrMw1 = **age b4**
WkModFw1 = **ageXd1**
hmcareMedFw1 = **age illw1**
hmcareMedMw1 = **age**
SigDosehmcrFw1 = **no**
wkMedMw1 = **bf40**
hmcrModFw1 = **none**
SigDoseHmcrFw1 = **yes**
WkMedMw1 = **bf40**
hmcrModMw1 = **none**
SigDosehmcrMw1 = **no**
wkMedFw1 = **age b4**
WKModMw1 = **none**
SigDoseWkMw1 = **no**
SigDoseWkFw1 = **no**
SigDoseFw1 = **no**
wkModFw1 = **none**
wkModMw1 = **none**
VactnMedMw2 = **age**
inthobMedMw2 = **age**
inthobMw2 = **age**
PrbfmhmModMw2 = **none**

```
MainEffProbSocFw2 = age radhlw2 avgcumdosew2 bf4
hmcrModMw2 = none
MainEffhmcrMw2 = age
  wkMedFw2 = age b4
  wkMedMw2 = age bf4
MainEffsxlifeMw2 = age bf4 bf40 shjobw2 shrelaw2 radhlw2
MainEffPrbfmhmMw2 = bf4 bf6 bf7
ProbsocMedFw2 = age bf4 radhlw2
hmcareMedFw2 = age bf4
 WkhmcrMw2 = age b4
MainEffhmcrw2 = age
hmcrModFw2 = none
SigDoseHmcrFw2 = yes
NumhmcrModMw2 = none
SigDosehmcrMw2 = no
SigdosehmcrFw2 = yes
hmcrMedMw2 = age ageXillw2
SigDosehmcrFw2 = no
MainEffhmcareMw2 = age
  WkMedMw2 = age ageXillw2
  wkMedFw3 = radhlw3 age ageXillw3 bf40 bf4m bf1
VactnMedFw2 = age illw2 radhlw2
VacatnModFw2 = none
MainEffVactnFw2 = age radhlw2 bf7m
SigDoseVactnFw2 = no
VactnModMw2 = none
vactnModMw2 = none
SigDoseVactnMw2 = no
inthobMedFw2 = age bf4 illw2 bf4m
InthbModFw2 = none
MainEffInthbFw2 = age radhlw2 bf4
SigdoseInthbFw2 = no
InthbModMw2 = none
MainEffInthbMw2 = age radhlw2 shfamw2
SigDoseInthbMw2 = no
MainEffMw2 = radhlw2 bf4 bf40
SigdoseMEinthob = no
sxlifeMedFw2 = age illw2 radhlw2 bf4 bf4m
SxLifeModFw2 = no
sxlifeModFw2 = none
sxlifeModMw2 = none
SigDosesxlifeMw2 = no
PrbfmhmMedFw2 = age bf4
PrbfmhmMedMw2 = age
PrbfmhmModFw2 = none
MainEffPrbfmhmFw2 = age bf4 bf40
SigDosePrbfmhmFw2 = no
PrbfmhmModw2 = none
SigDosePrbfmhmMw2 = no
```

```
SigDosePrbfhmMw2 = no
MainEffPrbfhmMw2 = bf4 bf6 bf7
ProbsocMedMw2 = age
ProbsocModFw2 = none
SigDoseProbsocFw2 = yes
ProbSocModMw2 = none
SigDoseProbsocMw2 = no
PrbsocModMw2 = none
SigdoseMw2 = none
hmcareMedMw2 = age
hmcareModFw2 = none
MainEffhmcarew2 = age
SigdoseHmcareFw2 = no
hmcareModMw2 = none
SigDoseHmcareMw2 = no
NameMedMw2 = age ageXillw2
 NumModMw2 = none
SigDosehmcareMw2 = no
SigDoseWKMw2 = no
  WkMedFw2 = age bf4
  WkModFw2 = none
  WKModMw2 = none
SigDoseWkMw2 = no
SigDoseWkFw2 = no
SigDoseFw2 = no
  wkModFw2 = none
  wkModMw2 = none
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
      wkMedMw3 = bf8 age illw3 ageXillw3
      wkModFw3 = none
      wkModMw3 = none
    MainEffwkFw3 = age
    MainEffwkMw3 = workM: age  bf8  illw3  shjobw3
    SigDoseWKMw3 = no
    SigDoseWkFw3 = no

469 .
470 . title4 "Fully trimmed Female Main effects model for dose=> homecare wave 1"

    Fully trimmed Female Main effects model for dose=> homecare wave 1
```

```
471 .   logit hp2hmcare age radhlw1 occ1w1-occ8w1 inc1w1-inc4w1 ///
    >      avgcumdosew1 bf4  if gender==2

    Iteration 0:   log likelihood = -233.30573
    Iteration 1:   log likelihood = -177.44485
    Iteration 2:   log likelihood = -175.62926
    Iteration 3:   log likelihood = -175.62508
    Iteration 4:   log likelihood = -175.62508

    Logistic regression                               Number of obs   =        362
                                                      LR chi2(16)     =     115.36
                                                      Prob > chi2     =     0.0000
    Log likelihood = -175.62508                       Pseudo R2       =     0.2472
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0961718	.0183122	5.25	0.000	.0602806	.132063
radhlw1	-.0009397	.0037872	-0.25	0.804	-.0083624	.006483
occ1w1	-1.536209	1.27581	-1.20	0.229	-4.036751	.9643328
occ2w1	-1.066639	1.306018	-0.82	0.414	-3.626387	1.493109
occ3w1	-.9187994	1.316697	-0.70	0.485	-3.499477	1.661879
occ4w1	-1.809667	1.369371	-1.32	0.186	-4.493584	.8742504
occ5w1	-2.474943	1.459934	-1.70	0.090	-5.336361	.3864749
occ6w1	-2.384731	1.550879	-1.54	0.124	-5.424399	.6549365
occ7w1	-.2736949	1.305569	-0.21	0.834	-2.832564	2.285174
occ8w1	-.4828664	1.289472	-0.37	0.708	-3.010185	2.044453
inc1w1	1.237577	1.315563	0.94	0.347	-1.340878	3.816033
inc2w1	1.563876	1.263131	1.24	0.216	-.9118151	4.039568
inc3w1	1.858766	1.259322	1.48	0.140	-.6094602	4.326992
inc4w1	1.650938	1.369374	1.21	0.228	-1.032987	4.334862
avgcumdosew1	-.6169468	.2918407	-2.11	0.035	-1.188944	-.0449496
bf4	-.1423744	.0286191	-4.97	0.000	-.1984668	-.086282
_cons	-4.384177	1.11318	-3.94	0.000	-6.56597	-2.202384

```
472 .
```

```
473 . title4 "Super trimmed Female Main effects model for dose=> homecare wave 1"
    ---------------------------------------------------------------------------
    Super trimmed Female Main effects model for dose=> homecare wave 1
    ---------------------------------------------------------------------------

474 .   sw, pr(.1): logit hp2hmcare age radhlw1 occ1w1-occ8w1 inc1w1-inc4w1 ///
    >      avgcumdosew1 bf4 bf7 if gender==2
                          begin with full model
    p = 0.8548 >= 0.1000  removing occ7w1
    p = 0.8444 >= 0.1000  removing radhlw1
    p = 0.7229 >= 0.1000  removing occ8w1
    p = 0.3325 >= 0.1000  removing occ3w1
    p = 0.3694 >= 0.1000  removing occ2w1
    p = 0.2150 >= 0.1000  removing inc1w1
    p = 0.2936 >= 0.1000  removing inc4w1
    p = 0.2169 >= 0.1000  removing inc2w1
    p = 0.2571 >= 0.1000  removing occ4w1
    p = 0.1614 >= 0.1000  removing occ1w1
    p = 0.2137 >= 0.1000  removing inc3w1
    p = 0.2479 >= 0.1000  removing occ6w1
    p = 0.1543 >= 0.1000  removing occ5w1
    p = 0.1037 >= 0.1000  removing bf7

    Logistic regression                               Number of obs   =        362
                                                      LR chi2(3)      =     100.40
                                                      Prob > chi2     =     0.0000
    Log likelihood =  -183.1063                       Pseudo R2       =     0.2152
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0762363	.0127384	5.98	0.000	.0512695	.1012031
bf4	-.1224238	.0262785	-4.66	0.000	-.1739286	-.0709189
avgcumdosew1	-.5588394	.2733844	-2.04	0.041	-1.094663	-.0230158
_cons	-3.198013	.7776298	-4.11	0.000	-4.72214	-1.673887

```
475 .
476 . cap gen radhlw1Xd1 = radhlw1*avgcumdosew1

477 .
478 .
479 . title4 "female main effect plus interaction model"
```

female main effect plus interaction model

```
480 . xi:logit hp2hmcare age  avgcumdosew1 bf4  ageXd1 bf4Xd1 if gender==2

Iteration 0:   log likelihood = -233.72859
Iteration 1:   log likelihood = -183.82966
Iteration 2:   log likelihood =  -182.5885
Iteration 3:   log likelihood = -182.58185
Iteration 4:   log likelihood = -182.58185

Logistic regression                               Number of obs   =        363
                                                  LR chi2(5)      =     102.29
                                                  Prob > chi2     =     0.0000
Log likelihood = -182.58185                       Pseudo R2       =     0.2188
```

hp2hmcare	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0849926	.0157492	5.40	0.000	.0541247	.1158604
avgcumdosew1	1.600207	2.155971	0.74	0.458	-2.625418	5.825832
bf4	-.1093288	.034593	-3.16	0.002	-.1771298	-.0415278
ageXd1	-.0339202	.0371133	-0.91	0.361	-.1066609	.0388205
bf4Xd1	-.0454367	.0710033	-0.64	0.522	-.1846007	.0937273
_cons	-3.755837	.945655	-3.97	0.000	-5.609287	-1.902388

```
481 .
482 . * there are no significant moderators for female dose=hmcare relationship
483 . scalar hmcrModFw1 = "none"
```

```
484 .
485 .
486 .
487 . scalar SigdosehmcrFw1="no"

488 .
489 .
490 . scalar MainEffhmcrFw1 = "age bf4"

491 .
492 .
493 . scalar hmcrModFw1 = "none"

494 .
495 .
496 . title4 "Mediator relationships for home care are tested below"
    ────────────────────────────────────────────────────────────────────────────────

    Mediator relationships for home care are tested below
    ────────────────────────────────────────────────────────────────────────────────

497 . title4  "H1 pt 2 wave 1 Mediation of home care testing for males"
    ────────────────────────────────────────────────────────────────────────────────

    H1 pt 2 wave 1 Mediation of home care testing for males
    ────────────────────────────────────────────────────────────────────────────────

498 .
499 .
500 .
501 . correlate bf4 age if gender==1
    (obs=340)

                 |      bf4      age
    -------------+------------------
             bf4 |   1.0000
             age |  -0.4041   1.0000
```

```
502 .
503 . des bf4

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)

504 .
505 . glm bf4 avgcumdosew1 if gender==1, fam(gauss) link(identity)

Iteration 0:   log likelihood = -1026.9659

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  24.75428
Deviance         =  8366.946191                    (1/df) Deviance =  24.75428
Pearson          =  8366.946191                    (1/df) Pearson  =  24.75428

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

                                                   AIC             =   6.05274
Log likelihood   = -1026.965868                    BIC             =  6396.763

------------------------------------------------------------------------------
             |                 OIM
         bf4 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |  -.1031788    .161925    -0.64   0.524    -.4205461    .2141884
       _cons |   12.54134   .2786337    45.01   0.000     11.99523    13.08746
------------------------------------------------------------------------------

506 . glm hp2hmcare bf4  if gender==1, fam(binomial) link(probit) irls scale(dev)

Iteration 1:   deviance =  268.3422
Iteration 2:   deviance =  265.0048
Iteration 3:   deviance =  264.9272
Iteration 4:   deviance =  264.9269
Iteration 5:   deviance =  264.9269

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       338
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  264.9268544                    (1/df) Deviance =  .7838073
Pearson          =  286.2423079                    (1/df) Pearson  =  .8468707
```

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

                                                 BIC             = -1705.257
```

hp2hmcare	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	**-.1429587**	**.015032**	**-9.51**	**0.000**	**-.1724209**	**-.1134964**
_cons	**.7855991**	**.1813087**	**4.33**	**0.000**	**.4302406**	**1.140958**

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

```
507 .
508 .
509 . glm age avgcumdosew1 if gender==1, fam(gauss) link(identity)

Iteration 0:   log likelihood =  -1331.608

Generalized linear models                        No. of obs      =        340
Optimization     : ML                            Residual df     =        338
                                                 Scale parameter =   148.5632
Deviance         =  50214.37624                  (1/df) Deviance =   148.5632
Pearson          =  50214.37624                  (1/df) Pearson  =   148.5632

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

                                                 AIC             =   7.844753
Log likelihood   = -1331.607976                  BIC             =   48244.19
```

age	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	**.6719789**	**.3966839**	**1.69**	**0.090**	**-.1055072**	**1.449465**
_cons	**48.89394**	**.6825967**	**71.63**	**0.000**	**47.55607**	**50.2318**

```
510 . glm hp2hmcare age if gender==1, fam(binomial) link(probit) irls scale(dev)

    Iteration 1:   deviance =  320.8295
    Iteration 2:   deviance =  320.0337
    Iteration 3:   deviance =  320.0328
    Iteration 4:   deviance =  320.0328

    Generalized linear models                          No. of obs      =       340
    Optimization     : MQL Fisher scoring              Residual df     =       338
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  320.0327771                    (1/df) Deviance =  .9468425
    Pearson          =   341.699231                    (1/df) Pearson  =  1.010944

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

                                                       BIC             = -1650.151

    ------------------------------------------------------------------------------
                 |                 EIM
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             age |    .032545   .0064212     5.07   0.000     .0199596    .0451304
           _cons |  -2.483665   .3435565    -7.23   0.000    -3.157023   -1.810306
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

511 .
512 . scalar hmcrMedMw1 = "radhlw1"

513 .
514 .
515 . title4 "radhlw1 is a possible mediator for men of hmcare in wave 1"
    ------------------------------------------------------------------------------
    radhlw1 is a possible mediator for men of hmcare in wave 1
    ------------------------------------------------------------------------------
```

```
516 . glm radhlw1 avgcumdosew1 if gender==1,  fam(gaussian) link(identity)

    Iteration 0:   log likelihood = -1710.3417

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  1378.645
    Deviance         =  465981.8893                    (1/df) Deviance =  1378.645
    Pearson          =  465981.8893                    (1/df) Pearson  =  1378.645

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

                                                       AIC             =   10.0726
    Log likelihood   = -1710.341694                    BIC             =  464011.7
```

radhlw1	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	2.398285	1.208412	1.98	0.047	.0298407	4.766729
_cons	44.66477	2.079384	21.48	0.000	40.58925	48.74029

```
517 . glm hp2hmcare radhlw1 if gender==1 , fam(binomial) irls scale(dev) link(prob
    > it)

    Iteration 1:   deviance =  330.2185
    Iteration 2:   deviance =  329.7978
    Iteration 3:   deviance =  329.7977
    Iteration 4:   deviance =  329.7977

    Generalized linear models                          No. of obs      =       340
    Optimization     : MQL Fisher scoring              Residual df     =       338
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =   329.797656                    (1/df) Deviance =  .9757327
    Pearson          =  341.5925114                    (1/df) Pearson  =  1.010629

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

                                                       BIC             = -1640.386
```

```
------------------------------------------------------------------------------
             |                 EIM
   hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     radhlw1 |    .008257   .0020717     3.99   0.000     .0041965    .0123175
       _cons |  -1.236257   .1340392    -9.22   0.000    -1.498968   -.9735446
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

518 .
519 . title4 "Testing possible female home care mediators for home care in wave 1"
------------------------------------------------------------------------------
Testing possible female home care mediators for home care in wave 1
------------------------------------------------------------------------------

520 .
521 . title4 "Test of age as possible female mediator in wave 1"
------------------------------------------------------------------------------
Test of age as possible female mediator in wave 1
------------------------------------------------------------------------------

522 . glm age avgcumdosew1 if gender==2, fam(gauss) link(identity)

Iteration 0:   log likelihood =  -1406.325

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =   136.455
Deviance         =  49260.25928                    (1/df) Deviance =   136.455
Pearson          =  49260.25928                    (1/df) Pearson  =   136.455

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

                                                   AIC             =  7.759366
Log likelihood   = -1406.325011                    BIC             =  47132.38

------------------------------------------------------------------------------
             |                 OIM
         age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   3.973879   1.117679     3.56   0.000     1.783267     6.16449
       _cons |   48.88157   .7187038    68.01   0.000     47.47293     50.2902
------------------------------------------------------------------------------
```

```
523 . glm hp2hmcare age if gender==2, fam(binomial) link(probit) irls scale(dev)

    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.)

524 . title4 "age is a possible mediator for women"
    ------------------------------------------------------------------------------
    age is a possible mediator for women
    ------------------------------------------------------------------------------

525 .
526 .
527 . title4 "Test of b40 as female mediator of home care in wave 1"
    ------------------------------------------------------------------------------
    Test of b40 as female mediator of home care in wave 1
    ------------------------------------------------------------------------------
```

```
528 . glm bf40 avgcumdosew1 if gender==2, fam(gauss) link(identity)

    Iteration 0:   log likelihood = -818.49948

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =  5.351018
    Deviance         =  1931.717442                    (1/df) Deviance =  5.351018
    Pearson          =  1931.717442                    (1/df) Pearson  =  5.351018

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

                                                       AIC             =  4.520658
    Log likelihood   = -818.4994757                    BIC             =  -196.162

    ------------------------------------------------------------------------------
                 |                 OIM
            bf40 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew1 |   .4524905   .2213302     2.04   0.041     .0186913    .8862898
           _cons |   3.013471   .1423225    21.17   0.000     2.734524    3.292417
    ------------------------------------------------------------------------------

529 . glm hp2hmcare bf40 if gender==2, fam(binomial) link(probit) irls scale(dev)

    Iteration 1:   deviance =   462.764
    Iteration 2:   deviance =  462.2054
    Iteration 3:   deviance =  462.2053
    Iteration 4:   deviance =  462.2053

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       361
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  462.2053395                    (1/df) Deviance =  1.280347
    Pearson          =  362.3613268                    (1/df) Pearson  =  1.003771

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

                                                       BIC             = -1665.674
```

```
------------------------------------------------------------------------------
             |                 EIM
  hp2hmcare  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf40 |   .0666058   .0327979     2.03   0.042     .0023231    .1308886
       _cons |  -.6159451   .1313241    -4.69   0.000    -.8733356   -.3585546
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

530 . title4 "b40 with age is a mediator for women"
------------------------------------------------------------------------------
b40 with age is a mediator for women
------------------------------------------------------------------------------

531 .
532 .
533 .
534 . title4 "bf4 Test of female mediation of home care in wave 1"
------------------------------------------------------------------------------
bf4 Test of female mediation of home care in wave 1
------------------------------------------------------------------------------

535 . glm bf4 avgcumdosew1 if gender==2, fam(gauss) link(identity)

Iteration 0:   log likelihood = -1109.0162

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  26.52082
Deviance         =  9574.015672                    (1/df) Deviance =  26.52082
Pearson          =  9574.015672                    (1/df) Pearson  =  26.52082

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

                                                   AIC             =  6.121302
Log likelihood   = -1109.016226                    BIC             =  7446.136

------------------------------------------------------------------------------
             |                 OIM
         bf4 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |  -1.508835   .4927379    -3.06   0.002    -2.474583   -.5430862
       _cons |   10.99384   .3168463    34.70   0.000     10.37284    11.61485
------------------------------------------------------------------------------
```

```
536 . glm hp2hmcare bf4 if gender==2, fam(binomial) link(probit) irls scale(dev)

    Iteration 1:   deviance =  410.1424
    Iteration 2:   deviance =  410.1166
    Iteration 3:   deviance =  410.1166
    Iteration 4:   deviance =  410.1166

    Generalized linear models                          No. of obs      =        363
    Optimization     : MQL Fisher scoring              Residual df     =        361
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  410.1166157                    (1/df) Deviance =   1.136057
    Pearson          =  357.1140873                    (1/df) Pearson  =   .9892357

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

                                                       BIC             =  -1717.763

    ------------------------------------------------------------------------------
                 |                 EIM
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             bf4 |  -.1024685   .0149808    -6.84   0.000    -.1318304   -.0731067
           _cons |   .6214741   .1665648     3.73   0.000      .295013    .9479351
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

537 . title4 "bf4 alone is a mediator for women"
    ------------------------------------------------------------------------------
    bf4 alone is a mediator for women
    ------------------------------------------------------------------------------

538 .
539 .
540 . glm illw1 avgcumdosew1 if gender==2, fam(gauss) link(identity)

    Iteration 0:   log likelihood = -259.70777

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =   .2462383
    Deviance         =  88.89203958                    (1/df) Deviance =   .2462383
    Pearson          =  88.89203958                    (1/df) Pearson  =   .2462383

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

```
                                                  AIC             =  1.441916
Log likelihood   = -259.7077741                   BIC             = -2038.987
```

illw1	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	.0655142	.0474789	1.38	0.168	-.0275426	.1585711
_cons	.1570822	.0305304	5.15	0.000	.0972436	.2169207

```
541 . glm hp2hmcare illw1 if gender==2, fam(binomial) link(probit) irls scale(dev)

Iteration 1:   deviance =  451.3594
Iteration 2:   deviance =   450.782
Iteration 3:   deviance =  450.7819
Iteration 4:   deviance =  450.7819

Generalized linear models                         No. of obs      =        363
Optimization     : MQL Fisher scoring             Residual df     =        361
                   (IRLS EIM)                     Scale parameter =          1
Deviance         =  450.7819203                   (1/df) Deviance =   1.248703
Pearson          =  362.4981549                   (1/df) Pearson  =    1.00415

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

                                                  BIC             = -1677.098
```

hp2hmcare	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
illw1	.5711151	.1643397	3.48	0.001	.2490151	.8932151
_cons	-.5078804	.0821368	-6.18	0.000	-.6688655	-.3468953

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

```
542 .
543 .
544 . title4 "multivariate Test of female mediation of home care in wave 1"
    ------------------------------------------------------------------------------
    multivariate Test of female mediation of home care in wave 1
    ------------------------------------------------------------------------------

545 . mvreg bf4 age bf40 = avgcumdosew1 if gender==2

    Equation          Obs  Parms        RMSE    "R-sq"          F        P
    ----------------------------------------------------------------------
    bf4               363      2    5.149837    0.0253   9.376729   0.0024
    age               363      2     11.6814    0.0338   12.64139   0.0004
    bf40              363      2    2.313227    0.0114   4.179627   0.0416

    ------------------------------------------------------------------------------
                 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    bf4          |
    avgcumdosew1 |  -1.508835   .4927379    -3.06   0.002    -2.477832   -.5398375
           _cons |   10.99384   .3168463    34.70   0.000     10.37075    11.61694
    -------------+----------------------------------------------------------------
    age          |
    avgcumdosew1 |   3.973879   1.117679     3.56   0.000     1.775898    6.171859
           _cons |   48.88157   .7187038    68.01   0.000      47.4682    50.29494
    -------------+----------------------------------------------------------------
    bf40         |
    avgcumdosew1 |   .4524905   .2213302     2.04   0.042      .017232     .887749
           _cons |   3.013471   .1423225    21.17   0.000     2.733585    3.293356
    ------------------------------------------------------------------------------

546 . glm hp2hmcare bf4 age bf40 if gender==2, fam(binomial) link(probit) irls ///
    >   scale(dev)

    Iteration 1:   deviance =  373.2413
    Iteration 2:   deviance =  372.8437
    Iteration 3:   deviance =  372.8436
    Iteration 4:   deviance =  372.8436

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       359
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  372.8435707                    (1/df) Deviance =  1.038561
    Pearson          =  384.2294832                    (1/df) Pearson  =  1.070277

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

```
                                                  BIC             = -1743.247

------------------------------------------------------------------------------
             |                 EIM
   hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bf4 |  -.0701088   .0159082    -4.41   0.000    -.1012882   -.0389293
         age |   .0419129    .007264     5.77   0.000     .0276756    .0561501
        bf40 |  -.0040389   .0340124    -0.12   0.905     -.070702    .0626242
       _cons |  -1.841186   .4704258    -3.91   0.000    -2.763204   -.9191686
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

547 . title4 "When bf4 & age are together" ///
    >  "only age & b4 are a wave 1 mediators for women"
------------------------------------------------------------------------------
When bf4 & age are together
------------------------------------------------------------------------------


548 .
549 . glm radhlw1 avgcumdosew1 if gender==2,  fam(gaussian) link(identity)

Iteration 0:   log likelihood = -1821.9477

Generalized linear models                          No. of obs      =       362
Optimization     : ML                              Residual df     =       360
                                                   Scale parameter =  1385.301
Deviance         =  498708.3025                    (1/df) Deviance =  1385.301
Pearson          =  498708.3025                    (1/df) Pearson  =  1385.301

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

                                                   AIC             =  10.07706
Log likelihood   = -1821.947718                    BIC             =  496587.3

------------------------------------------------------------------------------
             |                 OIM
     radhlw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   3.789972   3.562254     1.06   0.287    -3.191917    10.77186
       _cons |   55.44948   2.293757    24.17   0.000      50.9538    59.94516
------------------------------------------------------------------------------
```

```
550 . glm hp2hmcare radhlw1 if gender==2 , fam(binomial) irls scale(dev) link(prob
    > it)

    Iteration 1:   deviance =  463.5751
    Iteration 2:   deviance =  463.0208
    Iteration 3:   deviance =  463.0207
    Iteration 4:   deviance =  463.0207

    Generalized linear models                          No. of obs      =       362
    Optimization     : MQL Fisher scoring              Residual df     =       360
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  463.0207118                    (1/df) Deviance =  1.286169
    Pearson          =  361.7039664                    (1/df) Pearson  =  1.004733

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

                                                       BIC             = -1657.971

    ------------------------------------------------------------------------------
                 |                 EIM
       hp2hmcare |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
         radhlw1 |   .0034921   .0020846     1.68   0.094    -.0005936    .0075779
           _cons |  -.5996677   .1437134    -4.17   0.000    -.8813409   -.3179945
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

551 .
552 . title "Test of female mediation of home care in wave 1"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****          Test of female mediation of home care in wave 1            ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                    18 Jun 2012    18:14:13          ****
    > *
    ******************************************************************************
```

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

553 . mvreg bf4 age bf40 illw1 = avgcumdosew1 if gender==2

```
Equation          Obs  Parms        RMSE    "R-sq"          F        P
───────────────────────────────────────────────────────────────────────
bf4               363      2    5.149837    0.0253   9.376729   0.0024
age               363      2     11.6814    0.0338   12.64139   0.0004
bf40              363      2    2.313227    0.0114   4.179627   0.0416
illw1             363      2    .4962241    0.0052   1.904017   0.1685

──────────────┬────────────────────────────────────────────────────────────────
              │      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
──────────────┼────────────────────────────────────────────────────────────────
bf4           │
avgcumdosew1  │  -1.508835   .4927379    -3.06   0.002    -2.477832   -.5398375
       _cons  │   10.99384   .3168463    34.70   0.000     10.37075    11.61694
──────────────┼────────────────────────────────────────────────────────────────
age           │
avgcumdosew1  │   3.973879   1.117679     3.56   0.000     1.775898    6.171859
       _cons  │   48.88157   .7187038    68.01   0.000      47.4682    50.29494
──────────────┼────────────────────────────────────────────────────────────────
bf40          │
avgcumdosew1  │   .4524905   .2213302     2.04   0.042      .017232     .887749
       _cons  │   3.013471   .1423225    21.17   0.000     2.733585    3.293356
──────────────┼────────────────────────────────────────────────────────────────
illw1         │
avgcumdosew1  │   .0655142   .0474789     1.38   0.168    -.0278557    .1588841
       _cons  │   .1570822   .0305304     5.15   0.000     .0970423     .217122
──────────────┴────────────────────────────────────────────────────────────────
```

554 . glm hp2hmcare bf4 age bf40 illw1 if gender==2, fam(binomial) ///
>   link(probit) irls scale(dev)

```
Iteration 1:   deviance =  368.0172
Iteration 2:   deviance =  367.5924
Iteration 3:   deviance =  367.5922
Iteration 4:   deviance =  367.5922

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       358
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  367.5922256                    (1/df) Deviance =  1.026794
Pearson          =  388.4520039                    (1/df) Pearson  =  1.085061
```

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

                                                   BIC             = -1742.604
```

hp2hmcare	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf4	-.0651744	.01601	-4.07	0.000	-.0965533	-.0337954
age	.0411498	.007244	5.68	0.000	.0269518	.0553477
bf40	-.0137692	.0343692	-0.40	0.689	-.0811316	.0535933
illw1	.3518084	.15798	2.23	0.026	.0421733	.6614435
_cons	-1.887052	.4701989	-4.01	0.000	-2.808625	-.9654796

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

555 . qui: {
    When all are together only age and b4 are a wave 1 mediators for women

556 .
557 .
558 . scalar hmcrMedFw1 = "age bf4"

559 .
560 . scalar SigDosehmcrMw1 = "no"

561 . scalar MainEffhmcrMw1 = "age"

562 . scalar MainEffhmcrFw1 = "age"

563 . scalar hmcrmedFw1 = "age b4 b40"

564 . scalar hmcrmedMw1 = "radhlw1"

565 .
566 . scalar hmcareMedMw1 = "age "
```

```
567 . scalar hmcareMedFw1 = "age illw1"

568 . set more off

569 . scalar list
    MainEffhmcrFw1 = age
    MainEffhmcrMw1 = age
    hmcrMedFw1 = age bf4
    hmcrMedMw1 = radhlw1
    MainEffwkFw1 = age
    MainEffwkMw1 = age
    MainEffVactnMw1 = age radhlw1
    VactnMedFw1 = age illw1 radhlw1
    VactnMedMw1 = age
    VacatnModFw1 = none
    MainEffVactnFw1 = age radhlw1 bf7m
    SigDoseVactnFw1 = no
    VactnModMw1 = none
    inthobMedFw1 = age bf4 illw1 bf4m
    inthobMedMw1 = age
     inthobMw1 = age
    InthbModFw1 = none
    MainEffInthbFw1 = age radhlw1 bf4
    SigdoseInthbFw1 = no
    InthbModMw1 = none
    MainEffInthbMw1 = age radhlw1 shfamw1
    SigDoseInthbMw1 = no
    MainEffMw1 = radhlw1 bf4 bf40
    sxlifeMedMw1 = radhlw1
    sxlifeMedFw1 = age illw1 radhlw1 bf4 bf4m
    MainEffsxlifeFw1 = age bf4 bf4m
    SigDoseSxlifeFw1 = no
    SigDosesxlifeMw1 = no
    MainEffsxlifeMw1 = age bf4 bf40
    SigDosePrbfmhmMw1 = no
    vactnModMw1 = none
    SigDoseVactnMw1 = no
    SxLifeModFw1 = no
    sxlifeModFw1 = none
    sxlifeModMw1 = none
    MaineffhmcrMw1 = age bf4 bf40
    SigDoseMEhmcrW1 = no
    PrbfmhmMedFw1 = age bf4
    PrbfmhmMedMw1 = age
    MainEffPrbfmhmFw1 = age radhlw1 bf4
    MainEffPrbfmhmMw1 = age bf4
    PrbfmhmModFw1 = none
    PrbfmhmModMw1 = none
    SigDosePrbfmhmFw1 = no
```

```
SigDosePrbfhmMw1 = no
MainEffPrbfhmMw1 = age bf4
MainEffVactnMw2 = age radhlw2
sxlifeMedMw2 = age illw2
SigDoseSxlifeFw2 = no
MainEffsxlifeFw2 = age radhlw2 bf4 bf4m
MainEffPrbsocMw2 = age radhlw2 shjobw2
MainEffhmcrFw2 = age
hmcrMedFw2 = age bf4
MainEffwkFw2 = age
MainEffwkMw2 = age
MainEffPrbsocMw1 = age bf4m
SigdoseMw1 = no
ProbsocMedFw1 = age bf4
ProbsocMedMw1 = radhlw1
ProbsocModFw1 = none
SigDoseProbsocMw1 = no
hmcrmedMw1 = radhlw1
hmcrmedFw1 = age b4 b40
SigdosehmcrFw1 = no
MainEffProbSocFw1 = age radhlw1 avgcumdosew1 shrelaw1 bf4
SigDoseProbsocFw1 = yes
PrbsocModMw1 = shjobw1Xd1 shrelaw1Xd1
 WkhmcrMw1 = age b4
  WkModFw1 = ageXd1
hmcareMedFw1 = age illw1
hmcareMedMw1 = age
SigDosehmcrFw1 = no
  wkMedMw1 = bf40
hmcrModFw1 = none
SigDoseHmcrFw1 = yes
  WkMedMw1 = bf40
hmcrModMw1 = none
SigDosehmcrMw1 = no
  wkMedFw1 = age b4
  WKModMw1 = none
SigDoseWkMw1 = no
SigDoseWkFw1 = no
SigDoseFw1 = no
  wkModFw1 = none
  wkModMw1 = none
VactnMedMw2 = age
inthobMedMw2 = age
 inthobMw2 = age
PrbfmhmModMw2 = none
MainEffProbSocFw2 = age radhlw2 avgcumdosew2 bf4
hmcrModMw2 = none
MainEffhmcrMw2 = age
  wkMedFw2 = age b4
```

```
  wkMedMw2 = age bf4
MainEffsxlifeMw2 = age bf4 bf40 shjobw2 shrelaw2 radhlw2
MainEffPrbfmhmMw2 = bf4 bf6 bf7
ProbsocMedFw2 = age bf4 radhlw2
hmcareMedFw2 = age bf4
 WkhmcrMw2 = age b4
MainEffhmcrw2 = age
hmcrModFw2 = none
SigDoseHmcrFw2 = yes
NumhmcrModMw2 = none
SigDosehmcrMw2 = no
SigdosehmcrFw2 = yes
hmcrMedMw2 = age ageXillw2
SigDosehmcrFw2 = no
MainEffhmcareMw2 = age
  WkMedMw2 = age ageXillw2
  wkMedFw3 = radhlw3 age ageXillw3 bf40 bf4m bf1
VactnMedFw2 = age illw2 radhlw2
VacatnModFw2 = none
MainEffVactnFw2 = age radhlw2 bf7m
SigDoseVactnFw2 = no
VactnModMw2 = none
vactnModMw2 = none
SigDoseVactnMw2 = no
inthobMedFw2 = age bf4 illw2 bf4m
InthbModFw2 = none
MainEffInthbFw2 = age radhlw2 bf4
SigdoseInthbFw2 = no
InthbModMw2 = none
MainEffInthbMw2 = age radhlw2 shfamw2
SigDoseInthbMw2 = no
MainEffMw2 = radhlw2 bf4 bf40
SigdoseMEinthob = no
sxlifeMedFw2 = age illw2 radhlw2 bf4 bf4m
SxLifeModFw2 = no
sxlifeModFw2 = none
sxlifeModMw2 = none
SigDosesxlifeMw2 = no
PrbfmhmMedFw2 = age bf4
PrbfmhmMedMw2 = age
PrbfmhmModFw2 = none
MainEffPrbfmhmFw2 = age bf4 bf40
SigDosePrbfmhmFw2 = no
PrbfmhmModw2 = none
SigDosePrbfmhmMw2 = no
SigDosePrbfhmMw2 = no
MainEffPrbfhmMw2 = bf4 bf6 bf7
ProbsocMedMw2 = age
ProbsocModFw2 = none
```

```
SigDoseProbsocFw2 = yes
ProbSocModMw2 = none
SigDoseProbsocMw2 = no
PrbsocModMw2 = none
SigdoseMw2 = none
hmcareMedMw2 = age
hmcareModFw2 = none
MainEffhmcarew2 = age
SigdoseHmcareFw2 = no
hmcareModMw2 = none
SigDoseHmcareMw2 = no
NameMedMw2 = age ageXillw2
 NumModMw2 = none
SigDosehmcareMw2 = no
SigDoseWKMw2 = no
  WkMedFw2 = age bf4
  WkModFw2 = none
  WKModMw2 = none
SigDoseWkMw2 = no
SigDoseWkFw2 = no
SigDoseFw2 = no
  wkModFw2 = none
  wkModMw2 = none
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
  wkMedMw3 = bf8 age illw3 ageXillw3
  wkModFw3 = none
  wkModMw3 = none
MainEffwkFw3 = age
MainEffwkMw3 = workM: age  bf8  illw3  shjobw3
SigDoseWKMw3 = no
SigDoseWkFw3 = no

570 .
571 . * conclusion "age & illw1 are main effects as possible male & female mediato
    > rs"
572 . * conclusion title "their interaction is not a mediator"
573 .
574 . title4 "2. summary matrix construction for H1 pt 2 wave 1 dose=>Home care im
    > pact"
    ------------------------------------------------------------------------------
    2. summary matrix construction for H1 pt 2 wave 1 dose=>Home care impact
    ------------------------------------------------------------------------------
```

```
575 . set more off

576 .  matrix define   hmcrMw1 = J(1,8, 0)

577 .         matrix define  hmcrFw1 = J(1,8, 0)

578 . matrix colnames  hmcrMw1=  hypnum ptnum wave gender medsig numMAsig numModsi
    > g ///
    >     numMed

579 . matrix colnames  hmcrFw1=  hypnum ptnum wave gender medsig numMAsig numModsi
    > g ///
    >     numMed

580 .     matrix rownames  hmcrMw1 = hmcareM

581 .     matrix rownames  hmcrFw1 = hmcareF

582 .         matrix define  hmcrMw1= (1, 2, 1, 1, 0 , 2,  0  , 1 )

583 .          matrix define  hmcrFw1= (1, 2, 1, 2, 0 ,2,  0  , 2 )

584 .         matrix define H1pt2w1 = ( wkMw1 \  wkFw1 \  hmcrMw1 \ hmcrFw1)

585 .     matrix colnames H1pt2w1 =  hypnum ptnum wave gender medsig numMAsig numM
    > odsig numMed

586 .     matrix colnames H1pt2w1 =  hypnum ptnum wave gender medsig numMAsig numM
    > odsig numMed

587 .     matrix rownames H1pt2w1 =  wkMw1 wkFw1  hmcrMw1  hmcrFw1

588 .         matlist H1pt2w1

                 |     hypnum      ptnum       wave     gender     medsig   numMAsi
    > g  numModsig     numMed
    -------------+---------------------------------------------------------------
    > --------------------------
           wkMw1 |          1          2          1          1          0
    > 2          0          1
           wkFw1 |          1          2          1          2          0
    > 1          1          2
         hmcrMw1 |          1          2          1          1          0
    > 2          0          1
         hmcrFw1 |          1          2          1          2          0
    > 2          0          2
```

```
589 .
590 . * see scalar list for names of variables
591 . scalar list
    MainEffhmcrFw1 = age
    MainEffhmcrMw1 = age
    hmcrMedFw1 = age bf4
    hmcrMedMw1 = radhlw1
    MainEffwkFw1 = age
    MainEffwkMw1 = age
    MainEffVactnMw1 = age radhlw1
    VactnMedFw1 = age illw1 radhlw1
    VactnMedMw1 = age
    VacatnModFw1 = none
    MainEffVactnFw1 = age radhlw1 bf7m
    SigDoseVactnFw1 = no
    VactnModMw1 = none
    inthobMedFw1 = age bf4 illw1 bf4m
    inthobMedMw1 = age
     inthobMw1 = age
    InthbModFw1 = none
    MainEffInthbFw1 = age radhlw1 bf4
    SigdoseInthbFw1 = no
    InthbModMw1 = none
    MainEffInthbMw1 = age radhlw1 shfamw1
    SigDoseInthbMw1 = no
    MainEffMw1 = radhlw1 bf4 bf40
    sxlifeMedMw1 = radhlw1
    sxlifeMedFw1 = age illw1 radhlw1 bf4 bf4m
    MainEffsxlifeFw1 = age bf4 bf4m
    SigDoseSxlifeFw1 = no
    SigDosesxlifeMw1 = no
    MainEffsxlifeMw1 = age bf4 bf40
    SigDosePrbfmhmMw1 = no
    vactnModMw1 = none
    SigDoseVactnMw1 = no
    SxLifeModFw1 = no
    sxlifeModFw1 = none
    sxlifeModMw1 = none
    MaineffhmcrMw1 = age bf4 bf40
    SigDoseMEhmcrW1 = no
    PrbfmhmMedFw1 = age bf4
    PrbfmhmMedMw1 = age
    MainEffPrbfmhmFw1 = age radhlw1 bf4
    MainEffPrbfmhmMw1 = age bf4
    PrbfmhmModFw1 = none
    PrbfmhmModMw1 = none
    SigDosePrbfmhmFw1 = no
    SigDosePrbfhmMw1 = no
    MainEffPrbfhmMw1 = age bf4
```

