```
 1 .
 2 .
 3 . ////////////////////////////////////////TABLES 2 AND S3/////////////////////////////////////////////
   >
 4 .
 5 . **********************TABLE 3: LnNFLw1, MODELS 1 AND 2*********************
 6 .
 7 . **ANALYSES A-C, TOTAL POPULATION**
 8 .
 9 . **Model 1**
10 .
11 . use HANDLS_paper51_NFLBRAINSCANFINALIZED,clear

12 .
13 . //ANALYSIS A//
14 . reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final2==1,beta
```

Source	SS	df	MS	Number of obs	=	163
				F(6, 156)	=	23.60
Model	1.0733e+12	6	1.7888e+11	Prob > F	=	0.0000
Residual	1.1824e+12	156	7.5793e+09	R-squared	=	0.4758
				Adj R-squared	=	0.4557
Total	2.2557e+12	162	1.3924e+10	Root MSE	=	87059

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	8939.933	17404.63	0.51	0.608	.0381895
Sex	143892.6	13880.85	10.37	0.000	.6043598
w1Age	-2629.189	928.6193	-2.83	0.005	-.2071016
Race	-65574.52	14849.77	-4.42	0.000	-.2742691
PovStat	-1609.072	16818.97	-0.10	0.924	-.0062718
TIME_V1SCAN	-17.27492	11.88213	-1.45	0.148	-.0932763
_cons	1175169	58649.72	20.04	0.000	.

```
15 . reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final2==1,beta
```

Source	SS	df	MS	Number of obs	=	163
				F(6, 156)	=	27.21
Model	3.4768e+11	6	5.7946e+10	Prob > F	=	0.0000
Residual	3.3217e+11	156	2.1293e+09	R-squared	=	0.5114
				Adj R-squared	=	0.4926
Total	6.7984e+11	162	4.1966e+09	Root MSE	=	46144

GM	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	1387.557	9224.966	0.15	0.881	.0107968
Sex	75778.75	7357.26	10.30	0.000	.5797461
w1Age	-2130.714	492.1956	-4.33	0.000	-.3057172
Race	-45606.34	7870.815	-5.79	0.000	-.3474562
PovStat	-3678.187	8914.55	-0.41	0.680	-.0261148
TIME_V1SCAN	-5.368743	6.297879	-0.85	0.395	-.0528033
_cons	713619.7	31086.08	22.96	0.000	.

```
16 . reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final2==1,beta
```

Source	SS	df	MS		
				Number of obs	= 163
				F(6, 156)	= 14.83
Model	1.6600e+11	6	2.7666e+10	Prob > F	= 0.0000
Residual	2.9106e+11	156	1.8657e+09	R-squared	= 0.3632
				Adj R-squared	= 0.3387
Total	4.5705e+11	162	2.8213e+09	Root MSE	= 43194

WM	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	3982.1	8635.247	0.46	0.645	.0377899
Sex	58351.7	6886.937	8.47	0.000	.544458
w1Age	-862.8478	460.7313	-1.87	0.063	-.1509905
Race	-18285.72	7367.662	-2.48	0.014	-.1699055
PovStat	-3563.376	8344.675	-0.43	0.670	-.0308556
TIME_V1SCAN	-9.895511	5.895278	-1.68	0.095	-.118699
_cons	458148.7	29098.86	15.74	0.000	.

```
17 .
18 .
19 .
20 . //ANALYSIS B//
21 . reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final2==1,beta
```

Source	SS	df	MS		
				Number of obs	= 163
				F(7, 155)	= 18.15
Model	11030236	7	1575748	Prob > F	= 0.0000
Residual	13455727.3	155	86811.1436	R-squared	= 0.4505
				Adj R-squared	= 0.4257
Total	24485963.3	162	151147.921	Root MSE	= 294.64

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-39.48166	58.91741	-0.67	0.504	-.0511899
Sex	6.098825	64.59072	0.09	0.925	.0077747
w1Age	-5.931797	3.148717	-1.88	0.061	-.1418165
Race	-95.60587	54.23321	-1.76	0.080	-.1213683
PovStat	-156.0944	56.94078	-2.74	0.007	-.1846653
TIME_V1SCAN	.024462	.0403194	0.61	0.545	.0400891
ICV_volM2	.00159	.0002368	6.71	0.000	.5831768
_cons	2057.65	357.1939	5.76	0.000	.

```
22 . reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final2==1,beta
```

Source	SS	df	MS		
				Number of obs	= 163
				F(7, 155)	= 22.21
Model	14158706.9	7	2022672.42	Prob > F	= 0.0000
Residual	14115261.8	155	91066.2055	R-squared	= 0.5008
				Adj R-squared	= 0.4782
Total	28273968.8	162	174530.672	Root MSE	= 301.77

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-29.72018	60.34406	-0.49	0.623	-.0358596
Sex	-98.75332	66.15475	-1.49	0.138	-.1171529
w1Age	-4.373052	3.224961	-1.36	0.177	-.097295
Race	-100.6949	55.54643	-1.81	0.072	-.1189579
PovStat	-145.3021	58.31956	-2.49	0.014	-.1599687
TIME_V1SCAN	.0639141	.0412957	1.55	0.124	.0974756
ICV_volM2	.002094	.0002425	8.63	0.000	.7147533
_cons	1639.771	365.8431	4.48	0.000	.

```
23 .
24 . //ANALYSIS C//
25 . reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final2==1, beta
```

Source	SS	df	MS		
Model	321.658663	7	45.9512375	Prob > F	0.0039
Residual	2267.24884	155	14.6274118	R-squared	0.1242
				Adj R-squared	0.0847
Total	2588.9075	162	15.9809105	Root MSE	3.8246

Number of obs	=	163			
F(7, 155)	=	3.14			
Prob > F	=	0.0039			
R-squared	=	0.1242			
Adj R-squared	=	0.0847			
Root MSE	=	3.8246			

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	2.573259	.7647855	3.36	0.001	.3244687
Sex	.2162094	.8384287	0.26	0.797	.0268047
w1Age	.0075885	.0408724	0.19	0.853	.0176439
Race	1.625926	.7039816	2.31	0.022	.2007344
PovStat	1.281035	.7391275	1.73	0.085	.147387
TIME_V1SCAN	-.0010257	.0005234	-1.96	0.052	-.1634727
ICV_volM2	2.64e-06	3.07e-06	0.86	0.391	.0943217
_cons	-5.696632	4.636604	-1.23	0.221	.

```
26 .
27 .
28 .
29 . **Model 2: BMI-Adjusted**
30 .
31 . use finaldata_imputed_final,clear

32 .
33 .
34 . //ANALYSIS A//
35 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if sample_final2==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        155
DF adjustment:   Small sample                   DF:     min       =     153.04
                                                        avg       =     153.04
                                                        max       =     153.04
Model F test:       Equal FMI                   F(   7,  153.0)   =      20.27
Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	12598.6	18015.52	0.70	0.485	-22992.62	48189.81
Sex	145468.4	14035.97	10.36	0.000	117739.2	173197.7
w1Age	-2760.529	944.093	-2.92	0.004	-4625.666	-895.3912
Race	-65172.84	14875.45	-4.38	0.000	-94560.57	-35785.11
PovStat	-1817.967	16840.47	-0.11	0.914	-35087.77	31451.84
TIME_V1SCAN	-16.75916	11.91336	-1.41	0.162	-40.29504	6.77671
w1BMI	879.0401	1099.342	0.80	0.425	-1292.805	3050.885
_cons	1144712	69990.47	16.36	0.000	1006439	1282984

36 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if sample_final2==1

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 155
DF adjustment: **Small sample** — DF: min = 153.04
avg = 153.04
max = 153.04
Model F test: **Equal FMI** — F(7, 153.0) = 23.46
Within VCE type: **OLS** — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	3758.043	9539.018	0.39	0.694	-15087.11	22603.2
Sex	76799.78	7431.893	10.33	0.000	62117.43	91482.13
w1Age	-2215.81	499.8868	-4.43	0.000	-3203.379	-1228.24
Race	-45346.09	7876.383	-5.76	0.000	-60906.56	-29785.61
PovStat	-3813.532	8916.842	-0.43	0.669	-21429.52	13802.46
TIME_V1SCAN	-5.034577	6.307992	-0.80	0.426	-17.49656	7.427407
w1BMI	569.539	582.0894	0.98	0.329	-580.429	1719.507
_cons	693885.9	37059.18	18.72	0.000	620672.3	767099.5

37 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if sample_final2==1

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 155
DF adjustment: **Small sample** — DF: min = 153.04
avg = 153.04
max = 153.04
Model F test: **Equal FMI** — F(7, 153.0) = 12.69
Within VCE type: **OLS** — Prob > F = 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	5125.791	8949.449	0.57	0.568	-12554.62	22806.2
Sex	58844.32	6972.557	8.44	0.000	45069.43	72619.21
w1Age	-903.9043	468.9908	-1.93	0.056	-1830.436	22.62753
Race	-18160.16	7389.576	-2.46	0.015	-32758.9	-3561.413
PovStat	-3628.676	8365.728	-0.43	0.665	-20155.89	12898.54
TIME_V1SCAN	-9.734285	5.918121	-1.64	0.102	-21.42604	1.957473
w1BMI	274.7862	546.1128	0.50	0.616	-804.1069	1353.679
_cons	448627.7	34768.7	12.90	0.000	379939.1	517316.3

```
38 .
39 .
40 . //ANALYSIS B//
41 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_final2==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        154
DF adjustment:   Small sample                   DF:     min       =     152.04
                                                        avg       =     152.04
                                                        max       =     152.04
Model F test:       Equal FMI                   F(   8,  152.0)   =      16.00
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   -24.0692   60.94302    -0.39   0.693    -144.4737    96.33532
          Sex |   15.19804   65.24542     0.23   0.816    -113.7067    144.1028
        w1Age |  -6.493333   3.199591    -2.03   0.044    -12.81473   -.1719326
         Race |  -95.06793    54.2394    -1.75   0.082    -202.2282    12.09229
      PovStat |  -157.0549   56.95268    -2.76   0.007    -269.5757   -44.53406
  TIME_V1SCAN |   .0264597   .0403725     0.66   0.513    -.0533037    .1062232
        w1BMI |   3.685378   3.722452     0.99   0.324    -3.669033    11.03979
    ICV_volM2 |   .0015767   .0002372     6.65   0.000     .0011081    .0020453
        _cons |   1946.653   374.3971     5.20   0.000     1206.961    2686.346
------------------------------------------------------------------------------

42 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_final2==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        154
DF adjustment:   Small sample                   DF:     min       =     152.04
                                                        avg       =     152.04
                                                        max       =     152.04
Model F test:       Equal FMI                   F(   8,  152.0)   =      19.60
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hipp~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   -12.47536   62.38029    -0.20   0.842    -135.7195    110.7687
          Sex |   -88.57231   66.78415    -1.33   0.187    -220.5171    43.37247
        w1Age |  -5.001348    3.27505    -1.53   0.129    -11.47183    1.469135
         Race |   -100.093   55.51857    -1.80   0.073    -209.7805    9.594468
      PovStat |  -146.3768   58.29584    -2.51   0.013    -261.5513   -31.20225
  TIME_V1SCAN |   .0661493   .0413246     1.60   0.112    -.0154953    .1477939
        w1BMI |   4.123528   3.810241     1.08   0.281    -3.404328    11.65138
    ICV_volM2 |   .0020791   .0002428     8.56   0.000     .0015995    .0025588
        _cons |   1515.577   383.2268     3.95   0.000     758.4398    2272.715
------------------------------------------------------------------------------
```

```
43 .
44 . //ANALYSIS C//
45 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_final2==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        154
DF adjustment:   Small sample                   DF:     min       =     152.04
                                                        avg       =     152.04
                                                        max       =     152.04
Model F test:       Equal FMI                   F(   8,  152.0)   =       3.05
Within VCE type:          OLS                   Prob > F          =     0.0033

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   2.874584   .7878793     3.65   0.000     1.317978    4.431189
          Sex |   .3941058   .8435013     0.47   0.641    -1.272391    2.060603
        w1Age |    -.00339   .0413647    -0.08   0.935    -.0851139    .0783339
         Race |   1.636443    .701214     2.33   0.021     .2510616    3.021824
      PovStat |   1.262256   .7362917     1.71   0.089    -.1924277     2.71694
  TIME_V1SCAN |  -.0009866   .0005219    -1.89   0.061    -.0020178    .0000446
        w1BMI |   .0720519   .0481243     1.50   0.136    -.0230269    .1671307
    ICV_volM2 |   2.38e-06   3.07e-06     0.78   0.438    -3.67e-06    8.44e-06
        _cons |  -7.866706   4.840255    -1.63   0.106    -17.42955    1.696138
------------------------------------------------------------------------------

46 .
47 . save, replace
file finaldata_imputed_final.dta saved

48 .
49 . ********************MALES************************************************************
50 .
51 . **Model 1**
52 .
53 . use HANDLS_paper51_NFLBRAINSCANFINALIZED,clear

54 .
55 . //ANALYSIS A//
56 . reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final2==1 & Sex==2,beta
note: Sex omitted because of collinearity.

      Source |       SS           df       MS      Number of obs   =        69
-------------+----------------------------------   F(5, 63)        =      3.71
       Model |  1.8770e+11         5  3.7540e+10   Prob > F        =    0.0052
    Residual |  6.3664e+11        63  1.0105e+10   R-squared       =    0.2277
-------------+----------------------------------   Adj R-squared   =    0.1664
       Total |  8.2434e+11        68  1.2123e+10   Root MSE        =    1.0e+05

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|                     Beta
-------------+----------------------------------------------------------------
      LnNFLw1 |   8712.872   27772.58     0.31   0.755                .0412938
          Sex |          0  (omitted)                                        .
        w1Age |  -2915.121   1600.256    -1.82   0.073               -.2334414
         Race |  -82955.56   26693.25    -3.11   0.003                -.372682
      PovStat |   20749.66   29496.43     0.70   0.484                .0818011
  TIME_V1SCAN |  -35.60768   20.88798    -1.70   0.093               -.1995442
        _cons |    1509546   103951.7    14.52   0.000                       .
------------------------------------------------------------------------------
```

```
57 . reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final2==1 & Sex==2,beta
   note: Sex omitted because of collinearity.

      Source |       SS           df       MS      Number of obs   =        69
-------------+----------------------------------   F(5, 63)        =      6.08
       Model |  8.1161e+10         5  1.6232e+10   Prob > F        =    0.0001
    Residual |  1.6831e+11        63  2.6715e+09   R-squared       =    0.3253
-------------+----------------------------------   Adj R-squared   =    0.2718
       Total |  2.4947e+11        68  3.6686e+09   Root MSE        =     51687

------------------------------------------------------------------------------
          GM | Coefficient  Std. err.      t    P>|t|                     Beta
-------------+----------------------------------------------------------------
      LnNFLw1 |  -908.6497   14279.68    -0.06   0.949               -.0078283
         Sex |           0  (omitted)                                        .
       w1Age |  -2601.107   822.7955    -3.16   0.002               -.3786393
        Race |  -56829.17   13724.73    -4.14   0.000               -.4640987
     PovStat |   4463.061   15166.03     0.29   0.770                .0319836
  TIME_V1SCAN |  -12.04622   10.73987    -1.12   0.266               -.1227134
       _cons |   911253.2    53448.3    17.05   0.000                       .
------------------------------------------------------------------------------

58 . reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final2==1 & Sex==2,beta
   note: Sex omitted because of collinearity.

      Source |       SS           df       MS      Number of obs   =        69
-------------+----------------------------------   F(5, 63)        =      2.15
       Model |  2.7251e+10         5  5.4503e+09   Prob > F        =    0.0708
    Residual |  1.5962e+11        63  2.5337e+09   R-squared       =    0.1458
-------------+----------------------------------   Adj R-squared   =    0.0780
       Total |  1.8687e+11        68  2.7481e+09   Root MSE        =     50336

------------------------------------------------------------------------------
          WM | Coefficient  Std. err.      t    P>|t|                     Beta
-------------+----------------------------------------------------------------
      LnNFLw1 |   2372.698   13906.36     0.17   0.865                .0236182
         Sex |           0  (omitted)                                        .
       w1Age |  -800.3529   801.2845    -1.00   0.322               -.1346119
        Race |  -26023.65   13365.91    -1.95   0.056               -.2455511
     PovStat |   5115.53   14769.53     0.35   0.730                .0423564
  TIME_V1SCAN |  -21.0788   10.45908    -2.02   0.048               -.2480973
       _cons |   596935.5   52050.96    11.47   0.000                       .
------------------------------------------------------------------------------

59 .
60 .
61 . //ANALYSIS B//
62 . reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final2==1 & Sex==2,beta
   note: Sex omitted because of collinearity.

      Source |       SS           df       MS      Number of obs   =        69
-------------+----------------------------------   F(6, 62)        =      8.55
       Model |  5632176.38         6  938696.063   Prob > F        =    0.0000
    Residual |  6810206.65        62  109842.043   R-squared       =    0.4527
-------------+----------------------------------   Adj R-squared   =    0.3997
       Total |    12442383        68  182976.221   Root MSE        =    331.42
```

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-85.89506	91.56356	-0.94	0.352	-.1047835
Sex	0	(omitted)			.
w1Age	-3.764066	5.278819	-0.71	0.478	-.0775854
Race	-1.73625	96.68423	-0.02	0.986	-.0020077
PovStat	-269.4047	97.42732	-2.77	0.007	-.2733726
TIME_V1SCAN	-.0075813	.069809	-0.11	0.914	-.0109355
ICV_volM2	.0021261	.0003687	5.77	0.000	.6162245
_cons	1354.759	702.5554	1.93	0.058	.

63 . reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final2==1 & Sex==2,beta
note: **Sex** omitted because of collinearity.

Source	SS	df	MS		
Model	7078468.56	6	1179744.76	Number of obs	= 69
Residual	7044788.44	62	113625.62	F(6, 62)	= 10.38
Total	14123257	68	207694.956	Prob > F	= 0.0000
				R-squared	= 0.5012
				Adj R-squared	= 0.4529
				Root MSE	= 337.08

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-49.62198	93.12719	-0.53	0.596	-.0568176
Sex	0	(omitted)			.
w1Age	-4.1028	5.368966	-0.76	0.448	-.0793757
Race	-10.05942	98.33531	-0.10	0.919	-.0109182
PovStat	-259.6157	99.09108	-2.62	0.011	-.2472664
TIME_V1SCAN	.0401761	.0710011	0.57	0.574	.0543938
ICV_volM2	.0025024	.000375	6.67	0.000	.6807411
_cons	939.9315	714.5529	1.32	0.193	.

64 .
65 . //ANALYSIS C//
66 . reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final2==1 & Sex==2,beta
note: **Sex** omitted because of collinearity.

Source	SS	df	MS		
Model	73.1266259	6	12.187771	Number of obs	= 69
Residual	615.019291	62	9.91966599	F(6, 62)	= 1.23
Total	688.145917	68	10.1197929	Prob > F	= 0.3040
				R-squared	= 0.1063
				Adj R-squared	= 0.0198
				Root MSE	= 3.1496

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	1.677859	.8701355	1.93	0.058	.2752273
Sex	0	(omitted)			.
w1Age	-.0580353	.050165	-1.16	0.252	-.160852
Race	1.598462	.9187976	1.74	0.087	.2485469
PovStat	.6659311	.9258593	0.72	0.475	.0908637
TIME_V1SCAN	-.0009293	.0006634	-1.40	0.166	-.1802528
ICV_volM2	4.32e-07	3.50e-06	0.12	0.902	.0168374
_cons	3.547895	6.676437	0.53	0.597	.