```
MainEffVactnMw2 = age radhlw2
sxlifeMedMw2 = age illw2
SigDoseSxlifeFw2 = no
MainEffsxlifeFw2 = age radhlw2 bf4 bf4m
MainEffPrbsocMw2 = age radhlw2 shjobw2
MainEffhmcrFw2 = age
hmcrMedFw2 = age bf4
MainEffwkFw2 = age
MainEffwkMw2 = age
MainEffPrbsocMw1 = age bf4m
SigdoseMw1 = no
ProbsocMedFw1 = age bf4
ProbsocMedMw1 = radhlw1
ProbsocModFw1 = none
SigDoseProbsocMw1 = no
hmcrmedMw1 = radhlw1
hmcrmedFw1 = age b4 b40
SigdosehmcrFw1 = no
MainEffProbSocFw1 = age radhlw1 avgcumdosew1 shrelaw1 bf4
SigDoseProbsocFw1 = yes
PrbsocModMw1 = shjobw1Xd1 shrelaw1Xd1
 WkhmcrMw1 = age b4
  WkModFw1 = ageXd1
hmcareMedFw1 = age illw1
hmcareMedMw1 = age
SigDosehmcrFw1 = no
  wkMedMw1 = bf40
hmcrModFw1 = none
SigDoseHmcrFw1 = yes
  WkMedMw1 = bf40
hmcrModMw1 = none
SigDosehmcrMw1 = no
  wkMedFw1 = age b4
  WKModMw1 = none
SigDoseWkMw1 = no
SigDoseWkFw1 = no
SigDoseFw1 = no
  wkModFw1 = none
  wkModMw1 = none
VactnMedMw2 = age
inthobMedMw2 = age
 inthobMw2 = age
PrbfmhmModMw2 = none
MainEffProbSocFw2 = age radhlw2 avgcumdosew2 bf4
hcmrModMw2 = none
MainEffhmcrMw2 = age
  wkMedFw2 = age b4
  wkMedMw2 = age bf4
MainEffsxlifeMw2 = age bf4 bf40 shjobw2 shrelaw2 radhlw2
```

MainEffPrbfmhmMw2 = **bf4 bf6 bf7**
ProbsocMedFw2 = **age bf4 radhlw2**
hmcareMedFw2 = **age bf4**
WkhmcrMw2 = **age b4**
MainEffhmcrw2 = **age**
hmcrModFw2 = **none**
SigDoseHmcrFw2 = **yes**
NumhmcrModMw2 = **none**
SigDosehmcrMw2 = **no**
SigdosehmcrFw2 = **yes**
hmcrMedMw2 = **age ageXillw2**
SigDosehmcrFw2 = **no**
MainEffhmcareMw2 = **age**
WkMedMw2 = **age ageXillw2**
wkMedFw3 = **radhlw3 age ageXillw3 bf40 bf4m bf1**
VactnMedFw2 = **age illw2 radhlw2**
VacatnModFw2 = **none**
MainEffVactnFw2 = **age radhlw2 bf7m**
SigDoseVactnFw2 = **no**
VactnModMw2 = **none**
vactnModMw2 = **none**
SigDoseVactnMw2 = **no**
inthobMedFw2 = **age bf4 illw2 bf4m**
InthbModFw2 = **none**
MainEffInthbFw2 = **age radhlw2 bf4**
SigdoseInthbFw2 = **no**
InthbModMw2 = **none**
MainEffInthbMw2 = **age radhlw2 shfamw2**
SigDoseInthbMw2 = **no**
MainEffMw2 = **radhlw2 bf4 bf40**
SigdoseMEinthob = **no**
sxlifeMedFw2 = **age illw2 radhlw2 bf4 bf4m**
SxLifeModFw2 = **no**
sxlifeModFw2 = **none**
sxlifeModMw2 = **none**
SigDosesxlifeMw2 = **no**
PrbfmhmMedFw2 = **age bf4**
PrbfmhmMedMw2 = **age**
PrbfmhmModFw2 = **none**
MainEffPrbfmhmFw2 = **age bf4 bf40**
SigDosePrbfmhmFw2 = **no**
PrbfmhmModw2 = **none**
SigDosePrbfmhmMw2 = **no**
SigDosePrbfhmMw2 = **no**
MainEffPrbfhmMw2 = **bf4 bf6 bf7**
ProbsocMedMw2 = **age**
ProbsocModFw2 = **none**
SigDoseProbsocFw2 = **yes**
ProbSocModMw2 = **none**

```
SigDoseProbsocMw2 = no
PrbsocModMw2 = none
SigdoseMw2 = none
hmcareMedMw2 = age
hmcareModFw2 = none
MainEffhmcarew2 = age
SigdoseHmcareFw2 = no
hmcareModMw2 = none
SigDoseHmcareMw2 = no
NameMedMw2 = age ageXillw2
 NumModMw2 = none
SigDosehmcareMw2 = no
SigDoseWKMw2 = no
  WkMedFw2 = age bf4
  WkModFw2 = none
  WKModMw2 = none
SigDoseWkMw2 = no
SigDoseWkFw2 = no
SigDoseFw2 = no
  wkModFw2 = none
  wkModMw2 = none
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
      wkMedMw3 = bf8 age illw3 ageXillw3
      wkModFw3 = none
      wkModMw3 = none
    MainEffwkFw3 = age
    MainEffwkMw3 = workM: age  bf8  illw3  shjobw3
    SigDoseWKMw3 = no
    SigDoseWkFw3 = no

. 
. 
. * X * missing the number of main effects in the trimmed models
. 
. ///////////////////////////////////////////////////////////////////////////
> *--------- Chunk 4  Dose social problem impact relationship HP2probsoc
. 
. 
. title "3.  H1 part 2 wave 1  Dose - HP2probsoc impact tested"
```

```
******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****      3.  H1 part 2 wave 1  Dose - HP2probsoc impact tested          ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                            18 Jun 2012    18:14:16  ****
> *
******************************************************************************
> *
******************************************************************************
> *


600 .
601 . forvalues j=1/1 {
  2. set more off
  3.
602 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
>   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
  4.
603 .   foreach var in HP2probsoc {
  5.        forvalues k=1/2 {
  6. di _skip(4)
  7. di as input "Full main model for `var' for wave= `j' "
  8. di _skip(4)
  9. di as input  "chunk 4 H1 test:Gender= `k'  model Wave =  `j' for `e(depva
> r)' "
 10. di _skip(4)
 11.
```

```
604 .
605 .       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  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**
marrw11	byte	%8.0g		**marrw1==1. single**
marrw12	byte	%8.0g		**marrw1==2. cohabitating**
marrw13	byte	%8.0g		**marrw1==3. married**
marrw14	byte	%8.0g		**marrw1==4. separated**
marrw15	byte	%8.0g		**marrw1==5. divorced**
marrw16	byte	%8.0g		**marrw1==6. widowed**
inc1w1	double	%15.0g	LABJ	**Income is not sufficient for basic neccessities in 1986**
inc2w1	double	%15.0g	LABJ	**Income is just sufficient for basic neccessities in 1986**
inc3w1	double	%15.0g	LABJ	**Income is sufficient for basics plus extra purchases/savings in 1986**
inc4w1	double	%15.0g	LABJ	**Income allows to comfortably afford luxury items in 1986**
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= 1

chunk 4 H1 test:Gender= 1  model Wave =  1 for hp2hmcare

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

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

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

note: occ6w1 != 0 predicts failure perfectly
      occ6w1 dropped and 5 obs not used

note: occ7w1 != 0 predicts failure perfectly
      occ7w1 dropped and 4 obs not used

note: marrw12 != 0 predicts failure perfectly
      marrw12 dropped and 4 obs not used

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

note: _Ieduc_6 omitted because of collinearity
note: marrw16 omitted because of collinearity

Logistic regression                                 Number of obs   =        288
                                                    LR chi2(43)     =     122.03
                                                    Prob > chi2     =     0.0000
Log likelihood = -56.842934                         Pseudo R2       =     0.5177
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0932157	.0488397	1.91	0.056	-.0025083	.1889398
_Ieduc_2	-1.534787	1.373444	-1.12	0.264	-4.226687	1.157114
_Ieduc_3	-2.172657	.8355094	-2.60	0.009	-3.810226	-.5350887
_Ieduc_4	0	(omitted)				
_Ieduc_5	-1.97152	1.083493	-1.82	0.069	-4.095126	.1520862
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w1	.4116733	2.029299	0.20	0.839	-3.565679	4.389026
occ2w1	1.622509	2.037766	0.80	0.426	-2.371439	5.616456
occ3w1	1.707699	2.267987	0.75	0.451	-2.737474	6.152872
occ4w1	.8391363	2.160815	0.39	0.698	-3.395982	5.074255
occ5w1	.2067084	2.315894	0.09	0.929	-4.33236	4.745777
occ6w1	0	(omitted)				
occ7w1	0	(omitted)				
occ8w1	1.657954	2.464035	0.67	0.501	-3.171466	6.487374
marrw11	8.254014	1282.599	0.01	0.995	-2505.595	2522.103
marrw12	0	(omitted)				
marrw13	6.455541	1282.6	0.01	0.996	-2507.394	2520.305
marrw15	45.60071	8350.823	0.01	0.996	-16321.71	16412.91
marrw16	0	(omitted)				
inc1w1	-4.624348	2.584817	-1.79	0.074	-9.690496	.4418005
inc2w1	-1.315065	2.130506	-0.62	0.537	-5.490781	2.860651
inc3w1	-.8805899	2.024434	-0.43	0.664	-4.848408	3.087229
inc4w1	-3.930393	2.652434	-1.48	0.138	-9.129068	1.268283
radhlw1	-.003808	.0098127	-0.39	0.698	-.0230405	.0154246
havmil	.0037068	.0075299	0.49	0.623	-.0110516	.0184652
avgcumdosew1	.1390885	.1022549	1.36	0.174	-.0613275	.3395044
bf1	.0837527	.0660851	1.27	0.205	-.0457717	.2132771
bf4	-.1765285	.2854179	-0.62	0.536	-.7359372	.3828802
bf9	.0121714	.045033	0.27	0.787	-.0760915	.1004344
bf10	-.0731627	.0326403	-2.24	0.025	-.1371365	-.0091889
bf11	-.0133658	.0915598	-0.15	0.884	-.1928197	.1660881
bf4m	-.1819261	.2441274	-0.75	0.456	-.6604069	.2965547
bf15m	0	(omitted)				
bf20	-.0741254	.0559936	-1.32	0.186	-.1838707	.03562
bf22	.0002567	.0001585	1.62	0.105	-.000054	.0005673
bf30	-.0003312	.0005407	-0.61	0.540	-.0013911	.0007286
bf40	-.1589223	.268107	-0.59	0.553	-.6844023	.3665577
deaw1	.073587	.5137846	0.14	0.886	-.9334124	1.080586
dvcew1	-33.19213	8251.737	-0.00	0.997	-16206.3	16139.92
sepaw1	21.75582	8052.548	0.00	0.998	-15760.95	15804.46
accdw1	1.124538	1.440947	0.78	0.435	-1.699667	3.948743
movew1	.4856006	.9962789	0.49	0.626	-1.46707	2.438271
illw1	.1109162	.620821	0.18	0.858	-1.105871	1.327703
shfamw1	-.0009812	.0110299	-0.09	0.929	-.0225994	.020637

shhlw1	.0236901	.0186204	1.27	0.203	-.0128052	.0601853
shjobw1	.0162037	.0119225	1.36	0.174	-.0071639	.0395713
shrelaw1	-.0240964	.0119609	-2.01	0.044	-.0475394	-.0006534
suprtw1	.0381166	.0331693	1.15	0.250	-.026894	.1031273
suchrw1	-.0419264	.049205	-0.85	0.394	-.1383664	.0545135
havmilsq	-5.12e-06	.0000107	-0.48	0.632	-.0000261	.0000159
_cons	-6.454218	1282.606	-0.01	0.996	-2520.316	2507.407

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2probsoc

Classified	True D	True ~D	Total
+	26	6	32
-	15	241	256
Total	41	247	288

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

Sensitivity	Pr(+| D)	63.41%
Specificity	Pr(-|~D)	97.57%
Positive predictive value	Pr(D| +)	81.25%
Negative predictive value	Pr(~D| -)	94.14%
False + rate for true ~D	Pr(+|~D)	2.43%
False - rate for true D	Pr(-| D)	36.59%
False + rate for classified +	Pr(~D| +)	18.75%
False - rate for classified -	Pr(D| -)	5.86%
Correctly classified		92.71%

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       288
 number of covariate patterns =       288
             Pearson chi2(244) =       239.99
                   Prob > chi2 =         0.5605
```

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

```
Log-Lik Intercept Only:      -117.857     Log-Lik Full Model:            -56.843
D(235):                       113.686     LR(43):                        122.029
                                          Prob > LR:                       0.000
McFadden's R2:                  0.518     McFadden's Adj R2:               0.068
Maximum Likelihood R2:          0.345     Cragg & Uhler's R2:              0.618
McKelvey and Zavoina's R2:      0.804     Efron's R2:                      0.535
Variance of y*:                16.818     Variance of error:               3.290
Count R2:                       0.927     Adj Count R2:                    0.488
AIC:                            0.763     AIC*n:                         219.686
BIC:                        -1217.110     BIC':                          121.479

Full main model for HP2probsoc for wave= 1

chunk 4 H1 test:Gender= 2  model Wave =  1 for HP2probsoc

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 11 obs not used

note: _Ieduc_8 omitted because of collinearity
convergence not achieved

Logistic regression                               Number of obs   =        347
                                                  LR chi2(49)     =     174.17
                                                  Prob > chi2     =     0.0000
Log likelihood =  -92.74522                       Pseudo R2       =     0.4843
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1339222	.0304099	4.40	0.000	.07432	.1935245
_Ieduc_2	-14.8519	3.844577	-3.86	0.000	-22.38714	-7.316671
_Ieduc_3	-15.07441	3.702435	-4.07	0.000	-22.33105	-7.817769
_Ieduc_4	-15.0354	3.71929	-4.04	0.000	-22.32507	-7.745721
_Ieduc_5	-15.31894	3.642287	-4.21	0.000	-22.45769	-8.180187
_Ieduc_6	-15.97033	3.721806	-4.29	0.000	-23.26493	-8.675722
_Ieduc_7	-14.57197	4.858518	-3.00	0.003	-24.09449	-5.049449
_Ieduc_8	0	(omitted)				
occ1w1	-2.855851	2.862357	-1.00	0.318	-8.465967	2.754266
occ2w1	-2.736414	2.877102	-0.95	0.342	-8.375431	2.902603
occ3w1	-3.494041	2.901139	-1.20	0.228	-9.180168	2.192087
occ4w1	-3.424951	2.969387	-1.15	0.249	-9.244843	2.394942
occ5w1	-4.951372	3.138113	-1.58	0.115	-11.10196	1.199216
occ6w1	-4.529022	3.152748	-1.44	0.151	-10.70829	1.650251
occ7w1	-2.040185	2.865556	-0.71	0.476	-7.656572	3.576202
occ8w1	-1.038951	3.012173	-0.34	0.730	-6.942703	4.8648
marrw11	-3.017556	2.506541	-1.20	0.229	-7.930285	1.895174
marrw12	-1.448781	2.689444	-0.54	0.590	-6.719994	3.822432
marrw13	-2.818836	2.317521	-1.22	0.224	-7.361093	1.723421

marrw15	-4.022412	2.774385	-1.45	0.147	-9.460106	1.415282
marrw16	-3.024951	2.89161	-1.05	0.296	-8.692402	2.6425
inc1w1	1.652153	2.826464	0.58	0.559	-3.887614	7.191921
inc2w1	.7523029	2.773835	0.27	0.786	-4.684314	6.188919
inc3w1	.8186418	2.79302	0.29	0.769	-4.655577	6.29286
inc4w1	1.416767	2.932929	0.48	0.629	-4.331668	7.165203
radhlw1	.0078893	.0071763	1.10	0.272	-.0061759	.0219546
havmil	-.0016014	.0088347	-0.18	0.856	-.018917	.0157143
avgcumdosew1	.9064706	.4019796	2.26	0.024	.1186049	1.694336
bf1	.035394	.0349482	1.01	0.311	-.0331032	.1038912
bf4	-.3079106	.2679557	-1.15	0.251	-.8330942	.217273
bf9	-.0727705	.032505	-2.24	0.025	-.1364792	-.0090617
bf10	-.0269165	.0168597	-1.60	0.110	-.059961	.0061279
bf11	-.0076362	.0541236	-0.14	0.888	-.1137164	.0984441
bf4m	.0576549	.2545602	0.23	0.821	-.441274	.5565838
bf15m	0	(omitted)				
bf20	-.0388067	.0274447	-1.41	0.157	-.0925973	.0149838
bf22	.0001098	.0001019	1.08	0.281	-.0000899	.0003094
bf30	.0003325	.0003748	0.89	0.375	-.000402	.001067
bf40	-.1036356	.1492079	-0.69	0.487	-.3960777	.1888066
deaw1	-.1970026	.3234174	-0.61	0.542	-.830889	.4368837
dvcew1	1.249232	2.862648	0.44	0.663	-4.361455	6.859919
sepaw1	-.7111444	3.235109	-0.22	0.826	-7.051842	5.629553
accdw1	-.7069674	1.124581	-0.63	0.530	-2.911106	1.497171
movew1	.3733727	.7129786	0.52	0.601	-1.02404	1.770785
illw1	-.2000586	.4406407	-0.45	0.650	-1.063699	.6635813
shfamw1	-.014563	.009194	-1.58	0.113	-.0325829	.003457
shhlw1	-.0149441	.0130685	-1.14	0.253	-.0405578	.0106697
shjobw1	.0015703	.0091986	0.17	0.864	-.0164586	.0195992
shrelaw1	-.0082661	.0085598	-0.97	0.334	-.0250429	.0085107
suprtw1	.0056689	.0131922	0.43	0.667	-.0201873	.0315251
suchrw1	-.0127124	.0182568	-0.70	0.486	-.0484951	.0230702
havmilsq	-1.64e-06	.0000208	-0.08	0.937	-.0000424	.0000391
_cons	15.72467	.	.	.	.	.

Note: 1 failure and 1 success completely determined.
Warning: convergence not achieved

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	46	12	58
-	28	261	289
Total	74	273	347

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   62.16%
Specificity                     Pr( -|~D)   95.60%
Positive predictive value       Pr( D| +)   79.31%
Negative predictive value       Pr(~D| -)   90.31%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    4.40%
False - rate for true D         Pr( -| D)   37.84%
False + rate for classified +   Pr(~D| +)   20.69%
False - rate for classified -   Pr( D| -)    9.69%
--------------------------------------------------
Correctly classified                        88.47%
--------------------------------------------------
```

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       347
 number of covariate patterns =       347
            Pearson chi2(296) =       277.13
                  Prob > chi2 =         0.7779
```

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

```
Log-Lik Intercept Only:     -179.829   Log-Lik Full Model:          -92.745
D(294):                      185.490   LR(49):                      174.168
                                       Prob > LR:                     0.000
McFadden's R2:                 0.484   McFadden's Adj R2:             0.190
Maximum Likelihood R2:         0.395   Cragg & Uhler's R2:            0.612
McKelvey and Zavoina's R2:     0.757   Efron's R2:                    0.511
Variance of y*:               13.536   Variance of error:             3.290
Count R2:                      0.885   Adj Count R2:                  0.459
AIC:                           0.840   AIC*n:                       291.490
BIC:                       -1534.211   BIC':                        112.449
```

```
606 .
607 . *-----Chunk 4 dose3 social problem impact--------------no sig dose main effe
    > ct--
608 . title4 "Male trimmed models of dose and HP2probsoc relationship in wave 1"
    ------------------------------------------------------------------------------
    Male trimmed models of dose and HP2probsoc relationship in wave 1
    ------------------------------------------------------------------------------

609 . * male models
610 .         forvalues j=1/1 {
      2. set more off
      3. local w1bf bf1 bf4 bf9 bf10 bf11 bf4m bf15m bf20 bf22 bf30 bf40
      4. title4 "trimmed HP2probsoc main effects models wave 1 for H1 part 2 with
    > dose ns"
      5. title4 "wave 1 dose HP2probsoc relationship but avgcumdosew`j': Dose not
    > signif"
      6. sw, pr(.1): logit HP2probsoc age radhlw1 accdw`j' `w`j'bf'  shjobw`j'  ha
    > vmilsq ///
    >     avgcumdosew`j' shhlw`j'  shrelaw`j' if gender==1
      7.                         estat class
      8.                         estat gof
      9.                         fitstat
     10. }
    ------------------------------------------------------------------------------
    trimmed HP2probsoc main effects models wave 1 for H1 part 2 with dose ns
    ------------------------------------------------------------------------------
    ------------------------------------------------------------------------------
    wave 1 dose HP2probsoc relationship but avgcumdosew1: Dose not signif
    ------------------------------------------------------------------------------
    note: bf15m dropped because of estimability
    note: o.bf15m dropped because of estimability
    note: 21 obs. dropped because of estimability
                          begin with full model
    p = 0.8569 >= 0.1000  removing accdw1
    p = 0.8345 >= 0.1000  removing bf4
    p = 0.6090 >= 0.1000  removing havmilsq
    p = 0.5895 >= 0.1000  removing radhlw1
    p = 0.6078 >= 0.1000  removing bf40
    p = 0.5292 >= 0.1000  removing bf20
    p = 0.7236 >= 0.1000  removing bf1
    p = 0.3440 >= 0.1000  removing bf11
    p = 0.3090 >= 0.1000  removing bf10
    p = 0.2900 >= 0.1000  removing bf9
    p = 0.3215 >= 0.1000  removing bf30
    p = 0.2860 >= 0.1000  removing bf22
    p = 0.1710 >= 0.1000  removing avgcumdosew1
    p = 0.1317 >= 0.1000  removing shhlw1
    p = 0.1690 >= 0.1000  removing shrelaw1
    p = 0.1067 >= 0.1000  removing shjobw1
```

```
Logistic regression                               Number of obs   =        319
                                                  LR chi2(2)      =      71.57
                                                  Prob > chi2     =     0.0000
Log likelihood = -86.576328                       Pseudo R2       =     0.2925
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0381014	.0181494	2.10	0.036	.0025293	.0736736
bf4m	-.2064677	.0337163	-6.12	0.000	-.2725504	-.140385
_cons	-.2900951	1.272585	-0.23	0.820	-2.784316	2.204126

Logistic model for HP2probsoc

	True		
Classified	D	~D	Total
+	13	6	19
-	28	272	300
Total	41	278	319

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

Sensitivity	Pr(+| D)	31.71%
Specificity	Pr(-|~D)	97.84%
Positive predictive value	Pr(D| +)	68.42%
Negative predictive value	Pr(~D| -)	90.67%
False + rate for true ~D	Pr(+|~D)	2.16%
False - rate for true D	Pr(-| D)	68.29%
False + rate for classified +	Pr(~D| +)	31.58%
False - rate for classified -	Pr(D| -)	9.33%
Correctly classified		89.34%

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       319
 number of covariate patterns =       220
             Pearson chi2(217) =       200.09
                   Prob > chi2 =         0.7885
```

```
Measures of Fit for logit of HP2probsoc

Log-Lik Intercept Only:      -122.361   Log-Lik Full Model:            -86.576
D(316):                       173.153   LR(2):                          71.569
                                        Prob > LR:                       0.000
McFadden's R2:                  0.292   McFadden's Adj R2:               0.268
Maximum Likelihood R2:          0.201   Cragg & Uhler's R2:              0.375
McKelvey and Zavoina's R2:      0.372   Efron's R2:                      0.293
Variance of y*:                 5.240   Variance of error:               3.290
Count R2:                       0.893   Adj Count R2:                    0.171
AIC:                            0.562   AIC*n:                         179.153
BIC:                        -1648.648   BIC':                          -60.039

611 . title4 "Trimmed male main effects model"
    ____________________________________________________________________________

    Trimmed male main effects model
    ____________________________________________________________________________

612 . forvalues j=1/1 {
  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 1            ****
> *
*****                     for H1 part 2 with dose ns                     ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                        18 Jun 2012    18:14:47     ****
> *
*****************************************************************************
> *
*****************************************************************************
> *
```

```
title2: Wave `j dose HP2work relationship but avgcumdosew1: Dose not signif
                                       Date and time:  18 Jun 2012    18:14:47
                                       Working directory:  /Users/robertyaffee
> /Documents/data/research/chwk/phase3/Htests/h1tests/h1pt2
                                       Stata data file:  chwide16june2012.dta
>  has  2382  variables and  703  observations

Wave `j dose HP2work relationship but avgcumdosew1: Dose not signif
```

```
613 .
614 . logit HP2probsoc age radhlw1 bf4m  if gender==1

Iteration 0:   log likelihood = -125.15243
Iteration 1:   log likelihood = -98.286147
Iteration 2:   log likelihood = -88.284687
Iteration 3:   log likelihood = -87.790699
Iteration 4:   log likelihood = -87.789842
Iteration 5:   log likelihood = -87.789842

Logistic regression                               Number of obs   =        340
                                                  LR chi2(3)      =      74.73
                                                  Prob > chi2     =     0.0000
Log likelihood = -87.789842                       Pseudo R2       =     0.2985
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
age	.0408433	.0180763	2.26	0.024	.0054145	.0762722
radhlw1	.0025885	.0057387	0.45	0.652	-.0086592	.0138361
bf4m	-.1982136	.0358985	-5.52	0.000	-.2685733	-.1278538
_cons	-.7777696	1.352662	-0.57	0.565	-3.428938	1.873399

```
615 .
```

```
616 .
617 . scalar SigdoseMw1 = "no"

618 . scalar MainEffPrbsocMw1 = "age bf4m"

619 .
620 .
621 . foreach var in bf4 age radhlw1 shjobw1 shrelaw1 {
      2.  cap gen `var'Xd1= `var'*avgcumdosew1
      3.  }

622 .
623 .
624 .
625 . forvalues j=1/1 {
      2.   set more off
      3.   title "Main effects Dose ProbSoc model for males"
      4.   logit HP2probsoc age avgcumdosew1 radhlw1 shjobw`j' ///
    >        ageXd1 radhlw1Xd1 shjobw1Xd1 shrelaw1Xd1 if gender==1
      5.                         estat class
      6.                         estat gof
      7.                         fitstat
      8. }


    *******************************************************************************
    > *
    *******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****            Main effects Dose ProbSoc model for males                ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                    18 Jun 2012    18:14:48          ****
    > *
    *******************************************************************************
    > *
    *******************************************************************************
    > *
```

```
Iteration 0:   log likelihood = -125.15243
Iteration 1:   log likelihood = -96.957486
Iteration 2:   log likelihood =    -91.634
Iteration 3:   log likelihood = -90.570723
Iteration 4:   log likelihood = -90.307985
Iteration 5:   log likelihood = -90.296231
Iteration 6:   log likelihood = -90.296206
Iteration 7:   log likelihood = -90.296206

Logistic regression                               Number of obs   =        340
                                                  LR chi2(8)      =      69.71
                                                  Prob > chi2     =     0.0000
Log likelihood = -90.296206                       Pseudo R2       =     0.2785
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0348678	.0289544	1.20	0.229	-.0218818	.0916174
avgcumdosew1	-13.34838	6.796946	-1.96	0.050	-26.67015	-.0266126
radhlw1	.0078565	.0063701	1.23	0.217	-.0046287	.0203416
shjobw1	.0100379	.010521	0.95	0.340	-.0105828	.0306587
ageXd1	.1331427	.1074383	1.24	0.215	-.0774326	.3437179
radhlw1Xd1	.0060028	.0144906	0.41	0.679	-.0223983	.0344039
shjobw1Xd1	.0795578	.0390013	2.04	0.041	.0031166	.155999
shrelaw1Xd1	-.0381989	.015358	-2.49	0.013	-.0683	-.0080977
_cons	-4.518141	1.78078	-2.54	0.011	-8.008406	-1.027877

Note: 2 failures and 0 successes completely determined.

Logistic model for HP2probsoc

Classified	True D	True ~D	Total
+	10	3	13
-	31	296	327
Total	41	299	340

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   24.39%
Specificity                     Pr( -|~D)   99.00%
Positive predictive value       Pr( D| +)   76.92%
Negative predictive value       Pr(~D| -)   90.52%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    1.00%
False - rate for true D         Pr( -| D)   75.61%
False + rate for classified +   Pr(~D| +)   23.08%
False - rate for classified -   Pr( D| -)    9.48%
--------------------------------------------------
Correctly classified                        90.00%
--------------------------------------------------
```

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       331
            Pearson chi2(322) =       260.41
                  Prob > chi2 =         0.9950
```

Measures of Fit for **logit** of **HP2probsoc**

```
Log-Lik Intercept Only:     -125.152    Log-Lik Full Model:            -90.296
D(331):                      180.592    LR(8):                          69.712
                                        Prob > LR:                       0.000
McFadden's R2:                 0.279    McFadden's Adj R2:               0.207
Maximum Likelihood R2:         0.185    Cragg & Uhler's R2:              0.356
McKelvey and Zavoina's R2:     0.588    Efron's R2:                      0.248
Variance of y*:                7.976    Variance of error:               3.290
Count R2:                      0.900    Adj Count R2:                    0.171
AIC:                           0.584    AIC*n:                         198.592
BIC:                       -1748.789    BIC':                          -23.081
```

```
626 .
627 . title4 "male wave 1 moderators of dose and hmcare"
    ────────────────────────────────────────────────────────────────────────────────
    male wave 1 moderators of dose and hmcare
    ────────────────────────────────────────────────────────────────────────────────


628 . scalar PrbsocModMw1 = "shjobw1Xd1 shrelaw1Xd1"

629 .
630 . forvalues j=1/1 {
      2. set more off
      3.   logit HP2probsoc age  radhlw1 shjobw`j' shrelaw1 ///
    >       avgcumdosew`j'  shrelaw`j'Xd1 ///
    >        shjobw1Xd1 if gender==1
      4.                          estat class
      5.                          estat gof
      6.                          fitstat
      7. }

    Iteration 0:   log likelihood = -125.15243
    Iteration 1:   log likelihood = -98.199364
    Iteration 2:   log likelihood = -91.871369
    Iteration 3:   log likelihood = -91.382931
    Iteration 4:   log likelihood = -91.279919
    Iteration 5:   log likelihood = -91.277661
    Iteration 6:   log likelihood = -91.277658

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(7)      =      67.75
                                                      Prob > chi2     =     0.0000
    Log likelihood = -91.277658                       Pseudo R2       =     0.2707
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.065245	.0168011	3.88	0.000	.0323155	.0981744
radhlw1	.0097595	.0055022	1.77	0.076	-.0010247	.0205437
shjobw1	.0098453	.0120807	0.81	0.415	-.0138324	.033523
shrelaw1	.0002189	.0069348	0.03	0.975	-.0133731	.0138109
avgcumdosew1	-5.108591	3.138225	-1.63	0.104	-11.2594	1.042216
shrelaw1Xd1	-.0269782	.0164348	-1.64	0.101	-.0591898	.0052334
shjobw1Xd1	.0726131	.0410722	1.77	0.077	-.0078869	.1531132
_cons	-6.378223	1.306394	-4.88	0.000	-8.938707	-3.817739

```
    Note: 2 failures and 0 successes completely determined.

    Logistic model for HP2probsoc
```

Classified	True D	True ~D	Total
+	**9**	**4**	**13**
-	**32**	**295**	**327**
Total	**41**	**299**	**340**

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

Sensitivity	Pr(+| D)	**21.95%**
Specificity	Pr(-|~D)	**98.66%**
Positive predictive value	Pr(D| +)	**69.23%**
Negative predictive value	Pr(~D| -)	**90.21%**
False + rate for true ~D	Pr(+|~D)	**1.34%**
False - rate for true D	Pr(-| D)	**78.05%**
False + rate for classified +	Pr(~D| +)	**30.77%**
False - rate for classified -	Pr(D| -)	**9.79%**
Correctly classified		**89.41%**

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       331
            Pearson chi2(323) =       280.63
                  Prob > chi2 =         0.9572
```

Measures of Fit for **logit** of **HP2probsoc**

Log-Lik Intercept Only:	**-125.152**	Log-Lik Full Model:	**-91.278**
D(332):	**182.555**	LR(7):	**67.750**
		Prob > LR:	**0.000**
McFadden's R2:	**0.271**	McFadden's Adj R2:	**0.207**
Maximum Likelihood R2:	**0.181**	Cragg & Uhler's R2:	**0.347**
McKelvey and Zavoina's R2:	**0.590**	Efron's R2:	**0.242**
Variance of y*:	**8.026**	Variance of error:	**3.290**
Count R2:	**0.894**	Adj Count R2:	**0.122**
AIC:	**0.584**	AIC*n:	**198.555**
BIC:	**-1752.655**	BIC':	**-26.947**

```
631 . scalar SigDoseProbsocMw1 = "no"

632 . * xx  no signific radhwl3 by dose effect
633 . * xx  for males no signif dose social problem effect
634 . * xx  for males no significant moderator in dose social problem effect
635 .
636 . * female models
637 .
638 .
639 .
640 .
641 .
642 . title4 "H1 pt2 wave 1 trimmed female moderator model with basis functions"
    ------------------------------------------------------------------------------
    H1 pt2 wave 1 trimmed female moderator model with basis functions
    ------------------------------------------------------------------------------

643 . forvalues j=1/1 {
      2. set more off
      3. local w1bf bf1 bf4 bf9 bf10 bf11 bf4m bf15m bf20 bf22 bf30 bf40
      4. title "trimmed HP2probsoc main effects models wave 1 for H1 part 2 " "Dos
    > e is signif Females"
      5. title "wave 1 dose HP2probsoc relationship but avgcumdosew`j': Dose signi
    > f"
      6. sw, pr(.1): logit HP2probsoc age radhlw1  illw`j' `w1bf' ////
    >   shrelaw`j' avgcumdosew`j' if gender==2
      7.                          estat class
      8.                          estat gof
      9.                          fitstat
     10. }


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****     trimmed HP2probsoc main effects models wave 1 for H1 part 2      ****
    > *
    *****                        Dose is signif Females                        ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                          18 Jun 2012    18:14:51   ****
```

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


********************************************************************************
> *
********************************************************************************
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
***** wave 1 dose HP2probsoc relationship but avgcumdosew1: Dose signif    ****
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****                                                  18 Jun 2012    18:14:51  ****
> *
********************************************************************************
> *
********************************************************************************
> *

note: bf15m dropped because of estimability
note: o.bf15m dropped because of estimability
note: 11 obs. dropped because of estimability
                      begin with full model
p = 0.5688 >= 0.1000  removing illw1
p = 0.4993 >= 0.1000  removing bf40
p = 0.5410 >= 0.1000  removing bf22
p = 0.4121 >= 0.1000  removing bf11
p = 0.4390 >= 0.1000  removing bf10
p = 0.2876 >= 0.1000  removing bf1
p = 0.4202 >= 0.1000  removing bf20
p = 0.3289 >= 0.1000  removing bf30
p = 0.2425 >= 0.1000  removing bf9
p = 0.1125 >= 0.1000  removing bf4m
```

```
Logistic regression                             Number of obs   =        351
                                                LR chi2(5)      =     134.88
                                                Prob > chi2     =     0.0000
Log likelihood = -113.34071                     Pseudo R2       =     0.3731
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0966615	.0183518	5.27	0.000	.0606925	.1326304
radhlw1	.0116609	.004855	2.40	0.016	.0021453	.0211765
avgcumdosew1	.6600342	.2959902	2.23	0.026	.0799041	1.240164
shrelaw1	-.0108373	.005085	-2.13	0.033	-.0208036	-.0008709
bf4	-.1838833	.0354969	-5.18	0.000	-.2534559	-.1143107
_cons	-5.736784	1.146357	-5.00	0.000	-7.983602	-3.489965

Logistic model for HP2probsoc

Classified	True D	True ~D	Total
+	41	14	55
-	33	263	296
Total	74	277	351

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

Sensitivity	Pr(+| D)	55.41%
Specificity	Pr(-|~D)	94.95%
Positive predictive value	Pr(D| +)	74.55%
Negative predictive value	Pr(~D| -)	88.85%
False + rate for true ~D	Pr(+|~D)	5.05%
False - rate for true D	Pr(-| D)	44.59%
False + rate for classified +	Pr(~D| +)	25.45%
False - rate for classified -	Pr(D| -)	11.15%
Correctly classified		86.61%

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       351
 number of covariate patterns =       350
            Pearson chi2(344) =       376.81
                  Prob > chi2 =         0.1078

   Measures of Fit for logit of HP2probsoc

   Log-Lik Intercept Only:     -180.782    Log-Lik Full Model:          -113.341
   D(345):                      226.681    LR(5):                        134.883
                                           Prob > LR:                      0.000
   McFadden's R2:                 0.373    McFadden's Adj R2:              0.340
   Maximum Likelihood R2:         0.319    Cragg & Uhler's R2:             0.496
   McKelvey and Zavoina's R2:     0.548    Efron's R2:                     0.411
   Variance of y*:                7.277    Variance of error:              3.290
   Count R2:                      0.866    Adj Count R2:                   0.365
   AIC:                           0.680    AIC*n:                        238.681
   BIC:                       -1795.290    BIC':                        -105.579

644 .
645 .
646 . scalar SigDoseProbsocFw1 = "yes"

647 . scalar MainEffProbSocFw1 = "age radhlw1 avgcumdosew1 shrelaw1 bf4"

648 .
649 . foreach var in b4 shrelaw1  {
  2.  cap   gen `var'Xd1 = `var'*avgcumdosew1
  3. }

650 .
651 . * testing the female moderator model with basis functions
652 . forvalues j=1/1 {
  2. set more off
  3. local w1bf bf1 bf4 bf9 bf10 bf11 bf14 bf15m bf20 bf22 bf30 bf40
  4. title "trimmed HP2socprob main effects  wv 1 for Hyp1 pt 2" "dose is sign
> if for females"
  5. title "wave 1 dose HP2socprob relationship but avgcumdosew`j'" " Dose is
> signif for females"
  6. sw, pr(.1): logit HP2probsoc age radhlw1  illw`j' `w1bf' ////
>   shrelaw`j' avgcumdosew`j' bf4Xd1 shrelaw1Xd1 ///
>     if gender==2
  7.                          estat class
  8.                          estat gof
  9.                          fitstat
 10. }
```

```
********************************************************************************
> *
********************************************************************************
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****        trimmed HP2socprob main effects  wv 1 for Hyp1 pt 2           ****
> *
*****                    dose is signif for females                         ****
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****                                          18 Jun 2012    18:15:08  ****
> *
********************************************************************************
> *
********************************************************************************
> *
```

```
********************************************************************************
> *
********************************************************************************
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****        wave 1 dose HP2socprob relationship but avgcumdosew1          ****
> *
*****                    Dose is signif for females                         ****
> *
*****                                                                       ****
> *
*****                                                                       ****
> *
*****                                          18 Jun 2012    18:15:08  ****
> *
********************************************************************************
> *
********************************************************************************
> *
```

```
note: bf15m dropped because of estimability
note: o.bf15m dropped because of estimability
note: 11 obs. dropped because of estimability
                      begin with full model
p = 0.8198 >= 0.1000  removing shrelaw1Xd1
p = 0.4967 >= 0.1000  removing illw1
p = 0.4970 >= 0.1000  removing bf14
p = 0.4352 >= 0.1000  removing bf1
p = 0.4028 >= 0.1000  removing bf11
p = 0.3720 >= 0.1000  removing bf10
p = 0.3228 >= 0.1000  removing bf20
p = 0.3123 >= 0.1000  removing bf30
p = 0.2761 >= 0.1000  removing bf9
p = 0.1462 >= 0.1000  removing bf4Xd1
p = 0.1528 >= 0.1000  removing bf40
p = 0.3685 >= 0.1000  removing bf22

Logistic regression                             Number of obs   =        351
                                                LR chi2(5)      =     134.88
                                                Prob > chi2     =     0.0000
Log likelihood = -113.34071                     Pseudo R2       =     0.3731
```

HP2probsoc	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0966615	.0183518	5.27	0.000	.0606925	.1326304
radhlw1	.0116609	.004855	2.40	0.016	.0021453	.0211765
avgcumdosew1	.6600342	.2959902	2.23	0.026	.0799041	1.240164
shrelaw1	-.0108373	.005085	-2.13	0.033	-.0208036	-.0008709
bf4	-.1838833	.0354969	-5.18	0.000	-.2534559	-.1143107
_cons	-5.736784	1.146357	-5.00	0.000	-7.983602	-3.489965

Logistic model for HP2probsoc

Classified	True D	True ~D	Total
+	41	14	55
-	33	263	296
Total	74	277	351

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2probsoc != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   55.41%
Specificity                     Pr( -|~D)   94.95%
Positive predictive value       Pr( D| +)   74.55%
Negative predictive value       Pr(~D| -)   88.85%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    5.05%
False - rate for true D         Pr( -| D)   44.59%
False + rate for classified +   Pr(~D| +)   25.45%
False - rate for classified -   Pr( D| -)   11.15%
--------------------------------------------------
Correctly classified                        86.61%
--------------------------------------------------
```

Logistic model for HP2probsoc, goodness-of-fit test

```
       number of observations =       351
 number of covariate patterns =       350
            Pearson chi2(344) =       376.81
                  Prob > chi2 =         0.1078
```

Measures of Fit for **logit** of **HP2probsoc**

```
Log-Lik Intercept Only:     -180.782    Log-Lik Full Model:           -113.341
D(345):                      226.681    LR(5):                         134.883
                                        Prob > LR:                       0.000
McFadden's R2:                 0.373    McFadden's Adj R2:               0.340
Maximum Likelihood R2:         0.319    Cragg & Uhler's R2:              0.496
McKelvey and Zavoina's R2:     0.548    Efron's R2:                      0.411
Variance of y*:                7.277    Variance of error:               3.290
Count R2:                      0.866    Adj Count R2:                    0.365
AIC:                           0.680    AIC*n:                         238.681
BIC:                       -1795.290    BIC':                         -105.579
```

```
.
. scalar ProbsocModFw1 = "none"

.
.
. title4 "H1 pt 2 wave 1 testing for mediators for males"
------------------------------------------------------------------------------

H1 pt 2 wave 1 testing for mediators for males
------------------------------------------------------------------------------

. * Male mediator dose social problem response models
.
.
.
.
. glm age avgcumdosew1 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood =  -1331.608

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  148.5632
Deviance         =  50214.37624                    (1/df) Deviance =  148.5632
Pearson          =  50214.37624                    (1/df) Pearson  =  148.5632

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

                                                   AIC             =  7.844753
Log likelihood   = -1331.607976                    BIC             =  48244.19

------------------------------------------------------------------------------
             |                 OIM
         age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   .6719789   .3966839     1.69   0.090    -.1055072    1.449465
       _cons |   48.89394   .6825967    71.63   0.000     47.55607     50.2318
------------------------------------------------------------------------------
```

```
664 . 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

    ------------------------------------------------------------------------------
                 |                 EIM
      HP2probsoc |      Coef.   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.)

665 .
666 . glm radhlw1 avgcumdosew1 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1710.3417

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  1378.645
    Deviance         =  465981.8893                    (1/df) Deviance =  1378.645
    Pearson          =  465981.8893                    (1/df) Pearson  =  1378.645

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

                                                       AIC             =   10.0726
    Log likelihood   = -1710.341694                    BIC             =  464011.7
```

radhlw1	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	**2.398285**	**1.208412**	**1.98**	**0.047**	**.0298407**	**4.766729**
_cons	**44.66477**	**2.079384**	**21.48**	**0.000**	**40.58925**	**48.74029**

```
667 . glm HP2probsoc radhlw1 if gender==1,fam(bin) irls link(probit) scale(dev)

    Iteration 1:   deviance =  234.6563
    Iteration 2:   deviance =  229.8984
    Iteration 3:   deviance =  229.7634
    Iteration 4:   deviance =  229.7633
    Iteration 5:   deviance =  229.7633

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        338
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  229.7632837                    (1/df) Deviance =    .679773
    Pearson          =  344.9083225                    (1/df) Pearson  =   1.020439

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

                                                       BIC             =   -1740.42
```

HP2probsoc	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
radhlw1	**.0108869**	**.0020577**	**5.29**	**0.000**	**.0068539**	**.0149198**
_cons	**-1.765962**	**.1445027**	**-12.22**	**0.000**	**-2.049182**	**-1.482742**

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

668 .
```

```
669 . glm shjobw1 avgcumdosew1 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood =  -1710.378

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  1378.939
    Deviance         =  466081.3297                    (1/df) Deviance =  1378.939
    Pearson          =  466081.3297                    (1/df) Pearson  =  1378.939

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

                                                       AIC             =  10.07281
    Log likelihood   = -1710.377969                    BIC             =  464111.1

    ------------------------------------------------------------------------------
                 |                 OIM
         shjobw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew1 |   1.461274   1.208541     1.21   0.227     -.907423     3.82997
           _cons |   48.94341   2.079606    23.53   0.000     44.86746    53.01936
    ------------------------------------------------------------------------------

670 . glm HP2probsoc shjobw1 if gender==1,fam(bin) irls link(probit) scale(dev)

    Iteration 1:   deviance =  227.0059
    Iteration 2:   deviance =  218.5961
    Iteration 3:   deviance =   218.011
    Iteration 4:   deviance =  218.0073
    Iteration 5:   deviance =  218.0072
    Iteration 6:   deviance =  218.0072

    Generalized linear models                          No. of obs      =       340
    Optimization     : MQL Fisher scoring              Residual df     =       338
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  218.0072484                    (1/df) Deviance =  .6449919
    Pearson          =  380.0066656                    (1/df) Pearson  =   1.12428

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

                                                       BIC             = -1752.176
```

```
------------------------------------------------------------------------------
             |                 EIM
  HP2probsoc |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     shjobw1 |   .0149051   .0023429     6.36   0.000      .010313    .0194971
       _cons |  -2.086099   .1780182   -11.72   0.000    -2.435009    -1.73719
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

671 .
672 . glm shrelaw1 avgcumdosew1 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1715.4166

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  1420.421
Deviance         =  480102.3567                    (1/df) Deviance =  1420.421
Pearson          =  480102.3567                    (1/df) Pearson  =  1420.421

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

                                                   AIC             =  10.10245
Log likelihood   = -1715.416629                    BIC             =  478132.2

------------------------------------------------------------------------------
             |                 OIM
    shrelaw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |  -.0649405   1.226584    -0.05   0.958    -2.469002    2.339121
       _cons |   29.57199   2.110654    14.01   0.000     25.43518     33.7088
------------------------------------------------------------------------------

673 . glm HP2probsoc shrelaw1 if gender==1,fam(bin) irls link(probit) scale(dev)

Iteration 1:   deviance =  250.4419
Iteration 2:   deviance =  249.8324
Iteration 3:   deviance =  249.8314
Iteration 4:   deviance =  249.8314

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       338
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  249.8314263                    (1/df) Deviance =  .7391462
Pearson          =  340.1867245                    (1/df) Pearson  =   1.00647
```

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

                                                    BIC             = -1720.352

------------------------------------------------------------------------------
             |                 EIM
 HP2probsoc  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   shrelaw1  |   .0015698   .0019726     0.80   0.426    -.0022964    .0054361
      _cons  |  -1.220468   .0980174   -12.45   0.000    -1.412578   -1.028357
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)
```

674 .
675 . title4 "Shjobw1 can be a mediator with others"

```
------------------------------------------------------------------------------
Shjobw1 can be a mediator with others
------------------------------------------------------------------------------
```

676 . glm radhlw1 shjobw1 avgcumdosew1 if gender==1, fam(gaus) link(identity)

```
Iteration 0:   log likelihood = -1679.4377

Generalized linear models                           No. of obs      =        340
Optimization     : ML                               Residual df     =        337
                                                    Scale parameter =   1152.894
Deviance         =  388525.4251                     (1/df) Deviance =   1152.894
Pearson          =  388525.4251                     (1/df) Pearson  =   1152.894

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

                                                    AIC             =   9.896692
Log likelihood   = -1679.437708                     BIC             =   386561.1

------------------------------------------------------------------------------
             |                 OIM
    radhlw1  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    shjobw1  |   .4076599   .0497352     8.20   0.000     .3101807    .5051391
avgcumdosew1 |   1.802582   1.107442     1.63   0.104    -.3679637    3.973128
      _cons  |   24.71251   3.088883     8.00   0.000     18.65841    30.76661
------------------------------------------------------------------------------
```

```
677 . glm HP2probsoc shjobw1 avgcumdosew1 shjobw1Xd1 radhlw1 if gender==1,fam(bin)
    >  ///
    >   irls scale(dev) link(probit)

    Iteration 1:   deviance =  219.4001
    Iteration 2:   deviance =  209.1683
    Iteration 3:   deviance =  208.2026
    Iteration 4:   deviance =  208.1798
    Iteration 5:   deviance =  208.1796
    Iteration 6:   deviance =  208.1796
    Iteration 7:   deviance =  208.1796

    Generalized linear models                          No. of obs      =        340
    Optimization     : MQL Fisher scoring              Residual df     =        335
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =   208.179583                    (1/df) Deviance =   .6214316
    Pearson          =  348.7623267                    (1/df) Pearson  =   1.041082

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

                                                       BIC             =  -1744.517

    ------------------------------------------------------------------------------
                 |                 EIM
      HP2probsoc |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
         shjobw1 |   .0101989   .0030577     3.34   0.001      .004206    .0161918
    avgcumdosew1 |  -.5046729    .500832    -1.01   0.314    -1.486286    .4769398
      shjobw1Xd1 |   .0071158   .0061813     1.15   0.250    -.0049993    .0192309
         radhlw1 |   .0070111   .0022234     3.15   0.002     .0026533    .0113688
           _cons |  -2.183344   .2368622    -9.22   0.000    -2.647586   -1.719103
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

678 .
679 . scalar ProbsocMedMw1 = "radhlw1"
```

```
680 .
681 . title4 "H1 pt2 wave 1 HP2probsoc female mediator tests"
    ─────────────────────────────────────────────────────────────────────────────
    H1 pt2 wave 1 HP2probsoc female mediator tests
    ─────────────────────────────────────────────────────────────────────────────

682 .
683 . // age is a possible female mediator
684 . glm age avgcumdosew1 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood =  -1406.325

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =   136.455
    Deviance         =  49260.25928                    (1/df) Deviance =   136.455
    Pearson          =  49260.25928                    (1/df) Pearson  =   136.455

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

                                                       AIC             =  7.759366
    Log likelihood   = -1406.325011                    BIC             =  47132.38

    ─────────────────────────────────────────────────────────────────────────────
                 |                 OIM
             age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    ─────────────┼───────────────────────────────────────────────────────────────
    avgcumdosew1 |   3.973879   1.117679     3.56   0.000     1.783267     6.16449
           _cons |   48.88157   .7187038    68.01   0.000     47.47293     50.2902
    ─────────────────────────────────────────────────────────────────────────────

685 . 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.)

686 .
687 . // radhlw1 is a possible female mediator
688 . glm radhlw1 avgcumdosew1 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1821.9477

Generalized linear models                          No. of obs      =       362
Optimization     : ML                              Residual df     =       360
                                                   Scale parameter =  1385.301
Deviance         =  498708.3025                    (1/df) Deviance =  1385.301
Pearson          =  498708.3025                    (1/df) Pearson  =  1385.301

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

                                                   AIC             =  10.07706
Log likelihood   = -1821.947718                    BIC             =  496587.3

------------------------------------------------------------------------------
             |                 OIM
     radhlw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   3.789972   3.562254     1.06   0.287    -3.191917    10.77186
       _cons |   55.44948   2.293757    24.17   0.000      50.9538    59.94516
------------------------------------------------------------------------------
```

```
689 . glm HP2probsoc radhlw1 if gender==2,fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  347.1581
    Iteration 2:   deviance =  346.2367
    Iteration 3:   deviance =  346.2357
    Iteration 4:   deviance =  346.2357

    Generalized linear models                          No. of obs      =        362
    Optimization     : MQL Fisher scoring              Residual df     =        360
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  346.2357277                    (1/df) Deviance =   .9617659
    Pearson          =  365.2532496                    (1/df) Pearson  =   1.014592

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

                                                       BIC             =  -1774.756

    ------------------------------------------------------------------------------
                 |                 EIM
      HP2probsoc |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
         radhlw1 |   .0094598   .0021222     4.46   0.000     .0053004    .0136191
           _cons |  -1.413461   .1575297    -8.97   0.000    -1.722213   -1.104708
    ------------------------------------------------------------------------------
    (Standard errors scaled using square root of deviance-based dispersion.)

690 .
691 . // bf4 is a possible female mediator
692 . glm bf4 avgcumdosew1 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1109.0162

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =   26.52082
    Deviance         =  9574.015672                    (1/df) Deviance =   26.52082
    Pearson          =  9574.015672                    (1/df) Pearson  =   26.52082

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

                                                       AIC             =   6.121302
    Log likelihood   = -1109.016226                    BIC             =   7446.136
```

bf4	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	**-1.508835**	**.4927379**	**-3.06**	**0.002**	**-2.474583**	**-.5430862**
_cons	**10.99384**	**.3168463**	**34.70**	**0.000**	**10.37284**	**11.61485**

```
693 . 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
```

HP2probsoc	Coef.	EIM 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.)

```
694 .
695 . glm shrelaw1 avgcumdosew1 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1801.2674

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =   1202.293
    Deviance         =  434027.9437                    (1/df) Deviance =   1202.293
    Pearson          =  434027.9437                    (1/df) Pearson  =   1202.293

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

                                                       AIC             =   9.935358
    Log likelihood   = -1801.267425                    BIC             =   431900.1

    ------------------------------------------------------------------------------
                 |                 OIM
        shrelaw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew1 |   5.240218   3.317628     1.58   0.114    -1.262215    11.74265
           _cons |   26.01592   2.133342    12.19   0.000     21.83464    30.19719
    ------------------------------------------------------------------------------

696 . glm HP2probsoc shrelaw1  if gender==2,fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  367.3685
    Iteration 2:   deviance =   367.117
    Iteration 3:   deviance =   367.117
    Iteration 4:   deviance =   367.117

    Generalized linear models                          No. of obs      =        363
    Optimization     : MQL Fisher scoring              Residual df     =        361
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  367.1169775                    (1/df) Deviance =   1.016945
    Pearson          =  362.9967567                    (1/df) Pearson  =   1.005531

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

                                                       BIC             =  -1760.762
```

```
------------------------------------------------------------------------------
             |                 EIM
  HP2probsoc |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    shrelaw1 |  -.0003307   .0021782    -0.15   0.879    -.0045998    .0039385
       _cons |  -.8187957   .0962545    -8.51   0.000    -1.007451   -.6301402
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)
```

697 .
698 .
699 . glm radhlw1 shjobw1 avgcumdosew1 shjobw1Xd1 if gender==2, fam(gaus) link(ide
> ntity)

```
Iteration 0:   log likelihood =  -1821.765

Generalized linear models                          No. of obs      =       362
Optimization     : ML                              Residual df     =       358
                                                   Scale parameter =  1391.635
Deviance         =  498205.2021                    (1/df) Deviance =  1391.635
Pearson          =  498205.2021                    (1/df) Pearson  =  1391.635

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

                                                   AIC             =   10.0871
Log likelihood   = -1821.765032                    BIC             =    496096

------------------------------------------------------------------------------
             |                 OIM
     radhlw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     shjobw1 |   .0182877   .0685464     0.27   0.790    -.1160606    .1526361
avgcumdosew1 |   12.32024   14.83908     0.83   0.406    -16.76382     41.4043
  shjobw1Xd1 |  -.1018921   .1735559    -0.59   0.557    -.4420555    .2382713
       _cons |   53.68631   4.758015    11.28   0.000     44.36077    63.01185
------------------------------------------------------------------------------
```

```
700 . glm HP2probsoc shjobw1 avgcumdosew1 shjobw1Xd1  if gender==2,fam(bin) irls s
    > cale(dev) link(probit)

    Iteration 1:   deviance =  341.3502
    Iteration 2:   deviance =  340.0594
    Iteration 3:   deviance =   340.039
    Iteration 4:   deviance =  340.0389
    Iteration 5:   deviance =  340.0389

    Generalized linear models                          No. of obs      =       363
    Optimization     : MQL Fisher scoring              Residual df     =       359
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  340.0389343                    (1/df) Deviance =  .9471837
    Pearson          =  349.6343388                    (1/df) Pearson  =  .9739118

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

                                                       BIC             = -1776.052
```

HP2probsoc	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
shjobw1	.0078885	.0028001	2.82	0.005	.0024004	.0133767
avgcumdosew1	2.042963	.654931	3.12	0.002	.7593215	3.326604
shjobw1Xd1	-.0171602	.00714	-2.40	0.016	-.0311544	-.0031661
_cons	-1.586799	.2154854	-7.36	0.000	-2.009142	-1.164455

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

701 .
702 .
703 . scalar SigDoseProbsocFw1 = "yes"

704 . scalar SigDoseProbsocMw1 = "no"
```

```
705 .
706 .
707 . scalar MainEffPrbsocMw1 = "age bf4m"

708 . scalar MainEffProbSocFw1 = "age radhlw1 avgcumdosew1 shrelaw1 bf4"

709 .
710 . scalar PrbsocModMw1 = "shjobw1Xd1 shrelaw1Xd1"

711 . scalar ProbsocModFw1 = "none"

712 .
713 .
714 . scalar ProbsocMedMw1 = "radhlw1"

715 . scalar ProbsocMedFw1 = "age bf4 "

716 .
717 .
718 . * male hp2spM w1  mediators: age
719 . * dose is not significant main effect for males
720 . * female hp2spF w1 mediators: age radhlw1
721 . * dose is not sig main effect for males
722 .
723 .
724 .
725 .
726 .
727 . title4 "3. Matrix summary for H1 pt2 wave 1 HP2probsoc Impact"
    ------------------------------------------------------------------------------
    3. Matrix summary for H1 pt2 wave 1 HP2probsoc Impact
    ------------------------------------------------------------------------------

728 .     matrix define  spMw1 = J(1,8, 0)

729 .         matrix define  spFw1 = J(1,8, 0)
```

```
730 . matrix colnames  spMw1=  hypnum ptnum wave gender medsig numMAsig numModsig
    > numMed

731 . matrix colnames  spFw1=  hypnum ptnum wave gender medsig numMAsig numModsig
    > numMed

732 .
733 .         matrix define  spMw1= (1, 2, 1, 1, 1, 2, 2, 1 )

734 .         matrix define  spFw1= (1, 2, 1, 2, 0, 5, 0, 2 )

735 .     matrix rowname  spMw1 =  spMw1

736 .         matrix rowname  spFw1 =  spFw1

737 .         matlist  spMw1

                 |         c1          c2          c3          c4          c5          c
    > 6          c7          c8
    -------------+----------------------------------------------------------------------
    > -------------------------
           spMw1 |          1           2           1           1           1
    > 2           2           1

738 .         matlist  spFw1

                 |         c1          c2          c3          c4          c5          c
    > 6          c7          c8
    -------------+----------------------------------------------------------------------
    > -------------------------
           spFw1 |          1           2           1           2           0
    > 5           0           2

739 .         matrix define H1pt2w1 = (  wkMw1 \  wkFw1 \  hmcrMw1 \  hmcrFw1 \  s
    > pMw1 \  spFw1  )

740 .
```

```
741 .         matlist H1pt2w1

                 |         c1          c2          c3          c4          c5           c
    > 6          c7          c8
    -------------+--------------------------------------------------------------------------
    > --------------------------
              r1 |          1           2           1           1           0
    > 2           0           1
              r1 |          1           2           1           2           0
    > 1           1           2
              r1 |          1           2           1           1           0
    > 2           0           1
              r1 |          1           2           1           2           0
    > 2           0           2
           spMw1 |          1           2           1           1           1
    > 2           2           1
           spFw1 |          1           2           1           2           0
    > 5           0           2

742 .     matrix colnames H1pt2w1 =  hypnum ptnum wave gender medsig numMAsig numM
    > odsig numMed

743 .     matrix rownames H1pt2w1 =   wkMw1 wkFw1 hmcrMw1 hmcrFw1 socprbMw1 socprb
    > Fw1

744 .     matlist H1pt2w1

                 |     hypnum       ptnum        wave      gender      medsig    numMAsi
    > g  numModsig      numMed
    -------------+--------------------------------------------------------------------------
    > --------------------------
           wkMw1 |          1           2           1           1           0
    > 2           0           1
           wkFw1 |          1           2           1           2           0
    > 1           1           2
         hmcrMw1 |          1           2           1           1           0
    > 2           0           1
         hmcrFw1 |          1           2           1           2           0
    > 2           0           2
       socprbMw1 |          1           2           1           1           1
    > 2           2           1
       socprbFw1 |          1           2           1           2           0
    > 5           0           2
```

```
745 .
746 .
747 .
748 . *xx  significant dose effect for females
749 .
750 . *xx  no female moderators for Dose Social problem impact relationship
751 . scalar list
    MainEffhmcrFw1 = age
    MainEffhmcrMw1 = age
    hmcrMedFw1 = age bf4
    hmcrMedMw1 = radhlw1
    MainEffwkFw1 = age
    MainEffwkMw1 = age
    MainEffVactnMw1 = age radhlw1
    VactnMedFw1 = age illw1 radhlw1
    VactnMedMw1 = age
    VacatnModFw1 = none
    MainEffVactnFw1 = age radhlw1 bf7m
    SigDoseVactnFw1 = no
    VactnModMw1 = none
    inthobMedFw1 = age bf4 illw1 bf4m
    inthobMedMw1 = age
     inthobMw1 = age
    InthbModFw1 = none
    MainEffInthbFw1 = age radhlw1 bf4
    SigdoseInthbFw1 = no
    InthbModMw1 = none
    MainEffInthbMw1 = age radhlw1 shfamw1
    SigDoseInthbMw1 = no
    MainEffMw1 = radhlw1 bf4 bf40
    sxlifeMedMw1 = radhlw1
    sxlifeMedFw1 = age illw1 radhlw1 bf4 bf4m
    MainEffsxlifeFw1 = age bf4 bf4m
    SigDoseSxlifeFw1 = no
    SigDosesxlifeMw1 = no
    MainEffsxlifeMw1 = age bf4 bf40
    SigDosePrbfmhmMw1 = no
    vactnModMw1 = none
    SigDoseVactnMw1 = no
    SxLifeModFw1 = no
    sxlifeModFw1 = none
    sxlifeModMw1 = none
    MaineffhmcrMw1 = age bf4 bf40
    SigDoseMEhmcrW1 = no
    PrbfmhmMedFw1 = age bf4
    PrbfmhmMedMw1 = age
    MainEffPrbfmhmFw1 = age radhlw1 bf4
    MainEffPrbfmhmMw1 = age bf4
    PrbfmhmModFw1 = none
```

```
PrbfmhmModMw1 = none
SigDosePrbfmhmFw1 = no
SigDosePrbfhmMw1 = no
MainEffPrbfhmMw1 = age bf4
MainEffVactnMw2 = age radhlw2
sxlifeMedMw2 = age illw2
SigDoseSxlifeFw2 = no
MainEffsxlifeFw2 = age radhlw2 bf4 bf4m
MainEffPrbsocMw2 = age radhlw2 shjobw2
MainEffhmcrFw2 = age
hmcrMedFw2 = age bf4
MainEffwkFw2 = age
MainEffwkMw2 = age
MainEffPrbsocMw1 = age bf4m
SigdoseMw1 = no
ProbsocMedFw1 = age bf4
ProbsocMedMw1 = radhlw1
ProbsocModFw1 = none
SigDoseProbsocMw1 = no
hmcrmedMw1 = radhlw1
hmcrmedFw1 = age b4 b40
SigdosehmcrFw1 = no
MainEffProbSocFw1 = age radhlw1 avgcumdosew1 shrelaw1 bf4
SigDoseProbsocFw1 = yes
PrbsocModMw1 = shjobw1Xd1 shrelaw1Xd1
 WkhmcrMw1 = age b4
  WkModFw1 = ageXd1
hmcareMedFw1 = age illw1
hmcareMedMw1 = age
SigDosehmcrFw1 = no
  wkMedMw1 = bf40
hmcrModFw1 = none
SigDoseHmcrFw1 = yes
  WkMedMw1 = bf40
hmcrModMw1 = none
SigDosehmcrMw1 = no
  wkMedFw1 = age b4
  WKModMw1 = none
SigDoseWkMw1 = no
SigDoseWkFw1 = no
SigDoseFw1 = no
  wkModFw1 = none
  wkModMw1 = none
VactnMedMw2 = age
inthobMedMw2 = age
 inthobMw2 = age
PrbfmhmModMw2 = none
MainEffProbSocFw2 = age radhlw2 avgcumdosew2 bf4
hmcrModMw2 = none
```

```
MainEffhmcrMw2 = age
  wkMedFw2 = age b4
  wkMedMw2 = age bf4
MainEffsxlifeMw2 = age bf4 bf40 shjobw2 shrelaw2 radhlw2
MainEffPrbfmhmMw2 = bf4 bf6 bf7
ProbsocMedFw2 = age bf4 radhlw2
hmcareMedFw2 = age bf4
 WkhmcrMw2 = age b4
MainEffhmcrw2 = age
hmcrModFw2 = none
SigDoseHmcrFw2 = yes
NumhmcrModMw2 = none
SigDosehmcrMw2 = no
SigdosehmcrFw2 = yes
hmcrMedMw2 = age ageXillw2
SigDosehmcrFw2 = no
MainEffhmcareMw2 = age
  WkMedMw2 = age ageXillw2
  wkMedFw3 = radhlw3 age ageXillw3 bf40 bf4m bf1
VactnMedFw2 = age illw2 radhlw2
VacatnModFw2 = none
MainEffVactnFw2 = age radhlw2 bf7m
SigDoseVactnFw2 = no
VactnModMw2 = none
vactnModMw2 = none
SigDoseVactnMw2 = no
inthobMedFw2 = age bf4 illw2 bf4m
InthbModFw2 = none
MainEffInthbFw2 = age radhlw2 bf4
SigdoseInthbFw2 = no
InthbModMw2 = none
MainEffInthbMw2 = age radhlw2 shfamw2
SigDoseInthbMw2 = no
MainEffMw2 = radhlw2 bf4 bf40
SigdoseMEinthob = no
sxlifeMedFw2 = age illw2 radhlw2 bf4 bf4m
SxLifeModFw2 = no
sxlifeModFw2 = none
sxlifeModMw2 = none
SigDosesxlifeMw2 = no
PrbfmhmMedFw2 = age bf4
PrbfmhmMedMw2 = age
PrbfmhmModFw2 = none
MainEffPrbfmhmFw2 = age bf4 bf40
SigDosePrbfmhmFw2 = no
PrbfmhmModw2 = none
SigDosePrbfmhmMw2 = no
SigDosePrbfhmMw2 = no
MainEffPrbfhmMw2 = bf4 bf6 bf7
```

ProbsocMedMw2 = **age**
ProbsocModFw2 = **none**
SigDoseProbsocFw2 = **yes**
ProbSocModMw2 = **none**
SigDoseProbsocMw2 = **no**
PrbsocModMw2 = **none**
SigdoseMw2 = **none**
hmcareMedMw2 = **age**
hmcareModFw2 = **none**
MainEffhmcarew2 = **age**
SigdoseHmcareFw2 = **no**
hmcareModMw2 = **none**
SigDoseHmcareMw2 = **no**
NameMedMw2 = **age ageXillw2**
NumModMw2 = **none**
SigDosehmcareMw2 = **no**
SigDoseWKMw2 = **no**
WkMedFw2 = **age bf4**
WkModFw2 = **none**
WKModMw2 = **none**
SigDoseWkMw2 = **no**
SigDoseWkFw2 = **no**
SigDoseFw2 = **no**
wkModFw2 = **none**
wkModMw2 = **none**
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
      wkMedMw3 = bf8 age illw3 ageXillw3
      wkModFw3 = none
      wkModMw3 = none
    MainEffwkFw3 = age
    MainEffwkMw3 = workM: age  bf8  illw3  shjobw3
    SigDoseWKMw3 = no
    SigDoseWkFw3 = no

. 
. 
. 
. *----------- Chunk 5   Dose => Problems with the Family at home Impact
. title "4. H1 pt 2 wave 1  Dose = Fam Problems at home impact"
```

```
******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****       4. H1 pt 2 wave 1  Dose = Fam Problems at home impact         ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                     18 Jun 2012    18:15:56  ****
> *
******************************************************************************
> *
******************************************************************************
> *


757 . forvalues j=1/1 {
  2. set more off
  3.
758 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
>   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
  4.
759 .   foreach var in  HP2pbfhm  {
  5.        forvalues k=1/2 {
  6. local w1bf bf1 bf4 bf9 bf10 bf11 bf14 bf15m bf20 bf22 bf30 bf40
  7.
760 . 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.
```

```
761 .       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  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
    marrw11         byte   %8.0g                  marrw1==1. single
    marrw12         byte   %8.0g                  marrw1==2. cohabitating
    marrw13         byte   %8.0g                  marrw1==3. married
    marrw14         byte   %8.0g                  marrw1==4. separated
    marrw15         byte   %8.0g                  marrw1==5. divorced
    marrw16         byte   %8.0g                  marrw1==6. widowed
    inc1w1          double %15.0g      LABJ       Income is not sufficient for
                                                    basic neccessities in 1986
    inc2w1          double %15.0g      LABJ       Income is just sufficient for
                                                    basic neccessities in 1986
    inc3w1          double %15.0g      LABJ       Income is sufficient for basics
                                                    plus extra purchases/savings
                                                    in 1986
    inc4w1          double %15.0g      LABJ       Income allows to comfortably
                                                    afford luxury items in 1986
    bf1             float  %9.0g                  bf1 = max(0, kzchorn - 40)
    bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
    bf9             float  %9.0g                  bf9= max(0, 30 - shhlw1)
    bf11            float  %9.0g                  bf11= max(0, 20 - sufamw1)
```

```
bf4m            float  %9.0g                 bf4m = max(0, 32 - BSIsoma)
bf15m           float  %9.0g                 bf15m= max(0, 1 - icdxcnt) * bf2
bf30            float  %9.0g                 bf30 = max(0, neiw1 - 85) * bf20
bf40            float  %9.0g                 bf40 = max(0, icdxcnt -
                                               1.01635E-007)
Full main model for HP2pbfhm for wave= 1

chunk 5 H1 test:Gender= 1  model Wave =  1 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 12 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: occ5w1 != 0 predicts failure perfectly
      occ5w1 dropped and 8 obs not used

note: occ6w1 != 0 predicts failure perfectly
      occ6w1 dropped and 4 obs not used

note: occ7w1 != 0 predicts failure perfectly
      occ7w1 dropped and 4 obs not used

note: marrw12 != 0 predicts failure perfectly
      marrw12 dropped and 4 obs not used

note: marrw15 != 0 predicts success perfectly
      marrw15 dropped and 1 obs not used

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

note: dvcew1 != 0 predicts failure perfectly
      dvcew1 dropped and 1 obs not used

note: sepaw1 != 0 predicts failure perfectly
      sepaw1 dropped and 1 obs not used

note: accdw1 != 0 predicts failure perfectly
      accdw1 dropped and 6 obs not used
```

```
note: _Ieduc_6 omitted because of collinearity
note: marrw16 omitted because of collinearity

Logistic regression                               Number of obs   =        259
                                                  LR chi2(37)     =      58.78
                                                  Prob > chi2     =     0.0128
Log likelihood = -41.036775                       Pseudo R2       =     0.4173
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1140333	.0507477	2.25	0.025	.0145697	.2134969
_Ieduc_2	0	(omitted)				
_Ieduc_3	-.0489809	.8274219	-0.06	0.953	-1.670698	1.572736
_Ieduc_4	0	(omitted)				
_Ieduc_5	-.3717243	1.234713	-0.30	0.763	-2.791717	2.048268
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w1	.0549567	3.40443	0.02	0.987	-6.617603	6.727516
occ2w1	-.6561172	3.427034	-0.19	0.848	-7.372981	6.060747
occ3w1	1.845881	3.621761	0.51	0.610	-5.25264	8.944401
occ4w1	-.738871	3.594017	-0.21	0.837	-7.783015	6.305273
occ5w1	0	(omitted)				
occ6w1	0	(omitted)				
occ7w1	0	(omitted)				
occ8w1	.7397449	3.652989	0.20	0.840	-6.419982	7.899471
marrw11	9.984281	2273.716	0.00	0.996	-4446.417	4466.386
marrw12	0	(omitted)				
marrw13	9.475183	2273.716	0.00	0.997	-4446.927	4465.877
marrw15	0	(omitted)				
marrw16	0	(omitted)				
inc1w1	-2.098091	3.351876	-0.63	0.531	-8.667648	4.471466
inc2w1	-1.263123	3.216941	-0.39	0.695	-7.568212	5.041965
inc3w1	-1.666932	3.248691	-0.51	0.608	-8.034249	4.700384
inc4w1	-2.798082	3.810066	-0.73	0.463	-10.26567	4.669509
radhlw1	.0221794	.012356	1.80	0.073	-.0020379	.0463968
havmil	-.0042208	.0093253	-0.45	0.651	-.0224981	.0140566
avgcumdosew1	-1.041178	.9206409	-1.13	0.258	-2.845601	.7632452
bf1	-.0255316	.0778527	-0.33	0.743	-.1781201	.127057
bf4	-.2441414	.1077011	-2.27	0.023	-.4552317	-.0330512
bf9	-.0547201	.051475	-1.06	0.288	-.1556092	.046169
bf10	-.2223925	.2030607	-1.10	0.273	-.6203843	.1755992
bf11	-.0227027	.1366459	-0.17	0.868	-.2905237	.2451183
bf14	.0001079	.0001172	0.92	0.357	-.0001219	.0003377
bf15m	0	(omitted)				
bf20	.0093433	.0710822	0.13	0.895	-.1299752	.1486619
bf22	.000374	.0002074	1.80	0.071	-.0000324	.0007805
bf30	-.0000361	.0007108	-0.05	0.959	-.0014293	.001357

bf40	-.5322776	.3877192	-1.37	0.170	-1.292193	.227638
deaw1	.139745	.7195497	0.19	0.846	-1.270547	1.550036
dvcew1	0	(omitted)				
sepaw1	0	(omitted)				
accdw1	0	(omitted)				
movew1	-.9959846	2.338912	-0.43	0.670	-5.580168	3.588199
illw1	.0424127	.9714262	0.04	0.965	-1.861548	1.946373
shfamw1	.0013379	.0148676	0.09	0.928	-.0278022	.0304779
shhlw1	-.002734	.0255506	-0.11	0.915	-.0528123	.0473444
shjobw1	-.0385947	.0207074	-1.86	0.062	-.0791804	.0019911
shrelaw1	.004462	.0134181	0.33	0.739	-.0218371	.0307611
suprtw1	.0496362	.0609811	0.81	0.416	-.0698846	.169157
suchrw1	-.0362505	.1014181	-0.36	0.721	-.2350263	.1625254
havmilsq	4.65e-06	9.99e-06	0.46	0.642	-.0000149	.0000242
_cons	-11.63773	2273.725	-0.01	0.996	-4468.057	4444.781

Note: 8 failures and 0 successes completely determined.

Logistic model for HP2pbfhm

Classified	True D	True ~D	Total
+	9	2	11
-	11	237	248
Total	20	239	259

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

Sensitivity	Pr(+| D)	45.00%
Specificity	Pr(-|~D)	99.16%
Positive predictive value	Pr(D| +)	81.82%
Negative predictive value	Pr(~D| -)	95.56%
False + rate for true ~D	Pr(+|~D)	0.84%
False - rate for true D	Pr(-| D)	55.00%
False + rate for classified +	Pr(~D| +)	18.18%
False - rate for classified -	Pr(D| -)	4.44%
Correctly classified		94.98%

Logistic model for HP2pbfhm, goodness-of-fit test

```
       number of observations =       259
 number of covariate patterns =       259
             Pearson chi2(221) =       143.82
                   Prob > chi2 =         1.0000

Measures of Fit for logistic of HP2pbfhm

Log-Lik Intercept Only:      -70.429    Log-Lik Full Model:          -41.037
D(206):                       82.074    LR(37):                       58.785
                                        Prob > LR:                     0.013
McFadden's R2:                 0.417    McFadden's Adj R2:            -0.335
Maximum Likelihood R2:         0.203    Cragg & Uhler's R2:            0.484
McKelvey and Zavoina's R2:     0.857    Efron's R2:                    0.352
Variance of y*:               23.001    Variance of error:             3.290
Count R2:                      0.950    Adj Count R2:                  0.350
AIC:                           0.726    AIC*n:                       188.074
BIC:                       -1062.633    BIC':                        146.818
Full main model for HP2pbfhm for wave= 1

chunk 5 H1 test:Gender= 2  model Wave =  1 for HP2pbfhm

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: marrw12 != 0 predicts failure perfectly
      marrw12 dropped and 4 obs not used

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

note: _Ieduc_8 omitted because of collinearity

Logistic regression                               Number of obs   =        343
                                                  LR chi2(49)     =     131.00
                                                  Prob > chi2     =     0.0000
Log likelihood =  -71.53941                       Pseudo R2       =     0.4780
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1418493	.0387097	3.66	0.000	.0659796	.217719
_Ieduc_2	17.22542	4534.447	0.00	0.997	-8870.128	8904.579
_Ieduc_3	17.37005	4534.447	0.00	0.997	-8869.983	8904.723
_Ieduc_4	17.2893	4534.447	0.00	0.997	-8870.064	8904.643
_Ieduc_5	17.58061	4534.447	0.00	0.997	-8869.773	8904.934
_Ieduc_6	17.54436	4534.447	0.00	0.997	-8869.809	8904.898
_Ieduc_7	19.56629	4534.448	0.00	0.997	-8867.789	8906.922
_Ieduc_8	0	(omitted)				
occ1w1	-2.933908	3.752469	-0.78	0.434	-10.28861	4.420796
occ2w1	-3.629362	3.805266	-0.95	0.340	-11.08755	3.828822
occ3w1	-2.149571	3.775043	-0.57	0.569	-9.54852	5.249378

occ4w1	-3.08403	3.884516	-0.79	0.427	-10.69754	4.529481
occ5w1	-1.54127	3.940317	-0.39	0.696	-9.264149	6.181609
occ6w1	-4.518852	4.376561	-1.03	0.302	-13.09675	4.05905
occ7w1	-.5209646	3.827304	-0.14	0.892	-8.022342	6.980413
occ8w1	-.6982657	3.788908	-0.18	0.854	-8.124388	6.727857
marrw11	6.563183	2.259003	2.91	0.004	2.135619	10.99075
marrw12	0	(omitted)				
marrw13	3.664968	1.807756	2.03	0.043	.1218322	7.208105
marrw15	4.919489	2.358945	2.09	0.037	.2960419	9.542936
marrw16	3.80604	2.237487	1.70	0.089	-.5793546	8.191435
inc1w1	.8452115	3.777625	0.22	0.823	-6.558798	8.249221
inc2w1	2.888908	3.720317	0.78	0.437	-4.402779	10.18059
inc3w1	2.900029	3.700306	0.78	0.433	-4.352438	10.1525
inc4w1	3.648558	4.001972	0.91	0.362	-4.195162	11.49228
radhlw1	.0284271	.0105574	2.69	0.007	.0077349	.0491194
havmil	-.0074706	.0174749	-0.43	0.669	-.0417209	.0267796
avgcumdosew1	-.072348	.4728314	-0.15	0.878	-.9990805	.8543844
bf1	.0059636	.0469599	0.13	0.899	-.086076	.0980033
bf4	-.4047147	.0856612	-4.72	0.000	-.5726076	-.2368217
bf9	-.0595004	.0425833	-1.40	0.162	-.1429621	.0239614
bf10	-.0062201	.0202319	-0.31	0.759	-.045874	.0334338
bf11	-.0101918	.0656234	-0.16	0.877	-.1388112	.1184277
bf14	-.0003249	.0001287	-2.52	0.012	-.0005772	-.0000727
bf15m	0	(omitted)				
bf20	-.0168987	.0398949	-0.42	0.672	-.0950913	.0612938
bf22	.0003491	.0001303	2.68	0.007	.0000938	.0006044
bf30	.0000363	.0004332	0.08	0.933	-.0008127	.0008853
bf40	-.6041257	.200322	-3.02	0.003	-.9967496	-.2115017
deaw1	-.2106609	.3829692	-0.55	0.582	-.9612668	.539945
dvcew1	3.227642	1.990455	1.62	0.105	-.6735776	7.128863
sepaw1	-1.961135	2.530088	-0.78	0.438	-6.920017	2.997746
accdw1	-1.15855	1.327999	-0.87	0.383	-3.76138	1.44428
movew1	.8502008	.7012493	1.21	0.225	-.5242225	2.224624
illw1	1.167312	.5375125	2.17	0.030	.1138066	2.220817
shfamw1	-.0177543	.0110296	-1.61	0.107	-.039372	.0038633
shhlw1	-.0133242	.0167146	-0.80	0.425	-.0460843	.0194358
shjobw1	.0113593	.0116917	0.97	0.331	-.0115561	.0342746
shrelaw1	.0021827	.0102849	0.21	0.832	-.0179754	.0223408
suprtw1	.0039965	.0137794	0.29	0.772	-.0230105	.0310036
suchrw1	-.0313303	.0297859	-1.05	0.293	-.0897095	.027049
havmilsq	-5.84e-06	.0000521	-0.11	0.911	-.0001079	.0000962
_cons	-26.74862	4534.45	-0.01	0.995	-8914.107	8860.609

Note: 3 failures and 0 successes completely determined.