```
67 .
68 .
69 . **Model 2**
70 .
71 . use finaldata_imputed_final,clear

72 .
73 .
74 . //ANALYSIS A//
75 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if sample_final2==1 & Sex==2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         69
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         62
DF adjustment:   Small sample                   DF:     min       =      60.09
                                                        avg       =      60.09
                                                        max       =      60.09
Model F test:       Equal FMI                   F(   6,   60.1)   =       3.12
Within VCE type:          OLS                   Prob > F          =     0.0100

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   9427.104   27949.71     0.34   0.737    -46478.87    65333.08
         Sex |          0  (omitted)
       w1Age |  -3271.986   1725.288    -1.90   0.063    -6722.966     178.994
        Race |  -84426.63   26959.36    -3.13   0.003    -138351.7   -30501.58
     PovStat |    21116.5   29661.92     0.71   0.479     -38214.3    80447.29
  TIME_V1SCAN |  -35.34995   21.00509    -1.68   0.098    -77.36506    6.665162
       w1BMI |   1519.061   2652.124     0.57   0.569     -3785.81    6823.932
       _cons |    1483389   114052.7    13.01   0.000      1255257     1711521
------------------------------------------------------------------------------

76 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  if sample_final2==1 & Sex==2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         69
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         62
DF adjustment:   Small sample                   DF:     min       =      60.09
                                                        avg       =      60.09
                                                        max       =      60.09
Model F test:       Equal FMI                   F(   6,   60.1)   =       5.12
Within VCE type:          OLS                   Prob > F          =     0.0003

------------------------------------------------------------------------------
          GM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   -432.416   14344.81    -0.03   0.976    -29125.41    28260.58
         Sex |          0  (omitted)
       w1Age |  -2839.057   885.4809    -3.21   0.002    -4610.226   -1067.887
        Race |  -57810.05   13836.53    -4.18   0.000    -85486.36   -30133.73
     PovStat |   4707.662   15223.58     0.31   0.758    -25743.08     35158.4
  TIME_V1SCAN |  -11.87437   10.78058    -1.10   0.275    -33.43806    9.689326
       w1BMI |   1012.875   1361.168     0.74   0.460     -1709.78    3735.529
       _cons |   893812.1   58536.01    15.27   0.000     776726.3     1010898
------------------------------------------------------------------------------
```

```
77 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if sample_final2==1 & Sex==2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         69
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         62
DF adjustment:   Small sample                   DF:     min       =      60.09
                                                        avg       =      60.09
                                                        max       =      60.09
Model F test:       Equal FMI                   F(   6,   60.1)   =       1.78
Within VCE type:          OLS                   Prob > F          =     0.1193

------------------------------------------------------------------------------
          WM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   2529.751   14024.91     0.18   0.857    -25523.35    30582.85
         Sex |           0  (omitted)
       w1Age |  -878.8243   865.7335    -1.02   0.314    -2610.494    852.8457
        Race |  -26347.12   13527.96    -1.95   0.056    -53406.22    711.9742
     PovStat |   5196.195   14884.08     0.35   0.728    -24575.45    34967.84
  TIME_V1SCAN |  -21.02213   10.54016    -1.99   0.051    -42.10492    .0606681
       w1BMI |    334.028   1330.812     0.25   0.803    -2327.908    2995.964
       _cons |   591183.8   57230.58    10.33   0.000     476709.2    705658.4
------------------------------------------------------------------------------

78 .
79 .
80 . //ANALYSIS B//
81 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_final2==1 &

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         69
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         61
DF adjustment:   Small sample                   DF:     min       =      59.09
                                                        avg       =      59.09
                                                        max       =      59.09
Model F test:       Equal FMI                   F(   7,   59.1)   =       7.72
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |  -80.1804   90.93695    -0.88   0.382    -262.1388     101.778
         Sex |           0  (omitted)
       w1Age |  -6.631161   5.619326    -1.18   0.243    -17.87503    4.612712
        Race |  -15.82985   96.44764    -0.16   0.870    -208.8147     177.155
     PovStat |   -266.125   96.69223    -2.75   0.008    -459.5993   -72.65071
  TIME_V1SCAN |  -.0061798   .0692693    -0.09   0.929    -.1447828    .1324232
       w1BMI |   12.16103   8.636323     1.41   0.164    -5.119638     29.4417
    ICV_volM2 |   .0021048   .0003661     5.75   0.000     .0013723    .0028373
       _cons |   1180.842   707.9099     1.67   0.101    -235.6353    2597.319
------------------------------------------------------------------------------
```

```
82 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_final2==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         69
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         61
DF adjustment:   Small sample                   DF:     min       =      59.09
                                                        avg       =      59.09
                                                        max       =      59.09
Model F test:       Equal FMI                   F(   7,   59.1)   =      10.21
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hipp~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |  -40.53155   90.28987    -0.45   0.655    -221.1952    140.1321
          Sex |          0  (omitted)
        w1Age |  -8.663553   5.579341    -1.55   0.126    -19.82742    2.500312
         Race |  -32.47843   95.76135    -0.34   0.736    -224.0901    159.1332
      PovStat |  -254.3986    96.0042    -2.65   0.010    -446.4962   -62.30105
  TIME_V1SCAN |   .0424055   .0687764     0.62   0.540    -.0952113    .1800222
        w1BMI |   19.34483    8.57487     2.26   0.028     2.187124    36.50254
    ICV_volM2 |   .0024684   .0003635     6.79   0.000     .0017411    .0031957
        _cons |   663.2782   702.8726     0.94   0.349      -743.12    2069.676
------------------------------------------------------------------------------

83 .
84 . //ANALYSIS C//
85 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_final2==1 &

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         69
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         61
DF adjustment:   Small sample                   DF:     min       =      59.09
                                                        avg       =      59.09
                                                        max       =      59.09
Model F test:       Equal FMI                   F(   7,   59.1)   =       1.04
Within VCE type:          OLS                   Prob > F          =     0.4134

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   1.671605   .8779304     1.90   0.062    -.0850713    3.428281
          Sex |          0  (omitted)
        w1Age |  -.0548978   .0542505    -1.01   0.316    -.1634493    .0536536
         Race |   1.613884   .9311321     1.73   0.088    -.2492451    3.477013
      PovStat |   .6623421   .9334934     0.71   0.481    -1.205512    2.530196
  TIME_V1SCAN |  -.0009309   .0006687    -1.39   0.169     -.002269    .0004072
        w1BMI |  -.0133077   .0833774    -0.16   0.874    -.1801401    .1535246
    ICV_volM2 |   4.55e-07   3.53e-06     0.13   0.898    -6.62e-06    7.53e-06
        _cons |    3.73821   6.834357     0.55   0.586    -9.936853    17.41327
------------------------------------------------------------------------------
```

```
 86 .
 87 . save, replace
file finaldata_imputed_final.dta saved

 88 .
 89 .
 90 .
 91 .
 92 .
 93 . ********************FEMALES************************************************************
 94 .
 95 . **Model 1**
 96 .
 97 . use HANDLS_paper51_NFLBRAINSCANFINALIZED,clear

 98 .
 99 . //ANALYSIS A//
100 . reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final2==1 & Sex==1,beta
note: Sex omitted because of collinearity.

      Source |       SS           df       MS      Number of obs   =        94
-------------+----------------------------------   F(5, 88)        =      3.79
       Model |  1.0977e+11         5  2.1955e+10   Prob > F        =    0.0037
    Residual |  5.0966e+11        88  5.7916e+09   R-squared       =    0.1772
-------------+----------------------------------   Adj R-squared   =    0.1305
       Total |  6.1943e+11        93  6.6606e+09   Root MSE        =     76103

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|                     Beta
-------------+----------------------------------------------------------------
     LnNFLw1 |   6651.567   22629.02     0.29   0.769                .0401342
         Sex |           0  (omitted)                                        .
       w1Age |  -2541.428   1128.954    -2.25   0.027               -.300585
        Race |  -54217.97   17007.94    -3.19   0.002               -.3290755
     PovStat |  -25414.51   19977.55    -1.27   0.207               -.1483512
 TIME_V1SCAN |   .1023407   14.07713     0.01   0.994                .0008207
       _cons |    1300869   61260.96    21.23   0.000                       .
------------------------------------------------------------------------------

101 . reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final2==1 & Sex==1,beta
note: Sex omitted because of collinearity.

      Source |       SS           df       MS      Number of obs   =        94
-------------+----------------------------------   F(5, 88)        =      6.23
       Model |  5.4718e+10         5  1.0944e+10   Prob > F        =    0.0001
    Residual |  1.5466e+11        88  1.7575e+09   R-squared       =    0.2613
-------------+----------------------------------   Adj R-squared   =    0.2194
       Total |  2.0938e+11        93  2.2514e+09   Root MSE        =     41922

------------------------------------------------------------------------------
          GM | Coefficient  Std. err.      t    P>|t|                     Beta
-------------+----------------------------------------------------------------
     LnNFLw1 |   1302.355   12465.56     0.10   0.917                .0135162
         Sex |           0  (omitted)                                        .
       w1Age |  -1877.46    621.9024    -3.02   0.003               -.3819389
        Race |  -38716.74   9369.096    -4.13   0.000               -.4041892
     PovStat |   -12360.6   11004.95    -1.12   0.264               -.1241032
 TIME_V1SCAN |   1.275046   7.754609     0.16   0.870                .0175873
       _cons |   766305.8   33746.57    22.71   0.000                       .
------------------------------------------------------------------------------
```

```
102 . reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN if sample_final2==1 & Sex==1,beta
note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
				Number of obs	= 94
				F(5, 88)	= 1.76
Model	1.2201e+10	5	2.4403e+09	Prob > F	= 0.1295
Residual	1.2205e+11	88	1.3869e+09	R-squared	= 0.0909
				Adj R-squared	= 0.0392
Total	1.3425e+11	93	1.4436e+09	Root MSE	= 37242

WM	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	6300.416	11073.76	0.57	0.571	.0816576
Sex	0	(omitted)			.
w1Age	-1026.222	552.4661	-1.86	0.067	-.2607161
Race	-12997.94	8323.023	-1.56	0.122	-.1694588
PovStat	-14000.91	9776.232	-1.43	0.156	-.1755508
TIME_V1SCAN	-.0702499	6.888795	-0.01	0.992	-.0012101
_cons	506711.9	29978.72	16.90	0.000	.

```
103 .
104 .
105 .
106 . //ANALYSIS B//
107 . reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final2==1 & Sex==1,beta
note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
				Number of obs	= 94
				F(6, 87)	= 6.64
Model	2565756.59	6	427626.099	Prob > F	= 0.0000
Residual	5598824.86	87	64354.3088	R-squared	= 0.3143
				Adj R-squared	= 0.2670
Total	8164581.46	93	87791.1985	Root MSE	= 253.68

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	61.09561	75.50968	0.81	0.421	.1015386
Sex	0	(omitted)			.
w1Age	-9.826561	3.784139	-2.60	0.011	-.3201265
Race	-161.9003	60.57182	-2.67	0.009	-.270664
PovStat	-101.9871	67.22846	-1.52	0.133	-.1639778
TIME_V1SCAN	.0510731	.0469512	1.09	0.280	.112814
ICV_volM2	.0009877	.0003039	3.25	0.002	.3161902
_cons	2775.953	479.5748	5.79	0.000	.

```
108 . reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final2==1 & Sex==1,beta
note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
				Number of obs	= 94
				F(6, 87)	= 9.34
Model	4120651.09	6	686775.182	Prob > F	= 0.0000
Residual	6395221.44	87	73508.2924	R-squared	= 0.3919
				Adj R-squared	= 0.3499
Total	10515872.5	93	113073.898	Root MSE	= 271.12

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	**30.84676**	**80.70157**	**0.38**	**0.703**	**.0451726**
Sex	**0**	(omitted)			**.**
w1Age	**-6.025094**	**4.044329**	**-1.49**	**0.140**	**-.172953**
Race	**-163.2444**	**64.73661**	**-2.52**	**0.014**	**-.2404725**
PovStat	**-81.24931**	**71.85095**	**-1.13**	**0.261**	**-.1151076**
TIME_V1SCAN	**.0790218**	**.0501794**	**1.57**	**0.119**	**.153802**
ICV_volM2	**.0016767**	**.0003248**	**5.16**	**0.000**	**.4729482**
_cons	**1997.481**	**512.5493**	**3.90**	**0.000**	**.**

```
109 .
110 . //ANALYSIS C//
111 . reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN ICV_volM2 if sample_final2==1 & Sex==1,beta
note: Sex omitted because of collinearity.
```

Source	SS	df	MS		
Model	**335.694508**	**6**	**55.9490846**	Number of obs	= **94**
Residual	**1543.00568**	**87**	**17.7356974**	F(6, 87)	= **3.15**
				Prob > F	= **0.0076**
Total	**1878.70018**	**93**	**20.2010773**	R-squared	= **0.1787**
				Adj R-squared	= **0.1220**
				Root MSE	= **4.2114**

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	**3.411499**	**1.253539**	**2.72**	**0.008**	**.37377**
Sex	**0**	(omitted)			**.**
w1Age	**.0408189**	**.0628206**	**0.65**	**0.518**	**.0876637**
Race	**1.557714**	**1.005555**	**1.55**	**0.125**	**.1716757**
PovStat	**2.08481**	**1.116062**	**1.87**	**0.065**	**.2209757**
TIME_V1SCAN	**-.0011499**	**.0007794**	**-1.48**	**0.144**	**-.1674469**
ICV_volM2	**6.16e-06**	**5.04e-06**	**1.22**	**0.225**	**.1300474**
_cons	**-13.87631**	**7.96144**	**-1.74**	**0.085**	**.**

```
112 .
113 .
114 . **Model 2**
115 .
116 . use finaldata_imputed_final,clear

117 .
118 .
119 . //ANALYSIS A//
120 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if sample_final2==1 & Sex==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         94
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         87
DF adjustment:   Small sample                   DF:     min       =      85.07
                                                        avg       =      85.07
                                                        max       =      85.07
Model F test:       Equal FMI                   F(   6,   85.1)   =       3.33
Within VCE type:          OLS                   Prob > F          =     0.0054
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	16049.21	24458.46	0.66	0.513	-32580.21	64678.63
Sex	0	(omitted)				
w1Age	-2738.795	1145.536	-2.39	0.019	-5016.401	-461.1887
Race	-52921.86	17053.85	-3.10	0.003	-86829.09	-19014.62
PovStat	-25834.13	19979.18	-1.29	0.199	-65557.63	13889.38
TIME_V1SCAN	1.670846	14.16036	0.12	0.906	-26.48343	29.82512
w1BMI	1190.578	1176.781	1.01	0.315	-1149.151	3530.307
_cons	1251284	78447.4	15.95	0.000	1095311	1407256

121 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if sample_final2==1 & Sex==1

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 87
DF adjustment: Small sample — DF: min = 85.07
avg = 85.07
max = 85.07
Model F test: Equal FMI — F(6, 85.1) = 5.50
Within VCE type: OLS — Prob > F = 0.0001

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	7873.719	13424.79	0.59	0.559	-18818.06	34565.5
Sex	0	(omitted)				
w1Age	-2015.47	628.7632	-3.21	0.002	-3265.606	-765.3346
Race	-37810.42	9360.54	-4.04	0.000	-56421.47	-19199.37
PovStat	-12654.02	10966.2	-1.15	0.252	-34457.52	9149.467
TIME_V1SCAN	2.371834	7.772359	0.31	0.761	-13.08152	17.82519
w1BMI	832.5195	645.9131	1.29	0.201	-451.7143	2116.753
_cons	731632.5	43058.32	16.99	0.000	646022	817243

122 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI if sample_final2==1 & Sex==1

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 87
DF adjustment: Small sample — DF: min = 85.07
avg = 85.07
max = 85.07
Model F test: Equal FMI — F(6, 85.1) = 1.59
Within VCE type: OLS — Prob > F = 0.1610

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	10233.37	11987.91	0.85	0.396	-13601.54	34068.29
Sex	0	(omitted)				
w1Age	-1108.821	561.4656	-1.97	0.052	-2225.152	7.51064
Race	-12455.52	8358.665	-1.49	0.140	-29074.59	4163.562
PovStat	-14176.52	9792.466	-1.45	0.151	-33646.35	5293.305
TIME_V1SCAN	.586177	6.94047	0.08	0.933	-13.21318	14.38553
w1BMI	498.2624	576.7799	0.86	0.390	-648.5176	1645.042
_cons	485960	38449.71	12.64	0.000	409512.5	562407.5

```
123 .
124 .
125 .
126 . //ANALYSIS B//
127 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_final2==1 &

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         94
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         86
DF adjustment:   Small sample                   DF:     min       =      84.07
                                                        avg       =      84.07
                                                        max       =      84.07
Model F test:       Equal FMI                   F(   7,   84.1)   =       5.77
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   86.97818   81.97476     1.06   0.292    -76.03572    249.9921
          Sex |          0  (omitted)
        w1Age |  -10.39864   3.854962    -2.70   0.008    -18.06456   -2.732713
         Race |  -160.2423   60.71993    -2.64   0.010    -280.9891   -39.49548
      PovStat |  -103.9379   67.39748    -1.54   0.127    -237.9636    30.0878
  TIME_V1SCAN |   .0554806   .0473461     1.17   0.245    -.0386711    .1496323
        w1BMI |   3.240968    3.95298     0.82   0.415    -4.619875    11.10181
    ICV_volM2 |   .0009611   .0003062     3.14   0.002     .0003522    .0015699
        _cons |   2679.031   494.8096     5.41   0.000      1695.06    3663.003
------------------------------------------------------------------------------

128 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_final2==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         94
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         86
DF adjustment:   Small sample                   DF:     min       =      84.07
                                                        avg       =      84.07
                                                        max       =      84.07
Model F test:       Equal FMI                   F(   7,   84.1)   =       7.92
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hipp~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   36.56506   87.93833     0.42   0.679    -138.3079     211.438
          Sex |          0  (omitted)
        w1Age |  -6.151484   4.135406    -1.49   0.141     -14.3751    2.072128
         Race |  -162.8781   65.13724    -2.50   0.014    -292.4091   -33.34709
      PovStat |  -81.68031   72.30057    -1.13   0.262    -225.4562    62.09562
  TIME_V1SCAN |   .0799955   .0507904     1.58   0.119    -.0210056    .1809967
        w1BMI |   .7160347   4.240555     0.17   0.866    -7.716676    9.148745
    ICV_volM2 |   .0016708   .0003284     5.09   0.000     .0010177     .002324
        _cons |   1976.068   530.8064     3.72   0.000     920.5133    3031.622
------------------------------------------------------------------------------
```

```
129 .
130 . //ANALYSIS C//
131 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_final2==1 &

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         94
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         86
DF adjustment:   Small sample                   DF:     min       =      84.07
                                                        avg       =      84.07
                                                        max       =      84.07
Model F test:       Equal FMI                   F(   7,   84.1)   =       3.73
Within VCE type:          OLS                   Prob > F          =     0.0015

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   4.663954   1.320395     3.53   0.001     2.038235    7.289673
          Sex |          0  (omitted)
        w1Age |   .0131362   .0620932     0.21   0.833    -.1103414    .1366138
         Race |   1.637945   .9780361     1.67   0.098    -.3069648    3.582854
      PovStat |    1.99041   1.085594     1.83   0.070     -.168387    4.149206
  TIME_V1SCAN |  -.0009366   .0007626    -1.23   0.223    -.0024532    .0005799
        w1BMI |   .1568302    .063672     2.46   0.016      .030213    .2834474
    ICV_volM2 |   4.87e-06   4.93e-06     0.99   0.326    -4.93e-06    .0000147
        _cons |  -18.56635   7.970063    -2.33   0.022    -34.41551   -2.717195
------------------------------------------------------------------------------

132 .
133 . save, replace
    file finaldata_imputed_final.dta saved

134 .
135 .
136 .
137 . //INTERACTION BY Sex//
138 . use finaldata_imputed_final,clear

139 .
140 .
141 . //ANALYSIS A//
142 . mi estimate: reg TOTALBRAIN c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI  if sample_final2==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        154
DF adjustment:   Small sample                   DF:     min       =     152.04
                                                        avg       =     152.04
                                                        max       =     152.04
Model F test:       Equal FMI                   F(   8,  152.0)   =      17.66
Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	18804.28	24509.22	0.77	0.444	-29618.34	67226.9
Sex						
Men	167930.7	61581.96	2.73	0.007	46263.84	289597.6
Sex#c.LnNFLw1						
Men	-11045.54	29480.61	-0.37	0.708	-69290.1	47199.01
Sex	0	(omitted)				
w1Age	-2841.657	971.1689	-2.93	0.004	-4760.386	-922.9287
Race	-65377.7	14926.88	-4.38	0.000	-94868.59	-35886.8
PovStat	-1405.673	16923.18	-0.08	0.934	-34840.63	32029.28
TIME_V1SCAN	-16.362	11.99347	-1.36	0.175	-40.05738	7.333374
w1BMI	1010.251	1156.692	0.87	0.384	-1275.013	3295.516
_cons	1276734	75499.56	16.91	0.000	1127570	1425898

143 . mi estimate: reg GM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI if sample_final2==1

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 154
DF adjustment: Small sample — DF: min = 152.04
avg = 152.04
max = 152.04
Model F test: Equal FMI — F(8, 152.0) = 20.59
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	11485	12950.54	0.89	0.377	-14101.25	37071.25
Sex						
Men	104768.5	32539.57	3.22	0.002	40480.39	169056.6
Sex#c.LnNFLw1						
Men	-13753.28	15577.4	-0.88	0.379	-44529.38	17022.83
Sex	0	(omitted)				
w1Age	-2316.827	513.1604	-4.51	0.000	-3330.673	-1302.981
Race	-45601.16	7887.285	-5.78	0.000	-61183.99	-30018.33
PovStat	-3300.167	8942.115	-0.37	0.713	-20967.01	14366.68
TIME_V1SCAN	-4.540057	6.337284	-0.72	0.475	-17.06057	7.980452
w1BMI	732.9158	611.1896	1.20	0.232	-474.6054	1940.437
_cons	753943.7	39893.56	18.90	0.000	675126.4	832761

```
144 . mi estimate: reg WM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI  if sample_final2==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        154
DF adjustment:   Small sample                   DF:     min       =     152.04
                                                        avg       =     152.04
                                                        max       =     152.04
Model F test:       Equal FMI                   F(   8,  152.0)   =      11.05
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
          WM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   7785.722    12176.7     0.64   0.524    -16271.66    31843.11
              |
          Sex |
          Men |   68472.28   30595.22     2.24   0.027     8025.607    128918.9
              |
Sex#c.LnNFLw1 |
          Men |   -4734.43   14646.59    -0.32   0.747    -33671.56     24202.7
              |
          Sex |          0  (omitted)
        w1Age |  -938.6784   482.4973    -1.95   0.054    -1891.943    14.58661
         Race |  -18247.97   7415.992    -2.46   0.015    -32899.67   -3596.265
      PovStat |  -3451.955   8407.793    -0.41   0.682    -20063.15    13159.24
  TIME_V1SCAN |  -9.564051    5.95861    -1.61   0.111    -21.33642    2.208314
        w1BMI |   331.0271   574.6689     0.58   0.565    -804.3405    1466.395
        _cons |   501708.8   37509.78    13.38   0.000     427601.1    575816.5
------------------------------------------------------------------------------

145 .
146 .
147 . //ANALYSIS B//
148 . mi estimate: reg Left_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_fina

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        153
DF adjustment:   Small sample                   DF:     min       =     151.04
                                                        avg       =     151.04
                                                        max       =     151.04
Model F test:       Equal FMI                   F(   9,  151.0)   =      14.42
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippoc~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   42.84747    82.5798     0.52   0.605    -120.3133    206.0082
              |
          Sex |
          Men |   258.3796   213.0617     1.21   0.227    -162.5867    679.3459
              |
Sex#c.LnNFLw1 |
          Men |  -119.0032   99.26933    -1.20   0.232    -315.1391    77.13258
              |
          Sex |          0  (omitted)
        w1Age |   -7.37333   3.278303    -2.25   0.026    -13.85058   -.8960765
         Race |  -97.80874   54.21082    -1.80   0.073    -204.9182    9.300717
      PovStat |  -152.6538    56.9904    -2.68   0.008    -265.2552    -40.0525
  TIME_V1SCAN |   .0306649   .0404676     0.76   0.450    -.0492908    .1106206
```

w1BMI	5.104574	3.901147	1.31	0.193	-2.603291	12.81244
ICV_volM2	.0015704	.0002369	6.63	0.000	.0011024	.0020385
_cons	1825.784	418.0328	4.37	0.000	999.8368	2651.731

```
149 . mi estimate: reg Right_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_fin

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        153
DF adjustment:   Small sample                   DF:     min       =     151.04
                                                        avg       =     151.04
                                                        max       =     151.04
Model F test:       Equal FMI                   F(   9,  151.0)   =      17.52
Within VCE type:          OLS                   Prob > F          =     0.0000
```

Right_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	43.38588	84.66018	0.51	0.609	-123.8853	210.657
Sex						
Men	114.4328	218.4292	0.52	0.601	-317.1386	546.0042
Sex#c.LnNFLw1						
Men	-99.34249	101.7701	-0.98	0.331	-300.4194	101.7344
Sex	0	(omitted)				
w1Age	-5.735959	3.360891	-1.71	0.090	-12.37639	.9044718
Race	-102.381	55.57651	-1.84	0.067	-212.1888	7.426794
PovStat	-142.7028	58.42612	-2.44	0.016	-258.1408	-27.26478
TIME_V1SCAN	.0696598	.0414871	1.68	0.095	-.0123102	.1516297
w1BMI	5.308256	3.999425	1.33	0.186	-2.593788	13.2103
ICV_volM2	.0020739	.0002429	8.54	0.000	.0015941	.0025538
_cons	1313.417	428.564	3.06	0.003	466.6628	2160.172

```
150 .
151 . //ANALYSIS C//
152 . mi estimate: reg LnLesion_Volume c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI ICV_volM2 if sample_final

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        153
DF adjustment:   Small sample                   DF:     min       =     151.04
                                                        avg       =     151.04
                                                        max       =     151.04
Model F test:       Equal FMI                   F(   9,  151.0)   =       3.71
Within VCE type:          OLS                   Prob > F          =     0.0003
```

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	**4.864757**	**1.04586**	**4.65**	**0.000**	**2.798352**	**6.931162**
Sex						
Men	**7.626585**	**2.698393**	**2.83**	**0.005**	**2.295114**	**12.95806**
Sex#c.LnNFLw1						
Men	**-3.539283**	**1.25723**	**-2.82**	**0.006**	**-6.023312**	**-1.055254**
Sex	**0**	(omitted)				
w1Age	**-.029562**	**.0415192**	**-0.71**	**0.478**	**-.1115954**	**.0524714**
Race	**1.554929**	**.6865714**	**2.26**	**0.025**	**.1984043**	**2.911453**
PovStat	**1.393149**	**.7217743**	**1.93**	**0.055**	**-.0329294**	**2.819227**
TIME_V1SCAN	**-.0008616**	**.0005125**	**-1.68**	**0.095**	**-.0018742**	**.0001511**
w1BMI	**.1142603**	**.0494074**	**2.31**	**0.022**	**.0166414**	**.2118792**
ICV_volM2	**2.20e-06**	**3.00e-06**	**0.73**	**0.465**	**-3.73e-06**	**8.13e-06**
_cons	**-11.51939**	**5.294319**	**-2.18**	**0.031**	**-21.97988**	**-1.058906**

```
153 .
154 . save, replace
    file finaldata_imputed_final.dta saved

155 .
156 .
157 . **********************TABLE S3: LnNFLw1, MODELS 3-6***************************
158 .
159 . ************MODEL 3: MODEL 2+w1dxDiabetes w1Glucose******
160 .
161 . //Overall//
162 .
163 . use finaldata_imputed_final,clear

164 .
165 .
166 . //ANALYSIS A//
167 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose if sample_fina

    Multiple-imputation estimates                   Imputations       =          5
    Linear regression                               Number of obs     =        163
                                                    Average RVI       =     0.0072
                                                    Largest FMI       =     0.0705
                                                    Complete DF       =        153
    DF adjustment:   Small sample                   DF:     min       =     121.42
                                                            avg       =     146.97
                                                            max       =     151.02
    Model F test:       Equal FMI                   F(   9,  151.0)   =      15.45
    Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	**12894.46**	**18928.17**	**0.68**	**0.497**	**-24504.08**	**50293**
Sex	**145283**	**14408.25**	**10.08**	**0.000**	**116815.2**	**173750.8**
w1Age	**-2788.342**	**972.5789**	**-2.87**	**0.005**	**-4710.005**	**-866.679**
Race	**-65252.09**	**15014.86**	**-4.35**	**0.000**	**-94918.43**	**-35585.74**
PovStat	**-1986.46**	**17038.47**	**-0.12**	**0.907**	**-35651.01**	**31678.09**
TIME_V1SCAN	**-16.50432**	**12.15071**	**-1.36**	**0.176**	**-40.51183**	**7.503188**
w1BMI	**866.2457**	**1138.126**	**0.76**	**0.448**	**-1382.463**	**3114.955**
w1dxDiabetes	**2092.29**	**14260.95**	**0.15**	**0.884**	**-26140.03**	**30324.61**
w1Glucose	**-26.8493**	**337.8595**	**-0.08**	**0.937**	**-694.7253**	**641.0267**
_cons	**1147763**	**74812.19**	**15.34**	**0.000**	**999939.5**	**1295587**

```
168 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose  if sample_final2==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0029
                                                Largest FMI       =     0.0284
                                                Complete DF       =        153
DF adjustment:   Small sample                   DF:     min       =     142.92
                                                        avg       =     149.89
                                                        max       =     151.03
Model F test:       Equal FMI                   F(   9,  151.0)   =      18.02
Within VCE type:          OLS                   Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	2548.743	10010.74	0.25	0.799	-17230.47	22327.95
Sex	76715.89	7623.497	10.06	0.000	61653.37	91778.4
w1Age	-2161.203	514.1599	-4.20	0.000	-3177.086	-1145.32
Race	-45031.39	7944.679	-5.67	0.000	-60728.48	-29334.29
PovStat	-3843.092	9014.731	-0.43	0.670	-21654.35	13968.17
TIME_V1SCAN	-5.223046	6.427018	-0.81	0.418	-17.92155	7.475461
w1BMI	550.9715	602.2088	0.91	0.362	-638.8726	1740.816
w1dxDiabetes	-3319.124	7389.194	-0.45	0.654	-17925.36	11287.11
w1Glucose	84.87114	177.1173	0.48	0.633	-265.1205	434.8628
_cons	687166.4	39515.44	17.39	0.000	609089.6	765243.3

```
169 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose if sample_final2==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0095
                                                Largest FMI       =     0.0915
                                                Complete DF       =        153
DF adjustment:   Small sample                   DF:     min       =     109.39
                                                        avg       =     145.24
                                                        max       =     151.01
Model F test:       Equal FMI                   F(   9,  150.9)   =       9.67
Within VCE type:          OLS                   Prob > F          =     0.0000
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	5593.08	9402.189	0.59	0.553	-12984	24170.16
Sex	58688.76	7154.841	8.20	0.000	44552.21	72825.3
w1Age	-937.9477	483.2207	-1.94	0.054	-1892.726	16.83069
Race	-18294.54	7456.018	-2.45	0.015	-33026.13	-3562.944
PovStat	-3767.417	8461.243	-0.45	0.657	-20485.13	12950.29
TIME_V1SCAN	-9.478112	6.034734	-1.57	0.118	-21.40164	2.445419
w1BMI	266.2756	565.1646	0.47	0.638	-850.3761	1382.927
w1dxDiabetes	2424.123	7156.933	0.34	0.735	-11760.11	16608.36
w1Glucose	-38.58019	168.5933	-0.23	0.819	-371.9454	294.785
_cons	452540.2	37182.41	12.17	0.000	379068.6	526011.8

```
170 .
171 .
172 . //ANALYSIS B//
173 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_volM
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0045
Largest FMI = 0.0450
Complete DF = 152
DF adjustment: Small sample — DF: min = 134.46
avg = 148.12
max = 150.03
Model F test: Equal FMI — F(10, 150.0) = 12.85
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-42.50867	63.7203	-0.67	0.506	-168.4146	83.39721
Sex	5.34735	65.89517	0.08	0.935	-124.8551	135.5498
w1Age	-6.292359	3.280444	-1.92	0.057	-12.7743	.1895788
Race	-92.99949	54.49791	-1.71	0.090	-200.6822	14.68318
PovStat	-163.8987	57.35792	-2.86	0.005	-277.2324	-50.56506
TIME_V1SCAN	.0321167	.0409588	0.78	0.434	-.0488143	.1130477
w1BMI	2.616711	3.834173	0.68	0.496	-4.959243	10.19267
w1dxDiabetes	5.36774	47.41706	0.11	0.910	-88.412	99.14748
w1Glucose	.9511309	1.130845	0.84	0.402	-1.283885	3.186147
ICV_volM2	.0015704	.0002378	6.60	0.000	.0011006	.0020403
_cons	1924.606	386.2142	4.98	0.000	1161.47	2687.742

```
174 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_vol
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0003
Largest FMI = 0.0031
Complete DF = 152
DF adjustment: Small sample — DF: min = 149.56
avg = 149.97
max = 150.04
Model F test: Equal FMI — F(10, 150.0) = 16.23
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-40.46125	64.73098	-0.63	0.533	-168.3634	87.44088
Sex	-104.9156	66.96336	-1.57	0.119	-237.2286	27.39747
w1Age	-4.797604	3.330794	-1.44	0.152	-11.37893	1.783723
Race	-97.57967	55.37653	-1.76	0.080	-206.9982	11.8389
PovStat	-157.7157	58.2858	-2.71	0.008	-272.8827	-42.54871
TIME_V1SCAN	.0761102	.0416107	1.83	0.069	-.0061084	.1583288
w1BMI	2.371795	3.896104	0.61	0.544	-5.326523	10.07011
w1dxDiabetes	17.45797	47.19732	0.37	0.712	-75.80169	110.7176
w1Glucose	1.378479	1.139225	1.21	0.228	-.8725424	3.629501
ICV_volM2	.0020684	.0002416	8.56	0.000	.0015909	.0025458
_cons	1496.548	392.0807	3.82	0.000	721.8336	2271.262

```
175 .
176 . //ANALYSIS C//
177 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_volM2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0003
                                                Largest FMI       =     0.0034
                                                Complete DF       =        152
DF adjustment:   Small sample                   DF:     min       =     149.51
                                                        avg       =     149.97
                                                        max       =     150.04
Model F test:       Equal FMI                   F(  10,  150.0)   =       2.57
Within VCE type:          OLS                   Prob > F          =     0.0068

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   3.078152   .8238522     3.74   0.000     1.450301    4.706002
          Sex |    .5203552   .8523177     0.61   0.542    -1.163741    2.204452
        w1Age |   -.0042967   .0423923    -0.10   0.919    -.0880598    .0794663
         Race |   1.621495   .7048398     2.30   0.023     .2288007    3.014189
      PovStat |   1.350351   .7418531     1.82   0.071    -.1154775     2.81618
  TIME_V1SCAN |   -.0010669   .0005296    -2.01   0.046    -.0021134   -.0000204
        w1BMI |    .0855152   .0495903     1.72   0.087    -.0124702    .1835007
 w1dxDiabetes |   -.1790351   .6008097    -0.30   0.766     -1.36621    1.008139
    w1Glucose |   -.0096849   .0144991    -0.67   0.505     -.038334    .0189641
    ICV_volM2 |    2.47e-06   3.08e-06     0.80   0.423    -3.61e-06    8.55e-06
        _cons |   -7.809353   4.990204    -1.56   0.120    -17.66951    2.050807
------------------------------------------------------------------------------

178 .
179 . save, replace
file finaldata_imputed_final.dta saved

180 .
181 .
182 . //Males//
183 .
184 . use finaldata_imputed_final,clear

185 .
186 .
187 . //ANALYSIS A//
188 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose if sample_fina

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         69
                                                Average RVI       =     0.0144
                                                Largest FMI       =     0.1194
                                                Complete DF       =         60
DF adjustment:   Small sample                   DF:     min       =      44.70
                                                        avg       =      56.07
                                                        max       =      58.07
Model F test:       Equal FMI                   F(   8,   58.0)   =       2.42
Within VCE type:          OLS                   Prob > F          =     0.0251
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	**13901.04**	**29973.22**	**0.46**	**0.645**	**-46097.48**	**73899.57**
Sex	**0**	(omitted)				
w1Age	**-3519.525**	**1787.791**	**-1.97**	**0.054**	**-7098.242**	**59.19133**
Race	**-83585.74**	**27180.91**	**-3.08**	**0.003**	**-137995.3**	**-29176.15**
PovStat	**23714.59**	**29943.32**	**0.79**	**0.432**	**-36222.05**	**83651.23**
TIME_V1SCAN	**-33.08148**	**22.71105**	**-1.46**	**0.151**	**-78.54424**	**12.38129**
w1BMI	**1223.543**	**2795.608**	**0.44**	**0.663**	**-4372.54**	**6819.627**
w1dxDiabetes	**24905.95**	**24611.85**	**1.01**	**0.317**	**-24673.96**	**74485.86**
w1Glucose	**-389.3391**	**481.9535**	**-0.81**	**0.423**	**-1355.512**	**576.8343**
_cons	**1513711**	**121681.2**	**12.44**	**0.000**	**1270134**	**1757288**

189 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose if sample_final2==1 &

Multiple-imputation estimates — Imputations = **5**
Linear regression — Number of obs = **69**
Average RVI = **0.0058**
Largest FMI = **0.0517**
Complete DF = **60**
DF adjustment: **Small sample** — DF: min = **53.58**
avg = **57.42**
max = **58.08**
Model F test: **Equal FMI** — F(**8**, **58.1**) = **3.75**
Within VCE type: **OLS** — Prob > F = **0.0013**

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	**248.0043**	**15489.09**	**0.02**	**0.987**	**-30756.07**	**31252.08**
Sex	**0**	(omitted)				
w1Age	**-2885.625**	**923.7709**	**-3.12**	**0.003**	**-4734.717**	**-1036.533**
Race	**-57556.78**	**14043.95**	**-4.10**	**0.000**	**-85668.24**	**-29445.32**
PovStat	**5403.159**	**15483.63**	**0.35**	**0.728**	**-25589.83**	**36396.15**
TIME_V1SCAN	**-10.8432**	**11.73575**	**-0.92**	**0.359**	**-34.33488**	**12.64849**
w1BMI	**894.8355**	**1444.883**	**0.62**	**0.538**	**-1997.371**	**3787.042**
w1dxDiabetes	**6903.5**	**12308.46**	**0.56**	**0.577**	**-17777.9**	**31584.9**
w1Glucose	**-86.57429**	**245.9105**	**-0.35**	**0.726**	**-579.0206**	**405.872**
_cons	**900268.9**	**62876.03**	**14.32**	**0.000**	**774410.4**	**1026127**