Logistic model for HP2pbfhm

Classified	True D	~D	Total
+	**26**	**5**	**31**
-	**21**	**291**	**312**
Total	**47**	**296**	**343**

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

Sensitivity	Pr(+| D)	**55.32%**
Specificity	Pr(-|~D)	**98.31%**
Positive predictive value	Pr(D| +)	**83.87%**
Negative predictive value	Pr(~D| -)	**93.27%**
False + rate for true ~D	Pr(+|~D)	**1.69%**
False - rate for true D	Pr(-| D)	**44.68%**
False + rate for classified +	Pr(~D| +)	**16.13%**
False - rate for classified -	Pr(D| -)	**6.73%**
Correctly classified		**92.42%**

Logistic model for HP2pbfhm, goodness-of-fit test

number of observations = **343**
number of covariate patterns = **343**
Pearson chi2(**293**) = **979.77**
Prob > chi2 = **0.0000**

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

Log-Lik Intercept Only:	**-137.038**	Log-Lik Full Model:	**-71.539**
D(290):	**143.079**	LR(49):	**130.998**
		Prob > LR:	**0.000**
McFadden's R2:	**0.478**	McFadden's Adj R2:	**0.091**
Maximum Likelihood R2:	**0.317**	Cragg & Uhler's R2:	**0.577**
McKelvey and Zavoina's R2:	**0.915**	Efron's R2:	**0.495**
Variance of y*:	**38.594**	Variance of error:	**3.290**
Count R2:	**0.924**	Adj Count R2:	**0.447**
AIC:	**0.726**	AIC*n:	**249.079**
BIC:	**-1549.863**	BIC':	**155.051**

```
762 .
763 .
764 . title4 "Partly Trimmed male wave 1  Dose => Problems with Family at home mod
    > els"
```

Partly Trimmed male wave 1 Dose => Problems with Family at home models

```
765 . local w1bf bf1 bf4 bf9 bf10 bf11 bf14m bf15m bf20 bf22 bf30 bf40

766 . logit HP2pbfhm age bf4 bf22  radhlw1 avgcumdosew1  shjobw1 suprtw1 ///
    >    illw1 if gender==1, iterate(50)

Iteration 0:   log likelihood = -81.506236
Iteration 1:   log likelihood =  -70.36767
Iteration 2:   log likelihood = -63.735881
Iteration 3:   log likelihood = -63.262978
Iteration 4:   log likelihood = -63.251084
Iteration 5:   log likelihood = -63.251044
Iteration 6:   log likelihood = -63.251044

Logistic regression                               Number of obs   =        340
                                                  LR chi2(8)      =      36.51
                                                  Prob > chi2     =     0.0000
Log likelihood = -63.251044                       Pseudo R2       =     0.2240
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0417694	.0232436	1.80	0.072	-.0037872	.0873261
bf4	-.1944454	.0674328	-2.88	0.004	-.3266114	-.0622795
bf22	.0001979	.0001096	1.81	0.071	-.0000169	.0004126
radhlw1	.0156873	.0077256	2.03	0.042	.0005455	.0308292
avgcumdosew1	-.7288118	.6058279	-1.20	0.229	-1.916213	.4585891
shjobw1	-.0246328	.0097441	-2.53	0.011	-.0437309	-.0055347
suprtw1	-.0367192	.0154384	-2.38	0.017	-.0669779	-.0064605
illw1	1.081626	.5960837	1.81	0.070	-.0866765	2.249929
_cons	-2.68461	1.769319	-1.52	0.129	-6.152411	.7831919

Note: 1 failure and 0 successes completely determined.

```
767 .
768 . estat class

    Logistic model for HP2pbfhm

                  -------- True --------
    Classified |         D            ~D  |      Total
    -----------+--------------------------+-----------
         +     |         1             1  |          2
         -     |        21           317  |        338
    -----------+--------------------------+-----------
       Total   |        22           318  |        340

    Classified + if predicted Pr(D) >= .5
    True D defined as HP2pbfhm != 0
    --------------------------------------------------
    Sensitivity                     Pr( +| D)    4.55%
    Specificity                     Pr( -|~D)   99.69%
    Positive predictive value       Pr( D| +)   50.00%
    Negative predictive value       Pr(~D| -)   93.79%
    --------------------------------------------------
    False + rate for true ~D        Pr( +|~D)    0.31%
    False - rate for true D         Pr( -| D)   95.45%
    False + rate for classified +   Pr(~D| +)   50.00%
    False - rate for classified -   Pr( D| -)    6.21%
    --------------------------------------------------
    Correctly classified                        93.53%
    --------------------------------------------------

769 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    -------------------------------------------------

           number of observations =       340
     number of covariate patterns =       337
                Pearson chi2(328) =       247.99
                      Prob > chi2 =         0.9997
```

```
770 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:      -81.506     Log-Lik Full Model:           -63.251
    D(331):                      126.502     LR(8):                         36.510
                                             Prob > LR:                      0.000
    McFadden's R2:                 0.224     McFadden's Adj R2:              0.114
    Maximum Likelihood R2:         0.102     Cragg & Uhler's R2:             0.267
    McKelvey and Zavoina's R2:     0.537     Efron's R2:                     0.137
    Variance of y*:                7.110     Variance of error:              3.290
    Count R2:                      0.935     Adj Count R2:                   0.000
    AIC:                           0.425     AIC*n:                        144.502
    BIC:                       -1802.879     BIC':                          10.121

771 .
772 . title4 "trimmed male main effects wv 1" " Dose => Problems with Family at ho
    > me models"
    ------------------------------------------------------------------------------
    trimmed male main effects wv 1
    ------------------------------------------------------------------------------

773 . local w1bf bf1 bf4 bf9 bf10 bf11 bf14m bf15m bf20 bf22 bf30 bf40

774 . sw, pr(.1):logit HP2pbfhm age sepaw1 dvcew1 radhlw1 avgcumdosew1 bf4  suprtw
    > 1 ///
    >    havmilsq illw1 if gender==1, iterate(50)
    note: sepaw1 dropped because of estimability
    note: dvcew1 dropped because of estimability
    note: o.sepaw1 dropped because of estimability
    note: o.dvcew1 dropped because of estimability
    note: 6 obs. dropped because of estimability
                          begin with full model
    p = 0.7261 >= 0.1000  removing havmilsq
    p = 0.3270 >= 0.1000  removing avgcumdosew1
    p = 0.1493 >= 0.1000  removing radhlw1
    p = 0.1420 >= 0.1000  removing suprtw1
    p = 0.5106 >= 0.1000  removing illw1

    Logistic regression                               Number of obs   =        334
                                                      LR chi2(2)      =      19.70
                                                      Prob > chi2     =     0.0001
    Log likelihood = -65.847499                       Pseudo R2       =     0.1301
```

```
    HP2pbfhm |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |    .043747   .0220586     1.98   0.047     .0005129    .0869811
         bf4 |  -.1234479   .0425264    -2.90   0.004    -.2067982   -.0400977
       _cons |  -3.800943      1.442    -2.64   0.008    -6.627212   -.9746754
------------------------------------------------------------------------------

775 .
776 . estat class

    Logistic model for HP2pbfhm

              -------- True --------
    Classified |         D            ~D  |      Total
    -----------+--------------------------+-----------
         +     |         0             0  |          0
         -     |        20           314  |        334
    -----------+--------------------------+-----------
       Total   |        20           314  |        334

    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| -)   94.01%
    --------------------------------------------------
    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| -)    5.99%
    --------------------------------------------------
    Correctly classified                        94.01%
    --------------------------------------------------
```

```
777 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    -------------------------------------------------

           number of observations =       334
     number of covariate patterns =       219
                Pearson chi2(216) =       205.20
                      Prob > chi2 =         0.6901

778 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:      -75.697    Log-Lik Full Model:          -65.847
    D(331):                      131.695    LR(2):                        19.699
                                            Prob > LR:                     0.000
    McFadden's R2:                 0.130    McFadden's Adj R2:             0.090
    Maximum Likelihood R2:         0.057    Cragg & Uhler's R2:            0.157
    McKelvey and Zavoina's R2:     0.221    Efron's R2:                    0.091
    Variance of y*:                4.225    Variance of error:             3.290
    Count R2:                      0.940    Adj Count R2:                  0.000
    AIC:                           0.412    AIC*n:                       137.695
    BIC:                       -1791.793    BIC':                         -8.077

779 .
780 . scalar MainEffPrbfhmMw1 = "age bf4"

781 . scalar SigDosePrbfhmMw1 = "no"

782 . // construction of moderators for male model
783 .
784 . foreach var in age bf4  {
      2.  cap gen `var'Xd1 = `var'*avgcumdosew1
      3.   }

785 .
```

```
786 .
787 .
788 .
789 . ***************************************************************************
    > **
790 . *-------chunk 6  continued -testing moderators and none found for males
791 . local w1bf bf1 bf4 bf9 bf10 bf11 bf14m bf15m bf20 bf22 bf30 bf40

792 .
793 .
794 . title4 "fully Trimmed male main effects wv 1" ///
    >   "Dose => Problems with Family at home models"
```

fully Trimmed male main effects wv 1

```
795 . local w1bf bf1 bf4 bf9 bf10 bf11 bf14m bf15m bf20 bf22 bf30 bf40

796 . logit HP2pbfhm age radhlw1 avgcumdosew1  ///
    >   bf4Xd1  ageXd1  if ///
    >     gender==1, iterate(50)

Iteration 0:   log likelihood = -81.506236
Iteration 1:   log likelihood = -73.611243
Iteration 2:   log likelihood = -71.601053
Iteration 3:   log likelihood = -71.266265
Iteration 4:   log likelihood = -71.252753
Iteration 5:   log likelihood = -71.252739
Iteration 6:   log likelihood = -71.252739

Logistic regression                               Number of obs   =        340
                                                  LR chi2(5)      =      20.51
                                                  Prob > chi2     =     0.0010
Log likelihood = -71.252739                       Pseudo R2       =     0.1258
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0372929	.0360915	1.03	0.301	-.0334452	.108031
radhlw1	.0167822	.0070862	2.37	0.018	.0028936	.0306709
avgcumdosew1	-1.15754	8.877823	-0.13	0.896	-18.55775	16.24267
bf4Xd1	-.1079495	.1337235	-0.81	0.420	-.3700428	.1541438
ageXd1	.024333	.13587	0.18	0.858	-.2419673	.2906334
_cons	-5.341428	2.129704	-2.51	0.012	-9.515572	-1.167284

Note: 1 failure and 0 successes completely determined.

```
797 .
798 . estat class

    Logistic model for HP2pbfhm

                  -------- True --------
    Classified |         D            ~D  |      Total
    -----------+--------------------------+-----------
         +     |         0             0  |          0
         -     |        22           318  |        340
    -----------+--------------------------+-----------
       Total   |        22           318  |        340

    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| -)   93.53%
    --------------------------------------------------
    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| -)    6.47%
    --------------------------------------------------
    Correctly classified                        93.53%
    --------------------------------------------------

799 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    -------------------------------------------------

           number of observations =       340
     number of covariate patterns =       328
                Pearson chi2(322) =       344.70
                      Prob > chi2 =         0.1839
```

```
800 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:      -81.506     Log-Lik Full Model:           -71.253
    D(334):                      142.505     LR(5):                         20.507
                                             Prob > LR:                      0.001
    McFadden's R2:                 0.126     McFadden's Adj R2:              0.052
    Maximum Likelihood R2:         0.059     Cragg & Uhler's R2:             0.154
    McKelvey and Zavoina's R2:     0.526     Efron's R2:                     0.077
    Variance of y*:                6.942     Variance of error:              3.290
    Count R2:                      0.935     Adj Count R2:                   0.000
    AIC:                           0.454     AIC*n:                        154.505
    BIC:                       -1804.362     BIC':                           8.638

801 .
802 . scalar SigDosePrbfmhmMw1 = "no"

803 . scalar PrbfmhmModMw1 = "none"

804 . scalar MainEffPrbfmhmMw1= "age bf4"

805 . * 3 main effects signif   no main effect for dose  for males
806 .
807 .
808 . *-------Chunk 6  continued -testing meditors for females
809 . title4 "Partly Trimmed female wave 1"  "Dose => Problems with Family at home
    >  models"
    ------------------------------------------------------------------------------
    Partly Trimmed female wave 1
    ------------------------------------------------------------------------------

810 . local w1bf bf1 bf4 bf9 bf10 bf11 bf14m bf15m bf20 bf22 bf30 bf40

811 . logit HP2pbfhm age  radhlw1 avgcumdosew1 bf4  if gender==2, iterate(50)

    Iteration 0:   log likelihood = -139.75789
    Iteration 1:   log likelihood = -110.07066
    Iteration 2:   log likelihood = -103.23731
    Iteration 3:   log likelihood = -103.06224
    Iteration 4:   log likelihood =  -103.0617
    Iteration 5:   log likelihood =  -103.0617

    Logistic regression                               Number of obs   =        362
                                                      LR chi2(4)      =      73.39
                                                      Prob > chi2     =     0.0000
    Log likelihood =  -103.0617                       Pseudo R2       =     0.2626
```

HP2pbfhm	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0490304	.0173334	2.83	0.005	.0150575	.0830032
radhlw1	.0175548	.0055923	3.14	0.002	.0065942	.0285154
avgcumdosew1	-.0824579	.2858577	-0.29	0.773	-.6427286	.4778129
bf4	-.1768305	.0371748	-4.76	0.000	-.2496918	-.1039692
_cons	-4.266136	1.122392	-3.80	0.000	-6.465984	-2.066287

812 .
813 . estat class

Logistic model for HP2pbfhm

	True		
Classified	D	~D	Total
+	14	5	19
-	33	310	343
Total	47	315	362

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

Sensitivity	Pr(+| D)	29.79%
Specificity	Pr(-|~D)	98.41%
Positive predictive value	Pr(D| +)	73.68%
Negative predictive value	Pr(~D| -)	90.38%
False + rate for true ~D	Pr(+|~D)	1.59%
False - rate for true D	Pr(-| D)	70.21%
False + rate for classified +	Pr(~D| +)	26.32%
False - rate for classified -	Pr(D| -)	9.62%
Correctly classified		89.50%

```
814 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    _________________________________________________

           number of observations =       362
     number of covariate patterns =       360
                Pearson chi2(355) =       358.55
                      Prob > chi2 =         0.4373

815 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:     -139.758    Log-Lik Full Model:          -103.062
    D(357):                      206.123    LR(4):                         73.392
                                            Prob > LR:                      0.000
    McFadden's R2:                 0.263    McFadden's Adj R2:              0.227
    Maximum Likelihood R2:         0.184    Cragg & Uhler's R2:             0.341
    McKelvey and Zavoina's R2:     0.420    Efron's R2:                     0.242
    Variance of y*:                5.668    Variance of error:              3.290
    Count R2:                      0.895    Adj Count R2:                   0.191
    AIC:                           0.597    AIC*n:                        216.123
    BIC:                       -1897.194    BIC':                         -49.826

816 .
817 . scalar SigDosePrbfmhmFw1="no"

818 .
819 . *-------Chunk 6  continued -testing meditors for females
820 . title4 "More partly female Trimmed wave 1"  "Dose => Problems with Family at
    >  home models"
    ______________________________________________________________________________

    More partly female Trimmed wave 1
    ______________________________________________________________________________

821 . local w1bf bf1 bf4 bf9 bf10 bf11 bf14m bf15m bf20 bf22 bf30 bf40
```

```
822 . 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
    ------------------------------------------------------------------------------

823 . 
824 . 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%
    --------------------------------------------------

825 . 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

826 . 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

827 .
828 . scalar SigDosePrbfmhmFw1="no"

829 . scalar MainEffPrbfmhmFw1 = "age radhlw1 bf4"

830 . * 3 significant main effects for females
831 . * no significant main effect for dose
832 .
833 . * constructing moderators
```

```
834 .
835 . foreach var in bf4 bf40 {
      2. cap  gen `var'Xd1 = `var'*avgcumdosew1
      3.  }

836 .
837 .
838 . title4 "testing female moderator effects:  no moderator effects for females"
    ------------------------------------------------------------------------------
    testing female moderator effects:  no moderator effects for females
    ------------------------------------------------------------------------------

839 .
840 . logit HP2pbfhm age bf4 bf40 ageXd1 bf4Xd1 bf40Xd1 if gender==2, iterate(50)

    Iteration 0:   log likelihood = -139.89675
    Iteration 1:   log likelihood = -112.27547
    Iteration 2:   log likelihood = -106.13405
    Iteration 3:   log likelihood = -105.51351
    Iteration 4:   log likelihood = -105.50804
    Iteration 5:   log likelihood = -105.50803
    Iteration 6:   log likelihood = -105.50803

    Logistic regression                               Number of obs   =        363
                                                      LR chi2(6)      =      68.78
                                                      Prob > chi2     =     0.0000
    Log likelihood = -105.50803                       Pseudo R2       =     0.2458

    ------------------------------------------------------------------------------
        HP2pbfhm |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
             age |   .0608384   .0177875     3.42   0.001     .0259756    .0957012
             bf4 |  -.2060931   .0500059    -4.12   0.000     -.304103   -.1080832
            bf40 |  -.1074502   .1266208    -0.85   0.396    -.3556225     .140722
          ageXd1 |   .0103515   .0150265     0.69   0.491    -.0190999     .039803
          bf4Xd1 |   .0257937   .0948566     0.27   0.786    -.1601219    .2117093
         bf40Xd1 |  -.2219543   .2551348    -0.87   0.384    -.7220092    .2781007
           _cons |  -3.197134   1.118642    -2.86   0.004    -5.389632   -1.004635
    ------------------------------------------------------------------------------
```

```
841 . estat gof

    Logistic model for HP2pbfhm, goodness-of-fit test
    -------------------------------------------------

           number of observations =       363
     number of covariate patterns =       359
                Pearson chi2(352) =       359.71
                      Prob > chi2 =         0.3769

842 . estat class

    Logistic model for HP2pbfhm

                  -------- True --------
    Classified |         D            ~D  |      Total
    -----------+--------------------------+-----------
         +     |        13             4  |         17
         -     |        34           312  |        346
    -----------+--------------------------+-----------
       Total   |        47           316  |        363

    Classified + if predicted Pr(D) >= .5
    True D defined as HP2pbfhm != 0
    --------------------------------------------------
    Sensitivity                     Pr( +| D)   27.66%
    Specificity                     Pr( -|~D)   98.73%
    Positive predictive value       Pr( D| +)   76.47%
    Negative predictive value       Pr(~D| -)   90.17%
    --------------------------------------------------
    False + rate for true ~D        Pr( +|~D)    1.27%
    False - rate for true D         Pr( -| D)   72.34%
    False + rate for classified +   Pr(~D| +)   23.53%
    False - rate for classified -   Pr( D| -)    9.83%
    --------------------------------------------------
    Correctly classified                        89.53%
    --------------------------------------------------
```

```
843 . fitstat

    Measures of Fit for logit of HP2pbfhm

    Log-Lik Intercept Only:      -139.897     Log-Lik Full Model:          -105.508
    D(356):                       211.016     LR(6):                         68.777
                                              Prob > LR:                      0.000
    McFadden's R2:                  0.246     McFadden's Adj R2:              0.196
    Maximum Likelihood R2:          0.173     Cragg & Uhler's R2:             0.321
    McKelvey and Zavoina's R2:      0.404     Efron's R2:                     0.226
    Variance of y*:                 5.517     Variance of error:              3.290
    Count R2:                       0.895     Adj Count R2:                   0.191
    AIC:                            0.620     AIC*n:                        225.016
    BIC:                        -1887.391     BIC':                         -33.411

844 .
845 . scalar PrbfmhmModFw1="none"

846 .
847 . ***********************************************************************
    > ****
848 . *---------Chunk 6 continued testing mediating effects for Problems with fami
    > ly
849 .  *  at home
850 .
851 .
852 . 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)

853 . glm age avgcumdosew1 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood =  -1331.608

    Generalized linear models                          No. of obs      =        340
    Optimization     : ML                              Residual df     =        338
                                                       Scale parameter =   148.5632
    Deviance         =  50214.37624                    (1/df) Deviance =   148.5632
    Pearson          =  50214.37624                    (1/df) Pearson  =   148.5632

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

```
                                                  AIC             =  7.844753
Log likelihood   = -1331.607976                   BIC             =  48244.19

------------------------------------------------------------------------------
             |                 OIM
         age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   .6719789   .3966839     1.69   0.090    -.1055072    1.449465
       _cons |   48.89394   .6825967    71.63   0.000     47.55607     50.2318
------------------------------------------------------------------------------
```

854 . 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.)
```

```
855 .
856 . glm bf4  avgcumdosew1 if gender==1, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1026.9659

    Generalized linear models                          No. of obs      =       340
    Optimization     : ML                              Residual df     =       338
                                                       Scale parameter =  24.75428
    Deviance         =  8366.946191                    (1/df) Deviance =  24.75428
    Pearson          =  8366.946191                    (1/df) Pearson  =  24.75428

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

                                                       AIC             =   6.05274
    Log likelihood   = -1026.965868                    BIC             =  6396.763

    ------------------------------------------------------------------------------
                 |                 OIM
             bf4 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew1 |  -.1031788    .161925    -0.64   0.524    -.4205461    .2141884
           _cons |   12.54134   .2786337    45.01   0.000     11.99523    13.08746
    ------------------------------------------------------------------------------

857 . glm HP2pbfhm bf4  if gender==1, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  160.0024
    Iteration 2:   deviance =  148.9095
    Iteration 3:   deviance =  148.0472
    Iteration 4:   deviance =  148.0358
    Iteration 5:   deviance =  148.0358
    Iteration 6:   deviance =  148.0358

    Generalized linear models                          No. of obs      =       340
    Optimization     : MQL Fisher scoring              Residual df     =       338
                       (IRLS EIM)                      Scale parameter =         1
    Deviance         =  148.0358223                    (1/df) Deviance =  .4379758
    Pearson          =  318.8927909                    (1/df) Pearson  =  .9434698

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

                                                       BIC             = -1822.148
```

```
------------------------------------------------------------------------------
             |                 EIM
    HP2pbfhm |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bf4 |  -.0752171   .0127773    -5.89   0.000    -.1002602   -.0501741
       _cons |  -.6910419   .1483563    -4.66   0.000    -.9818149    -.400269
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

858 .
859 . * age is a mediating effect for females for Dose=> Problems with family at h
    > ome
860 . glm age avgcumdosew1 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood =  -1406.325

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =   136.455
Deviance         =  49260.25928                    (1/df) Deviance =   136.455
Pearson          =  49260.25928                    (1/df) Pearson  =   136.455

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

                                                   AIC             =  7.759366
Log likelihood   = -1406.325011                    BIC             =  47132.38

------------------------------------------------------------------------------
             |                 OIM
         age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   3.973879   1.117679     3.56   0.000     1.783267     6.16449
       _cons |   48.88157   .7187038    68.01   0.000     47.47293     50.2902
------------------------------------------------------------------------------

861 . 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

------------------------------------------------------------------------------
             |                 EIM
    HP2pbfhm |      Coef.   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.)

862 .
863 . * bf4 is a mediting effect for females for Dose=> Problems with family at ho
> me
864 . glm bf4  avgcumdosew1 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1109.0162

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   26.52082
Deviance         =  9574.015672                    (1/df) Deviance =   26.52082
Pearson          =  9574.015672                    (1/df) Pearson  =   26.52082

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

                                                   AIC             =   6.121302
Log likelihood   = -1109.016226                    BIC             =   7446.136

------------------------------------------------------------------------------
             |                 OIM
         bf4 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |  -1.508835   .4927379    -3.06   0.002    -2.474583   -.5430862
       _cons |   10.99384   .3168463    34.70   0.000     10.37284    11.61485
------------------------------------------------------------------------------
```

```
865 . 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.)

866 .
867 .
868 . glm bf6  avgcumdosew1 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -1783.6957

    Generalized linear models                          No. of obs      =       363
    Optimization     : ML                              Residual df     =       361
                                                       Scale parameter =  1091.352
    Deviance         =  393977.8948                    (1/df) Deviance =  1091.352
    Pearson          =  393977.8948                    (1/df) Pearson  =  1091.352

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

                                                       AIC             =  9.838544
    Log likelihood   = -1783.695663                    BIC             =    391850
```

bf6	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	**4.907676**	**3.160857**	**1.55**	**0.121**	**-1.287489**	**11.10284**
_cons	**53.46082**	**2.032533**	**26.30**	**0.000**	**49.47713**	**57.44452**

```
869 . glm HP2pbfhm bf6  if gender==2, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =   270.845
    Iteration 2:   deviance =  267.9149
    Iteration 3:   deviance =  267.8425
    Iteration 4:   deviance =  267.8424
    Iteration 5:   deviance =  267.8424

    Generalized linear models                          No. of obs      =        363
    Optimization     : MQL Fisher scoring              Residual df     =        361
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  267.8424366                    (1/df) Deviance =   .7419458
    Pearson          =  362.9777402                    (1/df) Pearson  =   1.005479

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

                                                       BIC             =  -1860.037
```

HP2pbfhm	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf6	**.0094515**	**.0024584**	**3.84**	**0.000**	**.0046331**	**.0142698**
_cons	**-1.703802**	**.1741973**	**-9.78**	**0.000**	**-2.045223**	**-1.362382**

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

870 .
```

```
871 .
872 . glm bf7  avgcumdosew1 if gender==2, fam(gaus) link(identity)

    Iteration 0:   log likelihood = -902.44388

    Generalized linear models                          No. of obs      =        363
    Optimization     : ML                              Residual df     =        361
                                                       Scale parameter =   8.497656
    Deviance         =  3067.65399                     (1/df) Deviance =   8.497656
    Pearson          =  3067.65399                     (1/df) Pearson  =   8.497656

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

                                                       AIC             =   4.983162
    Log likelihood   = -902.4438834                    BIC             =   939.7746

    ------------------------------------------------------------------------------
                 |                 OIM
             bf7 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
    -------------+----------------------------------------------------------------
    avgcumdosew1 |  -.3565771   .2789151    -1.28   0.201    -.9032407    .1900865
           _cons |   1.056277   .1793514     5.89   0.000     .7047548    1.407799
    ------------------------------------------------------------------------------

873 . glm HP2pbfhm bf7  if gender==2, fam(bin) irls scale(dev) link(probit)

    Iteration 1:   deviance =  277.1289
    Iteration 2:   deviance =  275.4145
    Iteration 3:   deviance =  275.2733
    Iteration 4:   deviance =  275.2711
    Iteration 5:   deviance =  275.2711

    Generalized linear models                          No. of obs      =        363
    Optimization     : MQL Fisher scoring              Residual df     =        361
                       (IRLS EIM)                      Scale parameter =          1
    Deviance         =  275.2710641                    (1/df) Deviance =   .7625237
    Pearson          =  362.9709778                    (1/df) Pearson  =    1.00546

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

                                                       BIC             =  -1852.608
```

HP2pbfhm	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
bf7	**-.0808371**	**.0385299**	**-2.10**	**0.036**	**-.1563543**	**-.0053198**
_cons	**-1.081139**	**.0750775**	**-14.40**	**0.000**	**-1.228288**	**-.9339898**

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

```
874 .
875 . scalar MainEffPrbfhmMw1 = "age bf4"

876 . scalar SigDosePrbfhmMw1 = "no"

877 . scalar SigDosePrbfmhmFw1="no"         // fix in others

878 . scalar PrbfmhmModMw1 = "none"

879 . scalar PrbfmhmModFw1="none"

880 . scalar MainEffPrbfmhmMw1= "age bf4"

881 .
882 . scalar MainEffPrbfmhmFw1 = "age radhlw1 bf4"

883 .
884 . scalar PrbfmhmMedMw1 = "age"

885 . scalar PrbfmhmMedFw1 = "age bf4"

886 . * Summary of dose=problems with family at home  mediating effects
887 . * males mediators age 1
888 . * females mediators age and BSIsoma rescaled (bf4) 2
889 .
890 . title4 "4. Summary matrix for problems with family at home"
```

4. Summary matrix for problems with family at home

```
891 .    matrix define prbfamMw1 = J(1,8, 0)

892 .         matrix define prbfamFw1 = J(1,8, 0)

893 . matrix colnames prbfamMw1=  hypnum ptnum wave gender medsig numMAsig numMods
    > ig numMed

894 .         matrix colnames prbfamFw1=  hypnum ptnum wave gender medsig numMAsig
    >  numModsig numMed

895 .     matrix define prbfamMw1= (1, 2, 1, 1, 0, 2, 0, 0 )

896 .         matrix define prbfamFw1= (1, 2, 1, 2, 0, 3, 0, 2)

897 .         matrix rowname prbfamMw1 = prbfamMw1

898 .         matrix rowname prbfamFw1 = prbfamFw1

899 .         matlist prbfamMw1

                 |        c1          c2          c3          c4          c5          c
    > 6          c7          c8
    -------------+------------------------------------------------------------------------
    > --------------------------
       prbfamMw1 |         1           2           1           1           0
    > 2           0           0

900 .         matlist prbfamFw1

                 |        c1          c2          c3          c4          c5          c
    > 6          c7          c8
    -------------+------------------------------------------------------------------------
    > --------------------------
       prbfamFw1 |         1           2           1           2           0
    > 3           0           2

901 .         matrix define H1pt2w1 = ( wkMw1 \ wkFw1 \ hmcrMw1 \ hmcrFw1 \ spMw1
    > \ spFw1 \ prbfamMw1 \ prbfamFw1)
```

```
902 .
903 .         matlist H1pt2w1

             |        c1          c2          c3          c4          c5           c
> 6        c7          c8
-------------+-------------------------------------------------------------------------
> ------------------------
          r1 |         1           2           1           1           0
> 2         0           1
          r1 |         1           2           1           2           0
> 1         1           2
          r1 |         1           2           1           1           0
> 2         0           1
          r1 |         1           2           1           2           0
> 2         0           2
       spMw1 |         1           2           1           1           1
> 2         2           1
       spFw1 |         1           2           1           2           0
> 5         0           2
   prbfamMw1 |         1           2           1           1           0
> 2         0           0
   prbfamFw1 |         1           2           1           2           0
> 3         0           2

904 .     matrix colnames H1pt2w1 =  hypnum ptnum wave gender medsig numMAsig numM
> odsig numMed

905 .     matrix rownames H1pt2w1 =   wkMw1 wkFw1 hmcrMw1 hmcrFw1 prbsocMw1 prbsoc
> Fw1 prbfhmMw1 prbfhmFw1

906 .     matlist H1pt2w1

             |    hypnum       ptnum        wave      gender      medsig    numMAsi
> g  numModsig      numMed
-------------+-------------------------------------------------------------------------
> ------------------------
       wkMw1 |         1           2           1           1           0
> 2         0           1
       wkFw1 |         1           2           1           2           0
> 1         1           2
     hmcrMw1 |         1           2           1           1           0
> 2         0           1
     hmcrFw1 |         1           2           1           2           0
> 2         0           2
   prbsocMw1 |         1           2           1           1           1
> 2         2           1
   prbsocFw1 |         1           2           1           2           0
> 5         0           2
   prbfhmMw1 |         1           2           1           1           0
```

```
> 2          0          0
   prbfhmFw1 |          1          2          1          2          0
> 3          0          2

.
.
.
. ****************************************************************************
> ****
. *-------Chunk 7   Dose==> problems with sex life impact
. * Chunk 7  General model for all part 2 of Nottingham Health Profile
.
. title "5.  H1 pt 2 wave 1 part2 H1 dose sex life impact"


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****          5.  H1 pt 2 wave 1 part2 H1 dose sex life impact           ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                  18 Jun 2012    18:16:34            ****
> *
******************************************************************************
> *
******************************************************************************
> *
```

```
915 .
916 . forvalues j=1/1 {
      2. set more off
      3.
917 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
    >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
      4.
918 .   foreach var in HP2sxlife  {
      5.        forvalues k=1/2 {
      6. local w1bf bf1 bf4 bf9 bf10 bf11 bf14 bf15m bf20 bf22 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.
919 . di _skip(4)
     10.
920 .
921 .       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 radhlw1 if gender==`k', coef  difficult iterate(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
```

```
marrw11         byte   %8.0g                 marrw1==1. single
marrw12         byte   %8.0g                 marrw1==2. cohabitating
marrw13         byte   %8.0g                 marrw1==3. married
marrw14         byte   %8.0g                 marrw1==4. separated
marrw15         byte   %8.0g                 marrw1==5. divorced
marrw16         byte   %8.0g                 marrw1==6. widowed
inc1w1          double %15.0g      LABJ      Income is not sufficient for
                                               basic neccessities in 1986
inc2w1          double %15.0g      LABJ      Income is just sufficient for
                                               basic neccessities in 1986
inc3w1          double %15.0g      LABJ      Income is sufficient for basics
                                               plus extra purchases/savings
                                               in 1986
inc4w1          double %15.0g      LABJ      Income allows to comfortably
                                               afford luxury items in 1986
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= 1               ****
> *
*****      chunk 7 H1 test:Gender= 1  model Wave =  1 for HP2pbfhm        ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                        18 Jun 2012    18:16:34  ****
> *
******************************************************************************
> *
******************************************************************************
```

```
> *

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: _Ieduc_4 != 0 predicts failure perfectly
      _Ieduc_4 dropped and 12 obs not used

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

note: marrw12 != 0 predicts failure perfectly
      marrw12 dropped and 5 obs not used

note: marrw15 != 0 predicts success perfectly
      marrw15 dropped and 1 obs not used

note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 20 obs not used

note: dvcew1 != 0 predicts failure perfectly
      dvcew1 dropped and 2 obs not used

note: sepaw1 != 0 predicts success perfectly
      sepaw1 dropped and 1 obs not used

note: _Ieduc_8 omitted because of collinearity
note: marrw16 omitted because of collinearity
note: radhlw1 omitted because of collinearity

Logistic regression                               Number of obs   =        288
                                                  LR chi2(43)     =     149.61
                                                  Prob > chi2     =     0.0000
Log likelihood = -77.748591                       Pseudo R2       =     0.4904
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.136472	.0366667	3.72	0.000	.0646066	.2083374
_Ieduc_2	.9061528	2.373186	0.38	0.703	-3.745206	5.557512
_Ieduc_3	1.126364	2.057334	0.55	0.584	-2.905936	5.158664
_Ieduc_4	0	(omitted)				
_Ieduc_5	.4719974	2.096628	0.23	0.822	-3.637317	4.581312
_Ieduc_6	1.043192	2.050556	0.51	0.611	-2.975823	5.062208
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w1	-2.803127	2.35705	-1.19	0.234	-7.422861	1.816606
occ2w1	-2.898533	2.359872	-1.23	0.219	-7.523797	1.726731

occ3w1	-3.662112	2.523184	-1.45	0.147	-8.607462	1.283238
occ4w1	-2.435194	2.370439	-1.03	0.304	-7.08117	2.210782
occ5w1	-5.879936	2.735652	-2.15	0.032	-11.24172	-.5181554
occ6w1	-.066721	2.7504	-0.02	0.981	-5.457405	5.323963
occ7w1	-3.83747	3.050515	-1.26	0.208	-9.81637	2.14143
occ8w1	-2.95823	2.351973	-1.26	0.208	-7.568013	1.651553
marrw11	8.464083	907.837	0.01	0.993	-1770.864	1787.792
marrw12	0	(omitted)				
marrw13	6.092151	907.8374	0.01	0.995	-1773.236	1785.421
marrw15	0	(omitted)				
marrw16	0	(omitted)				
inc1w1	5.396209	3.075845	1.75	0.079	-.6323357	11.42475
inc2w1	5.263232	2.974878	1.77	0.077	-.567422	11.09389
inc3w1	4.958244	2.931498	1.69	0.091	-.7873865	10.70387
inc4w1	3.505305	3.128247	1.12	0.262	-2.625946	9.636556
radhlw1	.005437	.0073698	0.74	0.461	-.0090075	.0198816
havmil	-.0008616	.007551	-0.11	0.909	-.0156613	.0139381
avgcumdosew1	.0450522	.105977	0.43	0.671	-.162659	.2527634
bf1	.0721133	.0467218	1.54	0.123	-.0194598	.1636864
bf4	-.3272064	.0723192	-4.52	0.000	-.4689494	-.1854635
bf9	-.0022701	.0341874	-0.07	0.947	-.0692761	.0647359
bf10	-.0510813	.0368445	-1.39	0.166	-.1232952	.0211325
bf11	.2631067	.1226965	2.14	0.032	.0226261	.5035874
bf14	-.0000418	.0000857	-0.49	0.626	-.0002098	.0001262
bf15m	0	(omitted)				
bf20	-.0698283	.0411461	-1.70	0.090	-.1504731	.0108166
bf22	.0001486	.0001281	1.16	0.246	-.0001025	.0003997
bf30	-.0002299	.0004245	-0.54	0.588	-.0010618	.0006021
bf40	.0950229	.1871851	0.51	0.612	-.2718532	.4618989
deaw1	.659494	.4055746	1.63	0.104	-.1354176	1.454406
dvcew1	0	(omitted)				
sepaw1	0	(omitted)				
accdw1	-.8665368	1.711081	-0.51	0.613	-4.220195	2.487121
movew1	1.595582	.6025445	2.65	0.008	.4146162	2.776547
illw1	-.39832	.6674749	-0.60	0.551	-1.706547	.9099067
shfamw1	.0030017	.0095071	0.32	0.752	-.0156319	.0216353
shhlw1	.0103775	.0141593	0.73	0.464	-.0173742	.0381292
shjobw1	-.010105	.0099165	-1.02	0.308	-.029541	.009331
shrelaw1	.0000546	.0095661	0.01	0.995	-.0186946	.0188037
suprtw1	.0999707	.0455218	2.20	0.028	.0107496	.1891917
suchrw1	.0224317	.0297831	0.75	0.451	-.035942	.0808055
havmilsq	-1.68e-06	.0000133	-0.13	0.900	-.0000278	.0000245
radhlw1	0	(omitted)				
_cons	-18.64541	907.8458	-0.02	0.984	-1797.99	1760.7

Note: 2 failures and 0 successes completely determined.