190 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose if sample_final2==1 &

Multiple-imputation estimates — Imputations = **5**
Linear regression — Number of obs = **69**
Average RVI = **0.0181**
Largest FMI = **0.1472**
Complete DF = **60**
DF adjustment: **Small sample** — DF: min = **40.91**
avg = **55.46**
max = **58.07**
Model F test: **Equal FMI** — F(**8**, **57.9**) = **1.48**
Within VCE type: **OLS** — Prob > F = **0.1854**

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4182.106	15009.04	0.28	0.782	-25862.57	34226.78
Sex	0	(omitted)				
w1Age	-984.9839	895.3231	-1.10	0.276	-2777.239	807.271
Race	-25815.36	13610.79	-1.90	0.063	-53061.31	1430.591
PovStat	6624.282	14988.61	0.44	0.660	-23377.96	36626.52
TIME_V1SCAN	-19.09169	11.37101	-1.68	0.099	-41.85431	3.670935
w1BMI	104.7328	1399.681	0.07	0.941	-2697.091	2906.557
w1dxDiabetes	14188.41	12494.85	1.14	0.263	-11047.24	39424.05
w1Glucose	-187.2036	242.7305	-0.77	0.444	-674.1128	299.7056
_cons	605409	60935.51	9.94	0.000	483428	727389.9

```
191 .
192 . //ANALYSIS B//
193 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_volM
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0100
Largest FMI = 0.0865
Complete DF = 59
DF adjustment: Small sample — DF: min = 48.43
avg = 55.87
max = 57.08
Model F test: Equal FMI — F(9, 57.0) = 6.01
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-106.155	97.47868	-1.09	0.281	-301.3511	89.04104
Sex	0	(omitted)				
w1Age	-5.79533	5.827148	-0.99	0.324	-17.46409	5.873435
Race	-16.01915	97.2033	-0.16	0.870	-210.6597	178.6214
PovStat	-262.0521	97.67984	-2.68	0.010	-457.6474	-66.45686
TIME_V1SCAN	.022743	.074487	0.31	0.761	-.1264132	.1718992
w1BMI	9.198823	9.08968	1.01	0.316	-9.002737	27.40038
w1dxDiabetes	52.30356	80.17251	0.65	0.517	-108.8571	213.4642
w1Glucose	.5452708	1.573915	0.35	0.730	-2.609531	3.700073
ICV_volM2	.0020691	.0003759	5.50	0.000	.0013164	.0028217
_cons	1182.134	749.7582	1.58	0.120	-319.4133	2683.682

```
194 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_vol
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0018
Largest FMI = 0.0140
Complete DF = 59
DF adjustment: Small sample — DF: min = 56.26
avg = 56.94
max = 57.09
Model F test: Equal FMI — F(9, 57.1) = 8.44
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-89.01409	95.28636	-0.93	0.354	-279.8182	101.79
Sex	0	(omitted)				
w1Age	-6.950345	5.694104	-1.22	0.227	-18.35239	4.451702
Race	-30.96156	95.04268	-0.33	0.746	-221.2761	159.3529
PovStat	-250.9287	95.48713	-2.63	0.011	-442.1318	-59.72561
TIME_V1SCAN	.0884252	.0727917	1.21	0.229	-.0573331	.2341835
w1BMI	14.73664	8.88331	1.66	0.103	-3.051334	32.52462
w1dxDiabetes	57.25741	75.65536	0.76	0.452	-94.28286	208.7977
w1Glucose	1.351023	1.518829	0.89	0.377	-1.690689	4.392734
ICV_volM2	.0024395	.000367	6.65	0.000	.0017046	.0031744
_cons	581.595	731.2909	0.80	0.430	-882.795	2045.985

```
195 .
196 . //ANALYSIS C//
197 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_volM2
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0018
Largest FMI = 0.0162
Complete DF = 59
DF adjustment: Small sample — DF: min = 56.10
avg = 56.95
max = 57.10
Model F test: Equal FMI — F(9, 57.1) = 0.91
Within VCE type: OLS — Prob > F = 0.5218

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1.954773	.9427815	2.07	0.043	.0669515	3.842594
Sex	0	(omitted)				
w1Age	-.0650846	.0563359	-1.16	0.253	-.1778913	.0477221
Race	1.604879	.9406891	1.71	0.093	-.2787647	3.488522
PovStat	.6452339	.9452183	0.68	0.498	-1.247477	2.537944
TIME_V1SCAN	-.001191	.0007206	-1.65	0.104	-.0026341	.000252
w1BMI	.0126112	.0879399	0.14	0.886	-.1634813	.1887037
w1dxDiabetes	-.2928943	.7496713	-0.39	0.698	-1.794608	1.20882
w1Glucose	-.0081776	.0150189	-0.54	0.588	-.0382539	.0218987
ICV_volM2	5.82e-07	3.63e-06	0.16	0.873	-6.69e-06	7.85e-06
_cons	4.301019	7.234387	0.59	0.555	-10.18529	18.78732

```
198 .
199 . save, replace
file finaldata_imputed_final.dta saved

200 .
201 .
```

```
202 .
203 . //Females//
204 .
205 . use finaldata_imputed_final,clear

206 .
207 .
208 . //ANALYSIS A//
209 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose if sample_fina

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         94
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         85
DF adjustment:   Small sample                   DF:     min       =      83.07
                                                        avg       =      83.07
                                                        max       =      83.07
Model F test:       Equal FMI                   F(   8,   83.1)   =       2.65
Within VCE type:          OLS                   Prob > F          =     0.0123

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   11332.63   25483.11     0.44   0.658    -39351.63     62016.9
         Sex |          0  (omitted)
       w1Age |   -2426.87   1180.813    -2.06   0.043    -4775.432   -78.30856
        Race |  -50075.58   17462.07    -2.87   0.005    -84806.51   -15344.66
     PovStat |  -22472.81   20326.88    -1.11   0.272    -62901.65    17956.04
  TIME_V1SCAN |  -1.700283   14.66724    -0.12   0.908    -30.87248    27.47191
       w1BMI |   1162.009    1232.07     0.94   0.348    -1288.498    3612.517
w1dxDiabetes |  -20859.91   18187.81    -1.15   0.255    -57034.31    15314.48
   w1Glucose |   385.9713   554.3547     0.70   0.488    -716.6045    1488.547
       _cons |    1214285   86551.77    14.03   0.000      1042139     1386431
------------------------------------------------------------------------------

210 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose  if sample_final2==1 &

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         94
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         85
DF adjustment:   Small sample                   DF:     min       =      83.07
                                                        avg       =      83.07
                                                        max       =      83.07
Model F test:       Equal FMI                   F(   8,   83.1)   =       4.41
Within VCE type:          OLS                   Prob > F          =     0.0002

------------------------------------------------------------------------------
          GM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   4283.142   13922.22     0.31   0.759    -23407.26    31973.54
         Sex |          0  (omitted)
       w1Age |   -1801.901   645.1152    -2.79   0.006    -3084.994   -518.8088
        Race |     -35699   9540.073    -3.74   0.000    -54673.59   -16724.41
     PovStat |  -10442.55   11105.21    -0.94   0.350     -32530.1    11644.99
  TIME_V1SCAN |  -.0843989   8.013171    -0.01   0.992    -16.02208    15.85328
       w1BMI |   790.9935   673.1182     1.18   0.243    -547.7953    2129.782
w1dxDiabetes |  -14548.72   9936.572    -1.46   0.147    -34311.92    5214.483
   w1Glucose |   293.4519   302.8613     0.97   0.335    -308.9197    895.8236
       _cons |   705119.2   47285.94    14.91   0.000     611070.5    799167.9
------------------------------------------------------------------------------
```

```
211 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose if sample_final2==1 &
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 85
DF adjustment: **Small sample** — DF: min = 83.07
avg = 83.07
max = 83.07
Model F test: **Equal FMI** — F(8, 83.1) = 1.31
Within VCE type: **OLS** — Prob > F = 0.2485

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	9325.893	12509.53	0.75	0.458	-15554.76	34206.55
Sex	0	(omitted)				
w1Age	-977.6837	579.6554	-1.69	0.095	-2130.581	175.2135
Race	-11743.1	8572.041	-1.37	0.174	-28792.34	5306.134
PovStat	-12495.58	9978.363	-1.25	0.214	-32341.9	7350.746
TIME_V1SCAN	-.3902087	7.200075	-0.05	0.957	-14.71069	13.93028
w1BMI	551.646	604.8169	0.91	0.364	-651.2959	1754.588
w1dxDiabetes	-7976.786	8928.308	-0.89	0.374	-25734.62	9781.044
w1Glucose	75.37908	272.13	0.28	0.782	-465.8699	616.6281
_cons	473921.1	42487.84	11.15	0.000	389415.5	558426.7

```
212 .
213 .
214 . //ANALYSIS B//
215 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_volM
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 84
DF adjustment: **Small sample** — DF: min = 82.07
avg = 82.07
max = 82.07
Model F test: **Equal FMI** — F(9, 82.1) = 4.76
Within VCE type: **OLS** — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	59.58504	84.72777	0.70	0.484	-108.9634	228.1334
Sex	0	(omitted)				
w1Age	-9.247884	3.938675	-2.35	0.021	-17.08306	-1.412703
Race	-149.1212	61.21025	-2.44	0.017	-270.8863	-27.35603
PovStat	-95.01159	68.06964	-1.40	0.167	-230.4221	40.39889
TIME_V1SCAN	.0383042	.0487215	0.79	0.434	-.0586172	.1352255
w1BMI	2.619075	4.105719	0.64	0.525	-5.548406	10.78656
w1dxDiabetes	-91.4752	61.04588	-1.50	0.138	-212.9134	29.96297
w1Glucose	2.358441	1.859108	1.27	0.208	-1.339871	6.056752
ICV_volM2	.0008908	.0003092	2.88	0.005	.0002757	.0015058
_cons	2593.691	497.1494	5.22	0.000	1604.715	3582.667

```
216 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_vol

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         94
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         84
DF adjustment:   Small sample                   DF:     min       =      82.07
                                                        avg       =      82.07
                                                        max       =      82.07
Model F test:       Equal FMI                   F(   9,   82.1)   =       6.14
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hipp~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   18.52491   91.76307     0.20   0.841    -164.0188    201.0686
          Sex |          0  (omitted)
        w1Age |  -5.556033    4.26572    -1.30   0.196     -14.0418    2.929737
         Race |   -155.679    66.2928    -2.35   0.021    -287.5548   -23.80318
      PovStat |  -78.09932   73.72175    -1.06   0.293    -224.7535    68.55488
  TIME_V1SCAN |   .0694738    .052767     1.32   0.192    -.0354953     .174443
        w1BMI |   .1661287   4.446634     0.04   0.970    -8.679532     9.01179
w1dxDiabetes |   -50.7294   66.11477    -0.77   0.445    -182.2511    80.79229
    w1Glucose |   1.542392   2.013478     0.77   0.446    -2.463006     5.54779
    ICV_volM2 |   .0016291   .0003349     4.87   0.000      .000963    .0022952
        _cons |   1925.667   538.4298     3.58   0.001     854.5721    2996.762
------------------------------------------------------------------------------

217 .
218 . //ANALYSIS C//
219 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose ICV_volM2

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         94
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         84
DF adjustment:   Small sample                   DF:     min       =      82.07
                                                        avg       =      82.07
                                                        max       =      82.07
Model F test:       Equal FMI                   F(   9,   82.1)   =       2.99
Within VCE type:          OLS                   Prob > F          =     0.0040

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   4.981703   1.374719     3.62   0.001     2.246982    7.716423
          Sex |          0  (omitted)
        w1Age |   .0133512   .0639055     0.21   0.835    -.1137757     .140478
         Race |   1.519374   .9931445     1.53   0.130    -.4562819     3.49503
      PovStat |   2.078761   1.104439     1.88   0.063    -.1182918    4.275815
  TIME_V1SCAN |  -.0008034   .0007905    -1.02   0.312     -.002376    .0007692
        w1BMI |   .1757659   .0666158     2.64   0.010     .0432474    .3082843
w1dxDiabetes |   .2665509   .9904775     0.27   0.789    -1.703799    2.236901
    w1Glucose |  -.0264555   .0301643    -0.88   0.383    -.0864611    .0335501
    ICV_volM2 |   5.31e-06   5.02e-06     1.06   0.293    -4.67e-06    .0000153
        _cons |  -18.06099   8.066316    -2.24   0.028    -34.10725   -2.014716
------------------------------------------------------------------------------
```

```
220 .
221 . save, replace
    file finaldata_imputed_final.dta saved

222 .
223 .
224 . //INTERACTION BY Sex//
225 .
226 .
227 .
228 . //ANALYSIS A//
229 . mi estimate: reg TOTALBRAIN c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose if samp

    Multiple-imputation estimates                 Imputations       =          5
    Linear regression                             Number of obs     =        163
                                                  Average RVI       =     0.0065
                                                  Largest FMI       =     0.0697
                                                  Complete DF       =        152
    DF adjustment:   Small sample                 DF:     min       =     121.15
                                                          avg       =     146.47
                                                          max       =     150.04
    Model F test:       Equal FMI                 F(  10,  150.0)   =      13.86
    Within VCE type:          OLS                 Prob > F          =     0.0000

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
    LnNFLw1 |   19173.07   25301.19     0.76   0.450    -30819.95    69166.09

         Sex |
         Men |   167928.2   62025.75     2.71   0.008     45371.44     290485

Sex#c.LnNFLw1|
         Men |  -11140.44   29675.43    -0.38   0.708    -69776.18     47495.3

         Sex |          0  (omitted)
       w1Age |  -2871.788    1000.39    -2.87   0.005    -4848.509   -895.0678
        Race |   -65466.3   15068.01    -4.34   0.000    -95239.26   -35693.33
     PovStat |  -1577.684   17121.08    -0.09   0.927    -35407.27    32251.91
  TIME_V1SCAN |  -16.09048   12.23488    -1.32   0.190    -40.26562    8.084648
       w1BMI |   997.9646   1194.008     0.84   0.405    -1361.282    3357.211
 w1dxDiabetes |   2212.188   14299.59     0.15   0.877    -26097.25    30521.63
   w1Glucose |  -28.63033   338.7955    -0.08   0.933    -698.3886    641.1279
       _cons |    1279669   79885.67    16.02   0.000      1121815     1437523
------------------------------------------------------------------------------

230 . mi estimate: reg GM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose  if sample_fina

    Multiple-imputation estimates                 Imputations       =          5
    Linear regression                             Number of obs     =        163
                                                  Average RVI       =     0.0025
                                                  Largest FMI       =     0.0278
                                                  Complete DF       =        152
    DF adjustment:   Small sample                 DF:     min       =     142.25
                                                          avg       =     149.06
                                                          max       =     150.04
    Model F test:       Equal FMI                 F(  10,  150.0)   =      16.27
    Within VCE type:          OLS                 Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	10210.03	13356.13	0.76	0.446	-16180.4	36600.47
Sex						
Men	104348	32752.67	3.19	0.002	39631.95	169064
Sex#c.LnNFLw1						
Men	-13593.79	15670.03	-0.87	0.387	-44556.23	17368.65
Sex	0	(omitted)				
w1Age	-2263.027	527.8072	-4.29	0.000	-3305.931	-1220.123
Race	-45292.8	7956.787	-5.69	0.000	-61014.66	-29570.93
PovStat	-3344.294	9040.314	-0.37	0.712	-21207.07	14518.48
TIME_V1SCAN	-4.718062	6.458543	-0.73	0.466	-17.47955	8.043421
w1BMI	711.6958	630.5088	1.13	0.261	-534.1296	1957.521
w1dxDiabetes	-3172.719	7394.897	-0.43	0.669	-17790.81	11445.38
w1Glucose	82.69645	177.2586	0.47	0.642	-267.5923	432.9852
_cons	747559	42126.68	17.75	0.000	664319.1	830798.9

231 . mi estimate: reg WM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose if sample_final

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0086
Largest FMI = 0.0907
Complete DF = 152
DF adjustment: Small sample — DF: min = 109.30
avg = 144.94
max = 150.04
Model F test: Equal FMI — F(10, 149.9) = 8.67
Within VCE type: OLS — Prob > F = 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	8325.761	12567.94	0.66	0.509	-16507.52	33159.04
Sex						
Men	68544.77	30803.91	2.23	0.028	7679.284	129410.3
Sex#c.LnNFLw1						
Men	-4848.723	14737.76	-0.33	0.743	-33969.09	24271.65
Sex	0	(omitted)				
w1Age	-974.2665	497.0866	-1.96	0.052	-1956.495	7.961754
Race	-18387.77	7483.22	-2.46	0.015	-33173.9	-3601.631
PovStat	-3589.504	8503.164	-0.42	0.674	-20390.94	13211.94
TIME_V1SCAN	-9.297996	6.077203	-1.53	0.128	-21.30609	2.710095
w1BMI	323.6046	592.9783	0.55	0.586	-848.0636	1495.273
w1dxDiabetes	2476.295	7176.693	0.35	0.731	-11747.23	16699.82
w1Glucose	-39.35522	169.0741	-0.23	0.816	-373.6861	294.9757
_cons	505406.6	39701.16	12.73	0.000	426955.9	583857.2

```
232 .
233 .
234 . //ANALYSIS B//
235 . mi estimate: reg Left_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose I

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0041
                                                Largest FMI       =     0.0443
                                                Complete DF       =        151
DF adjustment:   Small sample                   DF:     min       =     133.93
                                                        avg       =     147.34
                                                        max       =     149.04
Model F test:       Equal FMI                   F(  11,  149.0)   =      11.85
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippoc~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
--------------+---------------------------------------------------------------
      LnNFLw1 |    24.8842   84.83536     0.29   0.770    -142.7521    192.5205
              |
          Sex |
          Men |   249.4127   213.5625     1.17   0.245    -172.5888    671.4141
              |
Sex#c.LnNFLw1 |
          Men |  -119.4696   99.45427    -1.20   0.232    -315.9922    77.05292
              |
          Sex |          0  (omitted)
        w1Age |   -7.19396   3.360723    -2.14   0.034    -13.83489   -.5530335
         Race |  -95.85517   54.47053    -1.76   0.081    -203.4896    11.77926
      PovStat |  -159.5627   57.38802    -2.78   0.006     -272.962   -46.16338
  TIME_V1SCAN |   .0364847   .0410608     0.89   0.376    -.0446523    .1176216
        w1BMI |   4.034453   4.006293     1.01   0.316    -3.882024    11.95093
 w1dxDiabetes |   6.700661   47.34692     0.14   0.888    -86.94374    100.3451
    w1Glucose |   .9316715   1.129201     0.83   0.411     -1.30021    3.163553
     ICV_volM2 |   .0015639   .0002375     6.59   0.000     .0010946    .0020332
        _cons |   1795.723   428.4003     4.19   0.000      949.188    2642.257
------------------------------------------------------------------------------

236 . mi estimate: reg Right_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0003
                                                Largest FMI       =     0.0029
                                                Complete DF       =        151
DF adjustment:   Small sample                   DF:     min       =     148.60
                                                        avg       =     148.98
                                                        max       =     149.04
Model F test:       Equal FMI                   F(  11,  149.0)   =      14.84
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
--------------+---------------------------------------------------------------
      LnNFLw1 |   16.25194   86.31637     0.19   0.851    -154.3101     186.814
              |
          Sex |
          Men |    100.473   217.3506     0.46   0.645    -329.0138    529.9597
              |
Sex#c.LnNFLw1 |
          Men |  -100.5375   101.2171    -0.99   0.322    -300.5434    99.46845
              |
          Sex |          0  (omitted)
        w1Age |   -5.55633   3.417398    -1.63   0.106    -12.30915    1.196487
```

Race	-99.98286	55.43184	-1.80	0.073	-209.5167	9.550981
PovStat	-154.0668	58.40403	-2.64	0.009	-269.4737	-38.65989
TIME_V1SCAN	.079786	.0417767	1.91	0.058	-.0027652	.1623372
w1BMI	3.564865	4.077221	0.87	0.383	-4.491761	11.62149
w1dxDiabetes	18.57987	47.20871	0.39	0.694	-74.70722	111.867
w1Glucose	1.362101	1.139355	1.20	0.234	-.8892981	3.6135
ICV_volM2	.0020629	.0002417	8.53	0.000	.0015853	.0025405
_cons	1278.673	435.6924	2.93	0.004	417.7391	2139.606

```
237 .
238 . //ANALYSIS C//
239 . mi estimate: reg LnLesion_Volume c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1dxDiabetes w1Glucose IC
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0003
Largest FMI = 0.0033
Complete DF = 151
DF adjustment: Small sample — DF: min = 148.53
avg = 148.98
max = 149.04
Model F test: Equal FMI — F(11, 149.0) = 3.15
Within VCE type: OLS — Prob > F = 0.0007

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	5.069529	1.074616	4.72	0.000	2.946078	7.19298
Sex						
Men	7.732188	2.706017	2.86	0.005	2.385074	13.0793
Sex#c.LnNFLw1						
Men	-3.530185	1.260159	-2.80	0.006	-6.020271	-1.040099
Sex	0	(omitted)				
w1Age	-.030938	.0425453	-0.73	0.468	-.1150079	.053132
Race	1.537112	.6901347	2.23	0.027	.1733989	2.900825
PovStat	1.478476	.7271266	2.03	0.044	.041667	2.915284
TIME_V1SCAN	-.0009378	.0005201	-1.80	0.073	-.0019656	.00009
w1BMI	.1274076	.0507618	2.51	0.013	.0271018	.2277135
w1dxDiabetes	-.1396421	.5878625	-0.24	0.813	-1.301296	1.022012
w1Glucose	-.01026	.0141846	-0.72	0.471	-.0382892	.0177692
ICV_volM2	2.28e-06	3.01e-06	0.76	0.450	-3.67e-06	8.23e-06
_cons	-11.25536	5.42413	-2.08	0.040	-21.97349	-.5372202

```
240 .
241 . save, replace
file finaldata_imputed_final.dta saved

242 .
```

```
. 
. 
. 
. ***********MODEL 4: MODEL 2+liver/kidney disease******
. 
. //Overall//
. 
. use finaldata_imputed_final,clear

. 
. 
. //ANALYSIS A//
. mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0265
                                                Largest FMI       =     0.2720
                                                Complete DF       =        150
DF adjustment:   Small sample                   DF:     min       =      41.19
                                                        avg       =     137.16
                                                        max       =     147.92
Model F test:       Equal FMI                   F(  12,  147.5)   =      13.21
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   9329.772   17979.31     0.52   0.605    -26200.16     44859.7
         Sex |     176357   18297.14     9.64   0.000     140151.7    212562.2
       w1Age |   -2023.82   972.2186    -2.08   0.039    -3945.052   -102.5874
        Race |  -58786.47   15506.58    -3.79   0.000    -89434.87   -28138.08
     PovStat |  -1655.043   16617.63    -0.10   0.921    -34493.78    31183.69
  TIME_V1SCAN |  -17.53062    11.7397    -1.49   0.138    -40.73034    5.669101
       w1BMI |   2238.811   1199.784     1.87   0.064    -132.2111    4609.833
w1Creatinine |  -25399.46   39853.81    -0.64   0.527    -105874.6    55075.71
 w1USpecGrav |     900230    1199887     0.75   0.454     -1470943     3271403
       w1BUN |   387.7648   2101.515     0.18   0.854    -3766.948    4542.477
       w1ALP |   287.6616   334.0214     0.86   0.391    -372.4086    947.7319
  w1UricAcid |  -18119.04   5830.139    -3.11   0.002     -29640.3   -6597.784
       _cons |   202246.3    1209076     0.17   0.867     -2187084     2591577
------------------------------------------------------------------------------

. mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w1UricAc

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0187
                                                Largest FMI       =     0.2080
                                                Complete DF       =        150
DF adjustment:   Small sample                   DF:     min       =      57.08
                                                        avg       =     139.21
                                                        max       =     148.00
Model F test:       Equal FMI                   F(  12,  147.7)   =      14.79
Within VCE type:          OLS                   Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	798.5513	9598.006	0.08	0.934	-18168.56	19765.66
Sex	90387.43	9704.484	9.31	0.000	71193.97	109580.9
w1Age	-1958.404	519.1432	-3.77	0.000	-2984.302	-932.5055
Race	-41519.29	8255.397	-5.03	0.000	-57834.45	-25204.12
PovStat	-3553.775	8870.033	-0.40	0.689	-21082.11	13974.56
TIME_V1SCAN	-5.633947	6.264717	-0.90	0.370	-18.01401	6.746118
w1BMI	1144.569	639.8681	1.79	0.076	-119.9132	2409.052
w1Creatinine	-4799.462	20527.23	-0.23	0.816	-45903.32	36304.4
w1USpecGrav	367834.4	641723.4	0.57	0.567	-900362.5	1636031
w1BUN	632.0936	1117.588	0.57	0.573	-1576.995	2841.182
w1ALP	252.2629	178.2857	1.41	0.159	-100.0515	604.5773
w1UricAcid	-8519.256	3110.897	-2.74	0.007	-14666.8	-2371.71
_cons	295369	646698.1	0.46	0.649	-982661.5	1573399

256 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w1UricAc

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0408
Largest FMI = 0.3628
Complete DF = 150
DF adjustment: **Small sample** — DF: min = 27.25
avg = 132.74
max = 147.90
Model F test: **Equal FMI** — F(12, 146.9) = 8.35
Within VCE type: **OLS** — Prob > F = 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4464.218	8979.07	0.50	0.620	-13280.18	22208.62
Sex	74665.15	9290.863	8.04	0.000	56249.64	93080.65
w1Age	-538.9607	486.1341	-1.11	0.269	-1499.669	421.7477
Race	-15371.48	7767.688	-1.98	0.050	-30726.51	-16.44161
PovStat	-3386.286	8289.729	-0.41	0.684	-19767.9	12995.33
TIME_V1SCAN	-9.877103	5.861904	-1.68	0.094	-21.46146	1.707255
w1BMI	980.5584	601.6489	1.63	0.105	-208.5959	2169.713
w1Creatinine	-18858.63	21020.91	-0.90	0.378	-61971.5	24254.24
w1USpecGrav	260981.5	602398.1	0.43	0.665	-929656.4	1451619
w1BUN	38.69651	1061.45	0.04	0.971	-2061.415	2138.808
w1ALP	78.82853	166.7606	0.47	0.637	-250.7164	408.3734
w1UricAcid	-8321.065	2910.302	-2.86	0.005	-14072.33	-2569.798
_cons	175379.4	606940.4	0.29	0.773	-1024231	1374989

257 .
258 .
259 . //ANALYSIS B//
260 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0478
Largest FMI = 0.4003
Complete DF = 149
DF: min = 23.29
avg = 132.51
DF adjustment: **Small sample** — max = 146.95
F(12, .) = .
Within VCE type: **OLS** — Prob > F = .

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-32.40472	63.09187	-0.51	0.608	-157.0957	92.28622
Sex	16.56706	84.2657	0.20	0.844	-150.2148	183.3489
w1Age	-6.921567	3.409534	-2.03	0.044	-13.65985	-.1832824
Race	-74.48022	58.24245	-1.28	0.203	-189.6032	40.64276
PovStat	-150.299	58.27167	-2.58	0.011	-265.4604	-35.13749
TIME_V1SCAN	.0237475	.0412189	0.58	0.565	-.0577132	.1052081
w1BMI	3.707083	4.232274	0.88	0.383	-4.657177	12.07134
w1Creatinine	-29.64916	151.471	-0.20	0.847	-342.7714	283.4731
w1USpecGrav	-3246.446	4317.722	-0.75	0.453	-11787.98	5295.091
w1BUN	8.693811	7.445537	1.17	0.245	-6.035887	23.42351
w1ALP	-.7784001	1.17191	-0.66	0.508	-3.094395	1.537595
w1UricAcid	-5.152986	20.8226	-0.25	0.805	-46.30508	35.99911
ICV_volM2	.0016125	.0002478	6.51	0.000	.0011228	.0021022
_cons	5203.48	4330.085	1.20	0.232	-3362.542	13769.5

261 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0140
Largest FMI = 0.1291
Complete DF = 149
DF: min = 87.64
avg = 140.65
DF adjustment: **Small sample** max = 146.95
F(12, .) = .
Within VCE type: **OLS** Prob > F = .

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-28.97278	64.46471	-0.45	0.654	-156.3718	98.42628
Sex	-79.09067	84.28693	-0.94	0.350	-245.6875	87.50621
w1Age	-5.445201	3.4844	-1.56	0.120	-12.33121	1.440812
Race	-75.02136	59.26204	-1.27	0.208	-192.14	42.0973
PovStat	-142.1054	59.61801	-2.38	0.018	-259.9263	-24.2845
TIME_V1SCAN	.0613439	.0421461	1.46	0.148	-.0219472	.1446349
w1BMI	3.982628	4.325233	0.92	0.359	-4.565067	12.53032
w1Creatinine	-1.678794	132.3599	-0.01	0.990	-264.7313	261.3737
w1USpecGrav	-1265.032	4399.772	-0.29	0.774	-9966.28	7436.215
w1BUN	10.85956	7.4797	1.45	0.149	-3.92368	25.6428
w1ALP	-.2016149	1.199127	-0.17	0.867	-2.571378	2.168148
w1UricAcid	-12.8714	21.29289	-0.60	0.546	-54.95199	29.20919
ICV_volM2	.0020889	.0002537	8.23	0.000	.0015875	.0025902
_cons	2743.68	4410.826	0.62	0.535	-5979.269	11466.63

262 .
263 . //ANALYSIS C//

```
264 .
265 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w
```

Multiple-imputation estimates — Imputations = **5**
Linear regression — Number of obs = **163**
Average RVI = **0.0022**
Largest FMI = **0.0204**
Complete DF = **149**
DF: min = **142.13**
avg = **146.49**
DF adjustment: **Small sample** max = **146.99**
F(12, .) = .
Within VCE type: **OLS** Prob > F = .

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	2.804553	.8164754	3.43	0.001	1.191002	4.418104
Sex	-.0851462	1.062453	-0.08	0.936	-2.18484	2.014548
w1Age	-.0078514	.0441634	-0.18	0.859	-.095129	.0794262
Race	1.727926	.7500707	2.30	0.023	.2456086	3.210244
PovStat	1.215721	.754926	1.61	0.109	-.2761897	2.707632
TIME_V1SCAN	-.0010204	.0005342	-1.91	0.058	-.0020762	.0000354
w1BMI	.0477581	.0548161	0.87	0.385	-.0605717	.1560878
w1Creatinine	.5110439	1.588149	0.32	0.748	-2.628403	3.650491
w1USpecGrav	30.32698	54.82682	0.55	0.581	-78.027	138.681
w1BUN	.0485099	.0944029	0.51	0.608	-.1380545	.2350744
w1ALP	-.0078791	.0151996	-0.52	0.605	-.0379173	.0221591
w1UricAcid	.0969624	.2695579	0.36	0.720	-.4357474	.6296722
ICV_volM2	2.76e-06	3.21e-06	0.86	0.392	-3.59e-06	9.11e-06
_cons	-38.59463	54.98325	-0.70	0.484	-147.2579	70.0686

```
266 .
267 . save, replace
    file finaldata_imputed_final.dta saved

268 .
269 . //Males//
270 .
271 . use finaldata_imputed_final,clear

272 .
273 .
274 . //ANALYSIS A//
275 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP
```

Multiple-imputation estimates — Imputations = **5**
Linear regression — Number of obs = **69**
Average RVI = **0.0487**
Largest FMI = **0.3930**
Complete DF = **57**
DF adjustment: **Small sample** DF: min = **17.17**
avg = **50.04**
max = **55.09**
Model F test: **Equal FMI** F(**11**, **54.6**) = **2.09**
Within VCE type: **OLS** Prob > F = **0.0367**

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	88.41151	30556.17	0.00	0.998	-61199.01	61375.83
Sex	0	(omitted)				
w1Age	-2974.731	1876.767	-1.59	0.119	-6736.797	787.3343
Race	-76976.29	30399.49	-2.53	0.015	-138045.6	-15906.96
PovStat	20787.04	30335.8	0.69	0.496	-40016.97	81591.04
TIME_V1SCAN	-34.10902	21.30295	-1.60	0.115	-76.81194	8.593909
w1BMI	4599.042	3246.252	1.42	0.163	-1920.379	11118.46
w1Creatinine	-58255.73	90821.09	-0.64	0.530	-249730.3	133218.8
w1USpecGrav	-1835405	2209061	-0.83	0.410	-6264933	2594124
w1BUN	1813.71	3904.82	0.46	0.644	-6030.968	9658.389
w1ALP	446.5667	759.6598	0.59	0.559	-1075.83	1968.963
w1UricAcid	-19878.49	11607.03	-1.71	0.092	-43138.66	3381.667
_cons	3386323	2250042	1.51	0.138	-1125493	7898139

276 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w1UricAc

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0575
Largest FMI = 0.4447
Complete DF = 57
DF adjustment: Small sample — DF: min = 14.54
avg = 49.44
max = 55.04
Model F test: Equal FMI — F(11, 54.5) = 3.15
Within VCE type: OLS — Prob > F = 0.0024

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-8251.955	15631.05	-0.53	0.600	-39603.04	23099.13
Sex	0	(omitted)				
w1Age	-2677.217	961.0086	-2.79	0.007	-4603.694	-750.7405
Race	-52972.84	15522.64	-3.41	0.001	-84148.9	-21796.77
PovStat	6183.168	15509.57	0.40	0.692	-24902.27	37268.61
TIME_V1SCAN	-11.2194	10.89146	-1.03	0.308	-33.05089	10.61209
w1BMI	2504.837	1664.765	1.50	0.139	-839.3141	5848.989
w1Creatinine	-15630.66	48138.27	-0.32	0.750	-118518.8	87257.46
w1USpecGrav	-1130563	1138158	-0.99	0.325	-3414004	1152879
w1BUN	1284.597	2015.516	0.64	0.527	-2769.002	5338.196
w1ALP	395.3598	388.6844	1.02	0.314	-383.5817	1174.301
w1UricAcid	-9709.632	5941.532	-1.63	0.108	-21616.52	2197.257
_cons	2033188	1159781	1.75	0.085	-293796.6	4360173

277 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w1UricAc

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0447
Largest FMI = 0.3504
Complete DF = 57
DF adjustment: Small sample — DF: min = 19.75
avg = 49.88
max = 55.01
Model F test: Equal FMI — F(11, 54.7) = 1.33
Within VCE type: OLS — Prob > F = 0.2317

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1115.026	15402.61	0.07	0.943	-29773.59	32003.64
Sex	0	(omitted)				
w1Age	-960.0776	951.3159	-1.01	0.317	-2867.467	947.3119
Race	-24855.99	15265.24	-1.63	0.110	-55502.33	5790.356
PovStat	4915.348	15294.49	0.32	0.749	-25737.41	35568.11
TIME_V1SCAN	-21.14378	10.75834	-1.97	0.054	-42.70927	.4217205
w1BMI	2138.677	1647.231	1.30	0.200	-1171.228	5448.583
w1Creatinine	-34460.42	44635.11	-0.77	0.449	-127642.2	58721.35
w1USpecGrav	-1201869	1130170	-1.06	0.293	-3470534	1066796
w1BUN	120.9706	1971.129	0.06	0.951	-3838.68	4080.621
w1ALP	244.2982	383.6509	0.64	0.527	-524.5531	1013.149
w1UricAcid	-7296.152	5866.786	-1.24	0.219	-19053.4	4461.101
_cons	1832774	1151065	1.59	0.117	-477902.7	4143451

```
278 .
279 .
280 . //ANALYSIS B//
281 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN
    > 2
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0816
Largest FMI = 0.5342
Complete DF = 56
DF adjustment: Small sample — DF: min = 10.93
avg = 48.23
max = 53.94
Model F test: Equal FMI — F(11, 53.1) = 4.19
Within VCE type: OLS — Prob > F = 0.0002

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-79.03469	103.8826	-0.76	0.450	-287.4807	129.4113
Sex	0	(omitted)				
w1Age	-7.75734	6.427201	-1.21	0.233	-20.65279	5.13811
Race	-27.0249	111.063	-0.24	0.809	-249.9911	195.9413
PovStat	-261.0644	103.5156	-2.52	0.015	-468.6627	-53.46619
TIME_V1SCAN	-.0087081	.0732885	-0.12	0.906	-.15566	.1382438
w1BMI	15.74421	11.04541	1.43	0.160	-6.42787	37.91629
w1Creatinine	17.86134	344.4317	0.05	0.960	-740.8036	776.5262
w1USpecGrav	-2878.828	7673.137	-0.38	0.709	-18301.64	12543.98
w1BUN	-3.151188	13.52684	-0.23	0.817	-30.40777	24.1054
w1ALP	1.224085	2.585698	0.47	0.638	-3.960061	6.40823
w1UricAcid	2.137597	40.28151	0.05	0.958	-78.63213	82.90732
ICV_volM2	.0020714	.000394	5.26	0.000	.0012814	.0028613
_cons	4056.793	7887.328	0.51	0.609	-11800.6	19914.18

```
282 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN
    > =2

    Multiple-imputation estimates                   Imputations       =          5
    Linear regression                               Number of obs     =         69
                                                    Average RVI       =     0.0482
                                                    Largest FMI       =     0.3786
                                                    Complete DF       =         56
    DF adjustment:   Small sample                   DF:     min       =      17.84
                                                            avg       =      49.69
                                                            max       =      53.99
    Model F test:       Equal FMI                   F(  11,   53.7)   =       5.98
    Within VCE type:          OLS                   Prob > F          =     0.0000

    ------------------------------------------------------------------------------
    Right_Hipp~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
    -------------+----------------------------------------------------------------
        LnNFLw1 |  -75.26568   101.5376    -0.74   0.462    -278.9138    128.3824
            Sex |          0  (omitted)
          w1Age |  -8.014604   6.295751    -1.27   0.209     -20.6426     4.61339
           Race |  -15.14485   108.0816    -0.14   0.889    -231.9373    201.6476
        PovStat |  -247.3121    101.546    -2.44   0.018    -450.9286   -43.69553
     TIME_V1SCAN |    .048023   .0720186     0.67   0.508    -.0963756    .1924215
          w1BMI |   22.42159   10.81061     2.07   0.043      .729818    44.11337
    w1Creatinine |  -20.51617   301.3811    -0.07   0.946    -654.0936    613.0612
     w1USpecGrav |  -1734.578   7522.773    -0.23   0.819    -16849.54    13380.38
          w1BUN |   7.480703   13.02092     0.57   0.568    -18.68051    33.64192
          w1ALP |   1.751135   2.542113     0.69   0.494    -3.345514    6.847784
      w1UricAcid |  -28.09923   39.59471    -0.71   0.481     -107.489    51.29056
       ICV_volM2 |   .0023834   .0003871     6.16   0.000     .0016073    .0031595
           _cons |   2429.308   7723.553     0.31   0.754    -13090.69     17949.3
    ------------------------------------------------------------------------------