Logistic model for HP2sxlife

Classified	True D	True ~D	Total
+	**43**	**12**	**55**
-	**21**	**212**	**233**
Total	**64**	**224**	**288**

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

Sensitivity	Pr(+| D)	**67.19%**
Specificity	Pr(-|~D)	**94.64%**
Positive predictive value	Pr(D| +)	**78.18%**
Negative predictive value	Pr(~D| -)	**90.99%**
False + rate for true ~D	Pr(+|~D)	**5.36%**
False - rate for true D	Pr(-| D)	**32.81%**
False + rate for classified +	Pr(~D| +)	**21.82%**
False - rate for classified -	Pr(D| -)	**9.01%**
Correctly classified		**88.54%**

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       288
 number of covariate patterns =       288
            Pearson chi2(244) =       242.82
                  Prob > chi2 =         0.5093
```

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

Log-Lik Intercept Only:	**-152.555**	Log-Lik Full Model:	**-77.749**
D(234):	**155.497**	LR(43):	**149.614**
		Prob > LR:	**0.000**
McFadden's R2:	**0.490**	McFadden's Adj R2:	**0.136**
Maximum Likelihood R2:	**0.405**	Cragg & Uhler's R2:	**0.620**
McKelvey and Zavoina's R2:	**0.766**	Efron's R2:	**0.518**
Variance of y*:	**14.056**	Variance of error:	**3.290**
Count R2:	**0.885**	Adj Count R2:	**0.484**
AIC:	**0.915**	AIC*n:	**263.497**
BIC:	**-1169.636**	BIC':	**93.894**

```
*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****     Full Nottingham Part 2 subscale models for male & females       ****
> *
*****             Full main model for HP2sxlife for wave= 1               ****
> *
*****     chunk 7 H1 test:Gender= 2  model Wave =  1 for HP2sxlife        ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                     18 Jun 2012    18:16:35  ****
> *
*****************************************************************************
> *
*****************************************************************************
> *
```

```
i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 11 obs not used

note: _Ieduc_8 omitted because of collinearity
note: radhlw1 omitted because of collinearity

Logistic regression                               Number of obs   =        347
                                                  LR chi2(50)     =     155.79
                                                  Prob > chi2     =     0.0000
Log likelihood = -124.80461                       Pseudo R2       =     0.3843
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1290605	.0254171	5.08	0.000	.0792439	.1788771
_Ieduc_2	-10.67087	962.4723	-0.01	0.991	-1897.082	1875.74
_Ieduc_3	-9.946262	962.4723	-0.01	0.992	-1896.357	1876.465
_Ieduc_4	-9.785405	962.4726	-0.01	0.992	-1896.197	1876.626
_Ieduc_5	-11.49393	962.4724	-0.01	0.990	-1897.905	1874.917
_Ieduc_6	-10.32295	962.4722	-0.01	0.991	-1896.734	1876.088
_Ieduc_7	-9.03504	962.4749	-0.01	0.993	-1895.451	1877.381
_Ieduc_8	0	(omitted)				
occ1w1	-2.600034	2.055585	-1.26	0.206	-6.628907	1.42884
occ2w1	-1.277677	2.051101	-0.62	0.533	-5.297761	2.742406
occ3w1	-1.369222	2.057018	-0.67	0.506	-5.400903	2.662459
occ4w1	-1.559837	2.12733	-0.73	0.463	-5.729327	2.609653
occ5w1	-2.429826	2.192792	-1.11	0.268	-6.727619	1.867967
occ6w1	-3.419242	2.325888	-1.47	0.142	-7.977899	1.139414
occ7w1	-2.504352	2.176283	-1.15	0.250	-6.769788	1.761083
occ8w1	-1.334187	2.100551	-0.64	0.525	-5.451192	2.782817
marrw11	-.7193048	1.925081	-0.37	0.709	-4.492394	3.053784
marrw12	.4856708	2.564006	0.19	0.850	-4.539688	5.51103
marrw13	-2.16757	1.867036	-1.16	0.246	-5.826893	1.491753
marrw15	-3.042565	2.275798	-1.34	0.181	-7.503047	1.417918
marrw16	-1.841276	2.263324	-0.81	0.416	-6.27731	2.594759
inc1w1	1.620964	1.976337	0.82	0.412	-2.252585	5.494512
inc2w1	1.094487	1.946444	0.56	0.574	-2.720473	4.909448
inc3w1	.8486289	1.968571	0.43	0.666	-3.009699	4.706957
inc4w1	1.499966	2.134492	0.70	0.482	-2.683562	5.683494
radhlw1	.007034	.0058778	1.20	0.231	-.0044862	.0185542
havmil	-.0000651	.0025878	-0.03	0.980	-.0051371	.0050069
avgcumdosew1	.599348	.3177091	1.89	0.059	-.0233504	1.222046
bf1	.0066905	.0314561	0.21	0.832	-.0549623	.0683434
bf4	-.1521557	.0440097	-3.46	0.001	-.2384131	-.0658983
bf9	-.0233371	.0265441	-0.88	0.379	-.0753625	.0286883
bf10	-.0152265	.0136272	-1.12	0.264	-.0419352	.0114823
bf11	-.0221841	.0445913	-0.50	0.619	-.1095814	.0652131
bf14	-.0000349	.0000708	-0.49	0.622	-.0001736	.0001039
bf15m	0	(omitted)				
bf20	-.0007465	.0262029	-0.03	0.977	-.0521033	.0506104
bf22	.0000643	.0000756	0.85	0.395	-.000084	.0002126
bf30	.0002306	.0003007	0.77	0.443	-.0003588	.00082
bf40	-.0231935	.1067574	-0.22	0.828	-.232434	.1860471
deaw1	.0559916	.1861244	0.30	0.764	-.3088055	.4207887
dvcew1	.4752968	3.360983	0.14	0.888	-6.112108	7.062702
sepaw1	.3375739	3.57474	0.09	0.925	-6.668788	7.343935
accdw1	-.4123297	.8114545	-0.51	0.611	-2.002751	1.178092
movew1	.7332906	.5919892	1.24	0.215	-.4269869	1.893568
illw1	.1110447	.3242585	0.34	0.732	-.5244903	.7465798
shfamw1	-.0101274	.0070668	-1.43	0.152	-.0239782	.0037233

shhlw1	-.0168708	.0106127	-1.59	0.112	-.0376714	.0039298
shjobw1	.0173829	.0076332	2.28	0.023	.002422	.0323437
shrelaw1	-.0004942	.0067313	-0.07	0.941	-.0136874	.012699
suprtw1	.0056448	.0100346	0.56	0.574	-.0140226	.0253123
suchrw1	-.0012594	.0144683	-0.09	0.931	-.0296168	.0270979
havmilsq	-2.25e-07	1.46e-06	-0.15	0.877	-3.08e-06	2.63e-06
radhlw1	0	(omitted)				
_cons	5.782713	962.4763	0.01	0.995	-1880.636	1892.202

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	57	20	77
-	37	233	270
Total	94	253	347

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

Sensitivity	Pr(+| D)	60.64%
Specificity	Pr(-|~D)	92.09%
Positive predictive value	Pr(D| +)	74.03%
Negative predictive value	Pr(~D| -)	86.30%
False + rate for true ~D	Pr(+|~D)	7.91%
False - rate for true D	Pr(-| D)	39.36%
False + rate for classified +	Pr(~D| +)	25.97%
False - rate for classified -	Pr(D| -)	13.70%
Correctly classified		83.57%

Logistic model for HP2sxlife, goodness-of-fit test

number of observations =	347
number of covariate patterns =	347
Pearson chi2(**296**) =	311.56
Prob > chi2 =	0.2559

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

```
Log-Lik Intercept Only:     -202.698    Log-Lik Full Model:           -124.805
D(293):                      249.609    LR(50):                        155.788
                                        Prob > LR:                       0.000
McFadden's R2:                 0.384    McFadden's Adj R2:               0.118
Maximum Likelihood R2:         0.362    Cragg & Uhler's R2:              0.525
McKelvey and Zavoina's R2:     0.605    Efron's R2:                      0.422
Variance of y*:                8.326    Variance of error:               3.290
Count R2:                      0.836    Adj Count R2:                    0.394
AIC:                           1.031    AIC*n:                         357.609
BIC:                       -1464.243    BIC':                          136.679

922 .
923 . *-----Chunk 7 dose3 moderator => sex life impact---------------------------
924 . title4 "Chunk 7 partly trimmed male model of dose=>HP2sxlife relationship in
    >  wave 1"
    ------------------------------------------------------------------------------
    Chunk 7 partly trimmed male model of dose=>HP2sxlife relationship in wave 1
    ------------------------------------------------------------------------------

925 .         forvalues j=1/1 {
      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 1 male dose avgcumdosew`j' main effect not signif"
      5.          logit HP2sxlife age occ1w1-occ7w1 inc1w1-inc4w1 bf4 bf40  ///
    >             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 1 male dose avgcumdosew1 main effect not signif

    Iteration 0:   log likelihood = -171.51396
    Iteration 1:   log likelihood = -118.07472
    Iteration 2:   log likelihood = -110.61729
    Iteration 3:   log likelihood =  -110.3575
    Iteration 4:   log likelihood = -110.35718
    Iteration 5:   log likelihood = -110.35718

    Logistic regression                               Number of obs   =        340
                                                      LR chi2(14)     =     122.31
                                                      Prob > chi2     =     0.0000
    Log likelihood = -110.35718                       Pseudo R2       =     0.3566
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0941116**	**.0221002**	**4.26**	**0.000**	**.0507959**	**.1374272**
occ1w1	**-.8108243**	**.6947007**	**-1.17**	**0.243**	**-2.172413**	**.5507641**
occ2w1	**-.8508826**	**.7171286**	**-1.19**	**0.235**	**-2.256429**	**.5546637**
occ3w1	**-.8480358**	**.9624232**	**-0.88**	**0.378**	**-2.734351**	**1.038279**
occ4w1	**-.4031164**	**.7298235**	**-0.55**	**0.581**	**-1.833544**	**1.027311**
occ5w1	**-3.36185**	**1.50629**	**-2.23**	**0.026**	**-6.314124**	**-.4095757**
occ6w1	**-.2905401**	**1.302685**	**-0.22**	**0.824**	**-2.843755**	**2.262675**
occ7w1	**-.2498895**	**1.738151**	**-0.14**	**0.886**	**-3.656603**	**3.156824**
inc1w1	**1.792574**	**.9507668**	**1.89**	**0.059**	**-.0708952**	**3.656042**
inc2w1	**1.897351**	**.9299892**	**2.04**	**0.041**	**.0746052**	**3.720096**
inc3w1	**1.708189**	**.9374578**	**1.82**	**0.068**	**-.1291946**	**3.545573**
inc4w1	**1.397502**	**1.070212**	**1.31**	**0.192**	**-.7000754**	**3.49508**
bf4	**-.2058489**	**.0355202**	**-5.80**	**0.000**	**-.2754671**	**-.1362307**
bf40	**.2384671**	**.1033522**	**2.31**	**0.021**	**.0359004**	**.4410337**
_cons	**-5.837351**	**1.560717**	**-3.74**	**0.000**	**-8.896301**	**-2.778402**

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	**35**	**17**	**52**
-	**34**	**254**	**288**
Total	**69**	**271**	**340**

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

Sensitivity	Pr(+| D)	**50.72%**
Specificity	Pr(-|~D)	**93.73%**
Positive predictive value	Pr(D| +)	**67.31%**
Negative predictive value	Pr(~D| -)	**88.19%**
False + rate for true ~D	Pr(+|~D)	**6.27%**
False - rate for true D	Pr(-| D)	**49.28%**
False + rate for classified +	Pr(~D| +)	**32.69%**
False - rate for classified -	Pr(D| -)	**11.81%**
Correctly classified		**85.00%**

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       324
            Pearson chi2(309) =       279.35
                  Prob > chi2 =         0.8861

Measures of Fit for logit of HP2sxlife

Log-Lik Intercept Only:     -171.514     Log-Lik Full Model:         -110.357
D(325):                      220.714     LR(14):                      122.314
                                         Prob > LR:                     0.000
McFadden's R2:                 0.357     McFadden's Adj R2:             0.269
Maximum Likelihood R2:         0.302     Cragg & Uhler's R2:            0.476
McKelvey and Zavoina's R2:     0.514     Efron's R2:                    0.374
Variance of y*:                6.767     Variance of error:             3.290
Count R2:                      0.850     Adj Count R2:                  0.261
AIC:                           0.737     AIC*n:                       250.714
BIC:                       -1673.693     BIC':                        -40.708

.
. scalar MaineffhmcrMw1 = "age bf4 bf40"

.
. title "Chunk 7 trimmed male model of dose and HP2sxlife relationship in wave
>  1"


*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****Chunk 7 trimmed male model of dose and HP2sxlife relationship in wave 1**
> ***
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                              18 Jun 2012    18:16:39  ****
> *
*****************************************************************************
> *
*****************************************************************************
> *
```

```
930 . title4 "h1 pt 2 wave 1 dose=> sex life impact on males"
-------------------------------------------------------------------------------
    h1 pt 2 wave 1 dose=> sex life impact on males
-------------------------------------------------------------------------------

931 .         forvalues j=1/1 {
  2. set more off
  3. des occ5w1 inc1w1 inc2w1 inc3w1
  4. di as input  "fully trimmed HP2sexlife main effects models wave 1 for H1
> part 2 with dose ns"
  5. di as input  "wave 1 male dose avgcumdosew`j' main effect not signif"
  6.         logit HP2sxlife age  bf4 bf40  shjobw`j' shrelaw`j'  radhlw`j' if
>  gender==1
  7.                          estat class
  8.                          estat gof
  9.                          fitstat
 10. }

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
occ5w1          double %15.0g      LABJ       factory laborer machinist transp
                                                cleaner in 1986
inc1w1          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1986
inc2w1          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1986
inc3w1          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1986
fully trimmed HP2sexlife main effects models wave 1 for H1 part 2 with dose ns
wave 1 male dose avgcumdosew1 main effect not signif

Iteration 0:   log likelihood = -171.51396
Iteration 1:   log likelihood = -121.19042
Iteration 2:   log likelihood = -114.60006
Iteration 3:   log likelihood = -114.41503
Iteration 4:   log likelihood = -114.41445
Iteration 5:   log likelihood = -114.41445

Logistic regression                               Number of obs   =        340
                                                  LR chi2(6)      =     114.20
                                                  Prob > chi2     =     0.0000
Log likelihood = -114.41445                       Pseudo R2       =     0.3329
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
age	.0617919	.0157391	3.93	0.000	.0309439	.09264
bf4	-.1966537	.0409434	-4.80	0.000	-.2769013	-.1164061
bf40	.2838331	.1042379	2.72	0.006	.0795305	.4881356
shjobw1	-.0050343	.0063951	-0.79	0.431	-.0175685	.0074999
shrelaw1	-.0020982	.0048927	-0.43	0.668	-.0116877	.0074913
radhlw1	.0066138	.0047502	1.39	0.164	-.0026965	.0159241
_cons	-3.247623	1.168417	-2.78	0.005	-5.537679	-.9575672

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	33	16	49
-	36	255	291
Total	69	271	340

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

Sensitivity	Pr(+| D)	47.83%
Specificity	Pr(-|~D)	94.10%
Positive predictive value	Pr(D| +)	67.35%
Negative predictive value	Pr(~D| -)	87.63%
False + rate for true ~D	Pr(+|~D)	5.90%
False - rate for true D	Pr(-| D)	52.17%
False + rate for classified +	Pr(~D| +)	32.65%
False - rate for classified -	Pr(D| -)	12.37%
Correctly classified		84.71%

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       335
             Pearson chi2(328) =       293.15
                   Prob > chi2 =         0.9171
```

Measures of Fit for **logit** of **HP2sxlife**

```
Log-Lik Intercept Only:     -171.514    Log-Lik Full Model:          -114.414
D(333):                      228.829    LR(6):                        114.199
                                        Prob > LR:                      0.000
McFadden's R2:                 0.333    McFadden's Adj R2:              0.292
Maximum Likelihood R2:         0.285    Cragg & Uhler's R2:             0.449
McKelvey and Zavoina's R2:     0.477    Efron's R2:                     0.350
Variance of y*:                6.291    Variance of error:              3.290
Count R2:                      0.847    Adj Count R2:                   0.246
AIC:                           0.714    AIC*n:                        242.829
BIC:                       -1712.210    BIC':                         -79.225

932 .
933 . 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)

934 . scalar MainEffsxlifeMw1 = "age bf4 bf40 "

935 . scalar SigDosesxlifeMw1 = "no"

936 .
937 .
938 . forvalues j=1/1 {
  2. title4 "trimmed HP2sxlife main effects models wave `j' for H1 part 2 with
>  dose ns"
  3. title4 "Wave `j dose HPsxlife relationship but avgcumdosew`j': Dose not s
> ignif"
  4. }
-------------------------------------------------------------------------------
trimmed HP2sxlife main effects models wave 1 for H1 part 2 with dose ns
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Wave `j dose HPsxlife relationship but avgcumdosew1: Dose not signif
-------------------------------------------------------------------------------
```

```
939 .
940 . cap gen bf4Xd1= bf4*avgcumdosew1

941 . cap gen radhlw1Xd1 = radhlw1*avgcumdosew1

942 . cap gen ageXd1 = age*avgcumdosew1

943 .
944 . set more off

945 . des bf4

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)

946 . forvalues j=1/1 {
  2.                 sw, pr(.1):logistic HP2sxlife age bf4  ///
>                 avgcumdosew`j'  ageXd1 bf4Xd1 radhlw1Xd1  if gender==1, coef
  3.                         estat class
  4.                         estat gof
  5.                         fitstat
  6. }
                      begin with full model
p = 0.6350 >= 0.1000  removing bf4Xd1
p = 0.4431 >= 0.1000  removing radhlw1Xd1
p = 0.1068 >= 0.1000  removing avgcumdosew1
p = 0.4455 >= 0.1000  removing ageXd1

Logistic regression                               Number of obs   =        340
                                                  LR chi2(2)      =     105.30
                                                  Prob > chi2     =     0.0000
Log likelihood = -118.86164                       Pseudo R2       =     0.3070

------------------------------------------------------------------------------
   HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0735516   .0151718     4.85   0.000     .0438154    .1032879
         bf4 |  -.2011944   .0322322    -6.24   0.000    -.2643683   -.1380205
       _cons |  -3.058766   .9461336    -3.23   0.001    -4.913154   -1.204378
------------------------------------------------------------------------------

Logistic model for HP2sxlife
```

Classified	True D	True ~D	Total
+	**32**	**14**	**46**
-	**37**	**257**	**294**
Total	**69**	**271**	**340**

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

Sensitivity	Pr(+| D)	**46.38%**
Specificity	Pr(-|~D)	**94.83%**
Positive predictive value	Pr(D| +)	**69.57%**
Negative predictive value	Pr(~D| -)	**87.41%**
False + rate for true ~D	Pr(+|~D)	**5.17%**
False - rate for true D	Pr(-| D)	**53.62%**
False + rate for classified +	Pr(~D| +)	**30.43%**
False - rate for classified -	Pr(D| -)	**12.59%**
Correctly classified		**85.00%**

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       222
            Pearson chi2(219) =       215.06
                  Prob > chi2 =         0.5625
```

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

Log-Lik Intercept Only:	**-171.514**	Log-Lik Full Model:	**-118.862**
D(337):	**237.723**	LR(2):	**105.305**
		Prob > LR:	**0.000**
McFadden's R2:	**0.307**	McFadden's Adj R2:	**0.289**
Maximum Likelihood R2:	**0.266**	Cragg & Uhler's R2:	**0.419**
McKelvey and Zavoina's R2:	**0.435**	Efron's R2:	**0.320**
Variance of y*:	**5.825**	Variance of error:	**3.290**
Count R2:	**0.850**	Adj Count R2:	**0.261**
AIC:	**0.717**	AIC*n:	**243.723**
BIC:	**-1726.631**	BIC':	**-93.647**

```
947 .
948 . scalar sxlifeModMw1 = "none"

949 . *xx male moderators: no main significant dose effect
950 . *xx no male moderators for sexlife impact
951 .
952 .
953 .
954 . title4 "H1 pt2 wave 1 female dose=> sexlife impact models"

    H1 pt2 wave 1 female dose=> sexlife impact models


955 .
956 .  *-----Chunk 7 dose3 moderator => sex life impact--------------------------
    > -
957 . di as input "chunk 7  female wave=3"
    chunk 7  female wave=3

958 . title "Chunk 7 trimmed female model:" "dose and HP2sxlife relationship in wa
    > ve 1"


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                   Chunk 7 trimmed female model:                     ****
    > *
    *****             dose and HP2sxlife relationship in wave 1               ****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                        18 Jun 2012    18:16:49      ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *
```

```
959 . * female models
960 .         forvalues j=1/1 {
  2.
961 . set more off
  3. des bf4 bf4m shfamw1 shrelaw1 avgcumdosew1
  4. title4 "trimmed HP2sexlife main effects models" "wave 1 for H1 part 2 wit
> h dose ns"
  5. title4 "wave 1 dose HP2sexlife relationship" "avgcumdosew`j' Dose not sig
> nif"
  6.         logit HP2sxlife age  radhlw`j' bf4 bf4m   ///
>             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)
shfamw1         double %8.0g                  Percentage of strains and
                                                hassles related to family in
                                                1986
shrelaw1        double %8.0g                  Percentage of strains and
                                                hassles related to
                                                relationships in 1986
avgcumdosew1    double %8.0g                  wave 1 avg mean CS137 dose in
                                                mGy ending 12/31/1986
-------------------------------------------------------------------------------

trimmed HP2sexlife main effects models
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
wave 1 dose HP2sexlife relationship
-------------------------------------------------------------------------------

Iteration 0:   log likelihood = -207.32098
Iteration 1:   log likelihood = -149.84784
Iteration 2:   log likelihood = -145.01939
Iteration 3:   log likelihood = -144.95408
Iteration 4:   log likelihood = -144.95402
Iteration 5:   log likelihood = -144.95402

Logistic regression                               Number of obs   =        362
                                                  LR chi2(5)      =     124.73
                                                  Prob > chi2     =     0.0000
Log likelihood = -144.95402                       Pseudo R2       =     0.3008
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0771236**	**.0150604**	**5.12**	**0.000**	**.0476059**	**.1066414**
radhlw1	**.0062168**	**.0040945**	**1.52**	**0.129**	**-.0018083**	**.0142418**
bf4	**-.5739615**	**.185844**	**-3.09**	**0.002**	**-.9382091**	**-.2097139**
bf4m	**.3919975**	**.1717276**	**2.28**	**0.022**	**.0554176**	**.7285774**
avgcumdosew1	**.3818052**	**.2467519**	**1.55**	**0.122**	**-.1018197**	**.8654301**
_cons	**-7.066627**	**1.552843**	**-4.55**	**0.000**	**-10.11014**	**-4.023111**

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	**51**	**22**	**73**
-	**43**	**246**	**289**
Total	**94**	**268**	**362**

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

Sensitivity	Pr(+| D)	**54.26%**
Specificity	Pr(-|~D)	**91.79%**
Positive predictive value	Pr(D| +)	**69.86%**
Negative predictive value	Pr(~D| -)	**85.12%**
False + rate for true ~D	Pr(+|~D)	**8.21%**
False - rate for true D	Pr(-| D)	**45.74%**
False + rate for classified +	Pr(~D| +)	**30.14%**
False - rate for classified -	Pr(D| -)	**14.88%**
Correctly classified		**82.04%**

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       362
 number of covariate patterns =       360
            Pearson chi2(354) =       377.83
                  Prob > chi2 =         0.1837
```

Measures of Fit for **logit** of **HP2sxlife**

```
    Log-Lik Intercept Only:      -207.321     Log-Lik Full Model:           -144.954
    D(356):                       289.908     LR(5):                         124.734
                                              Prob > LR:                       0.000
    McFadden's R2:                  0.301     McFadden's Adj R2:               0.272
    Maximum Likelihood R2:          0.291     Cragg & Uhler's R2:              0.427
    McKelvey and Zavoina's R2:      0.451     Efron's R2:                      0.348
    Variance of y*:                 5.995     Variance of error:               3.290
    Count R2:                       0.820     Adj Count R2:                    0.309
    AIC:                            0.834     AIC*n:                         301.908
    BIC:                        -1807.517     BIC':                          -95.276

962 . scalar SigDoseSxlifeFw1 = "no"

963 . scalar MainEffsxlifeFw1 = "age bf4 bf4m"

964 . *-----  constructing possible moderators
965 .
966 .       foreach var in bf4 bf4m shfamw1 shrelaw1 radhlw1 {
  2.        cap gen `var'Xd1 = `var'*avgcumdosew1
  3.          }

967 .
968 . scalar sxlifeModFw1="none"

969 . scalar SigDoseSxlifeFw1 = "none"

970 .
971 .
972 .
973 .  *----- testing female moderators
974 . title "partly trimmed female moderator model of dose & HP2sxlife relationshi
    > p in wv 1"


    ********************************************************************************
    > *
    ********************************************************************************
    > *
    *****                                                                      ****
    > *
    *****                                                                      ****
    > *
    *****partly trimmed female moderator model of dose & HP2sxlife relationship in
    >  wv 1*****
    *****                                                                      ****
    > *
    *****                                                                      ****
    > *
    *****                                      18 Jun 2012    18:16:50  ****
```

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



975 . * male models
976 .         forvalues j=1/1 {
  2. set more off
  3. des bf4 bf4m shfamw1 shrelaw1 avgcumdosew1
  4. title3 "trimmed HP2sexlife main effects models wave 1 for H1 part 2 with
> dose ns"
  5. title "wave 1 dose HP2sexlife relationship but avgcumdosew`j': Dose not s
> ignif"
  6.         logit HP2sxlife age  radhlw`j' bf4 bf4m   ///
>            shrelaw`j' avgcumdosew`j' radhlw`j'Xd1 ///
>            bf4Xd1 shrelaw1Xd1  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)
shfamw1         double %8.0g                  Percentage of strains and
                                                hassles related to family in
                                                1986
shrelaw1        double %8.0g                  Percentage of strains and
                                                hassles related to
                                                relationships in 1986
avgcumdosew1    double %8.0g                  wave 1 avg mean CS137 dose in
                                                mGy ending 12/31/1986
-------------------------------------------------------------------------------
title3 : trimmed HP2sexlife main effects models wave 1 for H1 part 2 with dose
>  ns
18 Jun 2012
18:16:50
computer  Macintosh (Intel 64-bit)
folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/h1tests
> /h1pt2
Data file  chwide16june2012.dta  currrently has  2386  variables and  703  obs
> ervations
```

```
*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****wave 1 dose HP2sexlife relationship but avgcumdosew1: Dose not signif****
> *
*****                                                                   ****
> *
*****                                                                   ****
> *
*****                                          18 Jun 2012    18:16:50  ****
> *
*****************************************************************************
> *
*****************************************************************************
> *
```

```
Iteration 0:   log likelihood = -207.32098
Iteration 1:   log likelihood = -147.41511
Iteration 2:   log likelihood = -141.75413
Iteration 3:   log likelihood = -141.62542
Iteration 4:   log likelihood = -141.62494
Iteration 5:   log likelihood = -141.62494

Logistic regression                               Number of obs   =        362
                                                  LR chi2(9)      =     131.39
                                                  Prob > chi2     =     0.0000
Log likelihood = -141.62494                       Pseudo R2       =     0.3169
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0814535	.0153556	5.30	0.000	.0513571	.11155
radhlw1	.0024977	.0049558	0.50	0.614	-.0072155	.0122108
bf4	-.5313372	.1875606	-2.83	0.005	-.8989493	-.1637251
bf4m	.4140426	.1747902	2.37	0.018	.0714601	.7566252
shrelaw1	-.0104094	.0067432	-1.54	0.123	-.0236259	.0028071
avgcumdosew1	.8771287	.9794814	0.90	0.371	-1.04262	2.796877
radhlw1Xd1	.0106434	.0087424	1.22	0.223	-.0064914	.0277781
bf4Xd1	-.2197957	.1330334	-1.65	0.098	-.4805363	.040945
shrelaw1Xd1	.0233442	.0154714	1.51	0.131	-.0069791	.0536676
_cons	-7.515707	1.659151	-4.53	0.000	-10.76758	-4.26383

Logistic model for HP2sxlife

Classified	True D	True ~D	Total
+	**51**	**21**	**72**
-	**43**	**247**	**290**
Total	**94**	**268**	**362**

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

Sensitivity	Pr(+| D)	**54.26%**
Specificity	Pr(-|~D)	**92.16%**
Positive predictive value	Pr(D| +)	**70.83%**
Negative predictive value	Pr(~D| -)	**85.17%**
False + rate for true ~D	Pr(+|~D)	**7.84%**
False - rate for true D	Pr(-| D)	**45.74%**
False + rate for classified +	Pr(~D| +)	**29.17%**
False - rate for classified -	Pr(D| -)	**14.83%**
Correctly classified		**82.32%**

Logistic model for HP2sxlife, goodness-of-fit test

number of observations = **362**
number of covariate patterns = **361**
Pearson chi2(**351**) = **368.67**
Prob > chi2 = **0.2479**

Measures of Fit for **logit** of **HP2sxlife**

Log-Lik Intercept Only:	**-207.321**	Log-Lik Full Model:	**-141.625**
D(352):	**283.250**	LR(9):	**131.392**
		Prob > LR:	**0.000**
McFadden's R2:	**0.317**	McFadden's Adj R2:	**0.269**
Maximum Likelihood R2:	**0.304**	Cragg & Uhler's R2:	**0.446**
McKelvey and Zavoina's R2:	**0.536**	Efron's R2:	**0.365**
Variance of y*:	**7.085**	Variance of error:	**3.290**
Count R2:	**0.823**	Adj Count R2:	**0.319**
AIC:	**0.838**	AIC*n:	**303.250**
BIC:	**-1790.609**	BIC':	**-78.367**

```
977 . // trimming further
978 . title "fully female moderator model of dose & HP2sxlife relationship in wv 1
    > "


    ******************************************************************************
    > *
    ******************************************************************************
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****fully female moderator model of dose & HP2sxlife relationship in wv 1****
    > *
    *****                                                                     ****
    > *
    *****                                                                     ****
    > *
    *****                                          18 Jun 2012    18:16:51  ****
    > *
    ******************************************************************************
    > *
    ******************************************************************************
    > *



979 .
980 .
981 . * female models
982 . set more off

983 .         forvalues j=1/1 {
      2. des bf4 bf4m shfamw1 shrelaw1 avgcumdosew1
      3. title3 "trimmed HP2sexlife main effects models wave 1 for H1 part 2 with
    > dose ns"
      4. title "wave 1 dose HP2sexlife relationship but avgcumdosew`j': Dose not s
    > ignif"
      5.         logit HP2sxlife age  radhlw`j' bf4 bf4m   ///
    >            shrelaw1   avgcumdosew`j'  ///
    >           shrelaw1Xd1 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)
shfamw1         double %8.0g                   Percentage of strains and
                                                 hassles related to family in
                                                 1986
shrelaw1        double %8.0g                   Percentage of strains and
                                                 hassles related to
                                                 relationships in 1986
avgcumdosew1    double %8.0g                   wave 1 avg mean CS137 dose in
                                                 mGy ending 12/31/1986
-------------------------------------------------------------------------------
title3 : trimmed HP2sexlife main effects models wave 1 for H1 part 2 with dose
>  ns
18 Jun 2012
18:16:51
computer  Macintosh (Intel 64-bit)
folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/h1tests
> /h1pt2
Data file  chwide16june2012.dta  currrently has  2386  variables and  703  obs
> ervations


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****wave 1 dose HP2sexlife relationship but avgcumdosew1: Dose not signif****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                        18 Jun 2012    18:16:51      ****
> *
******************************************************************************
> *
******************************************************************************
> *
```

```
Iteration 0:   log likelihood = -207.32098
Iteration 1:   log likelihood = -148.73094
Iteration 2:   log likelihood = -143.96367
Iteration 3:   log likelihood = -143.91142
Iteration 4:   log likelihood = -143.91139
Iteration 5:   log likelihood = -143.91139

Logistic regression                               Number of obs   =        362
                                                  LR chi2(7)      =     126.82
                                                  Prob > chi2     =     0.0000
Log likelihood = -143.91139                       Pseudo R2       =     0.3059

------------------------------------------------------------------------------
   HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         age |   .0780855   .0151068     5.17   0.000     .0484767    .1076944
     radhlw1 |   .0057692   .0041216     1.40   0.162    -.0023091    .0138474
         bf4 |  -.5774463   .1888057    -3.06   0.002    -.9474987   -.2073939
        bf4m |   .3915506   .1745706     2.24   0.025     .0493985    .7337026
    shrelaw1 |  -.0078788   .0061361    -1.28   0.199    -.0199053    .0041477
avgcumdosew1 |   .0233678   .3583816     0.07   0.948    -.6790473    .7257829
 shrelaw1Xd1 |   .0143198   .0116222     1.23   0.218    -.0084592    .0370989
       _cons |  -6.851526   1.575045    -4.35   0.000    -9.938557   -3.764495
------------------------------------------------------------------------------


Logistic model for HP2sxlife

              -------- True --------
Classified |         D            ~D  |      Total
-----------+--------------------------+-----------
     +     |        53            23  |         76
     -     |        41           245  |        286
-----------+--------------------------+-----------
   Total   |        94           268  |        362

Classified + if predicted Pr(D) >= .5
True D defined as HP2sxlife != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   56.38%
Specificity                     Pr( -|~D)   91.42%
Positive predictive value       Pr( D| +)   69.74%
Negative predictive value       Pr(~D| -)   85.66%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    8.58%
False - rate for true D         Pr( -| D)   43.62%
False + rate for classified +   Pr(~D| +)   30.26%
False - rate for classified -   Pr( D| -)   14.34%
--------------------------------------------------
Correctly classified                        82.32%
```

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       362
 number of covariate patterns =       361
            Pearson chi2(353) =       375.36
                  Prob > chi2 =         0.1978

Measures of Fit for logit of HP2sxlife

Log-Lik Intercept Only:     -207.321     Log-Lik Full Model:          -143.911
D(354):                      287.823     LR(7):                        126.819
                                         Prob > LR:                      0.000
McFadden's R2:                 0.306     McFadden's Adj R2:              0.267
Maximum Likelihood R2:         0.296     Cragg & Uhler's R2:             0.433
McKelvey and Zavoina's R2:     0.465     Efron's R2:                     0.353
Variance of y*:                6.146     Variance of error:              3.290
Count R2:                      0.823     Adj Count R2:                   0.319
AIC:                           0.839     AIC*n:                        303.823
BIC:                       -1797.819     BIC':                         -85.578

984 . * female models
985 .         forvalues j=1/1 {
      2. des bf4 bf4m shfamw1 shrelaw1 avgcumdosew1
      3. title3 "trimmed HP2sexlife main effects models wave 1 for H1 part 2 with
    > dose ns"
      4. title "wave 1 dose HP2sexlife relationship but avgcumdosew`j': Dose not s
    > ignif"
      5.         logit HP2sxlife age  radhlw`j' bf4 bf4m   ///
    >            shrelaw1 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)
shfamw1         double %8.0g                  Percentage of strains and
                                                hassles related to family in
                                                1986
shrelaw1        double %8.0g                  Percentage of strains and
                                                hassles related to
                                                relationships in 1986
avgcumdosew1    double %8.0g                  wave 1 avg mean CS137 dose in
                                                mGy ending 12/31/1986
------------------------------------------------------------------------------

title3 : trimmed HP2sexlife main effects models wave 1 for H1 part 2 with dose
>  ns
18 Jun 2012
18:16:53
computer  Macintosh (Intel 64-bit)
folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/h1tests
> /h1pt2
Data file  chwide16june2012.dta  currrently has  2386  variables and  703  obs
> ervations


******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****wave 1 dose HP2sexlife relationship but avgcumdosew1: Dose not signif****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                         18 Jun 2012    18:16:53     ****
> *
******************************************************************************
> *
******************************************************************************
> *
```

```
Iteration 0:   log likelihood = -207.32098
Iteration 1:   log likelihood = -151.03193
Iteration 2:   log likelihood = -146.24555
Iteration 3:   log likelihood = -146.19381
Iteration 4:   log likelihood = -146.19378
Iteration 5:   log likelihood = -146.19378

Logistic regression                               Number of obs   =        362
                                                  LR chi2(6)      =     122.25
                                                  Prob > chi2     =     0.0000
Log likelihood = -146.19378                       Pseudo R2       =     0.2948
```

HP2sxlife	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0785876	.0150203	5.23	0.000	.0491483	.1080268
radhlw1	.0058723	.004062	1.45	0.148	-.0020891	.0138337
bf4	-.5874305	.1868633	-3.14	0.002	-.9536758	-.2211852
bf4m	.3963155	.172212	2.30	0.021	.0587862	.7338448
shrelaw1	-.0014364	.0051848	-0.28	0.782	-.0115983	.0087256
shfamw1	-.0015628	.0050062	-0.31	0.755	-.0113747	.0082491
_cons	-6.829393	1.564771	-4.36	0.000	-9.896289	-3.762497

Logistic model for HP2sxlife

	True		
Classified	D	~D	Total
+	50	22	72
-	44	246	290
Total	94	268	362

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

Sensitivity	Pr(+| D)	53.19%
Specificity	Pr(-|~D)	91.79%
Positive predictive value	Pr(D| +)	69.44%
Negative predictive value	Pr(~D| -)	84.83%
False + rate for true ~D	Pr(+|~D)	8.21%
False - rate for true D	Pr(-| D)	46.81%
False + rate for classified +	Pr(~D| +)	30.56%
False - rate for classified -	Pr(D| -)	15.17%
Correctly classified		81.77%

Logistic model for HP2sxlife, goodness-of-fit test

```
       number of observations =       362
 number of covariate patterns =       360
            Pearson chi2(353) =       374.57
                  Prob > chi2 =         0.2058

Measures of Fit for logit of HP2sxlife

Log-Lik Intercept Only:     -207.321    Log-Lik Full Model:          -146.194
D(355):                      292.388    LR(6):                        122.254
                                        Prob > LR:                      0.000
McFadden's R2:                 0.295    McFadden's Adj R2:              0.261
Maximum Likelihood R2:         0.287    Cragg & Uhler's R2:             0.420
McKelvey and Zavoina's R2:     0.446    Efron's R2:                     0.339
Variance of y*:                5.936    Variance of error:              3.290
Count R2:                      0.818    Adj Count R2:                   0.298
AIC:                           0.846    AIC*n:                        306.388
BIC:                       -1799.146    BIC':                         -86.905
```

```
986 .
987 . scalar MainEffsxlifeFw1 = "age radhlw1 bf4 bf4m"

988 . scalar SigDoseSxlifeFw1="no"

989 . scalar SxLifeModFw1 = "no"

990 . * xx female main effects model: no sign dose main effect
991 . * xx 6 signif main effects
992 . * xx no moderator effects significant
993 .
994 . title4 "h1 pt 2 wave 1 dose-> sexlife sexlife mediator impact models"
```

h1 pt 2 wave 1 dose-> sexlife sexlife mediator impact models

```
 995 .
 996 . di as input "testing possible sex life mediator effects for males"
     testing possible sex life mediator effects for males

 997 .
 998 . * age is a mediating effect for males for Dose=> sex life for men
 999 . 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)

1000 . glm age avgcumdosew1 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood =  -1331.608

     Generalized linear models                          No. of obs      =        340
     Optimization     : ML                              Residual df     =        338
                                                        Scale parameter =   148.5632
     Deviance         =  50214.37624                    (1/df) Deviance =   148.5632
     Pearson          =  50214.37624                    (1/df) Pearson  =   148.5632

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

                                                        AIC             =   7.844753
     Log likelihood   = -1331.607976                    BIC             =   48244.19

     ------------------------------------------------------------------------------
                  |                 OIM
              age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew1 |   .6719789   .3966839     1.69   0.090    -.1055072    1.449465
            _cons |   48.89394   .6825967    71.63   0.000     47.55607     50.2318
     ------------------------------------------------------------------------------
```

```
1001 . 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.)

1002 .
1003 .
1004 . des illw1

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     illw1           double %8.0g                  Total number of illnesses
                                                     experienced in time period
                                                     1976-1986
```

```
1005 . glm illw1 avgcumdosew1 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -151.48261

     Generalized linear models                          No. of obs      =        340
     Optimization     : ML                              Residual df     =        338
                                                        Scale parameter =   .1435742
     Deviance         =  48.52808533                    (1/df) Deviance =   .1435742
     Pearson          =  48.52808533                    (1/df) Pearson  =   .1435742

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

                                                        AIC             =   .9028389
     Log likelihood   = -151.4826069                    BIC             =  -1921.656

     ------------------------------------------------------------------------------
                  |                 OIM
            illw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew1 |   .0087277   .0123318     0.71   0.479    -.0154423    .0328976
            _cons |   .0962541   .0212201     4.54   0.000     .0546635    .1378446
     ------------------------------------------------------------------------------

1006 . glm HP2sxlife illw1 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  342.7406
     Iteration 2:   deviance =  342.5208
     Iteration 3:   deviance =  342.5207
     Iteration 4:   deviance =  342.5207

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  342.5207329                    (1/df) Deviance =   1.013375
     Pearson          =  340.1346783                    (1/df) Pearson  =   1.006316

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

                                                        BIC             =  -1627.663
```

```
------------------------------------------------------------------------------
             |                 EIM
   HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw1 |   .1374179   .1941211     0.71   0.479    -.2430524    .5178882
       _cons |  -.8459321   .0807352   -10.48   0.000     -1.00417   -.6876941
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

1007 .
1008 . des radhlw1

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
radhlw1         double %8.0g                  how much believed personal
                                                health is affected by
                                                radiation in 1986

1009 . glm radhlw1 avgcumdosew1 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1710.3417

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  1378.645
Deviance         =  465981.8893                    (1/df) Deviance =  1378.645
Pearson          =  465981.8893                    (1/df) Pearson  =  1378.645

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

                                                   AIC             =   10.0726
Log likelihood   = -1710.341694                    BIC             =  464011.7

------------------------------------------------------------------------------
             |                 OIM
     radhlw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   2.398285   1.208412     1.98   0.047     .0298407    4.766729
       _cons |   44.66477   2.079384    21.48   0.000     40.58925    48.74029
------------------------------------------------------------------------------
```

```
1010 . glm HP2sxlife radhlw1 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  314.3547
     Iteration 2:   deviance =  313.2652
     Iteration 3:   deviance =  313.2621
     Iteration 4:   deviance =  313.2621

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  313.2620862                    (1/df) Deviance =   .9268109
     Pearson          =   338.905649                    (1/df) Pearson  =   1.002679

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

                                                        BIC             =  -1656.922

     ------------------------------------------------------------------------------
                  |                 EIM
        HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
          radhlw1 |   .0115464   .0020885     5.53   0.000      .007453    .0156398
            _cons |  -1.434416   .1399661   -10.25   0.000    -1.708745   -1.160088
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1011 .
1012 .
1013 . des bf4

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)

1014 . glm bf4  avgcumdosew1 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1026.9659

     Generalized linear models                          No. of obs      =        340
     Optimization     : ML                              Residual df     =        338
                                                        Scale parameter =   24.75428
     Deviance         =  8366.946191                    (1/df) Deviance =   24.75428
     Pearson          =  8366.946191                    (1/df) Pearson  =   24.75428

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