283 .
284 . //ANALYSIS C//
285 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w
    >

    Multiple-imputation estimates                   Imputations       =          5
    Linear regression                               Number of obs     =         69
                                                    Average RVI       =     0.0114
                                                    Largest FMI       =     0.0826
                                                    Complete DF       =         56
    DF adjustment:   Small sample                   DF:     min       =      46.57
                                                            avg       =      53.10
                                                            max       =      54.09
    Model F test:       Equal FMI                   F(  11,   54.0)   =       1.22
    Within VCE type:          OLS                   Prob > F          =     0.2995

    ------------------------------------------------------------------------------
    LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
    -------------+----------------------------------------------------------------
        LnNFLw1 |   2.122981   .9507124     2.23   0.030     .2166722    4.029291
            Sex |          0  (omitted)
          w1Age |  -.0570571   .0589212    -0.97   0.337    -.1752064    .0610921
           Race |   1.185602   1.011204     1.17   0.246    -.8420656    3.213269
        PovStat |   .6522533   .9530332     0.68   0.497    -1.258549    2.563055
     TIME_V1SCAN |  -.0010057   .0006765    -1.49   0.143    -.0023621    .0003507
          w1BMI |  -.0814046   .1010188    -0.81   0.424    -.2840105    .1212013
    w1Creatinine |   1.849163   2.401515     0.77   0.445    -2.983237    6.681563
     w1USpecGrav |   29.68596    69.1313     0.43   0.669    -108.9423    168.3142
          w1BUN |  -.1201056    .119503    -1.01   0.319    -.3597237    .1195125
          w1ALP |  -.0364951    .023883    -1.53   0.132    -.0843758    .0113855
      w1UricAcid |    .378239   .3723693     1.02   0.314     -.368391    1.124869
       ICV_volM2 |   1.99e-06   3.66e-06     0.55   0.588    -5.34e-06    9.33e-06
```

_cons	-26.84599	70.95373	-0.38	0.707	-169.1339	115.4419

```
286 .
287 . save, replace
file finaldata_imputed_final.dta saved

288 .
289 .
290 .
291 . //Females//
292 .
293 . use finaldata_imputed_final,clear

294 .
295 .
296 . //ANALYSIS A//
297 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         94
                                                Average RVI       =     0.0223
                                                Largest FMI       =     0.2245
                                                Complete DF       =         82
DF adjustment:   Small sample                   DF:     min       =      38.29
                                                        avg       =      76.39
                                                        max       =      80.04
Model F test:       Equal FMI                   F(  11,   79.9)   =       3.03
Within VCE type:          OLS                   Prob > F          =     0.0020
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	22105.29	23612.68	0.94	0.352	-24885.75	69096.32
Sex	0	(omitted)				
w1Age	-1626.102	1216.654	-1.34	0.185	-4047.31	795.1062
Race	-52664.4	17622.94	-2.99	0.004	-87736.76	-17592.03
PovStat	-23388.08	19407	-1.21	0.232	-62008.95	15232.79
TIME_V1SCAN	.964051	14.0659	0.07	0.946	-27.02788	28.95598
w1BMI	2674.826	1301.513	2.06	0.043	84.60375	5265.048
w1Creatinine	2800.851	43620.82	0.06	0.949	-85482.81	91084.51
w1USpecGrav	2543558	1401356	1.82	0.073	-245277.8	5332394
w1BUN	-2699.584	2601.921	-1.04	0.303	-7878.346	2479.178
w1ALP	204.1596	376.7286	0.54	0.589	-545.5604	953.8797
w1UricAcid	-18015.88	7010.414	-2.57	0.012	-31967.63	-4064.12
_cons	-1343640	1415704	-0.95	0.345	-4161025	1473745

```
298 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w1UricAc

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         94
                                                Average RVI       =     0.0373
                                                Largest FMI       =     0.3380
                                                Complete DF       =         82
DF adjustment:   Small sample                   DF:     min       =      24.48
                                                        avg       =      75.10
                                                        max       =      80.04
Model F test:       Equal FMI                   F(  11,   79.6)   =       3.74
Within VCE type:          OLS                   Prob > F          =     0.0002
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	10678.22	13236.58	0.81	0.422	-15663.73	37020.18
Sex	0	(omitted)				
w1Age	-1611.492	682.1516	-2.36	0.021	-2969.028	-253.9565
Race	-37543.12	9885.844	-3.80	0.000	-57218.11	-17868.14
PovStat	-11846.12	10878.46	-1.09	0.279	-33494.87	9802.635
TIME_V1SCAN	1.713135	7.882358	0.22	0.828	-13.97312	17.39939
w1BMI	1454.82	729.848	1.99	0.050	2.275966	2907.365
w1Creatinine	6200.931	26117.07	0.24	0.814	-47646.05	60047.91
w1USpecGrav	1295230	785445.4	1.65	0.103	-267885	2858345
w1BUN	-1036.169	1464.303	-0.71	0.481	-3951.224	1878.885
w1ALP	162.6888	211.2375	0.77	0.443	-257.6966	583.0742
w1UricAcid	-8218.641	3932.838	-2.09	0.040	-16045.83	-391.4477
_cons	-594131.2	793418.2	-0.75	0.456	-2173107	984844.1

299 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w1UricAc

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0048
Largest FMI = 0.0413
Complete DF = 82
DF adjustment: **Small sample** — DF: min = 74.73
avg = 79.52
max = 80.06
Model F test: **Equal FMI** — F(11, 80.0) = 2.17
Within VCE type: **OLS** — Prob > F = 0.0240

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	12927.91	11512.08	1.12	0.265	-9982.033	35837.86
Sex	0	(omitted)				
w1Age	-524.9285	593.001	-0.89	0.379	-1705.025	655.1678
Race	-11208.68	8583.847	-1.31	0.195	-28291.34	5873.988
PovStat	-12581.39	9461.448	-1.33	0.187	-31410.14	6247.355
TIME_V1SCAN	-.1090149	6.86025	-0.02	0.987	-13.76149	13.54346
w1BMI	1267.944	634.3563	2.00	0.049	5.482293	2530.405
w1Creatinine	-5907.734	19356.62	-0.31	0.761	-44470.38	32654.92
w1USpecGrav	1178508	682958.7	1.73	0.088	-180631.9	2537647
w1BUN	-1006.287	1263.352	-0.80	0.428	-3520.437	1507.863
w1ALP	40.78143	183.6452	0.22	0.825	-324.6861	406.249
w1UricAcid	-9429.443	3414.629	-2.76	0.007	-16224.85	-2634.034
_cons	-711330.9	689974.8	-1.03	0.306	-2084433	661771

300 .
301 .
302 . //ANALYSIS B//
303 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN
> 1

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0026
Largest FMI = 0.0191
Complete DF = 81
DF adjustment: Small sample — DF: min = 77.17
avg = 78.85
max = 79.07
Model F test: Equal FMI — F(12, 79.1) = 3.52
Within VCE type: OLS — Prob > F = 0.0003

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	76.36028	83.75318	0.91	0.365	-90.34546	243.066
Sex	0	(omitted)				
w1Age	-11.63181	4.289646	-2.71	0.008	-20.17007	-3.093544
Race	-120.898	66.46721	-1.82	0.073	-253.196	11.3999
PovStat	-95.45577	69.10743	-1.38	0.171	-233.0099	42.0983
TIME_V1SCAN	.0404696	.0496998	0.81	0.418	-.0584585	.1393978
w1BMI	2.875723	4.671547	0.62	0.540	-6.422716	12.17416
w1Creatinine	-49.18037	138.6028	-0.35	0.724	-325.1641	226.8034
w1USpecGrav	-3739.91	5049.305	-0.74	0.461	-13790.4	6310.583
w1BUN	13.47824	9.242806	1.46	0.149	-4.919179	31.87567
w1ALP	-1.06981	1.331389	-0.80	0.424	-3.719904	1.580284
w1UricAcid	-5.576211	25.29637	-0.22	0.826	-55.92771	44.77529
ICV_volM2	.0010516	.000329	3.20	0.002	.0003967	.0017066
_cons	6395.911	5028.265	1.27	0.207	-3612.701	16404.52

304 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN
> =1

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0079
Largest FMI = 0.0762
Complete DF = 81
DF adjustment: Small sample — DF: min = 67.08
avg = 77.94
max = 79.05
Model F test: Equal FMI — F(12, 79.0) = 4.48
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	26.1968	90.7579	0.29	0.774	-154.4522	206.8458
Sex	0	(omitted)				
w1Age	-7.294888	4.647358	-1.57	0.120	-16.54512	1.955347
Race	-139.0787	72.0735	-1.93	0.057	-282.5392	4.381764
PovStat	-79.29672	74.88157	-1.06	0.293	-228.3441	69.75069
TIME_V1SCAN	.0723632	.0538773	1.34	0.183	-.0348823	.1796088
w1BMI	-.8088636	5.06262	-0.16	0.873	-10.88578	9.268049
w1Creatinine	-45.66595	154.4855	-0.30	0.768	-354.0139	262.682
w1USpecGrav	-2176.977	5486.49	-0.40	0.693	-13098.81	8744.859
w1BUN	8.576114	10.03198	0.85	0.395	-11.39332	28.54555
w1ALP	-.8211869	1.443241	-0.57	0.571	-3.693967	2.051593
w1UricAcid	9.646203	27.40703	0.35	0.726	-44.90636	64.19877
ICV_volM2	.0017696	.0003566	4.96	0.000	.0010598	.0024794
_cons	4104.564	5464.291	0.75	0.455	-6773.132	14982.26

```
. 
. //ANALYSIS C//
. mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w
>
```

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 94
		Average RVI	= 0.0055
		Largest FMI	= 0.0463
		Complete DF	= 81
DF adjustment:	Small sample	DF: min	= 72.95
		avg	= 78.49
		max	= 79.07
Model F test:	Equal FMI	F(12, 79.0)	= 2.47
Within VCE type:	OLS	Prob > F	= 0.0084

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4.702884	1.34007	3.51	0.001	2.035545	7.370222
Sex	0	(omitted)				
w1Age	-.0124584	.0686369	-0.18	0.856	-.1490763	.1241595
Race	2.045268	1.063746	1.92	0.058	-.0720599	4.162596
PovStat	2.026973	1.105805	1.83	0.071	-.1740748	4.22802
TIME_V1SCAN	-.0012464	.0007955	-1.57	0.121	-.0028299	.0003372
w1BMI	.1758296	.0747842	2.35	0.021	.026973	.3246862
w1Creatinine	.9269711	2.247741	0.41	0.681	-3.552817	5.406759
w1USpecGrav	37.24779	80.75477	0.46	0.646	-123.4904	197.986
w1BUN	.1835983	.1478634	1.24	0.218	-.110717	.4779136
w1ALP	.0140695	.0213148	0.66	0.511	-.0283581	.0564971
w1UricAcid	-.506371	.4049657	-1.25	0.215	-1.312457	.2997152
ICV_volM2	3.68e-06	5.26e-06	0.70	0.487	-6.80e-06	.0000142
_cons	-56.23656	80.41675	-0.70	0.486	-216.3018	103.8287

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

. 
. **INTERACTION BY Sex**
. 
. 
. //ANALYSIS A//
. mi estimate: reg TOTALBRAIN c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN
```

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 163
		Average RVI	= 0.0232
		Largest FMI	= 0.2597
		Complete DF	= 149
DF adjustment:	Small sample	DF: min	= 43.63
		avg	= 138.75
		max	= 146.99
Model F test:	Equal FMI	F(13, 146.6)	= 12.23
Within VCE type:	OLS	Prob > F	= 0.0000

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	20618.6	24148.68	0.85	0.395	-27104.86	68342.06
Sex						
Men	218270.7	62405.76	3.50	0.001	94941.98	341599.4
Sex#c.LnNFLw1						
Men	-20338.78	29049.91	-0.70	0.485	-77749.27	37071.71
Sex	0	(omitted)				
w1Age	-2158.965	992.6228	-2.18	0.031	-4120.623	-197.3063
Race	-59230.5	15541.23	-3.81	0.000	-89948.76	-28512.24
PovStat	-753.1705	16697.53	-0.05	0.964	-33751.72	32245.38
TIME_V1SCAN	-16.83014	11.79841	-1.43	0.156	-40.14706	6.486779
w1BMI	2524.788	1268.204	1.99	0.048	18.4661	5031.11
w1Creatinine	-24117.12	39719.16	-0.61	0.547	-104185.2	55950.95
w1USpecGrav	858946.5	1203320	0.71	0.476	-1519139	3237032
w1BUN	338.1007	2104.324	0.16	0.873	-3822.202	4498.404
w1ALP	307.5484	335.7512	0.92	0.361	-355.9762	971.0729
w1UricAcid	-18538.28	5871.506	-3.16	0.002	-30141.97	-6934.589
_cons	394299.4	1215066	0.32	0.746	-2007003	2795602

316 . mi estimate: reg GM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0158
Largest FMI = 0.1930
Complete DF = 149
DF adjustment: Small sample — DF: min = 61.66
avg = 140.40
max = 147.02
Model F test: Equal FMI — F(13, 146.8) = 13.85
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	11307.37	12848.75	0.88	0.380	-14084.74	36699.48
Sex						
Men	129403	33208.23	3.90	0.000	63775.54	195030.4
Sex#c.LnNFLw1						
Men	-18935.36	15447.52	-1.23	0.222	-49463.47	11592.75
Sex	0	(omitted)				
w1Age	-2084.182	528.2936	-3.95	0.000	-3128.22	-1040.145
Race	-41934.87	8243.925	-5.09	0.000	-58228.03	-25641.71
PovStat	-2713.723	8882.484	-0.31	0.760	-20267.67	14840.23
TIME_V1SCAN	-4.982797	6.275318	-0.79	0.428	-17.38445	7.418857
w1BMI	1410.692	674.3738	2.09	0.038	77.95913	2743.424
w1Creatinine	-3580.647	20366.94	-0.18	0.861	-44298.01	37136.72
w1USpecGrav	329667.4	640712.4	0.51	0.608	-936570.6	1595905
w1BUN	585.3515	1114.636	0.53	0.600	-1617.892	2788.595
w1ALP	270.7669	178.6135	1.52	0.132	-82.21465	623.7485
w1UricAcid	-8909.736	3122.516	-2.85	0.005	-15080.61	-2738.865
_cons	400093.5	647107.4	0.62	0.537	-878790.1	1678977

```
317 . mi estimate: reg WM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav w1BUN w1ALP w
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0359
Largest FMI = 0.3498
Complete DF = 149
DF adjustment: Small sample — DF: min = 28.76
avg = 136.16
max = 146.89
Model F test: Equal FMI — F(13, 146.2) = 7.74
Within VCE type: OLS — Prob > F = 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	9271.413	12057.56	0.77	0.443	-14557.29	33100.12
Sex						
Men	92513.52	31159.92	2.97	0.003	30933.71	154093.3
Sex#c.LnNFLw1						
Men	-8659.997	14509.15	-0.60	0.552	-37334.37	20014.38
Sex	0	(omitted)				
w1Age	-596.5328	496.378	-1.20	0.231	-1577.529	384.4635
Race	-15559.99	7788.64	-2.00	0.048	-30957.12	-162.8721
PovStat	-3002.554	8332.812	-0.36	0.719	-19470.25	13465.14
TIME_V1SCAN	-9.578432	5.893144	-1.63	0.106	-21.22507	2.068209
w1BMI	1102.386	635.2454	1.74	0.085	-153.1423	2357.914
w1Creatinine	-18322.22	20930.58	-0.88	0.389	-61145.42	24500.98
w1USpecGrav	243350.6	603725.2	0.40	0.687	-949931.3	1436633
w1BUN	17.68073	1063.147	0.02	0.987	-2085.725	2121.086
w1ALP	87.29942	167.6747	0.52	0.603	-244.0688	418.6676
w1UricAcid	-8499.422	2932.044	-2.90	0.004	-14293.99	-2704.853
_cons	256783.6	609908.4	0.42	0.674	-948740.3	1462307

```
318 .
319 .
320 . //ANALYSIS B//
321 . mi estimate: reg Left_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0417
Largest FMI = 0.3846
Complete DF = 148
DF adjustment: Small sample — DF: min = 24.79
avg = 134.67
max = 145.98
Model F test: Equal FMI — F(13, 144.9) = 9.51
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippoc~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	30.58423	84.50403	0.36	0.718	-136.4265	197.595
Sex						
Men	252.6706	226.8454	1.11	0.267	-195.661	701.0022
Sex#c.LnNFLw1						
Men	-113.2975	101.5743	-1.12	0.267	-314.0481	87.45299
Sex	0	(omitted)				
w1Age	-7.675411	3.470937	-2.21	0.029	-14.53535	-.815476
Race	-78.02187	58.28623	-1.34	0.183	-193.2383	37.19456
PovStat	-145.3754	58.3862	-2.49	0.014	-260.7696	-29.98123
TIME_V1SCAN	.0274949	.0413051	0.67	0.507	-.05414	.1091299
w1BMI	5.326615	4.466722	1.19	0.235	-3.501309	14.15454
w1Creatinine	-22.52763	150.0254	-0.15	0.882	-331.6449	286.5897
w1USpecGrav	-3452.583	4306.155	-0.80	0.424	-11970.11	5064.942
w1BUN	8.391927	7.435499	1.13	0.261	-6.317491	23.10135
w1ALP	-.6641293	1.175825	-0.56	0.573	-2.98801	1.659751
w1UricAcid	-7.68682	20.92619	-0.37	0.714	-49.04587	33.67223
ICV_volM2	.0016	.0002478	6.46	0.000	.0011103	.0020898
_cons	5300.942	4328.035	1.22	0.223	-3260.071	13861.95

322 . mi estimate: reg Right_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGra

Multiple-imputation estimates		Imputations	= 5
Linear regression		Number of obs	= 163
		Average RVI	= 0.0120
		Largest FMI	= 0.1211
		Complete DF	= 148
DF adjustment: Small sample		DF: min	= 91.15
		avg	= 140.86
		max	= 145.99
Model F test: Equal FMI		F(13, 145.9)	= 11.94
Within VCE type: OLS		Prob > F	= 0.0000

Right_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	25.78078	86.56622	0.30	0.766	-145.3041	196.8657
Sex						
Men	126.1392	232.3148	0.54	0.588	-332.9957	585.274
Sex#c.LnNFLw1						
Men	-98.48882	104.0074	-0.95	0.345	-304.0445	107.0669
Sex	0	(omitted)				
w1Age	-6.100397	3.552973	-1.72	0.088	-13.12231	.9215114
Race	-78.10256	59.372	-1.32	0.190	-195.4452	39.24009
PovStat	-137.8247	59.80886	-2.30	0.023	-256.0294	-19.61995
TIME_V1SCAN	.0645991	.0422952	1.53	0.129	-.0189911	.1481894
w1BMI	5.390033	4.574279	1.18	0.241	-3.650333	14.4304
w1Creatinine	4.551627	132.1091	0.03	0.973	-257.8609	266.9642
w1USpecGrav	-1443.369	4396.57	-0.33	0.743	-10137.75	7251.009
w1BUN	10.59621	7.483937	1.42	0.159	-4.196038	25.38846
w1ALP	-.10236	1.204281	-0.08	0.932	-2.48245	2.27773
w1UricAcid	-15.07422	21.42599	-0.70	0.483	-57.42021	27.27177
ICV_volM2	.0020781	.000254	8.18	0.000	.001576	.0025801
_cons	2734.031	4415.084	0.62	0.537	-5996.724	11464.79

```
323 .
324 . //ANALYSIS C//
325 . mi estimate: reg LnLesion_Volume c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1Creatinine w1USpecGrav
```

Multiple-imputation estimates		Imputations	= **5**
Linear regression		Number of obs	= **163**
		Average RVI	= **0.0012**
		Largest FMI	= **0.0049**
		Complete DF	= **148**
DF adjustment: **Small sample**		DF: min	= **145.25**
		avg	= **145.85**
		max	= **146.00**
Model F test: **Equal FMI**		F(**13**, **146.0**)	= **2.58**
Within VCE type: **OLS**		Prob > F	= **0.0031**

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	**4.728996**	**1.074853**	**4.40**	**0.000**	**2.604704**	**6.853288**
Sex						
Men	**7.128562**	**2.883968**	**2.47**	**0.015**	**1.428831**	**12.82829**
Sex#c.LnNFLw1						
Men	**-3.461913**	**1.290806**	**-2.68**	**0.008**	**-6.012997**	**-.9108286**
Sex	**0**	(omitted)				
w1Age	**-.0308735**	**.0441326**	**-0.70**	**0.485**	**-.118096**	**.056349**
Race	**1.619672**	**.7359763**	**2.20**	**0.029**	**.165128**	**3.074215**
PovStat	**1.366284**	**.7418512**	**1.84**	**0.068**	**-.0998718**	**2.83244**
TIME_V1SCAN	**-.0009061**	**.0005252**	**-1.73**	**0.087**	**-.001944**	**.0001319**
w1BMI	**.0972152**	**.0568141**	**1.71**	**0.089**	**-.0150704**	**.2095009**
w1Creatinine	**.7309166**	**1.547197**	**0.47**	**0.637**	**-2.327011**	**3.788844**
w1USpecGrav	**24.0526**	**53.71912**	**0.45**	**0.655**	**-82.11608**	**130.2213**
w1BUN	**.039261**	**.0925378**	**0.42**	**0.672**	**-.1436267**	**.2221488**
w1ALP	**-.0043919**	**.0149516**	**-0.29**	**0.769**	**-.0339417**	**.0251578**
w1UricAcid	**.0194974**	**.2657305**	**0.07**	**0.942**	**-.5056795**	**.5446744**
ICV_volM2	**2.38e-06**	**3.15e-06**	**0.76**	**0.451**	**-3.85e-06**	**8.61e-06**
_cons	**-36.23343**	**53.97164**	**-0.67**	**0.503**	**-142.9012**	**70.43432**

```
326 .
327 . save, replace
    file finaldata_imputed_final.dta saved

328 .
329 . ***********MODEL 5: MODEL 2+oxidative stress******
330 .
331 . //Overall//
332 .
333 . use finaldata_imputed_final,clear

334 .
```

```
335 .
336 . //ANALYSIS A//
337 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if sam

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0092
                                                Largest FMI       =     0.0814
                                                Complete DF       =        152
DF adjustment:   Small sample                   DF:     min       =     114.53
                                                        avg       =     145.96
                                                        max       =     149.99
Model F test:       Equal FMI                   F(  10,  149.9)   =      14.00
Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	9013.723	18697.31	0.48	0.630	-27931.81	45959.26
Sex	146772.1	14541.23	10.09	0.000	118039.9	175504.3
w1Age	-2715.268	951.7821	-2.85	0.005	-4595.904	-834.6326
Race	-63980.45	17291.97	-3.70	0.000	-98155.57	-29805.34
PovStat	-2068.22	17007.47	-0.12	0.903	-35673.61	31537.17
TIME_V1SCAN	-15.52147	12.31394	-1.26	0.209	-39.85294	8.810002
w1BMI	818.3685	1163.655	0.70	0.483	-1480.912	3117.649
w1TotalD	363.5096	848.3177	0.43	0.669	-1316.917	2043.936
w1Albumin	4146.95	27996.37	0.15	0.882	-51171.24	59465.14
w1EosinPct	-3822.918	3694.515	-1.03	0.302	-11124.26	3478.423
_cons	1129953	156265.6	7.23	0.000	821182.4	1438724

```
338 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if sample_fina

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0051
                                                Largest FMI       =     0.0470
                                                Complete DF       =        152
DF adjustment:   Small sample                   DF:     min       =     133.43
                                                        avg       =     148.13
                                                        max       =     150.01
Model F test:       Equal FMI                   F(  10,  150.0)   =      16.08
Within VCE type:          OLS                   Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	3638.36	9917.107	0.37	0.714	-15957.29	23234.01
Sex	76034.11	7717.9	9.85	0.000	60784.26	91283.96
w1Age	-2203.377	505.1962	-4.36	0.000	-3201.596	-1205.158
Race	-44417.97	9143.202	-4.86	0.000	-62485.86	-26350.08
PovStat	-4067.756	9025.853	-0.45	0.653	-21902	13766.49
TIME_V1SCAN	-4.083533	6.535122	-0.62	0.533	-16.99639	8.829323
w1BMI	666.7024	617.6477	1.08	0.282	-553.7116	1887.116
w1TotalD	80.63806	442.6836	0.18	0.856	-794.9473	956.2234
w1Albumin	9361.64	14861.93	0.63	0.530	-20004.1	38727.38
w1EosinPct	-540.3312	1955.005	-0.28	0.783	-4403.561	3322.899
_cons	647893.9	82918.55	7.81	0.000	484053.6	811734.3

```
339 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if sample_fina

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0089
                                                Largest FMI       =     0.0719
                                                Complete DF       =        152
DF adjustment:   Small sample                   DF:     min       =     119.93
                                                        avg       =     146.31
                                                        max       =     149.98
Model F test:       Equal FMI                   F(  10,  149.9)   =       9.01
Within VCE type:          OLS                   Prob > F          =     0.0000
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	2527.272	9251.392	0.27	0.785	-15753.41	20807.95
Sex	59628.27	7195.808	8.29	0.000	45409.88	73846.67
w1Age	-870.4763	470.915	-1.85	0.067	-1800.965	60.01255
Race	-16842.94	8554.551	-1.97	0.051	-33749.85	63.9739
PovStat	-3784.743	8414.742	-0.45	0.654	-20411.65	12842.16
TIME_V1SCAN	-8.704019	6.091559	-1.43	0.155	-20.74051	3.332472
w1BMI	251.6252	575.746	0.44	0.663	-886.0029	1389.253
w1TotalD	293.415	417.6322	0.70	0.484	-533.4725	1120.302
w1Albumin	3791.806	13849.37	0.27	0.785	-23573.26	31156.88
w1EosinPct	-2569.524	1830.713	-1.40	0.163	-6187.722	1048.675
_cons	431943.2	77302.47	5.59	0.000	279198.3	584688.1

```
340 .
341 . //ANALYSIS B//
342 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0193
                                                Largest FMI       =     0.1639
                                                Complete DF       =        151
DF adjustment:   Small sample                   DF:     min       =      72.88
                                                        avg       =     141.03
                                                        max       =     149.03
Model F test:       Equal FMI                   F(  11,  148.7)   =      11.85
Within VCE type:          OLS                   Prob > F          =     0.0000
```

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-19.4145	62.7957	-0.31	0.758	-143.5102	104.6813
Sex	-.177216	66.67297	-0.00	0.998	-131.9246	131.5702
w1Age	-6.214729	3.196516	-1.94	0.054	-12.53108	.1016182
Race	-91.60797	61.6814	-1.49	0.140	-213.5437	30.32778
PovStat	-163.7182	57.00482	-2.87	0.005	-276.3608	-51.07572
TIME_V1SCAN	.0414931	.041397	1.00	0.318	-.0403103	.1232965
w1BMI	5.523772	3.902977	1.42	0.159	-2.188581	13.23612
w1TotalD	-.0686733	2.968746	-0.02	0.982	-5.985541	5.848194
w1Albumin	177.9245	93.85531	1.90	0.060	-7.535191	363.3842
w1EosinPct	-6.426089	12.52712	-0.51	0.609	-31.19363	18.34145
ICV_volM2	.0015753	.0002375	6.63	0.000	.0011061	.0020446
_cons	1113.809	603.7924	1.84	0.067	-79.30926	2306.927

```
343 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0119
Largest FMI = 0.0774
Complete DF = 151
DF adjustment: **Small sample** — DF: min = 116.16
avg = 144.89
max = 149.02
Model F test: **Equal FMI** — F(11, 148.9) = 14.20
Within VCE type: **OLS** — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	5.084344	64.44775	0.08	0.937	-122.2669	132.4356
Sex	-105.6885	68.67302	-1.54	0.126	-241.389	30.01195
w1Age	-4.865574	3.29519	-1.48	0.142	-11.37705	1.645898
Race	-116.5226	63.09247	-1.85	0.067	-241.2147	8.169504
PovStat	-152.5831	58.74	-2.60	0.010	-268.6561	-36.51016
TIME_V1SCAN	.0703712	.0425821	1.65	0.101	-.0137725	.1545148
w1BMI	5.266277	4.018046	1.31	0.192	-2.673436	13.20599
w1TotalD	-2.594427	2.924103	-0.89	0.377	-8.385897	3.197043
w1Albumin	114.0075	96.6181	1.18	0.240	-76.91092	304.926
w1EosinPct	2.162168	12.93541	0.17	0.867	-23.41683	27.74116
ICV_volM2	.0020963	.0002445	8.57	0.000	.0016132	.0025795
_cons	1021.921	621.3067	1.64	0.102	-205.7934	2249.635

```
344 .
345 . //ANALYSIS C//
346 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct I
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0137
Largest FMI = 0.1371
Complete DF = 151
DF adjustment: **Small sample** — DF: min = 84.62
avg = 142.97
max = 149.01
Model F test: **Equal FMI** — F(11, 148.9) = 2.43
Within VCE type: **OLS** — Prob > F = 0.0081

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	3.12099	.8154757	3.83	0.000	1.509442	4.732537
Sex	.1007071	.8652675	0.12	0.908	-1.609076	1.810491
w1Age	-.0052099	.0414988	-0.13	0.900	-.0872122	.0767925
Race	1.783718	.798464	2.23	0.027	.2054586	3.361977
PovStat	1.258659	.7398739	1.70	0.091	-.2033425	2.72066
TIME_V1SCAN	-.0009309	.0005372	-1.73	0.085	-.0019926	.0001307
w1BMI	.0914693	.0506601	1.81	0.073	-.008636	.1915745
w1TotalD	-.0102614	.0380027	-0.27	0.788	-.0858258	.065303
w1Albumin	1.046351	1.218518	0.86	0.392	-1.361469	3.45417
w1EosinPct	.2198212	.1600715	1.37	0.172	-.096482	.5361243
ICV_volM2	2.79e-06	3.08e-06	0.91	0.367	-3.30e-06	8.88e-06
_cons	-14.18835	7.835923	-1.81	0.072	-29.67239	1.295685

```
347 .
348 . save, replace
    file finaldata_imputed_final.dta saved

349 .
350 .
351 . //Males//
352 .
353 .
354 . use finaldata_imputed_final,clear

355 .
356 .
357 . //ANALYSIS A//
358 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if  sa

    Multiple-imputation estimates                   Imputations       =          5
    Linear regression                               Number of obs     =         69
                                                    Average RVI       =     0.0165
                                                    Largest FMI       =     0.1335
                                                    Complete DF       =         59
    DF adjustment:   Small sample                   DF:     min       =      42.16
                                                            avg       =      55.03
                                                            max       =      57.06
    Model F test:       Equal FMI                   F(   9,   57.0)   =       2.04
    Within VCE type:          OLS                   Prob > F          =     0.0512

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   8860.787   29765.11     0.30   0.767    -50744.17    68465.74
         Sex |          0  (omitted)
       w1Age |  -3215.757   1844.078    -1.74   0.087    -6908.486    476.9731
        Race |  -73658.16   34388.95    -2.14   0.037    -142616.6   -4699.725
     PovStat |   22820.94   31631.31     0.72   0.474     -40548.9    86190.78
  TIME_V1SCAN |  -32.45007   22.08751    -1.47   0.147    -76.67873     11.7786
       w1BMI |   1974.807   2805.236     0.70   0.484    -3642.695    7592.309
    w1TotalD |   913.3655    1795.45     0.51   0.614     -2709.59    4536.321
   w1Albumin |   23437.16   60194.75     0.39   0.698    -97101.14    143975.5
  w1EosinPct |  -2251.502   7275.874    -0.31   0.758    -16820.87    12317.86
       _cons |    1328603   368314.3     3.61   0.001     591005.8     2066201
------------------------------------------------------------------------------

359 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if  sample_fin

    Multiple-imputation estimates                   Imputations       =          5
    Linear regression                               Number of obs     =         69
                                                    Average RVI       =     0.0182
                                                    Largest FMI       =     0.1628
                                                    Complete DF       =         59
    DF adjustment:   Small sample                   DF:     min       =      38.33
                                                            avg       =      54.68
                                                            max       =      57.08
    Model F test:       Equal FMI                   F(   9,   57.0)   =       3.46
    Within VCE type:          OLS                   Prob > F          =     0.0018
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1736.557	15128.19	0.11	0.909	-28556.51	32029.63
Sex	0	(omitted)				
w1Age	-2672.877	937.5535	-2.85	0.006	-4550.255	-795.4987
Race	-54670.49	17556.93	-3.11	0.003	-89888.69	-19452.29
PovStat	5546.237	16020.59	0.35	0.730	-26540.51	37632.99
TIME_V1SCAN	-8.402712	11.23359	-0.75	0.458	-30.89689	14.09147
w1BMI	1461.88	1426.732	1.02	0.310	-1395.123	4318.883
w1TotalD	12.89707	927.2222	0.01	0.989	-1863.634	1889.429
w1Albumin	36137.05	30620.83	1.18	0.243	-25180.11	97454.2
w1EosinPct	-1398.45	3700.704	-0.38	0.707	-8808.749	6011.849
_cons	700807	187205.6	3.74	0.000	325919.6	1075694

360 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1TotalD w1Albumin w1EosinPct if sample_fin

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0127
Largest FMI = 0.0527
Complete DF = 59
DF adjustment: Small sample — DF: min = 52.58
avg = 55.97
max = 57.01
Model F test: Equal FMI — F(9, 57.0) = 1.29
Within VCE type: OLS — Prob > F = 0.2607

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	421.6647	14944.85	0.03	0.978	-29516.28	30359.61
Sex	0	(omitted)				
w1Age	-924.2824	920.8467	-1.00	0.320	-2768.349	919.784
Race	-16974.09	16996.71	-1.00	0.322	-51030.56	17082.38
PovStat	6397.908	15828.31	0.40	0.688	-25319.2	38115.01
TIME_V1SCAN	-20.67117	11.02198	-1.88	0.066	-42.74226	1.399911
w1BMI	468.9977	1400.911	0.33	0.739	-2336.484	3274.479
w1TotalD	969.5825	860.2665	1.13	0.265	-756.2141	2695.379
w1Albumin	-3022.363	30129.33	-0.10	0.920	-63365.76	57321.03
w1EosinPct	-971.9263	3633.655	-0.27	0.790	-8248.414	6304.562
_cons	572708.7	184408.8	3.11	0.003	203332	942085.4

361 .
362 .
363 . //ANALYSIS B//
364 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1TotalD w1Albumin w1EosinPct

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0146
Largest FMI = 0.1055
Complete DF = 58
DF adjustment: Small sample — DF: min = 45.21
avg = 54.53
max = 56.07
Model F test: Equal FMI — F(10, 56.0) = 5.37
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-93.72551	96.46147	-0.97	0.335	-287.0042	99.55321
Sex	0	(omitted)				
w1Age	-6.847801	5.955184	-1.15	0.255	-18.77747	5.081868
Race	24.71585	118.0054	0.21	0.835	-212.0264	261.4581
PovStat	-270.0978	101.7151	-2.66	0.010	-473.8756	-66.31995
TIME_V1SCAN	.0075476	.0720607	0.10	0.917	-.1368032	.1518984
w1BMI	14.03259	9.081136	1.55	0.128	-4.16057	32.22575
w1TotalD	4.394032	5.718456	0.77	0.446	-7.12203	15.91009
w1Albumin	72.5851	195.2068	0.37	0.711	-318.5161	463.6862
w1EosinPct	-18.60414	23.4993	-0.79	0.432	-65.67877	28.47049
ICV_volM2	.0020912	.0003714	5.63	0.000	.0013472	.0028352
_cons	741.8539	1311.054	0.57	0.574	-1885.089	3368.797

365 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1TotalD w1Albumin w1EosinPct

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0143
Largest FMI = 0.1304
Complete DF = 58
DF adjustment: Small sample — DF: min = 41.96
avg = 54.46
max = 56.09
Model F test: Equal FMI — F(10, 56.0) = 6.88
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-59.75483	95.99958	-0.62	0.536	-252.0604	132.5507
Sex	0	(omitted)				
w1Age	-9.984891	5.951641	-1.68	0.099	-21.90713	1.937347
Race	-62.37039	117.6802	-0.53	0.598	-298.3981	173.6574
PovStat	-277.3577	101.7731	-2.73	0.009	-481.2582	-73.45714
TIME_V1SCAN	.0416839	.0720564	0.58	0.565	-.1026577	.1860255
w1BMI	18.42383	9.067222	2.03	0.047	.2599269	36.58773
w1TotalD	-.9594577	5.790976	-0.17	0.869	-12.64648	10.72756
w1Albumin	-83.96722	194.6306	-0.43	0.668	-473.8556	305.9212
w1EosinPct	-17.8504	23.48319	-0.76	0.450	-64.89125	29.19045
ICV_volM2	.0024829	.0003711	6.69	0.000	.0017395	.0032263
_cons	1289.158	1305.804	0.99	0.328	-1326.714	3905.03

366 .
367 . //ANALYSIS C//
368 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1TotalD w1Albumin w1EosinPct I

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0230
Largest FMI = 0.1575
Complete DF = 58
DF adjustment: Small sample — DF: min = 38.48
avg = 53.62
max = 56.08
Model F test: Equal FMI — F(10, 56.0) = 0.82
Within VCE type: OLS — Prob > F = 0.6106