```
                                                  AIC             =   6.05274
Log likelihood   = -1026.965868                   BIC             =  6396.763

------------------------------------------------------------------------------
             |                 OIM
         bf4 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |  -.1031788    .161925    -0.64   0.524    -.4205461    .2141884
       _cons |   12.54134   .2786337    45.01   0.000     11.99523    13.08746
------------------------------------------------------------------------------

1015 . 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

------------------------------------------------------------------------------
             |                 EIM
   HP2sxlife |      Coef.   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.)
```

```
1016 .
1017 . des bf4m

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)

1018 . glm bf4m  avgcumdosew1 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1060.6611

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  30.18079
Deviance         =  10201.10756                    (1/df) Deviance =  30.18079
Pearson          =  10201.10756                    (1/df) Pearson  =  30.18079

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

                                                   AIC             =  6.250948
Log likelihood   = -1060.661115                    BIC             =  8230.924

------------------------------------------------------------------------------
             |                 OIM
        bf4m |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |  -.0953671   .1787945    -0.53   0.594    -.4457979    .2550637
       _cons |   20.35858    .307662    66.17   0.000     19.75557    20.96159
------------------------------------------------------------------------------

1019 . glm HP2sxlife bf4m  if gender==1, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  266.1375
Iteration 2:   deviance =  263.3205
Iteration 3:   deviance =   263.273
Iteration 4:   deviance =  263.2729
Iteration 5:   deviance =  263.2729

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       338
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  263.2728985                    (1/df) Deviance =  .7789139
Pearson          =  303.0162706                    (1/df) Pearson  =  .8964978

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

```
                                                  BIC             = -1706.911

------------------------------------------------------------------------------
             |                 EIM
   HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        bf4m |  -.1287243   .0140303    -9.17   0.000    -.1562231   -.1012255
       _cons |   1.624944    .276779     5.87   0.000     1.082468    2.167421
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

1020 .
1021 . des shrelaw1

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
shrelaw1        double %8.0g                  Percentage of strains and
                                                hassles related to
                                                relationships in 1986

1022 . glm shrelaw1 avgcumdosew1 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1715.4166

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  1420.421
Deviance         =  480102.3567                    (1/df) Deviance =  1420.421
Pearson          =  480102.3567                    (1/df) Pearson  =  1420.421

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

                                                   AIC             =  10.10245
Log likelihood   = -1715.416629                    BIC             =  478132.2

------------------------------------------------------------------------------
             |                 OIM
    shrelaw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |  -.0649405   1.226584    -0.05   0.958    -2.469002    2.339121
       _cons |   29.57199   2.110654    14.01   0.000     25.43518     33.7088
------------------------------------------------------------------------------
```

```
1023 . glm HP2sxlife shrelaw1  if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  341.3096
     Iteration 2:   deviance =  341.0889
     Iteration 3:   deviance =  341.0888
     Iteration 4:   deviance =  341.0888

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  341.0887685                    (1/df) Deviance =   1.009138
     Pearson          =  340.3303886                    (1/df) Pearson  =   1.006895

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

                                                        BIC             =  -1629.095

     ------------------------------------------------------------------------------
                  |                 EIM
       HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
         shrelaw1 |   .0027916     .00202     1.38   0.167    -.0011676    .0067508
            _cons |  -.9180819   .1010594    -9.08   0.000    -1.116155   -.7200091
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1024 .
1025 . des shfamw1

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     shfamw1         double %8.0g                  Percentage of strains and
                                                     hassles related to family in
                                                     1986
```

```
1026 . glm shfamw1 avgcumdosew1 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1722.3986

     Generalized linear models                          No. of obs      =        339
     Optimization     : ML                              Residual df     =        337
                                                        Scale parameter =     1524.9
     Deviance         =  513891.1861                    (1/df) Deviance =     1524.9
     Pearson          =  513891.1861                    (1/df) Pearson  =     1524.9

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

                                                        AIC             =   10.17344
     Log likelihood   = -1722.398621                    BIC             =   511927.8

     ------------------------------------------------------------------------------
                  |                 OIM
          shfamw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew1 |  -.8322929   1.270907    -0.65   0.513    -3.323226     1.65864
            _cons |   38.72924   2.190054    17.68   0.000     34.43681    43.02167
     ------------------------------------------------------------------------------

1027 . glm HP2sxlife shfamw1  if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =   339.011
     Iteration 2:   deviance =  338.8015
     Iteration 3:   deviance =  338.8014
     Iteration 4:   deviance =  338.8014

     Generalized linear models                          No. of obs      =        339
     Optimization     : MQL Fisher scoring              Residual df     =        337
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  338.8013645                    (1/df) Deviance =   1.005345
     Pearson          =  339.2776273                    (1/df) Pearson  =   1.006759

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

                                                        BIC             =  -1624.561
```

```
------------------------------------------------------------------------------
             |                 EIM
  HP2sxlife  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     shfamw1 |   .0019797   .0019787     1.00   0.317    -.0018986    .0058579
       _cons |  -.9179132   .1113818    -8.24   0.000    -1.136218   -.6996088
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

1028 .
1029 . scalar sxlifeMedMw1 = "radhlw1"

1030 .
1031 . title4 "female impact models mediator search"
------------------------------------------------------------------------------
female impact models mediator search
------------------------------------------------------------------------------

1032 .
1033 . * age is a mediating effect for females for Dose=> sex life for women
1034 . glm age avgcumdosew1 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood =  -1406.325

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =   136.455
Deviance         =  49260.25928                    (1/df) Deviance =   136.455
Pearson          =  49260.25928                    (1/df) Pearson  =   136.455

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

                                                   AIC             =  7.759366
Log likelihood   = -1406.325011                    BIC             =  47132.38

------------------------------------------------------------------------------
             |                 OIM
         age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   3.973879   1.117679     3.56   0.000     1.783267     6.16449
       _cons |   48.88157   .7187038    68.01   0.000     47.47293     50.2902
------------------------------------------------------------------------------
```

```
1035 . 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.)

1036 .
1037 . * illness is a mediating effect for females = > sex life for men
1038 . des illw1

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     illw1           double %8.0g                  Total number of illnesses
                                                     experienced in time period
                                                     1976-1986
```

```
1039 . glm illw1 avgcumdosew1 if gender==2, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -259.70777

     Generalized linear models                          No. of obs      =        363
     Optimization     : ML                              Residual df     =        361
                                                        Scale parameter =   .2462383
     Deviance         =  88.89203958                    (1/df) Deviance =   .2462383
     Pearson          =  88.89203958                    (1/df) Pearson  =   .2462383

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

                                                        AIC             =   1.441916
     Log likelihood   = -259.7077741                    BIC             =  -2038.987

     ------------------------------------------------------------------------------
                  |                 OIM
            illw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew1 |   .0655142   .0474789     1.38   0.168    -.0275426    .1585711
            _cons |   .1570822   .0305304     5.15   0.000     .0972436    .2169207
     ------------------------------------------------------------------------------

1040 . glm HP2sxlife illw1 if gender==2, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  412.1945
     Iteration 2:   deviance =  411.6441
     Iteration 3:   deviance =  411.6439
     Iteration 4:   deviance =  411.6439

     Generalized linear models                          No. of obs      =        363
     Optimization     : MQL Fisher scoring              Residual df     =        361
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  411.6438998                    (1/df) Deviance =   1.140288
     Pearson          =  362.6903423                    (1/df) Pearson  =   1.004682

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

                                                        BIC             =  -1716.236
```

```
------------------------------------------------------------------------------
             |                 EIM
   HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw1 |    .257456   .1453235     1.77   0.076    -.0273728    .5422847
       _cons |  -.6974831   .0815339    -8.55   0.000    -.8572865   -.5376797
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

1041 .
1042 . *----------  this may be important -----------------------------------------
> --
1043 . * radhlw1 can be a mediating factor for females in wave 1 for sxlife
1044 . des radhlw1

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
radhlw1         double %8.0g                  how much believed personal
                                                health is affected by
                                                radiation in 1986

1045 . glm radhlw1 avgcumdosew1 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1821.9477

Generalized linear models                          No. of obs      =       362
Optimization     : ML                              Residual df     =       360
                                                   Scale parameter =  1385.301
Deviance         =  498708.3025                    (1/df) Deviance =  1385.301
Pearson          =  498708.3025                    (1/df) Pearson  =  1385.301

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

                                                   AIC             =  10.07706
Log likelihood   = -1821.947718                    BIC             =  496587.3

------------------------------------------------------------------------------
             |                 OIM
     radhlw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   3.789972   3.562254     1.06   0.287    -3.191917    10.77186
       _cons |   55.44948   2.293757    24.17   0.000      50.9538    59.94516
------------------------------------------------------------------------------
```

```
1046 . glm HP2sxlife radhlw1 if gender==2, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  401.9956
     Iteration 2:   deviance =  401.6315
     Iteration 3:   deviance =  401.6315
     Iteration 4:   deviance =  401.6315

     Generalized linear models                          No. of obs      =       362
     Optimization     : MQL Fisher scoring              Residual df     =       360
                        (IRLS EIM)                      Scale parameter =         1
     Deviance         =  401.6314992                    (1/df) Deviance =  1.115643
     Pearson          =  362.7806158                    (1/df) Pearson  =  1.007724

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

                                                        BIC             =  -1719.36

     ------------------------------------------------------------------------------
                  |                 EIM
        HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
          radhlw1 |   .0070351   .0020921     3.36   0.001     .0029347    .0111355
            _cons |   -1.06549   .1496137    -7.12   0.000    -1.358728   -.7722525
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1047 . *---------------------------------------------------------------------------
     > --
1048 .
1049 . des bf4   // soma recentered

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
```

```
1050 . * bf4 is a mediting effect for females for Dose=>  sex life for women
1051 . glm bf4  avgcumdosew1 if gender==2, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1109.0162

     Generalized linear models                          No. of obs      =        363
     Optimization     : ML                              Residual df     =        361
                                                        Scale parameter =   26.52082
     Deviance         =  9574.015672                    (1/df) Deviance =   26.52082
     Pearson          =  9574.015672                    (1/df) Pearson  =   26.52082

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

                                                        AIC             =   6.121302
     Log likelihood   = -1109.016226                    BIC             =   7446.136

     ------------------------------------------------------------------------------
                  |                 OIM
              bf4 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew1 |  -1.508835   .4927379    -3.06   0.002    -2.474583   -.5430862
            _cons |   10.99384   .3168463    34.70   0.000     10.37284    11.61485
     ------------------------------------------------------------------------------

1052 . 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
```

HP2sxlife	Coef. (EIM)	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.)

1053 .
1054 . des bf4m // soma recentered

variable name	storage type	display format	value label	variable label
bf4m	float	%9.0g		**bf4m = max(0, 32 - BSIsoma)**

1055 . * bf4m is a possible mediating effect for female sex life
1056 . glm bf4m avgcumdosew1 if gender==2, fam(gaus) link(identity)

```
Iteration 0:   log likelihood =  -1140.521

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =     31.548
Deviance         =  11388.82943                    (1/df) Deviance =     31.548
Pearson          =  11388.82943                    (1/df) Pearson  =     31.548

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

                                                   AIC             =   6.294882
Log likelihood   = -1140.521046                    BIC             =    9260.95
```

bf4m	Coef. (OIM)	Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	**-1.563541**	**.5374133**	**-2.91**	**0.004**	**-2.616852**	**-.5102303**
_cons	**18.82212**	**.3455741**	**54.47**	**0.000**	**18.1448**	**19.49943**

```
1057 . 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.)

1058 .
1059 . des shfamw1

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     shfamw1         double %8.0g                  Percentage of strains and
                                                     hassles related to family in
                                                     1986
```

```
1060 . glm shfamw1  avgcumdosew1 if gender==2, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1820.2144

     Generalized linear models                          No. of obs      =        363
     Optimization     : ML                              Residual df     =        361
                                                        Scale parameter =   1334.587
     Deviance         =  481786.0787                    (1/df) Deviance =   1334.587
     Pearson          =  481786.0787                    (1/df) Pearson  =   1334.587

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

                                                        AIC             =   10.03975
     Log likelihood   = -1820.214442                    BIC             =   479658.2

     ------------------------------------------------------------------------------
                  |                 OIM
          shfamw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew1 |   2.325224   3.495393     0.67   0.506    -4.525621    9.176069
            _cons |   34.91682    2.24765    15.53   0.000      30.5115    39.32213
     ------------------------------------------------------------------------------

1061 . glm HP2sxlife shfamw1 if gender==2, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  415.7461
     Iteration 2:   deviance =  415.0916
     Iteration 3:   deviance =  415.0914
     Iteration 4:   deviance =  415.0914

     Generalized linear models                          No. of obs      =        363
     Optimization     : MQL Fisher scoring              Residual df     =        361
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  415.0913862                    (1/df) Deviance =   1.149838
     Pearson          =  362.9739265                    (1/df) Pearson  =   1.005468

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

                                                        BIC             =  -1712.788
```

```
------------------------------------------------------------------------------
             |                 EIM
   HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     shfamw1 |   .0007609   .0020813     0.37   0.715    -.0033182    .0048401
       _cons |  -.6739948   .1071104    -6.29   0.000    -.8839274   -.4640622
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

1062 .
1063 . des shrelaw1

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
shrelaw1        double %8.0g                  Percentage of strains and
                                                hassles related to
                                                relationships in 1986

1064 . glm shrelaw1  avgcumdosew1 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1801.2674

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  1202.293
Deviance         =  434027.9437                    (1/df) Deviance =  1202.293
Pearson          =  434027.9437                    (1/df) Pearson  =  1202.293

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

                                                   AIC             =  9.935358
Log likelihood   = -1801.267425                    BIC             =  431900.1

------------------------------------------------------------------------------
             |                 OIM
    shrelaw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   5.240218   3.317628     1.58   0.114    -1.262215    11.74265
       _cons |   26.01592   2.133342    12.19   0.000     21.83464    30.19719
------------------------------------------------------------------------------
```

```
1065 . glm HP2sxlife shrelaw1 if gender==2, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  414.3957
     Iteration 2:   deviance =  413.7847
     Iteration 3:   deviance =  413.7844
     Iteration 4:   deviance =  413.7844

     Generalized linear models                          No. of obs      =        363
     Optimization     : MQL Fisher scoring              Residual df     =        361
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  413.7844342                    (1/df) Deviance =   1.146217
     Pearson          =  362.9072137                    (1/df) Pearson  =   1.005283

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

                                                        BIC             =  -1714.095

     ------------------------------------------------------------------------------
                  |                 EIM
        HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
         shrelaw1 |    .002446   .0021561     1.13   0.257    -.0017799    .0066718
            _cons |  -.7168064   .0987075    -7.26   0.000    -.9102696   -.5233433
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1066 .
1067 . glm aborw1 avgcumdosew1 if gender==2, fam(pois) link(log)

     Iteration 0:   log likelihood = -294.95486
     Iteration 1:   log likelihood = -274.67418
     Iteration 2:   log likelihood = -274.64155
     Iteration 3:   log likelihood = -274.64155

     Generalized linear models                          No. of obs      =        363
     Optimization     : ML                              Residual df     =        361
                                                        Scale parameter =          1
     Deviance         =  418.9504185                    (1/df) Deviance =   1.160527
     Pearson          =  1079.525061                    (1/df) Pearson  =   2.990374

     Variance function: V(u) = u                        [Poisson]
     Link function    : g(u) = ln(u)                    [Log]

                                                        AIC             =   1.524196
     Log likelihood   = -274.6415467                    BIC             =  -1708.929
```

aborw1	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	**.0974558**	**.154214**	**0.63**	**0.527**	**-.204798**	**.3997097**
_cons	**-1.333588**	**.1156098**	**-11.54**	**0.000**	**-1.560179**	**-1.106997**

1068 . glm HP2sxlife aborw1 if gender==2, fam(bin) link(probit) irls scale(dev)

```
Iteration 1:   deviance =  414.3147
Iteration 2:   deviance =  413.5468
Iteration 3:   deviance =   413.545
Iteration 4:   deviance =   413.545
Iteration 5:   deviance =   413.545

Generalized linear models                          No. of obs      =        363
Optimization     : MQL Fisher scoring              Residual df     =        361
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  413.5449635                    (1/df) Deviance =   1.145554
Pearson          =  362.1757599                    (1/df) Pearson  =   1.003257

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

                                                   BIC             =  -1714.334
```

HP2sxlife	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
aborw1	**-.1290317**	**.1159726**	**-1.11**	**0.266**	**-.3563338**	**.0982703**
_cons	**-.615959**	**.0802001**	**-7.68**	**0.000**	**-.7731484**	**-.4587696**

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

1069 .

```
1070 . title4 "h1 pt2 wave 1 sex life impact summary matrix construction"
     ──────────────────────────────────────────────────────────────────────────────
     h1 pt2 wave 1 sex life impact summary matrix construction
     ──────────────────────────────────────────────────────────────────────────────


1071 .
1072 . *xx summary of mediating effects:  age and illness mediate sex life for men
1073 . *                                  age illnesss radhlw1 bf4 bf4m (soma) medi
     > ate sex life for women
1074 .
1075 . scalar SigDoseMEhmcrW1 = "no"

1076 . scalar MaineffhmcrMw1 = "age bf4 bf40"

1077 .
1078 . scalar MainEffsxlifeFw1 = "age radhlw1 bf4 bf4m"

1079 . scalar SigDoseSxlifeFw1="no"

1080 . scalar SxLifeModFw1 = "no"

1081 . scalar sxlifeModMw1 = "none"

1082 . * xx female main effects modelscalar SigDoseSxlifeFw1 = "no"
1083 . scalar MainEffsxlifeFw1 = "age bf4 bf4m"

1084 . scalar sxlifeMedMw1 = "age illw1"

1085 . scalar sxlifeMedFw1 = "age illw1 radhlw1 bf4 bf4m"

1086 . scalar sxlifeMedMw1 = "radhlw1"

1087 .
1088 . *--- summary matrix contstruction
1089 .
1090 .   matrix define  sxlifeMw1 = J(1,8, 0)
```

```
1091 .         matrix define  sxlifeFw1 = J(1,8, 0)

1092 . matrix colnames  sxlifeMw1=  hypnum ptnum wave gender medsig numMAsig numMod
     > sig numMed

1093 .         matrix colnames  sxlifeFw1=  hypnum ptnum wave gender medsig numMAsi
     > g numModsig numMed

1094 .     matrix define  sxlifeMw1= (1, 2, 1, 1, 0, 3, 0, 1 )

1095 .         matrix define  sxlifeFw1= (1, 2, 1, 2, 0, 4, 0, 5)

1096 .         matrix rowname  sxlifeMw1 =  sxlifeMw1

1097 .         matrix rowname  sxlifeFw1 =  sxlifeFw1

1098 .         matlist  sxlifeMw1

                  |        c1          c2          c3          c4          c5          c
     > 6          c7          c8
     -------------+------------------------------------------------------------------------
     > -------------------------
        sxlifeMw1 |         1           2           1           1           0
     > 3           0           1

1099 .         matlist  sxlifeFw1

                  |        c1          c2          c3          c4          c5          c
     > 6          c7          c8
     -------------+------------------------------------------------------------------------
     > -------------------------
        sxlifeFw1 |         1           2           1           2           0
     > 4           0           5

1100 .         matrix define H1pt2w1 = (  wkMw1 \  wkFw1 \  hmcrMw1 \  hmcrFw1 \ sp
     > Mw1 \ spFw1 \ prbfamMw1 \  prbfamFw1 \  sxlifeMw1 \  sxlifeFw1 )
```

```
1101 .
1102 .         matlist H1pt2w1

                  │        c1          c2          c3          c4          c5           c
     > 6         c7          c8
     ─────────────┼──────────────────────────────────────────────────────────────────────
     > ────────────────────────
               r1 │         1           2           1           1           0
     > 2          0           1
               r1 │         1           2           1           2           0
     > 1          1           2
               r1 │         1           2           1           1           0
     > 2          0           1
               r1 │         1           2           1           2           0
     > 2          0           2
            spMw1 │         1           2           1           1           1
     > 2          2           1
            spFw1 │         1           2           1           2           0
     > 5          0           2
        prbfamMw1 │         1           2           1           1           0
     > 2          0           0
        prbfamFw1 │         1           2           1           2           0
     > 3          0           2
        sxlifeMw1 │         1           2           1           1           0
     > 3          0           1
        sxlifeFw1 │         1           2           1           2           0
     > 4          0           5

1103 .     matrix colnames H1pt2w1 =  hypnum ptnum wave gender medsig numMAsig numM
     > odsig numMed

1104 .     matrix rownames H1pt2w1 =  wkMw1  wkFw1  hmcrMw1  hmcrFw1  spMw1 spFw1 p
     > rbfhmMw1  prbfhmFw1

1105 .     matlist H1pt2w1

                  │    hypnum       ptnum        wave      gender      medsig    numMAsi
     > g  numModsig      numMed
     ─────────────┼──────────────────────────────────────────────────────────────────────
     > ────────────────────────
            wkMw1 │         1           2           1           1           0
     > 2          0           1
            wkFw1 │         1           2           1           2           0
     > 1          1           2
          hmcrMw1 │         1           2           1           1           0
     > 2          0           1
          hmcrFw1 │         1           2           1           2           0
     > 2          0           2
            spMw1 │         1           2           1           1           1
```

```
> 2          2          1
       spFw1 |          1          2          1          2          0
> 5          0          2
   prbfhmMw1 |          1          2          1          1          0
> 2          0          0
   prbfhmFw1 |          1          2          1          2          0
> 3          0          2
   prbfhmFw1 |          1          2          1          1          0
> 3          0          1
   prbfhmFw1 |          1          2          1          2          0
> 4          0          5

1106 .
1107 .
1108 .
1109 .
1110 . *=================== Chunk 8    Dose => interests and Hobbies relationship
1111 .
1112 . title " 6. H1 wave 1 part2  Dose-Interest and Hobbies impact"


*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****        6. H1 wave 1 part2  Dose-Interest and Hobbies impact        ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                      18 Jun 2012    18:17:37       ****
> *
*****************************************************************************
> *
*****************************************************************************
> *
```

```
1113 .
1114 .
1115 . * Chunk 8 ---male models
1116 . forvalues j=1/1 {
       2. set more off
       3.
1117 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
     >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
       4.
1118 .   foreach var in HP2inthob  {
       5.       forvalues k=1/2 {
       6. local w1bf bf1 bf4 bf9 bf10 bf11 bf14 bf15m bf20 bf22 bf30 bf40
       7.
1119 . 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 radhlw1 if gender==`k', coef  difficult iterate(50
     > )
      15.                          estat class
      16.                          estat gof
      17.                          fitstat
      18. }
      19. }
      20. }

              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
marrw11          byte   %8.0g                     marrw1==1. single
marrw12          byte   %8.0g                     marrw1==2. cohabitating
marrw13          byte   %8.0g                     marrw1==3. married
marrw14          byte   %8.0g                     marrw1==4. separated
marrw15          byte   %8.0g                     marrw1==5. divorced
marrw16          byte   %8.0g                     marrw1==6. widowed
inc1w1           double %15.0g      LABJ          Income is not sufficient for
                                                    basic neccessities in 1986
inc2w1           double %15.0g      LABJ          Income is just sufficient for
                                                    basic neccessities in 1986
inc3w1           double %15.0g      LABJ          Income is sufficient for basics
                                                    plus extra purchases/savings
                                                    in 1986
inc4w1           double %15.0g      LABJ          Income allows to comfortably
                                                    afford luxury items in 1986
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= 1

chunk 8 H1 test:Gender= 1  model Wave =  1 for HP2sxlife



******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females   ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                      18 Jun 2012    18:17:37        ****
> *
```

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


Model for gender==1 and wave == 1

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: _Ieduc_4 != 0 predicts failure perfectly
      _Ieduc_4 dropped and 12 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: occ6w1 != 0 predicts failure perfectly
      occ6w1 dropped and 4 obs not used

note: occ7w1 != 0 predicts failure perfectly
      occ7w1 dropped and 4 obs not used

note: marrw15 != 0 predicts success perfectly
      marrw15 dropped and 1 obs not used

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

note: dvcew1 != 0 predicts failure perfectly
      dvcew1 dropped and 2 obs not used

note: sepaw1 != 0 predicts failure perfectly
      sepaw1 dropped and 1 obs not used

note: _Ieduc_6 omitted because of collinearity
note: marrw16 omitted because of collinearity
note: radhlw1 omitted because of collinearity
convergence not achieved

Logistic regression                               Number of obs   =        284
                                                  LR chi2(40)     =     100.41
                                                  Prob > chi2     =     0.0000
Log likelihood = -55.819677                       Pseudo R2       =     0.4735
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1670729	.0496836	3.36	0.001	.0696948	.2644509
_Ieduc_2	-3.680581	2.320262	-1.59	0.113	-8.228211	.8670494
_Ieduc_3	-.4101129	.8396848	-0.49	0.625	-2.055865	1.235639
_Ieduc_4	0	(omitted)				
_Ieduc_5	-.2315388	.8579156	-0.27	0.787	-1.913023	1.449945
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w1	-.855187	2.512009	-0.34	0.734	-5.778634	4.06826
occ2w1	-.8206155	2.564147	-0.32	0.749	-5.846251	4.20502
occ3w1	.4752119	2.731393	0.17	0.862	-4.87822	5.828644
occ4w1	-.0629245	2.648929	-0.02	0.981	-5.254729	5.12888
occ5w1	.1433339	2.754114	0.05	0.958	-5.254631	5.541299
occ6w1	0	(omitted)				
occ7w1	0	(omitted)				
occ8w1	2.572986	2.905992	0.89	0.376	-3.122655	8.268626
marrw11	13.32407	13699.24	0.00	0.999	-26836.69	26863.34
marrw12	14.0947	13699.24	0.00	0.999	-26835.93	26864.11
marrw13	12.02184	13699.24	0.00	0.999	-26838	26862.04
marrw15	0	(omitted)				
marrw16	0	(omitted)				
inc1w1	-2.316757	2.703555	-0.86	0.391	-7.615628	2.982114
inc2w1	-1.011499	2.582483	-0.39	0.695	-6.073072	4.050074
inc3w1	-1.18772	2.503558	-0.47	0.635	-6.094604	3.719164
inc4w1	-3.273623	3.286978	-1.00	0.319	-9.715981	3.168734
radhlw1	.0108481	.0098238	1.10	0.269	-.0084061	.0301023
havmil	.011552	.0121868	0.95	0.343	-.0123338	.0354378
avgcumdosew1	-.0246271	.287731	-0.09	0.932	-.5885695	.5393153
bf1	-1.705805	342.4811	-0.00	0.996	-672.9563	669.5447
bf4	-.2162507	.0773979	-2.79	0.005	-.3679478	-.0645536
bf9	-.0313278	.0435662	-0.72	0.472	-.116716	.0540605
bf10	-.058867	.0329385	-1.79	0.074	-.1234253	.0056913
bf11	-.0066494	.0862166	-0.08	0.939	-.1756309	.162332
bf14	-.0001753	.0001131	-1.55	0.121	-.0003971	.0000464
bf15m	0	(omitted)				
bf20	1.703694	342.481	0.00	0.996	-669.5468	672.9542
bf22	.0001385	.0001388	1.00	0.318	-.0001335	.0004105
bf30	.0005239	.0005317	0.99	0.324	-.0005182	.0015661
bf40	.0218384	.248862	0.09	0.930	-.4659222	.509599
deaw1	-1.453389	1.021447	-1.42	0.155	-3.455388	.5486112
dvcew1	0	(omitted)				
sepaw1	0	(omitted)				
accdw1	-.0050761	1.624722	-0.00	0.998	-3.189472	3.17932
movew1	-.0513738	1.125065	-0.05	0.964	-2.256461	2.153713
illw1	-.5020103	.7607393	-0.66	0.509	-1.993032	.9890113
shfamw1	.0137784	.0108362	1.27	0.204	-.0074601	.0350169

shhlw1	.0112349	.0171506	0.66	0.512	-.0223798	.0448495
shjobw1	-.0014008	.0136329	-0.10	0.918	-.0281207	.0253192
shrelaw1	-.0197593	.0117959	-1.68	0.094	-.0428787	.0033602
suprtw1	.0328165	.033418	0.98	0.326	-.0326817	.0983146
suchrw1	.0158253	.0298163	0.53	0.596	-.0426135	.0742642
havmilsq	-.000019	.0000262	-0.72	0.469	-.0000704	.0000324
radhlw1	0	(omitted)				
_cons	-89.90699	.	.	.	.	.

Note: 29 failures and 0 successes completely determined.
Warning: convergence not achieved

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	19	7	26
-	16	242	258
Total	35	249	284

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

Sensitivity	Pr(+| D)	54.29%
Specificity	Pr(-|~D)	97.19%
Positive predictive value	Pr(D| +)	73.08%
Negative predictive value	Pr(~D| -)	93.80%
False + rate for true ~D	Pr(+|~D)	2.81%
False - rate for true D	Pr(-| D)	45.71%
False + rate for classified +	Pr(~D| +)	26.92%
False - rate for classified -	Pr(D| -)	6.20%
Correctly classified		91.90%

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       284
 number of covariate patterns =       284
             Pearson chi2(242) =       148.05
                   Prob > chi2 =         1.0000
```

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

```
Log-Lik Intercept Only:     -106.026    Log-Lik Full Model:          -55.820
D(230):                      111.639    LR(40):                      100.412
                                        Prob > LR:                     0.000
McFadden's R2:                 0.474    McFadden's Adj R2:            -0.036
Maximum Likelihood R2:         0.298    Cragg & Uhler's R2:            0.566
McKelvey and Zavoina's R2:     0.975    Efron's R2:                    0.438
Variance of y*:              130.454    Variance of error:             3.290
Count R2:                      0.919    Adj Count R2:                  0.343
AIC:                           0.773    AIC*n:                       219.639
BIC:                       -1187.625    BIC':                        125.547
Full main model for HP2inthob for wave= 1

chunk 8 H1 test:Gender= 2  model Wave =  1 for HP2inthob



******************************************************************************
> *
******************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****  Full Nottingham Part 2 subscale models for male and then females   ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                              18 Jun 2012    18:17:39  ****
> *
******************************************************************************
> *
******************************************************************************
> *


Model for gender==2 and wave == 1

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: bf15m != 0 predicts failure perfectly
      bf15m dropped and 11 obs not used

note: _Ieduc_8 omitted because of collinearity
note: radhlw1 omitted because of collinearity
```

Logistic regression		Number of obs	=	347
		LR chi2(50)	=	136.35
		Prob > chi2	=	0.0000
Log likelihood =	-100.6444	Pseudo R2	=	0.4038

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1576323	.0314369	5.01	0.000	.0960172	.2192474
_Ieduc_2	-13.15998	1390.096	-0.01	0.992	-2737.698	2711.378
_Ieduc_3	-12.34293	1390.096	-0.01	0.993	-2736.881	2712.195
_Ieduc_4	-11.76283	1390.096	-0.01	0.993	-2736.302	2712.776
_Ieduc_5	-12.38126	1390.096	-0.01	0.993	-2736.92	2712.157
_Ieduc_6	-12.87444	1390.096	-0.01	0.993	-2737.413	2711.664
_Ieduc_7	-11.28064	1390.098	-0.01	0.994	-2735.823	2713.262
_Ieduc_8	0	(omitted)				
occ1w1	-2.007966	2.670409	-0.75	0.452	-7.241872	3.225941
occ2w1	-1.42005	2.705	-0.52	0.600	-6.721752	3.881652
occ3w1	-2.637816	2.721093	-0.97	0.332	-7.971061	2.695429
occ4w1	-1.022244	2.749637	-0.37	0.710	-6.411434	4.366946
occ5w1	-2.685007	2.926173	-0.92	0.359	-8.4202	3.050187
occ6w1	-1.851042	2.900638	-0.64	0.523	-7.536188	3.834105
occ7w1	-.7751235	2.748828	-0.28	0.778	-6.162727	4.61248
occ8w1	1.738342	2.770527	0.63	0.530	-3.691792	7.168476
marrw11	-1.712685	1.961435	-0.87	0.383	-5.557026	2.131656
marrw12	-.7978205	2.432804	-0.33	0.743	-5.566028	3.970387
marrw13	-2.20107	1.785855	-1.23	0.218	-5.701282	1.299141
marrw15	-2.131202	2.204296	-0.97	0.334	-6.451543	2.189139
marrw16	-2.419024	2.291199	-1.06	0.291	-6.909692	2.071645
inc1w1	.4393464	2.638625	0.17	0.868	-4.732264	5.610957
inc2w1	1.095503	2.586215	0.42	0.672	-3.973385	6.16439
inc3w1	1.162288	2.607351	0.45	0.656	-3.948028	6.272603
inc4w1	2.352437	2.762052	0.85	0.394	-3.061086	7.765959
radhlw1	.016256	.0073318	2.22	0.027	.001886	.030626
havmil	.0027093	.0039697	0.68	0.495	-.0050712	.0104899
avgcumdosew1	.4525599	.2626453	1.72	0.085	-.0622155	.9673353
bf1	-.0392934	.0467729	-0.84	0.401	-.1309666	.0523799
bf4	-.1618817	.055024	-2.94	0.003	-.2697268	-.0540365
bf9	-.0557262	.0332131	-1.68	0.093	-.1208228	.0093703
bf10	.0039258	.0156035	0.25	0.801	-.0266565	.0345082
bf11	.0160165	.0531713	0.30	0.763	-.0881973	.1202303
bf14	-.00005	.0000899	-0.56	0.578	-.0002263	.0001262
bf15m	0	(omitted)				
bf20	.0307621	.0426341	0.72	0.471	-.0527993	.1143235
bf22	.0000428	.0000948	0.45	0.651	-.000143	.0002287
bf30	.0009017	.0003472	2.60	0.009	.0002212	.0015823
bf40	-.134405	.1339765	-1.00	0.316	-.396994	.1281841
deaw1	.0546666	.2268628	0.24	0.810	-.3899763	.4993096
dvcew1	1.590367	2.621038	0.61	0.544	-3.546772	6.727507

sepaw1	-1.421464	2.957733	-0.48	0.631	-7.218515	4.375587
accdw1	-.187097	1.01096	-0.19	0.853	-2.168543	1.794349
movew1	.280486	.7016446	0.40	0.689	-1.094712	1.655684
illw1	.0230342	.4319012	0.05	0.957	-.8234766	.8695451
shfamw1	.0000591	.0083223	0.01	0.994	-.0162524	.0163705
shhlw1	-.0037244	.0125633	-0.30	0.767	-.0283479	.0208992
shjobw1	-.0032054	.0093218	-0.34	0.731	-.0214757	.0150649
shrelaw1	-.0051493	.0079574	-0.65	0.518	-.0207454	.0104468
suprtw1	.0012475	.0121595	0.10	0.918	-.0225847	.0250796
suchrw1	-.0019168	.0162004	-0.12	0.906	-.0336689	.0298353
havmilsq	-1.74e-06	5.49e-06	-0.32	0.752	-.0000125	9.02e-06
radhlw1	0	(omitted)				
_cons	3.925606	1390.1	0.00	0.998	-2720.621	2728.472

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	37	7	44
-	29	274	303
Total	66	281	347

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

Sensitivity	Pr(+| D)	56.06%
Specificity	Pr(-|~D)	97.51%
Positive predictive value	Pr(D| +)	84.09%
Negative predictive value	Pr(~D| -)	90.43%
False + rate for true ~D	Pr(+|~D)	2.49%
False - rate for true D	Pr(-| D)	43.94%
False + rate for classified +	Pr(~D| +)	15.91%
False - rate for classified -	Pr(D| -)	9.57%
Correctly classified		89.63%

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       347
 number of covariate patterns =       347
             Pearson chi2(296) =       450.83
                   Prob > chi2 =         0.0000
```

```
Measures of Fit for logistic of HP2inthob

Log-Lik Intercept Only:     -168.821    Log-Lik Full Model:          -100.644
D(293):                      201.289    LR(50):                       136.353
                                        Prob > LR:                      0.000
McFadden's R2:                 0.404    McFadden's Adj R2:              0.084
Maximum Likelihood R2:         0.325    Cragg & Uhler's R2:             0.522
McKelvey and Zavoina's R2:     0.648    Efron's R2:                     0.466
Variance of y*:                9.347    Variance of error:              3.290
Count R2:                      0.896    Adj Count R2:                   0.455
AIC:                           0.891    AIC*n:                        309.289
BIC:                       -1512.563    BIC':                         156.113

1120 .
1121 .  label var radhlw1 "Self-perceived Chornobyl health threat in wave 1"

1122 .
1123 . title4 "7. Testing H1 Wv2 Moderators of male Dose => Interests and Hobbies I
     > mpact"
     ------------------------------------------------------------------------------
     7. Testing H1 Wv2 Moderators of male Dose => Interests and Hobbies Impact
     ------------------------------------------------------------------------------


1124 .
1125 .
1126 . forvalues j=1/1 {
       2. set more off
       3.
1127 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
     >   bf4 bf14  bf40
       4.
1128 . foreach var in HP2inthob  {
       5. local w1bf bf1 bf4 bf9 bf10 bf11 bf14m bf15m bf20 bf22 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 shfamw1 radhlw1 bf4m
      13.       xi: logistic `var' age radhlw1 bf4 bf10 bf40  shrelaw1 ///
     >                    suchrw1 if gender==1, coef  difficult iterate(50)
      14.                          estat class
      15.                          estat gof
      16.                          fitstat
      17. di _skip(2)
      18. di as input "Note: bf4m is necssary for bf5 but if bf4m is in model bf5 i
     > s not signif."
```

```
 19. di as input " Therefore, bf5 is not deemed significant."
 20. }
 21. }

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
age             double %8.0g                * Respondent's age
educ1           byte   %8.0g                  educ==1. did not graduate high
                                                school
educ2           byte   %8.0g                  educ==2. graduated high school
educ3           byte   %8.0g                  educ==3. technical degree
educ4           byte   %8.0g                  educ==4. did not finish
                                                college/bachelor's
educ5           byte   %8.0g                  educ==5. graduated
                                                college/bachelor's
educ6           byte   %8.0g                  educ==6. finished
                                                specialist/master's degree
educ7           byte   %8.0g                  educ==7. doctor of science/phd
marrw11         byte   %8.0g                  marrw1==1. single
marrw12         byte   %8.0g                  marrw1==2. cohabitating
marrw13         byte   %8.0g                  marrw1==3. married
marrw14         byte   %8.0g                  marrw1==4. separated
marrw15         byte   %8.0g                  marrw1==5. divorced
marrw16         byte   %8.0g                  marrw1==6. widowed
inc1w1          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1986
inc2w1          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1986
inc3w1          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1986
inc4w1          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1986
bf4             float  %9.0g                  bf4 = max(0, 24 - BSIsoma)
bf14            float  %9.0g                  bf14= max(0, radw2 - 10) * bf12
bf40            float  %9.0g                  bf40 = max(0, icdxcnt -
                                                1.01635E-007)

Full main model for HP2inthob for wave= 1

chunk 8 H1 test:Gender= male  model Wave =  1 for HP2inthob
```

```
******************************************************************************
> *
******************************************************************************
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****             Full Nottingham Part 2 subscale models                  ****
> *
*****                        males on  wave=1                             ****
> *
*****                                                                     ****
> *
*****                                                                     ****
> *
*****                                     18 Jun 2012    18:17:40         ****
> *
******************************************************************************
> *
******************************************************************************
> *
```

```
              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
bf5m            float  %9.0g                  bf5m = max(0, ecprw3 - 75) *
                                                bf4m
shfamw1         double %8.0g                  Percentage of strains and
                                                hassles related to family in
                                                1986
radhlw1         double %8.0g                  Self-perceived Chornobyl health
                                                threat in wave 1
bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)

Logistic regression                               Number of obs   =        340
                                                  LR chi2(7)      =      64.52
                                                  Prob > chi2     =     0.0000
Log likelihood = -86.806728                       Pseudo R2       =     0.2709
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0200969	.0187425	1.07	0.284	-.0166377	.0568315
radhlw1	.0186628	.006222	3.00	0.003	.0064679	.0308576
bf4	-.1419329	.0385628	-3.68	0.000	-.2175146	-.0663512
bf10	-.0002913	.0097452	-0.03	0.976	-.0193915	.0188088
bf40	.2956738	.1272383	2.32	0.020	.0462913	.5450564
shrelaw1	-.0046332	.0053472	-0.87	0.386	-.0151134	.005847
suchrw1	.0141811	.015058	0.94	0.346	-.015332	.0436942
_cons	-3.536445	1.260759	-2.81	0.005	-6.007486	-1.065403

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	13	4	17
-	25	298	323
Total	38	302	340

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

Sensitivity	Pr(+| D)	34.21%
Specificity	Pr(-|~D)	98.68%
Positive predictive value	Pr(D| +)	76.47%
Negative predictive value	Pr(~D| -)	92.26%
False + rate for true ~D	Pr(+|~D)	1.32%
False - rate for true D	Pr(-| D)	65.79%
False + rate for classified +	Pr(~D| +)	23.53%
False - rate for classified -	Pr(D| -)	7.74%
Correctly classified		91.47%

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       340
 number of covariate patterns =       332
             Pearson chi2(324) =       299.10
                   Prob > chi2 =         0.8360
```

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

```
Log-Lik Intercept Only:     -119.064     Log-Lik Full Model:           -86.807
D(332):                      173.613     LR(7):                         64.515
                                         Prob > LR:                      0.000
McFadden's R2:                 0.271     McFadden's Adj R2:              0.204
Maximum Likelihood R2:         0.173     Cragg & Uhler's R2:             0.343
McKelvey and Zavoina's R2:     0.425     Efron's R2:                     0.237
Variance of y*:                5.726     Variance of error:              3.290
Count R2:                      0.915     Adj Count R2:                   0.237
AIC:                           0.558     AIC*n:                        189.613
BIC:                       -1761.596     BIC':                         -23.712

Note: bf4m is necssary for bf5 but if bf4m is in model bf5 is not signif.
 Therefore, bf5 is not deemed significant.

.
. cap gen bf4Xd1 = bf4*avgcumdosew1

. cap gen bf10Xd1= bf10*avgcumdosew1

. cap gen bf40Xd1 = bf40*agecumdosew1

.
. scalar SigdoseMEinthob = "no"

. scalar MainEffMw1 = "radhlw1 bf4 bf40"

.
. title3 "wave 1 Main effects Dose=> Interests and Hobbies impact identificati
> on"
------------------------------------------------------------------------------
title3 : wave 1 Main effects Dose=> Interests and Hobbies impact identificatio
> n
18 Jun 2012
18:17:42
computer  Macintosh (Intel 64-bit)
folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/h1tests
> /h1pt2
Data file  chwide16june2012.dta  currrently has  2380  variables and  703  obs
> ervations
```

```
1138 . forvalues j=1/1 {
       2. set more off
       3.
1139 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
     >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
       4.
1140 . foreach var in HP2inthob  {
       5. local w1bf bf1 bf4 bf9 bf10 bf11 bf14m bf15m bf20 bf22 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.
1141 .
1142 .       xi: logistic `var' age   ///
     >                 radhlw`j' avgcumdosew`j'  ///
     >                  shfamw`j'  bf4 ///
     >                  bf40 bf4Xd1 bf40Xd1 if gender==1, coef  difficult iterate(5
     > 0)
      11.                         estat class
      12.                         estat gof
      13.                         fitstat
      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
     marrw11         byte   %8.0g                  marrw1==1. single
     marrw12         byte   %8.0g                  marrw1==2. cohabitating
     marrw13         byte   %8.0g                  marrw1==3. married
     marrw14         byte   %8.0g                  marrw1==4. separated
     marrw15         byte   %8.0g                  marrw1==5. divorced
     marrw16         byte   %8.0g                  marrw1==6. widowed
     inc1w1          double %15.0g      LABJ       Income is not sufficient for
                                                     basic neccessities in 1986
```

inc2w1	double %15.0g	LABJ	**Income is just sufficient for basic neccessities in 1986**
inc3w1	double %15.0g	LABJ	**Income is sufficient for basics plus extra purchases/savings in 1986**
inc4w1	double %15.0g	LABJ	**Income allows to comfortably afford luxury items in 1986**
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= 1

chunk 8 H1 test:Gender= male model Wave = 1 for HP2inthob

Logistic regression

Number of obs	=	**339**
LR chi2(**8**)	=	**69.68**
Prob > chi2	=	**0.0000**
Pseudo R2	=	**0.2929**

Log likelihood = **-84.103355**

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.0229294**	**.0193857**	**1.18**	**0.237**	**-.015066**	**.0609247**
radhlw1	**.0203775**	**.0063075**	**3.23**	**0.001**	**.008015**	**.03274**
avgcumdosew1	**6.417441**	**3.545095**	**1.81**	**0.070**	**-.530818**	**13.3657**
shfamw1	**.0031998**	**.0052579**	**0.61**	**0.543**	**-.0071055**	**.013505**
bf4	**.0015257**	**.0840489**	**0.02**	**0.986**	**-.163207**	**.1662585**
bf40	**.4371492**	**.1715289**	**2.55**	**0.011**	**.1009587**	**.7733397**
bf4Xd1	**-.469083**	**.2679615**	**-1.75**	**0.080**	**-.9942779**	**.0561118**
bf40Xd1	**-.724812**	**.4037974**	**-1.79**	**0.073**	**-1.51624**	**.0666164**
_cons	**-5.810547**	**1.708506**	**-3.40**	**0.001**	**-9.159156**	**-2.461938**

Note: 1 failure and 0 successes completely determined.

Logistic model for HP2inthob

Classified	True D	True ~D	Total
+	**11**	**6**	**17**
-	**27**	**295**	**322**
Total	**38**	**301**	**339**

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| -)	**91.61%**
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| -)	**8.39%**
Correctly classified		**90.27%**

Logistic model for HP2inthob, goodness-of-fit test

number of observations =	**339**
number of covariate patterns =	**337**
Pearson chi2(**328**) =	**260.58**
Prob > chi2 =	**0.9975**

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

Log-Lik Intercept Only:	**-118.946**	Log-Lik Full Model:	**-84.103**
D(330):	**168.207**	LR(8):	**69.684**
		Prob > LR:	**0.000**
McFadden's R2:	**0.293**	McFadden's Adj R2:	**0.217**
Maximum Likelihood R2:	**0.186**	Cragg & Uhler's R2:	**0.368**
McKelvey and Zavoina's R2:	**0.640**	Efron's R2:	**0.242**
Variance of y*:	**9.132**	Variance of error:	**3.290**
Count R2:	**0.903**	Adj Count R2:	**0.132**
AIC:	**0.549**	AIC*n:	**186.207**
BIC:	**-1754.373**	BIC':	**-23.076**

```
1143 . scalar SigDoseInthbMw1 = "no"

1144 . scalar MainEffInthbMw1 = "age radhlw1 shfamw1"

1145 . scalar InthbModMw1 = "none"

1146 .
1147 . *------chunk 8  female moderator models
1148 . title4 "trimmed Moderators of female Dose => Interests and Hobbies Impact"
     ------------------------------------------------------------------------------

     trimmed Moderators of female Dose => Interests and Hobbies Impact
     ------------------------------------------------------------------------------


1149 .
1150 .
1151 . forvalues j=1/1 {
       2. set more off
       3.
1152 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
     >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
       4.
1153 . foreach var in HP2inthob  {
       5. local w1bf bf1 bf4 bf9 bf10 bf11 bf14m bf15m bf20 bf22 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.
1154 .       xi: logistic `var' age   ///
     >                 radhlw`j' avgcumdosew`j' ///
     >                    bf4  ///
     >                  if gender==2, coef  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
marrw11         byte   %8.0g                  marrw1==1. single
marrw12         byte   %8.0g                  marrw1==2. cohabitating
marrw13         byte   %8.0g                  marrw1==3. married
marrw14         byte   %8.0g                  marrw1==4. separated
marrw15         byte   %8.0g                  marrw1==5. divorced
marrw16         byte   %8.0g                  marrw1==6. widowed
inc1w1          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1986
inc2w1          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1986
inc3w1          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1986
inc4w1          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1986
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= 1

chunk 8 H1 test:Gender= male  model Wave =  1 for HP2inthob
```

```
*****************************************************************************
> *
*****************************************************************************
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****        Full Nottingham Part 2 subscale models for females          ****
> *
*****                                                                    ****
> *
*****                                                                    ****
> *
*****                                       18 Jun 2012    18:17:43      ****
> *
*****************************************************************************
> *
*****************************************************************************
> *
```

```
Logistic regression                               Number of obs   =        362
                                                  LR chi2(4)      =      91.22
                                                  Prob > chi2     =     0.0000
Log likelihood = -126.30289                       Pseudo R2       =     0.2653
```

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0702541	.0161129	4.36	0.000	.0386734	.1018347
radhlw1	.0195656	.004896	4.00	0.000	.0099695	.0291616
avgcumdosew1	.2200581	.222466	0.99	0.323	-.2159672	.6560835
bf4	-.1103614	.0315756	-3.50	0.000	-.1722484	-.0484743
_cons	-5.707394	1.074147	-5.31	0.000	-7.812684	-3.602104

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	29	10	39
-	37	286	323
Total	66	296	362

```
Classified + if predicted Pr(D) >= .5
True D defined as HP2inthob != 0
--------------------------------------------------
Sensitivity                     Pr( +| D)   43.94%
Specificity                     Pr( -|~D)   96.62%
Positive predictive value       Pr( D| +)   74.36%
Negative predictive value       Pr(~D| -)   88.54%
--------------------------------------------------
False + rate for true ~D        Pr( +|~D)    3.38%
False - rate for true D         Pr( -| D)   56.06%
False + rate for classified +   Pr(~D| +)   25.64%
False - rate for classified -   Pr( D| -)   11.46%
--------------------------------------------------
Correctly classified                        87.02%
--------------------------------------------------
```

Logistic model for HP2inthob, goodness-of-fit test

```
       number of observations =       362
 number of covariate patterns =       360
            Pearson chi2(355) =       441.04
                  Prob > chi2 =         0.0012
```

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

```
Log-Lik Intercept Only:     -171.912   Log-Lik Full Model:           -126.303
D(357):                      252.606   LR(4):                          91.217
                                       Prob > LR:                       0.000
McFadden's R2:                 0.265   McFadden's Adj R2:               0.236
Maximum Likelihood R2:         0.223   Cragg & Uhler's R2:              0.363
McKelvey and Zavoina's R2:     0.426   Efron's R2:                      0.309
Variance of y*:                5.731   Variance of error:               3.290
Count R2:                      0.870   Adj Count R2:                    0.288
AIC:                           0.725   AIC*n:                         262.606
BIC:                       -1850.711   BIC':                          -67.651
```

```
1155 . scalar SigdoseInthbFw1 = "no"

1156 . scalar MainEffInthbFw1 = "age radhlw1 bf4"

1157 .
1158 . title4 "*------chunk 8 testing female interests and hobbies moderators"
     ______________________________________________________________________________

     *------chunk 8 testing female interests and hobbies moderators
     ______________________________________________________________________________


1159 .
1160 .
1161 . forvalues j=1/1 {
       2. set more off
       3.
1162 . des age educ1-educ7 marrw`j'1-marrw`j'6 inc1w`j'-inc4w`j' ///
     >   bf1 bf4 bf9 bf11 bf4m bf15m bf30 bf40
       4.
1163 . cap gen ageXd1 = age*avgcumdosew1
       5. foreach var in HP2inthob  {
       6. local w1bf bf1 bf4 bf9 bf10 bf11 bf14m bf15m bf20 bf22 bf30 bf40
       7. di _skip(4)
       8.  di as input "Full main model for `var' for wave= `j' "
       9. di _skip(4)
      10. di as input  "chunk 8 H1 test:Gender= male  model Wave =  `j' for `e(depv
     > ar)' "
      11. di _skip(4)
      12.
1164 .       xi: logistic `var' age   ///
     >                 radhlw`j' avgcumdosew`j' ///
     >                    bf4  bf4Xd1 ageXd1 radhlw1Xd1 ///
     >                  if gender==2, coef  difficult iterate(50)
      13.                         estat class
      14.                         estat gof
      15.                         fitstat
      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
marrw11         byte   %8.0g                  marrw1==1. single
marrw12         byte   %8.0g                  marrw1==2. cohabitating
marrw13         byte   %8.0g                  marrw1==3. married
marrw14         byte   %8.0g                  marrw1==4. separated
marrw15         byte   %8.0g                  marrw1==5. divorced
marrw16         byte   %8.0g                  marrw1==6. widowed
inc1w1          double %15.0g      LABJ       Income is not sufficient for
                                                basic neccessities in 1986
inc2w1          double %15.0g      LABJ       Income is just sufficient for
                                                basic neccessities in 1986
inc3w1          double %15.0g      LABJ       Income is sufficient for basics
                                                plus extra purchases/savings
                                                in 1986
inc4w1          double %15.0g      LABJ       Income allows to comfortably
                                                afford luxury items in 1986
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= 1

chunk 8 H1 test:Gender= male  model Wave =  1 for HP2inthob
```

Logistic regression

Number of obs	=	**362**
LR chi2(**7**)	=	**91.60**
Prob > chi2	=	**0.0000**
Pseudo R2	=	**0.2664**

Log likelihood = **-126.114**

HP2inthob	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	**.067857**	**.0189391**	**3.58**	**0.000**	**.030737**	**.1049771**
radhlw1	**.0207366**	**.0056517**	**3.67**	**0.000**	**.0096595**	**.0318137**
avgcumdosew1	**-.1191818**	**2.032868**	**-0.06**	**0.953**	**-4.103531**	**3.865167**
bf4	**-.1190418**	**.0397853**	**-2.99**	**0.003**	**-.1970196**	**-.0410639**
bf4Xd1	**.0200494**	**.0609254**	**0.33**	**0.742**	**-.0993622**	**.139461**
ageXd1	**.0057703**	**.0330253**	**0.17**	**0.861**	**-.0589581**	**.0704986**
radhlw1Xd1	**-.001995**	**.0056092**	**-0.36**	**0.722**	**-.0129888**	**.0089987**
_cons	**-5.587746**	**1.23496**	**-4.52**	**0.000**	**-8.008224**	**-3.167268**

Logistic model for HP2inthob

	True		
Classified	D	~D	Total
+	**30**	**11**	**41**
-	**36**	**285**	**321**
Total	**66**	**296**	**362**

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

Sensitivity	Pr(+| D)	**45.45%**
Specificity	Pr(-|~D)	**96.28%**
Positive predictive value	Pr(D| +)	**73.17%**
Negative predictive value	Pr(~D| -)	**88.79%**
False + rate for true ~D	Pr(+|~D)	**3.72%**
False - rate for true D	Pr(-| D)	**54.55%**
False + rate for classified +	Pr(~D| +)	**26.83%**
False - rate for classified -	Pr(D| -)	**11.21%**
Correctly classified		**87.02%**

Logistic model for HP2inthob, goodness-of-fit test

```
        number of observations =       362
  number of covariate patterns =       360
             Pearson chi2(352) =       446.24
                   Prob > chi2 =         0.0005

Measures of Fit for logistic of HP2inthob

Log-Lik Intercept Only:     -171.912   Log-Lik Full Model:          -126.114
D(354):                      252.228   LR(7):                         91.595
                                       Prob > LR:                      0.000
McFadden's R2:                 0.266   McFadden's Adj R2:              0.220
Maximum Likelihood R2:         0.224   Cragg & Uhler's R2:             0.365
McKelvey and Zavoina's R2:     0.431   Efron's R2:                     0.311
Variance of y*:                5.782   Variance of error:              3.290
Count R2:                      0.870   Adj Count R2:                   0.288
AIC:                           0.741   AIC*n:                        268.228
BIC:                       -1833.414   BIC':                         -50.354

1165 . scalar InthbModFw1 = "none"

1166 .
1167 . title4 " dose-  interests and hobbies  mediator effect models"
-----------------------------------------------------------------------------
 dose-  interests and hobbies  mediator effect models
-----------------------------------------------------------------------------

1168 .
1169 . * age is a mediating effect for males for Dose=> sex life for men
1170 .
1171 . glm age avgcumdosew1 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood =  -1331.608

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  148.5632
Deviance         =  50214.37624                    (1/df) Deviance =  148.5632
Pearson          =  50214.37624                    (1/df) Pearson  =  148.5632

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

                                                   AIC             =  7.844753
Log likelihood   = -1331.607976                    BIC             =  48244.19
```

age	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	**.6719789**	**.3966839**	**1.69**	**0.090**	**-.1055072**	**1.449465**
_cons	**48.89394**	**.6825967**	**71.63**	**0.000**	**47.55607**	**50.2318**

```
1172 . 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.)

1173 .
```

```
1174 .
1175 . des illw1

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
illw1           double %8.0g                  Total number of illnesses
                                                experienced in time period
                                                1976-1986

1176 . glm illw1 avgcumdosew1 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -151.48261

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  .1435742
Deviance         =  48.52808533                    (1/df) Deviance =  .1435742
Pearson          =  48.52808533                    (1/df) Pearson  =  .1435742

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

                                                   AIC             =  .9028389
Log likelihood   = -151.4826069                    BIC             = -1921.656

------------------------------------------------------------------------------
             |                 OIM
       illw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   .0087277   .0123318     0.71   0.479    -.0154423    .0328976
       _cons |   .0962541   .0212201     4.54   0.000     .0546635    .1378446
------------------------------------------------------------------------------

1177 . glm HP2inthob illw1 if gender==1, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  237.5512
Iteration 2:   deviance =  236.4934
Iteration 3:   deviance =  236.4907
Iteration 4:   deviance =  236.4907

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       338
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  236.4906909                    (1/df) Deviance =  .6996766
Pearson          =  341.1245148                    (1/df) Pearson  =  1.009244
```

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

                                                  BIC             = -1733.693

------------------------------------------------------------------------------
             |                 EIM
   HP2inthob |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw1 |   .2627617   .1703489     1.54   0.123     -.071116    .5966393
       _cons |  -1.249391   .0787713   -15.86   0.000     -1.40378   -1.095002
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

1178 .
1179 . * radhlw1 is a possible mediator for wave 1 males and interests and hobbies.
1180 . des radhlw1

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
radhlw1         double %8.0g                  Self-perceived Chornobyl health
                                                threat in wave 1

1181 . glm radhlw1 avgcumdosew1 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1710.3417

Generalized linear models                         No. of obs      =        340
Optimization     : ML                             Residual df     =        338
                                                  Scale parameter =   1378.645
Deviance         =  465981.8893                   (1/df) Deviance =   1378.645
Pearson          =  465981.8893                   (1/df) Pearson  =   1378.645

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

                                                  AIC             =    10.0726
Log likelihood   = -1710.341694                   BIC             =   464011.7

------------------------------------------------------------------------------
             |                 OIM
     radhlw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   2.398285   1.208412     1.98   0.047     .0298407    4.766729
       _cons |   44.66477   2.079384    21.48   0.000     40.58925    48.74029
------------------------------------------------------------------------------
```

```
1182 . glm HP2inthob radhlw1 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  212.8979
     Iteration 2:   deviance =  203.1654
     Iteration 3:   deviance =  202.4404
     Iteration 4:   deviance =  202.4342
     Iteration 5:   deviance =  202.4342
     Iteration 6:   deviance =  202.4342

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  202.4342472                    (1/df) Deviance =   .5989179
     Pearson          =  366.2964245                    (1/df) Pearson  =   1.083717

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

                                                        BIC             =  -1767.749

     ------------------------------------------------------------------------------
                  |                 EIM
        HP2inthob |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
          radhlw1 |   .0153039   .0021709     7.05   0.000     .0110489    .0195589
            _cons |  -2.114122   .1635196   -12.93   0.000    -2.434615    -1.79363
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1183 .
1184 .
1185 . des shfamw1

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     shfamw1         double %8.0g                  Percentage of strains and
                                                     hassles related to family in
                                                     1986
```

```
1186 . glm shfamw1  avgcumdosew1 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1722.3986

     Generalized linear models                          No. of obs      =        339
     Optimization     : ML                              Residual df     =        337
                                                        Scale parameter =     1524.9
     Deviance         =  513891.1861                    (1/df) Deviance =     1524.9
     Pearson          =  513891.1861                    (1/df) Pearson  =     1524.9

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

                                                        AIC             =   10.17344
     Log likelihood   = -1722.398621                    BIC             =   511927.8

     ------------------------------------------------------------------------------
                  |                 OIM
          shfamw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew1 |  -.8322929   1.270907    -0.65   0.513    -3.323226     1.65864
            _cons |   38.72924   2.190054    17.68   0.000     34.43681    43.02167
     ------------------------------------------------------------------------------

1187 . glm HP2inthob shfamw1 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  236.3247
     Iteration 2:   deviance =  234.8343
     Iteration 3:   deviance =  234.8258
     Iteration 4:   deviance =  234.8258
     Iteration 5:   deviance =  234.8258

     Generalized linear models                          No. of obs      =        339
     Optimization     : MQL Fisher scoring              Residual df     =        337
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  234.8258277                    (1/df) Deviance =   .6968125
     Pearson          =   340.806701                    (1/df) Pearson  =   1.011296

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

                                                        BIC             =  -1728.536
```

HP2inthob	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
shfamw1	**.0039265**	**.0018944**	**2.07**	**0.038**	**.0002136**	**.0076394**
_cons	**-1.380389**	**.1125461**	**-12.27**	**0.000**	**-1.600976**	**-1.159803**

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

1188 .
1189 . des bf5m

variable name	storage type	display format	value label	variable label
bf5m	float	%9.0g		**bf5m = max(0, ecprw3 - 75) * bf4m**

1190 . glm bf5m avgcumdosew1 if gender==1, fam(gaus) link(identity)

```
Iteration 0:   log likelihood = -2272.9908

Generalized linear models                          No. of obs      =        340
Optimization     : ML                              Residual df     =        338
                                                   Scale parameter =   37743.06
Deviance         =  12757154.41                    (1/df) Deviance =   37743.06
Pearson          =  12757154.41                    (1/df) Pearson  =   37743.06

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

                                                   AIC             =    13.3823
Log likelihood   = -2272.990823                    BIC             =   1.28e+07
```

bf5m	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	**14.60088**	**6.32277**	**2.31**	**0.021**	**2.208475**	**26.99328**
_cons	**107.248**	**10.87995**	**9.86**	**0.000**	**85.92368**	**128.5723**

```
1191 . 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.)

1192 .
1193 . glm bf4 avgcumdosew1 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1026.9659

     Generalized linear models                          No. of obs      =        340
     Optimization     : ML                              Residual df     =        338
                                                        Scale parameter =   24.75428
     Deviance         =  8366.946191                    (1/df) Deviance =   24.75428
     Pearson          =  8366.946191                    (1/df) Pearson  =   24.75428

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

                                                        AIC             =    6.05274
     Log likelihood   = -1026.965868                    BIC             =   6396.763
```

bf4	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf. Interval]	
avgcumdosew1	-.1031788	.161925	-0.64	0.524	-.4205461	.2141884
_cons	12.54134	.2786337	45.01	0.000	11.99523	13.08746

```
1194 . 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.)

```
1195 .
1196 .
1197 . scalar inthobMw1 = "age "

1198 .
1199 . * age is a mediating effect for females for Dose=> sex life for women
1200 . glm age avgcumdosew1 if gender==2, fam(gaus) link(identity)

     Iteration 0:   log likelihood =  -1406.325

     Generalized linear models                          No. of obs      =        363
     Optimization     : ML                              Residual df     =        361
                                                        Scale parameter =    136.455
     Deviance         =  49260.25928                    (1/df) Deviance =    136.455
     Pearson          =  49260.25928                    (1/df) Pearson  =    136.455

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

                                                        AIC             =   7.759366
     Log likelihood   = -1406.325011                    BIC             =   47132.38

     ------------------------------------------------------------------------------
                  |                 OIM
              age |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew1 |   3.973879   1.117679     3.56   0.000     1.783267     6.16449
            _cons |   48.88157   .7187038    68.01   0.000     47.47293     50.2902
     ------------------------------------------------------------------------------

1201 . 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
```

```
------------------------------------------------------------------------------
             |                 EIM
   HP2inthob |      Coef.   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.)

1202 .
1203 . * illw1 is a mediating effect for females for Dose=> sex life for women
1204 . glm illw1 avgcumdosew1 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -259.70777

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  .2462383
Deviance         =  88.89203958                    (1/df) Deviance =  .2462383
Pearson          =  88.89203958                    (1/df) Pearson  =  .2462383

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

                                                   AIC             =  1.441916
Log likelihood   = -259.7077741                    BIC             = -2038.987

------------------------------------------------------------------------------
             |                 OIM
       illw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   .0655142   .0474789     1.38   0.168    -.0275426    .1585711
       _cons |   .1570822   .0305304     5.15   0.000     .0972436    .2169207
------------------------------------------------------------------------------

1205 . glm HP2inthob illw1  if gender==2, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  344.2026
Iteration 2:   deviance =  344.1217
Iteration 3:   deviance =  344.1216
Iteration 4:   deviance =  344.1216

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       361
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =   344.121648                    (1/df) Deviance =  .9532456
Pearson          =  362.9817892                    (1/df) Pearson  =   1.00549
```

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

                                                     BIC             = -1783.758
```

HP2inthob	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
illw1	**.04902**	**.1470127**	**0.33**	**0.739**	**-.2391195**	**.3371596**
_cons	**-.9175059**	**.0797583**	**-11.50**	**0.000**	**-1.073829**	**-.7611824**

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

```
1206 .
1207 . des bf4   // soma recentered
```

variable name	storage type	display format	value label	variable label
bf4	float	%9.0g		**bf4 = max(0, 24 - BSIsoma)**

```
1208 . * bf4 is a mediting effect for females for Dose=>  sex life for women
1209 . glm bf4  avgcumdosew1 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1109.0162

Generalized linear models                          No. of obs      =        363
Optimization     : ML                              Residual df     =        361
                                                   Scale parameter =   26.52082
Deviance         =  9574.015672                    (1/df) Deviance =   26.52082
Pearson          =  9574.015672                    (1/df) Pearson  =   26.52082

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

                                                   AIC             =   6.121302
Log likelihood   = -1109.016226                    BIC             =   7446.136
```

bf4	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	**-1.508835**	**.4927379**	**-3.06**	**0.002**	**-2.474583**	**-.5430862**
_cons	**10.99384**	**.3168463**	**34.70**	**0.000**	**10.37284**	**11.61485**

```
1210 . 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.)

1211 .
1212 . des bf4m // soma recentered

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     bf4m            float  %9.0g                  bf4m = max(0, 32 - BSIsoma)

1213 . * bf4m is a possible mediating effect for female sex life
```

```
1214 . glm bf4m  avgcumdosew1 if gender==2, fam(gaus) link(identity)

     Iteration 0:   log likelihood =  -1140.521

     Generalized linear models                          No. of obs      =        363
     Optimization     : ML                              Residual df     =        361
                                                        Scale parameter =     31.548
     Deviance         =  11388.82943                    (1/df) Deviance =     31.548
     Pearson          =  11388.82943                    (1/df) Pearson  =     31.548

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

                                                        AIC             =   6.294882
     Log likelihood   = -1140.521046                    BIC             =    9260.95

     ------------------------------------------------------------------------------
                  |                 OIM
             bf4m |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew1 |  -1.563541   .5374133    -2.91   0.004    -2.616852   -.5102303
            _cons |   18.82212   .3455741    54.47   0.000      18.1448    19.49943
     ------------------------------------------------------------------------------

1215 . 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.)

1216 .
1217 . des shfamw1

              storage  display     value
variable name   type   format      label      variable label
----------------------------------------------------------------------------------
shfamw1         double %8.0g                  Percentage of strains and
                                                hassles related to family in
                                                1986

1218 . glm shfamw1  avgcumdosew1 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1722.3986

Generalized linear models                          No. of obs      =        339
Optimization     : ML                              Residual df     =        337
                                                   Scale parameter =     1524.9
Deviance         =  513891.1861                    (1/df) Deviance =     1524.9
Pearson          =  513891.1861                    (1/df) Pearson  =     1524.9

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

                                                   AIC             =   10.17344
Log likelihood   = -1722.398621                    BIC             =   511927.8

----------------------------------------------------------------------------------
                 |               OIM
        shfamw1  |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-----------------+----------------------------------------------------------------
    avgcumdosew1 |  -.8322929   1.270907    -0.65   0.513    -3.323226     1.65864
           _cons |   38.72924   2.190054    17.68   0.000     34.43681    43.02167
----------------------------------------------------------------------------------
```

```
1219 . glm HP2sxlife shfamw1 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =   339.011
     Iteration 2:   deviance =  338.8015
     Iteration 3:   deviance =  338.8014
     Iteration 4:   deviance =  338.8014

     Generalized linear models                         No. of obs      =       339
     Optimization     : MQL Fisher scoring             Residual df     =       337
                        (IRLS EIM)                     Scale parameter =         1
     Deviance         =  338.8013645                   (1/df) Deviance =  1.005345
     Pearson          =  339.2776273                   (1/df) Pearson  =  1.006759

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

                                                       BIC             = -1624.561

     ------------------------------------------------------------------------------
                  |                 EIM
        HP2sxlife |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
          shfamw1 |   .0019797   .0019787     1.00   0.317    -.0018986    .0058579
            _cons |  -.9179132   .1113818    -8.24   0.000    -1.136218   -.6996088
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1220 .
1221 . des shrelaw1

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     shrelaw1        double %8.0g                  Percentage of strains and
                                                     hassles related to
                                                     relationships in 1986
```

```
1222 . glm shrelaw1  avgcumdosew1 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood = -1715.4166

     Generalized linear models                          No. of obs      =        340
     Optimization     : ML                              Residual df     =        338
                                                        Scale parameter =   1420.421
     Deviance         =  480102.3567                    (1/df) Deviance =   1420.421
     Pearson          =  480102.3567                    (1/df) Pearson  =   1420.421

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

                                                        AIC             =   10.10245
     Log likelihood   = -1715.416629                    BIC             =   478132.2

     ------------------------------------------------------------------------------
                  |                 OIM
         shrelaw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
     avgcumdosew1 |  -.0649405   1.226584    -0.05   0.958    -2.469002    2.339121
            _cons |   29.57199   2.110654    14.01   0.000     25.43518     33.7088
     ------------------------------------------------------------------------------

1223 . glm HP2inthob shrelaw1 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  238.2169
     Iteration 2:   deviance =  237.1515
     Iteration 3:   deviance =  237.1479
     Iteration 4:   deviance =  237.1479

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  237.1479061                    (1/df) Deviance =    .701621
     Pearson          =  340.4217715                    (1/df) Pearson  =   1.007165

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

                                                        BIC             =  -1733.036
```

HP2inthob	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf. Interval]	
shrelaw1	**.0022898**	**.0019458**	**1.18**	**0.239**	**-.0015239**	**.0061035**
_cons	**-1.289369**	**.0985609**	**-13.08**	**0.000**	**-1.482545**	**-1.096193**

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

```
1224 .
1225 . title4 "6. Summary matrix for dose - interests and hobbies impact"
```

6. Summary matrix for dose - interests and hobbies impact

```
1226 . *xx summary of mediating effects: males only age and illw1  2
1227 . *xx           females: age
1228 . scalar SigDoseInthbMw1 = "no"

1229 . scalar MainEffInthbMw1 = "age radhlw1 shfamw1"

1230 . scalar InthbModMw1 = "none"

1231 . scalar InthbModFw1 = "none"

1232 . scalar SigdoseInthbFw1 = "no"

1233 . scalar MainEffInthbFw1 = "age radhlw1 bf4"

1234 . * summary of inthob  moderator effects  none
1235 . scalar inthobMedMw1 = "age "

1236 . scalar inthobMedFw1 = "age bf4 illw1 bf4m"

1237 . scalar SigdoseMEinthob = "no"

1238 . scalar MainEffMw1 = "radhlw1 bf4 bf40"
```

```
1239 . * no sign main dose effect for males
1240 . * no male moderators
1241 . * 3 signif main effects in male main effect model
1242 .
1243 .
1244 . * no signif dose main effect for females
1245 . * 3 main female effects
1246 . * no significant female moderators
1247 . di _skip(4)



1248 .  matrix define  inthbMw1 = J(1,8, 0)

1249 .         matrix define  inthbFw1 = J(1,8, 0)

1250 . matrix colnames  inthbMw1=  hypnum ptnum wave gender medsig numMAsig numMods
     > ig numMed

1251 . matrix colnames  inthbFw1=  hypnum ptnum wave gender medsig numMAsig numMods
     > ig numMed

1252 .     matrix define  inthbMw1= (1, 2, 1, 1, 0, 3, 0, 1 )

1253 .         matrix define  inthbFw1= (1, 2, 1, 2, 0, 3, 0, 4 )

1254 .         matrix rowname  inthbMw1 =  inthbM

1255 .         matrix rowname  inthbFw1 =  inthobF

1256 .         matlist  inthbMw1

                 |        c1          c2          c3          c4          c5          c
     > 6          c7          c8
     -------------+------------------------------------------------------------------------
     > -------------------------
          inthbM |         1           2           1           1           0
     > 3           0           1
```

```
1257 .         matlist  inthbFw1

                 |        c1         c2         c3         c4         c5          c
     > 6         c7         c8
     ------------+----------------------------------------------------------------------
     > ----------------------
         inthobF |         1          2          1          2          0
     > 3          0          4

1258 .         matrix define H1pt2w1 = (  wkMw1 \  wkFw1 \  hmcrMw1 \  hmcrFw1 \  s
     > pMw1 ///
     >            \  spFw1 \  prbfamMw1 \ prbfamFw1 \ sxlifeMw1 \ sxlifeFw1 \ inth
     > bMw1 \  inthbFw1)

1259 .
1260 .         matlist H1pt2w1

                 |        c1         c2         c3         c4         c5          c
     > 6         c7         c8
     ------------+----------------------------------------------------------------------
     > ----------------------
              r1 |         1          2          1          1          0
     > 2          0          1
              r1 |         1          2          1          2          0
     > 1          1          2
              r1 |         1          2          1          1          0
     > 2          0          1
              r1 |         1          2          1          2          0
     > 2          0          2
           spMw1 |         1          2          1          1          1
     > 2          2          1
           spFw1 |         1          2          1          2          0
     > 5          0          2
       prbfamMw1 |         1          2          1          1          0
     > 2          0          0
       prbfamFw1 |         1          2          1          2          0
     > 3          0          2
       sxlifeMw1 |         1          2          1          1          0
     > 3          0          1
       sxlifeFw1 |         1          2          1          2          0
     > 4          0          5
          inthbM |         1          2          1          1          0
     > 3          0          1
         inthobF |         1          2          1          2          0
     > 3          0          4
```

```
1261 .     matrix colnames H1pt2w1 =  hypnum ptnum wave gender medsig numMAsig numM
     > odsig numMed

1262 .     matrix rownames H1pt2w1 =    wkMw1  wkFw1  hmcrMw1  hmcrFw1  socprbMw1
     > socprbFw1  prbfamMw1 prbFamFw1 sxlifeMw1 sxlifeFw1 inthbMw1  inthbFw1

1263 .     matlist H1pt2w1

                  |    hypnum      ptnum       wave     gender     medsig   numMAsi
     > g  numModsig     numMed
     -------------+-----------------------------------------------------------------
     > --------------------------
            wkMw1 |         1          2          1          1          0
     > 2          0          1
            wkFw1 |         1          2          1          2          0
     > 1          1          2
          hmcrMw1 |         1          2          1          1          0
     > 2          0          1
          hmcrFw1 |         1          2          1          2          0
     > 2          0          2
        socprbMw1 |         1          2          1          1          1
     > 2          2          1
        socprbFw1 |         1          2          1          2          0
     > 5          0          2
        prbfamMw1 |         1          2          1          1          0
     > 2          0          0
        prbFamFw1 |         1          2          1          2          0
     > 3          0          2
        sxlifeMw1 |         1          2          1          1          0
     > 3          0          1
        sxlifeFw1 |         1          2          1          2          0
     > 4          0          5
         inthbMw1 |         1          2          1          1          0
     > 3          0          1
         inthbFw1 |         1          2          1          2          0
     > 3          0          4
```

```
1264 .
1265 . title "7.  h1 pt2 wave 1 Dose=> vacation plans impact  analysis "xxxxxxxxxxx
     > xxxxxxxx


     ******************************************************************************
     > *
     ******************************************************************************
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     *****     7.  h1 pt2 wave 1 Dose=> vacation plans impact  analysis        ****
     > *
     *****                        xxxxxxxxxxxxxxxxxxx                         ****
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     *****                                      18 Jun 2012    18:18:19  ****
     > *
     ******************************************************************************
     > *
     ******************************************************************************
     > *



1266 .
1267 .
1268 .
1269 . cap gen hp2vactn = HP2vacatn

1270 .
1271 . forvalues j=1/1 {
       2. title " H1 pt 2 wave 1 Dose = >   hp2vactn main effects models"
       3. set more off
       4. local w1bf bf1 bf4 bf9 bf10 bf11 bf4m bf15m bf20 bf22 bf30 bf40
       5. local w1bf bf1 bf4 bf9 bf10 bf11 bf14 bf15m bf20 bf22 bf30 bf40
       6. local w1bf bf1 bf4 bf9 bf10 bf11 bf14 bf15m bf20 bf22 bf30 bf40
       7. di _skip(3)
       8.
```

```
1272 . di as input "Male model wave 1 dose-hp2vactn moderator model "
       9. di _skip(4)
      10. xi: logistic hp2vactn 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
      11.  di _skip(4)
      12.  title3 "trimmed hp2vactn main effects models for H1 no direct dose effec
     > t for male"
      13.  pwcorr hp2hmcare age  deaw1 shjobw1 bf7m shjobw1 havmilsq ///
     >   radhlw1 avgcumdosew1 if gender==1, sig obs sidak star(.05) listwise
      14. di _skip(1)
      15. di as input "For males hp2vactn wave3 and d1 is not signif "
      16. di _skip(1)
      17.   logistic hp2vactn age  deaw1 shjobw1 bf7m  havmilsq ///
     >   radhlw1 avgcumdosew1 if ///
     >    gender==1, coef
      18. }


     ******************************************************************************
     > *
     ******************************************************************************
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     *****       H1 pt 2 wave 1 Dose = >   hp2vactn main effects models       ****
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     *****                                        18 Jun 2012    18:18:19     ****
     > *
     ******************************************************************************
     > *
     ******************************************************************************
     > *
```

```
Male model wave 1 dose-hp2vactn moderator model

i.educ            _Ieduc_1-8          (naturally coded; _Ieduc_1 omitted)
note: _Ieduc_4 != 0 predicts failure perfectly
      _Ieduc_4 dropped and 12 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: occ6w1 != 0 predicts failure perfectly
      occ6w1 dropped and 4 obs not used

note: occ7w1 != 0 predicts failure perfectly
      occ7w1 dropped and 4 obs not used

note: marrw15 != 0 predicts success perfectly
      marrw15 dropped and 1 obs not used

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

note: dvcew1 != 0 predicts failure perfectly
      dvcew1 dropped and 2 obs not used

note: sepaw1 != 0 predicts success perfectly
      sepaw1 dropped and 1 obs not used

note: _Ieduc_6 omitted because of collinearity
note: marrw16 omitted because of collinearity
note: radhlw1 omitted because of collinearity
note: avgcumdosew1 omitted because of collinearity

Logistic regression                                   Number of obs   =        284
                                                      LR chi2(41)     =     101.69
                                                      Prob > chi2     =     0.0000
Log likelihood = -57.124451                           Pseudo R2       =     0.4709
```

hp2vactn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.1177419	.0451828	2.61	0.009	.0291854	.2062985
_Ieduc_2	-3.055944	1.716937	-1.78	0.075	-6.421078	.3091893
_Ieduc_3	-.212761	.8269168	-0.26	0.797	-1.833488	1.407966
_Ieduc_4	0	(omitted)				
_Ieduc_5	-.158373	.8405787	-0.19	0.851	-1.805877	1.489131
_Ieduc_6	0	(omitted)				
_Ieduc_7	0	(omitted)				
_Ieduc_8	0	(omitted)				
occ1w1	.9327826	3.048048	0.31	0.760	-5.041281	6.906846
occ2w1	1.600773	3.127281	0.51	0.609	-4.528585	7.730132
occ3w1	.8629517	3.222587	0.27	0.789	-5.453202	7.179105
occ4w1	.7047753	3.193274	0.22	0.825	-5.553927	6.963477
occ5w1	.9185675	3.369728	0.27	0.785	-5.685978	7.523113
occ6w1	0	(omitted)				
occ7w1	0	(omitted)				
occ8w1	2.576584	3.31921	0.78	0.438	-3.928947	9.082116
marrw11	8.063251	1454.164	0.01	0.996	-2842.047	2858.173
marrw12	8.396586	1454.165	0.01	0.995	-2841.715	2858.509
marrw13	6.592655	1454.165	0.00	0.996	-2843.518	2856.703
marrw15	0	(omitted)				
marrw16	0	(omitted)				
inc1w1	1.72241	3.405241	0.51	0.613	-4.951739	8.396559
inc2w1	1.681005	3.353329	0.50	0.616	-4.891398	8.253409
inc3w1	1.742795	3.224514	0.54	0.589	-4.577137	8.062726
inc4w1	.22304	3.501992	0.06	0.949	-6.640738	7.086818
radhlw1	.0177143	.0102482	1.73	0.084	-.0023719	.0378004
havmil	-.000285	.0120623	-0.02	0.981	-.0239267	.0233567
avgcumdosew1	-.101335	.173417	-0.58	0.559	-.441226	.238556
bf1	-.067538	.109717	-0.62	0.538	-.2825793	.1475033
bf4	-.2732381	.0860278	-3.18	0.001	-.4418495	-.1046267
bf9	.045179	.0491094	0.92	0.358	-.0510737	.1414317
bf10	-.0859725	.0443879	-1.94	0.053	-.1729712	.0010262
bf11	.0439137	.1246785	0.35	0.725	-.2004517	.288279
bf14	-.0000515	.0001058	-0.49	0.627	-.0002589	.0001559
bf15m	0	(omitted)				
bf20	.0464251	.1033689	0.45	0.653	-.1561741	.2490244
bf22	.0001389	.0001358	1.02	0.306	-.0001273	.0004051
bf30	-.001371	.0006346	-2.16	0.031	-.0026148	-.0001273
bf40	.3396411	.2165949	1.57	0.117	-.0848772	.7641593
deaw1	-.5911018	.7169403	-0.82	0.410	-1.996279	.8140753
dvcew1	0	(omitted)				
sepaw1	0	(omitted)				
accdw1	1.690611	1.483962	1.14	0.255	-1.2179	4.599123
movew1	.7972512	.7853957	1.02	0.310	-.7420961	2.336598
illw1	-1.434715	.7967422	-1.80	0.072	-2.996301	.1268714
shfamw1	-.0116324	.0105102	-1.11	0.268	-.032232	.0089671

shhlw1	.0339732	.0188557	1.80	0.072	-.0029832	.0709297
shjobw1	.0121109	.0125268	0.97	0.334	-.0124412	.036663
shrelaw1	-.0146336	.0112271	-1.30	0.192	-.0366384	.0073711
suprtw1	.1086712	.0510741	2.13	0.033	.0085679	.2087746
suchrw1	-.0573692	.0444525	-1.29	0.197	-.1444944	.0297561
havmilsq	-6.00e-06	.0000223	-0.27	0.787	-.0000496	.0000376
radhlw1	0	(omitted)				
avgcumdosew1	0	(omitted)				
_cons	-21.03776	1454.176	-0.01	0.988	-2871.17	2829.095

Note: 1 failure and 0 successes completely determined.

```
title3 : trimmed hp2vactn main effects models for H1 no direct dose effect for
>  male
18 Jun 2012
18:18:21
computer  Macintosh (Intel 64-bit)
folder  /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/h1tests
> /h1pt2
Data file  chwide16june2012.dta  currrently has  2388  variables and  703  obs
> ervations
```

	hp2hmc~e	age	deaw1	shjobw1	bf7m	shjobw1	havmilsq
hp2hmcare	1.0000						
	340						
age	0.2761*	1.0000					
	0.0000						
	340	340					
deaw1	0.0095	0.2204*	1.0000				
	1.0000	0.0015					
	340	340	340				
shjobw1	0.2490*	0.2162*	-0.0439	1.0000			
	0.0001	0.0021	1.0000				
	340	340	340	340			
bf7m	-0.1339	-0.0182	0.1915*	-0.2097*	1.0000		
	0.3860	1.0000	0.0137	0.0035			
	340	340	340	340	340		
shjobw1	0.2490*	0.2162*	-0.0439	1.0000*	-0.2097*	1.0000	
	0.0001	0.0021	1.0000	0.0000	0.0035		
	340	340	340	340	340	340	

havmilsq	-0.0347	0.0207	-0.0393	0.0027	-0.0420	0.0027	1.0000
	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
	340	340	340	340	340	340	340
radhlw1	0.2183*	0.3167*	0.0077	0.4115*	0.0528	0.4115*	-0.1218
	0.0018	0.0000	1.0000	0.0000	1.0000	0.0000	0.5939
	340	340	340	340	340	340	340
avgcumdosew1	0.0010	0.0918	-0.0226	0.0656	0.0206	0.0656	-0.0345
	1.0000	0.9680	1.0000	0.9999	1.0000	0.9999	1.0000
	340	340	340	340	340	340	340

	radhlw1	avgcum~1
radhlw1	1.0000	
	340	
avgcumdosew1	0.1073	1.0000
	0.8298	
	340	340

For males hp2vactn wave3 and d1 is not signif

Logistic regression

Number of obs	=	340
LR chi2(7)	=	58.56
Prob > chi2	=	0.0000
Pseudo R2	=	0.2340

Log likelihood = -95.872164

hp2vactn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0698089	.0169544	4.12	0.000	.0365789	.1030389
deaw1	-1.031518	.5915573	-1.74	0.081	-2.190949	.1279133
shjobw1	.0185312	.0064023	2.89	0.004	.005983	.0310794
bf7m	.0000825	.0002766	0.30	0.766	-.0004597	.0006247
havmilsq	-6.78e-06	8.13e-06	-0.83	0.405	-.0000227	9.17e-06
radhlw1	.0131121	.005597	2.34	0.019	.0021422	.0240821
avgcumdosew1	-.1161641	.1842657	-0.63	0.528	-.4773183	.2449901
_cons	-7.463166	1.17919	-6.33	0.000	-9.774335	-5.151996

```
1273 .
1274 . scalar SigDoseVactnMw1 = "no"

1275 . scalar MainEffVactnMw1 = "age radhlw1 shjobw1 "

1276 .
1277 . local cn7:colnames(e(b))

1278 . di "`cn7'"
     age deaw1 shjobw1 bf7m havmilsq radhlw1 avgcumdosew1 _cons

1279 . local len7 = length("`cn7'")

1280 . di `len7'
     58

1281 . local len7b = `len7' - 6

1282 . di `len7b'
     52

1283 . local myvarlist = substr("`cn7'",1,`len7b')

1284 . di "`myvarlist'"
     age deaw1 shjobw1 bf7m havmilsq radhlw1 avgcumdosew1

1285 .
1286 . foreach var in `myvarlist' {
       2. cap gen `var'Xd1 = `var'*avgcumdosew1
       3. }

1287 .
1288 . title " Trimmed male main effects dose=> vacation plans  model"


     ******************************************************************************
     > *
     ******************************************************************************
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     *****        Trimmed male main effects dose=> vacation plans  model      ****
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
```

```
*****                                           18 Jun 2012    18:18:22  ****
> *
*******************************************************************************
> *
*******************************************************************************
> *
```

```
1289 . di as input "No sig main male dose main effects model"
     No sig main male dose main effects model

1290 . sw, pr(.1): logit hp2vacatn `myvarlist' if gender==1
                           begin with full model
     p = 0.7655 >= 0.1000  removing bf7m
     p = 0.5322 >= 0.1000  removing avgcumdosew1
     p = 0.4214 >= 0.1000  removing havmilsq

     Logistic regression                               Number of obs   =        340
                                                       LR chi2(4)      =      56.62
                                                       Prob > chi2     =     0.0000
     Log likelihood =   -96.8403                       Pseudo R2       =     0.2262
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0683746	.0168652	4.05	0.000	.0353194	.1014298
deaw1	-.9608875	.5756492	-1.67	0.095	-2.089139	.1673642
shjobw1	.0175447	.0060455	2.90	0.004	.0056958	.0293937
radhlw1	.013369	.0055515	2.41	0.016	.0024883	.0242496
_cons	-7.378809	1.054557	-7.00	0.000	-9.445702	-5.311916

```
1291 .
1292 .
1293 . local cn8:colnames(e(b))
```

```
1294 . di "`cn8'"
     age deaw1 shjobw1 radhlw1 _cons

1295 . local len8 = length("`cn8'")

1296 . di `len7'
     58

1297 . local len8b = `len8' - 6

1298 . di `len8b'
     25

1299 . local myvarlist = substr("`cn8'",1,`len8b')

1300 . di "`myvarlist'"
     age deaw1 shjobw1 radhlw1

1301 .
1302 . logit hp2vacatn age radhlw1 avgcumdosew1 ageXd1 radhlw1Xd1 if gender==1

     Iteration 0:   log likelihood = -125.15243
     Iteration 1:   log likelihood = -107.61459
     Iteration 2:   log likelihood = -104.56768
     Iteration 3:   log likelihood = -104.54823
     Iteration 4:   log likelihood = -104.54822

     Logistic regression                               Number of obs   =        340
                                                       LR chi2(5)      =      41.21
                                                       Prob > chi2     =     0.0000
     Log likelihood = -104.54822                       Pseudo R2       =     0.1646

     ------------------------------------------------------------------------------
        hp2vacatn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
              age |   .0601195   .0209224     2.87   0.004     .0191123    .1011267
          radhlw1 |   .0187374   .0058584     3.20   0.001     .0072551    .0302197
     avgcumdosew1 |   .1429635   3.450929     0.04   0.967    -6.620734    6.906661
           ageXd1 |  -.0052571   .0512646    -0.10   0.918    -.1057338    .0952196
       radhlw1Xd1 |   .0008937   .0086815     0.10   0.918    -.0161217    .0179091
            _cons |  -6.233448   1.294444    -4.82   0.000    -8.770513   -3.696384
     ------------------------------------------------------------------------------
```

```
1303 .
1304 .  title "Trimmed male wave 1 interaction dose=> vacation plans model"


     ******************************************************************************
     > *
     ******************************************************************************
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     *****     Trimmed male wave 1 interaction dose=> vacation plans model      ****
     > *
     *****                                                                    ****
     > *
     *****                                                                    ****
     > *
     *****                                          18 Jun 2012    18:18:30  ****
     > *
     ******************************************************************************
     > *
     ******************************************************************************
     > *



1305 .  logit hp2vacatn age radhlw1 ageXd1 bf7m avgcumdosew1 bf4m bf4mXd1 bf7mXd1 i
     > f gender==1

     Iteration 0:   log likelihood = -125.15243
     Iteration 1:   log likelihood = -102.74095
     Iteration 2:   log likelihood = -94.448542
     Iteration 3:   log likelihood = -93.949822
     Iteration 4:   log likelihood = -93.920677
     Iteration 5:   log likelihood = -93.920292
     Iteration 6:   log likelihood =  -93.92029

     Logistic regression                               Number of obs   =        340
                                                       LR chi2(8)      =      62.46
                                                       Prob > chi2     =     0.0000
     Log likelihood =  -93.92029                       Pseudo R2       =     0.2496
```

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0643459	.0308181	2.09	0.037	.0039435	.1247483
radhlw1	.0089983	.0057782	1.56	0.119	-.0023267	.0203233
ageXd1	-.0876104	.0995184	-0.88	0.379	-.2826628	.107442
bf7m	.0001157	.0003967	0.29	0.771	-.0006618	.0008932
avgcumdosew1	7.211044	8.155585	0.88	0.377	-8.773609	23.1957
bf4m	-.1044109	.0615606	-1.70	0.090	-.2250674	.0162456
bf4mXd1	-.1652155	.1615499	-1.02	0.306	-.4818476	.1514165
bf7mXd1	.0005521	.0007567	0.73	0.466	-.000931	.0020353
_cons	-4.176182	2.553316	-1.64	0.102	-9.18059	.8282258

Note: 1 failure and 0 successes completely determined.

```
1306 .
1307 .  scalar vactnModMw1 ="none"

1308 .
1309 . title4 "Trimmed Female model wave 1 main effects dose-hp2vacatn model "
```

Trimmed Female model wave 1 main effects dose-hp2vacatn model

```
1310 .  forvalues j=1/1 {
  2.  local w1bf bf1 bf4 bf9 bf10 bf11 bf14m bf15m bf20 bf22 bf30 bf40
  3.
1311 .   xi: logistic hp2vacatn age  radhlw`j' avgcumdosew`j'   ///
     >   deaw`j'  suchrw`j'   ///
     >     if gender==2, coef difficult iterate(50)
  4.
1312 . }
```

Logistic regression — Number of obs = 359; LR chi2(5) = 79.84; Prob > chi2 = 0.0000; Pseudo R2 = 0.2394

Log likelihood = -126.83022

hp2vacatn	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
age	.0851484	.0156032	5.46	0.000	.0545668	.11573
radhlw1	.0210852	.0051434	4.10	0.000	.0110043	.031166
avgcumdosew1	.097081	.2416199	0.40	0.688	-.3764853	.5706473
deaw1	.0184403	.1587264	0.12	0.908	-.2926576	.3295383
suchrw1	.0205099	.0120186	1.71	0.088	-.0030461	.0440658
_cons	-7.695923	.966869	-7.96	0.000	-9.590951	-5.800894

```
1313 .
1314 . sw, pr(.1): logit hp2vactn age radhlw1 avgcumdosew1 havmilsq ageXd1 radhlw1X
     > d1 if gender==2
                             begin with full model
     p = 0.8147 >= 0.1000  removing havmilsq
     p = 0.7305 >= 0.1000  removing avgcumdosew1
     p = 0.4968 >= 0.1000  removing ageXd1
     p = 0.4278 >= 0.1000  removing radhlw1Xd1

     Logistic regression                               Number of obs   =        362
                                                       LR chi2(2)      =      75.57
                                                       Prob > chi2     =     0.0000
     Log likelihood = -129.53941                       Pseudo R2       =     0.2258

     ------------------------------------------------------------------------------
         hp2vactn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
              age |   .0865333   .0154134     5.61   0.000     .0563237     .116743
          radhlw1 |   .0216968   .0050096     4.33   0.000     .0118782    .0315154
            _cons |  -7.711441   .9591085    -8.04   0.000    -9.591259   -5.831623
     ------------------------------------------------------------------------------

1315 .
1316 .
1317 .
1318 . scalar SigDoseVactnMw1 = "no"

1319 . scalar MainEffVactnMw1 = "age radhlw1"

1320 . scalar VactnModMw1 = "none"

1321 .
1322 .  * summary of male moderating effects: no sign main dose effect in main effe
     > cts model
1323 .  *          no signif male moderators
1324 .  *          3 significant main effects in main effects model
1325 .
```

```
1326 .  * summary of female moderation main effects:  no signif main dose effect
1327 .
1328 .
1329 . scalar SigDoseVactnFw1 = "no"

1330 . scalar MainEffVactnFw1 = "age radhlw1 bf7m"

1331 .
1332 . cap gen suchrw1Xd1 = suchrw1*avgcumdosew1

1333 .
1334 .
1335 . scalar VacatnModFw1 = "none"

1336 . *xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
     > xxxx
1337 . cap gen hp2vactn = HP2vacatn

1338 . title4 "Male mediator tests for vacation plans impact of dose"
     ------------------------------------------------------------------------------
     Male mediator tests for vacation plans impact of dose
     ------------------------------------------------------------------------------

1339 . * for males
1340 .
1341 . * age is a mediator for males
1342 . glm age avgcumdosew1 if gender==1, fam(gaus) link(identity)

     Iteration 0:   log likelihood =  -1331.608

     Generalized linear models                         No. of obs      =       340
     Optimization     : ML                             Residual df     =       338
                                                       Scale parameter =  148.5632
     Deviance         =  50214.37624                   (1/df) Deviance =  148.5632
     Pearson          =  50214.37624                   (1/df) Pearson  =  148.5632

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

                                                       AIC             =  7.844753
     Log likelihood   = -1331.607976                   BIC             =  48244.19
```

age	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	**.6719789**	**.3966839**	**1.69**	**0.090**	**-.1055072**	**1.449465**
_cons	**48.89394**	**.6825967**	**71.63**	**0.000**	**47.55607**	**50.2318**

1343 . 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
```

hp2vactn	Coef.	EIM 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.)

1344 .

```
1345 .
1346 . des illw1

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
illw1           double %8.0g                  Total number of illnesses
                                                experienced in time period
                                                1976-1986

1347 . glm illw1 avgcumdosew1 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -151.48261

Generalized linear models                          No. of obs      =       340
Optimization     : ML                              Residual df     =       338
                                                   Scale parameter =  .1435742
Deviance         =  48.52808533                    (1/df) Deviance =  .1435742
Pearson          =  48.52808533                    (1/df) Pearson  =  .1435742

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

                                                   AIC             =  .9028389
Log likelihood   = -151.4826069                    BIC             = -1921.656

------------------------------------------------------------------------------
             |                 OIM
       illw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   .0087277   .0123318     0.71   0.479    -.0154423    .0328976
       _cons |   .0962541   .0212201     4.54   0.000     .0546635    .1378446
------------------------------------------------------------------------------

1348 . glm hp2vactn illw1 if gender==1, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  250.8272
Iteration 2:   deviance =  250.3035
Iteration 3:   deviance =  250.3029
Iteration 4:   deviance =  250.3029

Generalized linear models                          No. of obs      =       340
Optimization     : MQL Fisher scoring              Residual df     =       338
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  250.3028927                    (1/df) Deviance =  .7405411
Pearson          =  339.9984851                    (1/df) Pearson  =  1.005913
```

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

                                                      BIC             = -1719.881

------------------------------------------------------------------------------
             |                 EIM
   hp2vactn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      illw1 |  -.0103789   .2018135    -0.05   0.959    -.4059261    .3851682
      _cons |  -1.171022   .0782871   -14.96   0.000    -1.324462   -1.017583
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)

1349 .
1350 . des radhlw1

              storage  display     value
variable name   type   format      label      variable label
------------------------------------------------------------------------------
radhlw1         double %8.0g                  Self-perceived Chornobyl health
                                                threat in wave 1

1351 . glm radhlw1 avgcumdosew1 if gender==1, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1710.3417

Generalized linear models                     No. of obs      =        340
Optimization     : ML                         Residual df     =        338
                                              Scale parameter =   1378.645
Deviance         =  465981.8893               (1/df) Deviance =   1378.645
Pearson          =  465981.8893               (1/df) Pearson  =   1378.645

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

                                              AIC             =    10.0726
Log likelihood   = -1710.341694               BIC             =   464011.7

------------------------------------------------------------------------------
             |                 OIM
     radhlw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   2.398285   1.208412     1.98   0.047     .0298407    4.766729
       _cons |   44.66477   2.079384    21.48   0.000     40.58925    48.74029
------------------------------------------------------------------------------
```

```
1352 . glm hp2vactn radhlw1 if gender==1, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  230.8439
     Iteration 2:   deviance =  224.8904
     Iteration 3:   deviance =  224.6643
     Iteration 4:   deviance =  224.6638
     Iteration 5:   deviance =  224.6638

     Generalized linear models                          No. of obs      =        340
     Optimization     : MQL Fisher scoring              Residual df     =        338
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  224.6638339                    (1/df) Deviance =   .6646859
     Pearson          =  351.6837556                    (1/df) Pearson  =   1.040484

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

                                                        BIC             =   -1745.52

     ------------------------------------------------------------------------------
                  |                 EIM
         hp2vactn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
          radhlw1 |   .0123039   .0020846     5.90   0.000     .0082183    .0163896
            _cons |  -1.857875   .1493813   -12.44   0.000    -2.150657   -1.565093
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1353 .
1354 . * for females
1355 .
1356 . * age is a mediator for females
1357 . glm age avgcumdosew1 if gender==2, fam(gaus) link(identity)

     Iteration 0:   log likelihood =  -1406.325

     Generalized linear models                          No. of obs      =        363
     Optimization     : ML                              Residual df     =        361
                                                        Scale parameter =    136.455
     Deviance         =  49260.25928                    (1/df) Deviance =    136.455
     Pearson          =  49260.25928                    (1/df) Pearson  =    136.455

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

                                                        AIC             =   7.759366
     Log likelihood   = -1406.325011                    BIC             =   47132.38
```

age	Coef.	OIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
avgcumdosew1	**3.973879**	**1.117679**	**3.56**	**0.000**	**1.783267**	**6.16449**
_cons	**48.88157**	**.7187038**	**68.01**	**0.000**	**47.47293**	**50.2902**

```
1358 . 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
```

hp2vactn	Coef.	EIM 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.)

1359 .

```
1360 . * illness is a mediating effect for females = > vacatn
1361 . des illw1

              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
illw1           double %8.0g                  Total number of illnesses
                                                experienced in time period
                                                1976-1986

1362 . glm illw1 avgcumdosew1 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -259.70777

Generalized linear models                          No. of obs      =       363
Optimization     : ML                              Residual df     =       361
                                                   Scale parameter =  .2462383
Deviance         =  88.89203958                    (1/df) Deviance =  .2462383
Pearson          =  88.89203958                    (1/df) Pearson  =  .2462383

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

                                                   AIC             =  1.441916
Log likelihood   = -259.7077741                    BIC             = -2038.987

------------------------------------------------------------------------------
             |                 OIM
       illw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   .0655142   .0474789     1.38   0.168    -.0275426    .1585711
       _cons |   .1570822   .0305304     5.15   0.000     .0972436    .2169207
------------------------------------------------------------------------------

1363 . glm hp2vactn illw1 if gender==2, fam(bin) irls scale(dev) link(probit)

Iteration 1:   deviance =  334.5587
Iteration 2:   deviance =  334.5192
Iteration 3:   deviance =  334.5191
Iteration 4:   deviance =  334.5191

Generalized linear models                          No. of obs      =       363
Optimization     : MQL Fisher scoring              Residual df     =       361
                   (IRLS EIM)                      Scale parameter =         1
Deviance         =  334.5191456                    (1/df) Deviance =  .9266458
Pearson          =   363.294411                    (1/df) Pearson  =  1.006356
```

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

                                                   BIC             =  -1793.36

------------------------------------------------------------------------------
             |                 EIM
    hp2vactn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       illw1 |   .1050277   .1426608     0.74   0.462    -.1745823    .3846376
       _cons |  -.9602112   .0797688   -12.04   0.000    -1.116555   -.8038673
------------------------------------------------------------------------------
(Standard errors scaled using square root of deviance-based dispersion.)
```

```
1364 .
1365 . * radhlw1 is a mediating effect for females => vactn
1366 . des radhlw1
```

```
              storage  display     value
variable name   type   format      label      variable label
-------------------------------------------------------------------------------
radhlw1         double %8.0g                  Self-perceived Chornobyl health
                                                threat in wave 1
```

```
1367 . glm radhlw1 avgcumdosew1 if gender==2, fam(gaus) link(identity)
```

```
Iteration 0:   log likelihood = -1821.9477

Generalized linear models                          No. of obs      =       362
Optimization     : ML                              Residual df     =       360
                                                   Scale parameter =  1385.301
Deviance         =  498708.3025                    (1/df) Deviance =  1385.301
Pearson          =  498708.3025                    (1/df) Pearson  =  1385.301

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

                                                   AIC             =  10.07706
Log likelihood   = -1821.947718                    BIC             =  496587.3

------------------------------------------------------------------------------
             |                 OIM
     radhlw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   3.789972   3.562254     1.06   0.287    -3.191917    10.77186
       _cons |   55.44948   2.293757    24.17   0.000      50.9538    59.94516
------------------------------------------------------------------------------
```

```
1368 . glm hp2vactn radhlw1 if gender==2, fam(bin) irls scale(dev) link(probit)

     Iteration 1:   deviance =  302.9154
     Iteration 2:   deviance =  298.4828
     Iteration 3:   deviance =   298.355
     Iteration 4:   deviance =  298.3548
     Iteration 5:   deviance =  298.3548

     Generalized linear models                          No. of obs      =        362
     Optimization     : MQL Fisher scoring              Residual df     =        360
                        (IRLS EIM)                      Scale parameter =          1
     Deviance         =  298.3548116                    (1/df) Deviance =   .8287634
     Pearson          =  355.6125805                    (1/df) Pearson  =   .9878127

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

                                                        BIC             =  -1822.637

     ------------------------------------------------------------------------------
                  |                 EIM
         hp2vactn |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
     -------------+----------------------------------------------------------------
          radhlw1 |   .0139561   .0022604     6.17   0.000     .0095258    .0183864
            _cons |  -1.855913   .1776242   -10.45   0.000     -2.20405   -1.507776
     ------------------------------------------------------------------------------
     (Standard errors scaled using square root of deviance-based dispersion.)

1369 .
1370 .  * summary of male moderating effects: no sign main dose effect in main effe
     > cts model
1371 .  *         no signif male moderators
1372 .  *         3 significant main effects in main effects model
1373 . * summary omnibus model
1374 . des radhlw1

                   storage  display     value
     variable name   type   format      label      variable label
     ------------------------------------------------------------------------------
     radhlw1         double %8.0g                  Self-perceived Chornobyl health
                                                     threat in wave 1
```

```
1375 . glm radhlw1 avgcumdosew1 illw1 if gender==2, fam(gaus) link(identity)

Iteration 0:   log likelihood = -1818.8802

Generalized linear models                          No. of obs      =        362
Optimization     : ML                              Residual df     =        359
                                                   Scale parameter =   1365.815
Deviance         =  490327.6005                    (1/df) Deviance =   1365.815
Pearson          =  490327.6005                    (1/df) Pearson  =   1365.815

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

                                                   AIC             =   10.06564
Log likelihood   = -1818.880199                    BIC             =   488212.5

------------------------------------------------------------------------------
             |                 OIM
     radhlw1 |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
avgcumdosew1 |   4.422493   3.546316     1.25   0.212    -2.528159    11.37315
       illw1 |   -9.71121   3.920388    -2.48   0.013    -17.39503    -2.02739
       _cons |   56.98053   2.359945    24.14   0.000     52.35513    61.60594
------------------------------------------------------------------------------

1376 . glm hp2vactn radhlw1 illw1 avgcumdosew1 if gender==2, fam(bin) irls scale(de
> v) link(probit)

Iteration 1:   deviance =  300.2452
Iteration 2:   deviance =  295.4656
Iteration 3:   deviance =  295.3193
Iteration 4:   deviance =   295.319
Iteration 5:   deviance =   295.319

Generalized linear models                          No. of obs      =        362
Optimization     : MQL Fisher scoring              Residual df     =        358
                   (IRLS EIM)                      Scale parameter =          1
Deviance         =  295.3190068                    (1/df) Deviance =   .8249134
Pearson          =  359.0506546                    (1/df) Pearson  =   1.002935

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

                                                   BIC             =   -1813.89
```

hp2vactn	Coef.	EIM Std. Err.	z	P>|z|	[95% Conf.	Interval]
radhlw1	**.014364**	**.0022973**	**6.25**	**0.000**	**.0098614**	**.0188667**
illw1	**.2268401**	**.147174**	**1.54**	**0.123**	**-.0616157**	**.5152959**
avgcumdosew1	**.1252934**	**.1239292**	**1.01**	**0.312**	**-.1176035**	**.3681902**
_cons	**-1.970546**	**.1907882**	**-10.33**	**0.000**	**-2.344484**	**-1.596608**

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

```
1377 .
1378 . scalar SigDoseVactnMw1 = "no"

1379 . scalar MainEffVactnMw1 = "age radhlw1 shjobw1 "

1380 . scalar VactnMedMw1 = "age"

1381 . scalar VactnMedFw1 = "age illw1 radhlw1"

1382 . scalar SigDoseVactnMw1 = "no"

1383 . scalar MainEffVactnMw1 = "age radhlw1"

1384 . scalar VactnModMw1 = "none"

1385 . scalar SigDoseVactnMw1 = "no"

1386 . scalar MainEffVactnMw1 = "age radhlw1"

1387 . scalar VactnModMw1 = "none"

1388 . * Part 2 Nottingham subscales
1389 . *  1: hp2work
1390 . *  2: hp2hmcare
1391 . *  3: hp2probsoc
1392 . *  4: hp2pbfhm
```

```
1393 . *  5: hp2sexlife
1394 . *  6: hp2inthob
1395 . *  7: hp2vacatn
1396 .
1397 . *xx summary of moderator effects for females:
1398 .     * no signif main dose effect
1399 .     * 3 signif main effects in main effect model
1400 .     * 1 moderator: deaw1Xd1
1401 . title4 "7. Summary Matrix construction of dose - vacatn plans impact"
     ─────────────────────────────────────────────────────────────────────────────
     7. Summary Matrix construction of dose - vacatn plans impact
     ─────────────────────────────────────────────────────────────────────────────


1402 .
1403 .   matrix define  vactnMw1 = J(1,8, 0)

1404 .         matrix define  vactnFw1 = J(1,8, 0)

1405 . matrix colnames  vactnMw1=  hypnum ptnum wave gender medsig numMAsig numMods
     > ig numMed

1406 . matrix colnames  vactnFw1=  hypnum ptnum wave gender medsig numMAsig numMods
     > ig numMed

1407 .     matrix define  vactnMw1= (1, 2, 1, 1, 0, 2, 0, 1 )

1408 .         matrix define  vactnFw1= (1, 2, 1, 2, 0, 3, 0, 3 )

1409 .         matrix rowname  vactnMw1 =  vactnM

1410 .         matrix rowname  vactnFw1 =  vactnF

1411 .         matlist  vactnMw1

                  |        c1         c2         c3         c4         c5         c
     > 6         c7         c8
     -------------+-----------------------------------------------------------------
     > ------------------------
           vactnM |         1          2          1          1          0
     > 2          0          1
```

```
1412 .          matlist  vactnFw1

             |        c1         c2         c3         c4         c5          c
     > 6         c7         c8
     ---------------------------------------------------------------------------
     > ------------------------
           vactnF |         1          2          1          2          0
     > 3          0          3

1413 .          matrix define H1pt2w1 = (  wkMw1 \  wkFw1 \  hmcrMw1 \  hmcrFw1 \  s
     > pMw1 ///
     >             \  spFw1 \ prbfamMw1 \ prbfamFw1 \ sxlifeMw1 \ sxlifeFw1 \ inthb
     > Mw1 \  inthbFw1 \  vactnMw1 \  vactnFw1 )

1414 .
1415 .          matlist H1pt2w1

             |        c1         c2         c3         c4         c5          c
     > 6         c7         c8
     ---------------------------------------------------------------------------
     > ------------------------
               r1 |         1          2          1          1          0
     > 2          0          1
               r1 |         1          2          1          2          0
     > 1          1          2
               r1 |         1          2          1          1          0
     > 2          0          1
               r1 |         1          2          1          2          0
     > 2          0          2
            spMw1 |         1          2          1          1          1
     > 2          2          1
            spFw1 |         1          2          1          2          0
     > 5          0          2
        prbfamMw1 |         1          2          1          1          0
     > 2          0          0
        prbfamFw1 |         1          2          1          2          0
     > 3          0          2
        sxlifeMw1 |         1          2          1          1          0
     > 3          0          1
        sxlifeFw1 |         1          2          1          2          0
     > 4          0          5
           inthbM |         1          2          1          1          0
     > 3          0          1
          inthobF |         1          2          1          2          0
     > 3          0          4
           vactnM |         1          2          1          1          0
     > 2          0          1
           vactnF |         1          2          1          2          0
     > 3          0          3
```

```
1416 .     matrix colnames H1pt2w1 =  hypnum ptnum wave gender medsig numMAsig numM
     > odsig numMed

1417 .     matrix rownames H1pt2w1 =    wkMw1  wkFw1  hmcrMw1  hmcrFw1  socprbMw1
     > socprbFw1 prbfamhmMw1 prbfamhmFw1 sxlifeMw1 sxlifeFw1 inthbMw1  inthbFw1  va
     > ctnMw1  vacatnFw1

1418 .     matlist H1pt2w1

                 |    hypnum      ptnum       wave     gender     medsig   numMAsi
     > g  numModsig     numMed
     ----------------+------------------------------------------------------------------
     > --------------------------
            wkMw1 |         1          2          1          1          0
     > 2          0          1
            wkFw1 |         1          2          1          2          0
     > 1          1          2
          hmcrMw1 |         1          2          1          1          0
     > 2          0          1
          hmcrFw1 |         1          2          1          2          0
     > 2          0          2
        socprbMw1 |         1          2          1          1          1
     > 2          2          1
        socprbFw1 |         1          2          1          2          0
     > 5          0          2
      prbfamhmMw1 |         1          2          1          1          0
     > 2          0          0
      prbfamhmFw1 |         1          2          1          2          0
     > 3          0          2
        sxlifeMw1 |         1          2          1          1          0
     > 3          0          1
        sxlifeFw1 |         1          2          1          2          0
     > 4          0          5
         inthbMw1 |         1          2          1          1          0
     > 3          0          1
         inthbFw1 |         1          2          1          2          0
     > 3          0          4
         vactnMw1 |         1          2          1          1          0
     > 2          0          1
        vacatnFw1 |         1          2          1          2          0
     > 3          0          3
```

```
1419 .   set more off

1420 .     scalar list
     MainEffVactnMw1 = age radhlw1
     sxlifeMedMw1 = radhlw1
     MainEffsxlifeFw1 = age bf4 bf4m
     SigDoseSxlifeFw1 = no
     MainEffhmcrFw1 = age
     MainEffhmcrMw1 = age
     hmcrMedFw1 = age bf4
     hmcrMedMw1 = radhlw1
     MainEffwkFw1 = age
     MainEffwkMw1 = age
     VactnMedFw1 = age illw1 radhlw1
     VactnMedMw1 = age
     VacatnModFw1 = none
     MainEffVactnFw1 = age radhlw1 bf7m
     SigDoseVactnFw1 = no
     VactnModMw1 = none
     inthobMedFw1 = age bf4 illw1 bf4m
     inthobMedMw1 = age
      inthobMw1 = age
     InthbModFw1 = none
     MainEffInthbFw1 = age radhlw1 bf4
     SigdoseInthbFw1 = no
     InthbModMw1 = none
     MainEffInthbMw1 = age radhlw1 shfamw1
     SigDoseInthbMw1 = no
     MainEffMw1 = radhlw1 bf4 bf40
     sxlifeMedFw1 = age illw1 radhlw1 bf4 bf4m
     SigDosesxlifeMw1 = no
     MainEffsxlifeMw1 = age bf4 bf40
     SigDosePrbfmhmMw1 = no
     vactnModMw1 = none
     SigDoseVactnMw1 = no
     SxLifeModFw1 = no
     sxlifeModFw1 = none
     sxlifeModMw1 = none
     MaineffhmcrMw1 = age bf4 bf40
     SigDoseMEhmcrW1 = no
     PrbfmhmMedFw1 = age bf4
     PrbfmhmMedMw1 = age
     MainEffPrbfmhmFw1 = age radhlw1 bf4
     MainEffPrbfmhmMw1 = age bf4
     PrbfmhmModFw1 = none
     PrbfmhmModMw1 = none
     SigDosePrbfmhmFw1 = no
     SigDosePrbfhmMw1 = no
     MainEffPrbfhmMw1 = age bf4
```

```
MainEffVactnMw2 = age radhlw2
sxlifeMedMw2 = age illw2
SigDoseSxlifeFw2 = no
MainEffsxlifeFw2 = age radhlw2 bf4 bf4m
MainEffPrbsocMw2 = age radhlw2 shjobw2
MainEffhmcrFw2 = age
hmcrMedFw2 = age bf4
MainEffwkFw2 = age
MainEffwkMw2 = age
MainEffPrbsocMw1 = age bf4m
SigdoseMw1 = no
ProbsocMedFw1 = age bf4
ProbsocMedMw1 = radhlw1
ProbsocModFw1 = none
SigDoseProbsocMw1 = no
hmcrmedMw1 = radhlw1
hmcrmedFw1 = age b4 b40
SigdosehmcrFw1 = no
MainEffProbSocFw1 = age radhlw1 avgcumdosew1 shrelaw1 bf4
SigDoseProbsocFw1 = yes
PrbsocModMw1 = shjobw1Xd1 shrelaw1Xd1
 WkhmcrMw1 = age b4
  WkModFw1 = ageXd1
hmcareMedFw1 = age illw1
hmcareMedMw1 = age
SigDosehmcrFw1 = no
  wkMedMw1 = bf40
hmcrModFw1 = none
SigDoseHmcrFw1 = yes
  WkMedMw1 = bf40
hmcrModMw1 = none
SigDosehmcrMw1 = no
  wkMedFw1 = age b4
  WKModMw1 = none
SigDoseWkMw1 = no
SigDoseWkFw1 = no
SigDoseFw1 = no
  wkModFw1 = none
  wkModMw1 = none
VactnMedMw2 = age
inthobMedMw2 = age
 inthobMw2 = age
PrbfmhmModMw2 = none
MainEffProbSocFw2 = age radhlw2 avgcumdosew2 bf4
hmcrModMw2 = none
MainEffhmcrMw2 = age
  wkMedFw2 = age b4
  wkMedMw2 = age bf4
MainEffsxlifeMw2 = age bf4 bf40 shjobw2 shrelaw2 radhlw2
```

MainEffPrbfmhmMw2 = **bf4 bf6 bf7**
ProbsocMedFw2 = **age bf4 radhlw2**
hmcareMedFw2 = **age bf4**
 WkhmcrMw2 = **age b4**
MainEffhmcrw2 = **age**
hmcrModFw2 = **none**
SigDoseHmcrFw2 = **yes**
NumhmcrModMw2 = **none**
SigDosehmcrMw2 = **no**
SigdosehmcrFw2 = **yes**
hmcrMedMw2 = **age ageXillw2**
SigDosehmcrFw2 = **no**
MainEffhmcareMw2 = **age**
  WkMedMw2 = **age ageXillw2**
  wkMedFw3 = **radhlw3 age ageXillw3 bf40 bf4m bf1**
VactnMedFw2 = **age illw2 radhlw2**
VacatnModFw2 = **none**
MainEffVactnFw2 = **age radhlw2 bf7m**
SigDoseVactnFw2 = **no**
VactnModMw2 = **none**
vactnModMw2 = **none**
SigDoseVactnMw2 = **no**
inthobMedFw2 = **age bf4 illw2 bf4m**
InthbModFw2 = **none**
MainEffInthbFw2 = **age radhlw2 bf4**
SigdoseInthbFw2 = **no**
InthbModMw2 = **none**
MainEffInthbMw2 = **age radhlw2 shfamw2**
SigDoseInthbMw2 = **no**
MainEffMw2 = **radhlw2 bf4 bf40**
SigdoseMEinthob = **no**
sxlifeMedFw2 = **age illw2 radhlw2 bf4 bf4m**
SxLifeModFw2 = **no**
sxlifeModFw2 = **none**
sxlifeModMw2 = **none**
SigDosesxlifeMw2 = **no**
PrbfmhmMedFw2 = **age bf4**
PrbfmhmMedMw2 = **age**
PrbfmhmModFw2 = **none**
MainEffPrbfmhmFw2 = **age bf4 bf40**
SigDosePrbfmhmFw2 = **no**
PrbfmhmModw2 = **none**
SigDosePrbfmhmMw2 = **no**
SigDosePrbfhmMw2 = **no**
MainEffPrbfhmMw2 = **bf4 bf6 bf7**
ProbsocMedMw2 = **age**
ProbsocModFw2 = **none**
SigDoseProbsocFw2 = **yes**
ProbSocModMw2 = **none**

```
SigDoseProbsocMw2 = no
PrbsocModMw2 = none
SigdoseMw2 = none
hmcareMedMw2 = age
hmcareModFw2 = none
MainEffhmcarew2 = age
SigdoseHmcareFw2 = no
hmcareModMw2 = none
SigDoseHmcareMw2 = no
NameMedMw2 = age ageXillw2
 NumModMw2 = none
SigDosehmcareMw2 = no
SigDoseWKMw2 = no
  WkMedFw2 = age bf4
  WkModFw2 = none
  WKModMw2 = none
SigDoseWkMw2 = no
SigDoseWkFw2 = no
SigDoseFw2 = no
  wkModFw2 = none
  wkModMw2 = none
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
       wkMedMw3 = bf8 age illw3 ageXillw3
       wkModFw3 = none
       wkModMw3 = none
     MainEffwkFw3 = age
     MainEffwkMw3 = workM: age  bf8  illw3  shjobw3
     SigDoseWKMw3 = no
     SigDoseWkFw3 = no

1421 . pwd
     /Users/robertyaffee/Documents/data/research/chwk/phase3/Htests/h1tests/h1pt2

1422 . di c(filename)
     chwide16june2012.dta

1423 .
1424 . sjlog close, replace
```