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1.728811	.9307403	1.86	0.069	-.1357171	3.593339
Sex	0	(omitted)				
w1Age	-.0483161	.0577466	-0.84	0.406	-.1640026	.0673705
Race	2.270559	1.154874	1.97	0.055	-.0489812	4.590098
PovStat	.8875808	.9942984	0.89	0.376	-1.105571	2.880733
TIME_V1SCAN	-.0009448	.0006985	-1.35	0.182	-.002344	.0004544
w1BMI	-.0036055	.0880002	-0.04	0.967	-.1799093	.1726984
w1TotalD	.0509465	.0568712	0.90	0.376	-.0641365	.1660294
w1Albumin	.1607838	1.884407	0.09	0.932	-3.614023	3.935591
w1EosinPct	.1090691	.2277766	0.48	0.634	-.3472364	.5653745
ICV_volM2	3.89e-07	3.60e-06	0.11	0.914	-6.82e-06	7.60e-06
_cons	-.2515241	12.69543	-0.02	0.984	-25.68884	25.18579

```
369 .
370 . save, replace
    file finaldata_imputed_final.dta saved

371 .
372 .
373 .
374 . //Females//
375 .
376 . use finaldata_imputed_final,clear

377 .
378 .
379 . //ANALYSIS A//
380 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if  sa

    Multiple-imputation estimates                   Imputations       =          5
    Linear regression                               Number of obs     =         94
                                                    Average RVI       =     0.0104
                                                    Largest FMI       =     0.0748
                                                    Complete DF       =         84
    DF adjustment:   Small sample                   DF:     min       =      69.68
                                                            avg       =      80.24
                                                            max       =      82.07
    Model F test:       Equal FMI                   F(   9,   82.0)   =       2.25
    Within VCE type:          OLS                   Prob > F          =     0.0266
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	12531.92	25895.68	0.48	0.630	-38987.76	64051.6
Sex	0	(omitted)				
w1Age	-2539.511	1178.214	-2.16	0.034	-4883.343	-195.6784
Race	-54838.38	19560.34	-2.80	0.006	-93759.95	-15916.82
PovStat	-22893.08	20513.68	-1.12	0.268	-63700.85	17914.7
TIME_V1SCAN	.1481839	14.91425	0.01	0.992	-29.52209	29.81845
w1BMI	925.4884	1236.173	0.75	0.456	-1533.655	3384.632
w1TotalD	134.9463	937.215	0.14	0.886	-1734.423	2004.315
w1Albumin	-11139.25	30575.26	-0.36	0.717	-71962.45	49683.95
w1EosinPct	-3773.148	4270.18	-0.88	0.380	-12273.01	4726.71
_cons	1312718	163589.5	8.02	0.000	987278.2	1638158

```
381 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if  sample_fin

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =         94
                                              Average RVI       =     0.0058
                                              Largest FMI       =     0.0438
                                              Complete DF       =         84
DF adjustment:   Small sample                 DF:     min       =      76.07
                                                      avg       =      81.19
                                                      max       =      82.07
Model F test:       Equal FMI                 F(   9,   82.0)   =       3.56
Within VCE type:          OLS                 Prob > F          =     0.0009
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	7703.813	14249.63	0.54	0.590	-20644.44	36052.07
Sex	0	(omitted)				
w1Age	-2008.333	649.2405	-3.09	0.003	-3299.871	-716.7959
Race	-37416.64	10746.22	-3.48	0.001	-58796.87	-16036.42
PovStat	-11991.73	11304.43	-1.06	0.292	-34479.57	10496.1
TIME_V1SCAN	1.759271	8.212817	0.21	0.831	-14.57883	18.09737
w1BMI	759.8974	681.0592	1.12	0.268	-594.9364	2114.731
w1TotalD	37.09032	508.5968	0.07	0.942	-975.8526	1050.033
w1Albumin	-9151.097	16849.36	-0.54	0.589	-42669.42	24367.23
w1EosinPct	251.0559	2338.558	0.11	0.915	-4402.29	4904.402
_cons	771415.2	90094.43	8.56	0.000	592187.9	950642.5

```
382 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if  sample_fin

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =         94
                                              Average RVI       =     0.0104
                                              Largest FMI       =     0.0708
                                              Complete DF       =         84
DF adjustment:   Small sample                 DF:     min       =      70.57
                                                      avg       =      80.30
                                                      max       =      82.07
Model F test:       Equal FMI                 F(   9,   82.0)   =       1.28
Within VCE type:          OLS                 Prob > F          =     0.2588
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	8184.295	12597.4	0.65	0.518	-16878.26	33246.85
Sex	0	(omitted)				
w1Age	-975.2139	573.1872	-1.70	0.093	-2115.459	165.031
Race	-14605.12	9509.514	-1.54	0.128	-33526.71	4316.47
PovStat	-12897.09	9980	-1.29	0.200	-32750.25	6956.066
TIME_V1SCAN	.182505	7.255927	0.03	0.980	-14.25237	14.61738
w1BMI	403.7626	601.4836	0.67	0.504	-792.7847	1600.31
w1TotalD	16.83962	455.0743	0.04	0.971	-890.649	924.3282
w1Albumin	3970.533	14875.19	0.27	0.790	-25620.59	33561.65
w1EosinPct	-3024.732	2080.662	-1.45	0.150	-7166.722	1117.258
_cons	478731.4	79586.12	6.02	0.000	320405.4	637057.3

```
383 .
384 . //ANALYSIS B//
385 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0230
Largest FMI = 0.1483
Complete DF = 83
DF adjustment: Small sample — DF: min = 52.66
avg = 77.27
max = 81.06
Model F test: Equal FMI — F(10, 80.9) = 4.35
Within VCE type: OLS — Prob > F = 0.0001

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	97.77952	85.3729	1.15	0.255	-72.11437	267.6734
Sex	0	(omitted)				
w1Age	-10.36154	3.892629	-2.66	0.009	-18.10672	-2.61636
Race	-178.3084	67.74732	-2.63	0.010	-313.1501	-43.4667
PovStat	-113.2836	67.99023	-1.67	0.100	-248.5674	22.00021
TIME_V1SCAN	.0617617	.0490901	1.26	0.212	-.0359193	.1594426
w1BMI	4.472172	4.072849	1.10	0.275	-3.631574	12.57592
w1TotalD	-2.039847	3.203915	-0.64	0.527	-8.467058	4.387364
w1Albumin	174.0532	100.866	1.73	0.088	-26.63634	374.7427
w1EosinPct	-6.957173	14.35744	-0.48	0.629	-35.58032	21.66597
ICV_volM2	.0010051	.0003089	3.25	0.002	.0003905	.0016198
_cons	1904.57	709.8562	2.68	0.009	492.1757	3316.965

```
386 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0137
Largest FMI = 0.0715
Complete DF = 83
DF adjustment: Small sample — DF: min = 69.62
avg = 79.05
max = 81.05
Model F test: Equal FMI — F(10, 81.0) = 5.79
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	60.69275	91.56191	0.66	0.509	-121.4921	242.8776
Sex	0	(omitted)				
w1Age	-6.557271	4.192055	-1.56	0.122	-14.89835	1.783807
Race	-179.1453	72.60598	-2.47	0.016	-323.6283	-34.66235
PovStat	-93.70042	73.24542	-1.28	0.204	-239.445	52.04416
TIME_V1SCAN	.0845463	.052843	1.60	0.114	-.0206024	.189695
w1BMI	2.234597	4.384715	0.51	0.612	-6.489714	10.95891
w1TotalD	-2.928021	3.292249	-0.89	0.377	-9.489704	3.633662
w1Albumin	162.5047	108.5787	1.50	0.138	-53.53073	378.5401
w1EosinPct	3.093928	15.52951	0.20	0.843	-27.88166	34.06952
ICV_volM2	.0017416	.0003324	5.24	0.000	.0010802	.0024029
_cons	1203.277	764.3904	1.57	0.119	-317.6433	2724.197

```
. 
. //ANALYSIS C//
. mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct I

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         94
                                                Average RVI       =     0.0098
                                                Largest FMI       =     0.0661
                                                Complete DF       =         83
DF adjustment:   Small sample                   DF:     min       =      70.78
                                                        avg       =      79.69
                                                        max       =      81.02
Model F test:       Equal FMI                   F(  10,   81.0)   =       2.89
Within VCE type:          OLS                   Prob > F          =     0.0038

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   5.313023   1.378423     3.85   0.000     2.570118    8.055927
          Sex |          0  (omitted)
        w1Age |   .0028642   .0630518     0.05   0.964    -.1225966     .128325
         Race |   1.242708   1.092162     1.14   0.259    -.9307567    3.416173
      PovStat |   1.894265   1.101674     1.72   0.089     -.297944    4.086473
  TIME_V1SCAN |  -.0010761   .0007952    -1.35   0.180    -.0026585    .0005063
        w1BMI |   .1687719   .0658538     2.56   0.012     .0377437    .2998001
     w1TotalD |  -.0704451   .0497139    -1.42   0.161    -.1695774    .0286871
    w1Albumin |   .5500445   1.631704     0.34   0.737    -2.696521     3.79661
   w1EosinPct |   .1982021   .2260954     0.88   0.383    -.2517033    .6481075
    ICV_volM2 |   5.97e-06   5.00e-06     1.19   0.236    -3.98e-06    .0000159
        _cons |  -21.42325   11.49727    -1.86   0.066    -44.30037    1.453879
------------------------------------------------------------------------------

. 
. save, replace
file finaldata_imputed_final.dta saved

. 
. 
. **********INTERACTION BY Sex***************
. 
. 
. //ANALYSIS A//
. mi estimate: reg TOTALBRAIN c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0082
                                                Largest FMI       =     0.0792
                                                Complete DF       =        151
DF adjustment:   Small sample                   DF:     min       =     115.16
                                                        avg       =     145.44
                                                        max       =     149.01
Model F test:       Equal FMI                   F(  11,  149.0)   =      12.68
Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	15882.34	25404.31	0.63	0.533	-34319.08	66083.77
Sex						
Men	171680.3	63762.93	2.69	0.008	45682.46	297678.2
Sex#c.LnNFLw1						
Men	-12160.05	30302.51	-0.40	0.689	-72038.98	47718.87
Sex	0	(omitted)				
w1Age	-2803.349	979.136	-2.86	0.005	-4738.136	-868.5623
Race	-64829.14	17471.08	-3.71	0.000	-99360.01	-30298.28
PovStat	-1658.86	17082.98	-0.10	0.923	-35415.22	32097.5
TIME_V1SCAN	-15.26976	12.36276	-1.24	0.219	-39.69897	9.159443
w1BMI	938.825	1204.633	0.78	0.437	-1441.548	3319.198
w1TotalD	316.1069	858.8135	0.37	0.713	-1385.012	2017.226
w1Albumin	3015.296	28213.82	0.11	0.915	-52735.55	58766.15
w1EosinPct	-3971.87	3723.297	-1.07	0.288	-11330.49	3386.748
_cons	1270106	158660.5	8.01	0.000	956587.3	1583625

399 . mi estimate: reg GM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1TotalD w1Albumin w1EosinPct if sam

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0043
Largest FMI = 0.0431
Complete DF = 151
DF adjustment: Small sample — DF: min = 134.54
avg = 147.48
max = 149.02
Model F test: Equal FMI — F(11, 149.0) = 14.66
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	11110.94	13451.32	0.83	0.410	-15469.68	37691.56
Sex						
Men	103138.1	33777.35	3.05	0.003	36393.33	169882.8
Sex#c.LnNFLw1						
Men	-13231.41	16052.58	-0.82	0.411	-44951.68	18488.86
Sex	0	(omitted)				
w1Age	-2299.122	518.8712	-4.43	0.000	-3324.417	-1273.827
Race	-45345.46	9218.422	-4.92	0.000	-63562.74	-27128.18
PovStat	-3623.171	9050.652	-0.40	0.689	-21507.37	14261.03
TIME_V1SCAN	-3.809747	6.550111	-0.58	0.562	-16.75291	9.133417
w1BMI	797.7641	638.3405	1.25	0.213	-463.6037	2059.132
w1TotalD	28.77115	447.0213	0.06	0.949	-855.3266	912.8689
w1Albumin	8129.833	14952	0.54	0.587	-21415.48	37675.15
w1EosinPct	-702.0756	1966.981	-0.36	0.722	-4589.188	3185.037
_cons	716737.4	84050.58	8.53	0.000	550651.7	882823

```
400 . mi estimate: reg WM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1EosinPct if  sam

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0080
                                                Largest FMI       =     0.0700
                                                Complete DF       =        151
DF adjustment:   Small sample                   DF:     min       =     120.32
                                                        avg       =     145.75
                                                        max       =     149.00
Model F test:       Equal FMI                   F(  11,  149.0)   =       8.16
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
          WM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   5336.145   12566.13     0.42   0.672    -19495.65    30167.94
              |
          Sex |
          Men |   69814.16   31553.96     2.21   0.028     7462.114    132166.2
              |
Sex#c.LnNFLw1 |
          Men |  -4972.894   14992.93    -0.33   0.741    -34599.53    24653.74
              |
          Sex |          0  (omitted)
        w1Age |  -906.4906   484.5053    -1.87   0.063    -1863.883    50.90131
         Race |  -17188.96   8644.776    -1.99   0.049    -34275.07   -102.8538
      PovStat |  -3617.381   8453.563    -0.43   0.669    -20321.88    13087.11
  TIME_V1SCAN |  -8.600932   6.116702    -1.41   0.162    -20.68774    3.485876
        w1BMI |   300.8992   596.1057     0.50   0.614    -877.0187    1478.817
     w1TotalD |   274.1024   422.9369     0.65   0.518    -563.2605    1111.465
    w1Albumin |   3328.902   13959.44     0.24   0.812    -24255.15    30912.95
   w1EosinPct |  -2630.479   1845.136    -1.43   0.156    -6277.368    1016.409
        _cons |   488861.2   78505.93     6.23   0.000     333730.4      643992
------------------------------------------------------------------------------

401 .
402 .
403 . //ANALYSIS B//
404 . mi estimate: reg Left_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI  w1TotalD w1Albumin w1Eo

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0197
                                                Largest FMI       =     0.1818
                                                Complete DF       =        150
DF adjustment:   Small sample                   DF:     min       =      65.79
                                                        avg       =     139.92
                                                        max       =     148.01
Model F test:       Equal FMI                   F(  12,  147.7)   =      10.97
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippoc~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   42.37655   85.14232     0.50   0.619    -125.8948    210.6479
              |
          Sex |
          Men |   225.2013   219.2021     1.03   0.306    -207.9809    658.3835
              |
Sex#c.LnNFLw1 |
          Men |  -109.3732   101.3577    -1.08   0.282    -309.6749    90.92847
              |
          Sex |          0  (omitted)
        w1Age |  -7.011579   3.279037    -2.14   0.034    -13.49136   -.5318017
```

Race	-99.90002	62.32489	-1.60	0.111	-223.1343	23.33429
PovStat	-160.0966	57.07069	-2.81	0.006	-272.8755	-47.31773
TIME_V1SCAN	.043674	.0414211	1.05	0.293	-.0381814	.1255295
w1BMI	6.611828	4.027903	1.64	0.103	-1.347797	14.57145
w1TotalD	-.4977876	3.026825	-0.16	0.870	-6.541407	5.545832
w1Albumin	167.6837	94.26769	1.78	0.077	-18.60081	353.9681
w1EosinPct	-7.787383	12.58077	-0.62	0.537	-32.66192	17.08715
ICV_volM2	.0015684	.0002374	6.61	0.000	.0010993	.0020376
_cons	1064.338	632.0899	1.68	0.094	-184.7623	2313.439

405 . mi estimate: reg Right_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1TotalD w1Albumin w1E

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0116
Largest FMI = 0.0807
Complete DF = 150
DF adjustment: Small sample — DF: min = 113.71
avg = 144.01
max = 148.02
Model F test: Equal FMI — F(12, 147.9) = 13.10
Within VCE type: OLS — Prob > F = 0.0000

Right_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	63.21315	87.40334	0.72	0.471	-109.5112	235.9375
Sex						
Men	106.3049	225.6658	0.47	0.638	-339.6439	552.2536
Sex#c.LnNFLw1						
Men	-102.8839	104.3398	-0.99	0.326	-309.0753	103.3076
Sex	0	(omitted)				
w1Age	-5.615213	3.382161	-1.66	0.099	-12.29891	1.068487
Race	-124.3013	63.64243	-1.95	0.053	-250.0904	1.487685
PovStat	-149.1713	58.85847	-2.53	0.012	-265.4853	-32.85736
TIME_V1SCAN	.0724243	.0426405	1.70	0.092	-.0118396	.1566882
w1BMI	6.290045	4.14995	1.52	0.132	-1.910763	14.49085
w1TotalD	-2.996574	2.959959	-1.01	0.314	-8.860389	2.867241
w1Albumin	104.3744	97.11671	1.07	0.284	-87.5399	296.2887
w1EosinPct	.8807808	13.00757	0.07	0.946	-24.84278	26.60434
ICV_volM2	.0020899	.0002446	8.54	0.000	.0016064	.0025733
_cons	869.776	650.8528	1.34	0.183	-416.3894	2155.941

406 .
407 . //ANALYSIS C//
408 . mi estimate: reg LnLesion_Volume c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1TotalD w1Albumin w1Eos

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0122
Largest FMI = 0.1290
Complete DF = 150
DF adjustment: Small sample — DF: min = 88.08
avg = 142.71
max = 148.03
Model F test: Equal FMI — F(12, 147.9) = 2.91
Within VCE type: OLS — Prob > F = 0.0012

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	5.063445	1.085252	4.67	0.000	2.91853	7.20836
Sex						
Men	7.184484	2.78895	2.58	0.011	1.673102	12.69587
Sex#c.LnNFLw1						
Men	-3.437804	1.28966	-2.67	0.009	-5.986379	-.8892281
Sex	0	(omitted)				
w1Age	-.0302745	.0417777	-0.72	0.470	-.1128333	.0522844
Race	1.524025	.7879554	1.93	0.055	-.0334699	3.08152
PovStat	1.372709	.7266454	1.89	0.061	-.0632339	2.808652
TIME_V1SCAN	-.0008623	.0005275	-1.63	0.104	-.0019049	.0001802
w1BMI	.1256728	.0512815	2.45	0.015	.0243344	.2270112
w1TotalD	-.0236753	.0374927	-0.63	0.529	-.0981832	.0508326
w1Albumin	.7245648	1.200491	0.60	0.547	-1.64776	3.09689
w1EosinPct	.176951	.1577881	1.12	0.264	-.1348589	.4887609
ICV_volM2	2.57e-06	3.02e-06	0.85	0.396	-3.40e-06	8.55e-06
_cons	-15.63937	8.04589	-1.94	0.054	-31.53913	.2603899

```
409 .
410 . save, replace
    file finaldata_imputed_final.dta saved

411 .
412 . ***********MODEL 6: MODEL 2+lifestyle/health-related factors*******
413 .
414 .
415 . //Overall//
416 .
417 . use finaldata_imputed_final,clear

418 .
419 .
420 . //ANALYSIS A//
421 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if sample_final2==1

    Multiple-imputation estimates                   Imputations       =          5
    Linear regression                               Number of obs     =        163
                                                    Average RVI       =     0.0026
                                                    Largest FMI       =     0.0255
                                                    Complete DF       =        153
    DF adjustment:   Small sample                   DF:     min       =     144.04
                                                            avg       =     150.28
                                                            max       =     151.03
    Model F test:       Equal FMI                   F(   9,  151.0)   =      15.83
    Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	16427.25	18396.38	0.89	0.373	-19920.35	52774.84
Sex	143434.8	14185.92	10.11	0.000	115406.3	171463.3
w1Age	-2914.328	964.6819	-3.02	0.003	-4820.353	-1008.302
Race	-63842.62	15184.22	-4.20	0.000	-93843.7	-33841.54
PovStat	1265.655	17270.55	0.07	0.942	-32857.58	35388.89
TIME_V1SCAN	-18.64032	12.09463	-1.54	0.125	-42.53691	5.256274
w1BMI	876.0742	1111.55	0.79	0.432	-1320.129	3072.277
w1currdrugs	-999.3952	18003.89	-0.06	0.956	-36585.34	34586.55
w1SRH	11202.51	9252.897	1.21	0.228	-7079.324	29484.34
_cons	1120751	73718.08	15.20	0.000	975099.2	1266404

```
422 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH  if sample_final2==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0059
                                                Largest FMI       =     0.0420
                                                Complete DF       =        153
DF adjustment:   Small sample                   DF:     min       =     136.76
                                                        avg       =     149.08
                                                        max       =     151.02
Model F test:       Equal FMI                   F(   9,  151.0)   =      18.63
Within VCE type:          OLS                   Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	7032.999	9713.771	0.72	0.470	-12160.66	26226.66
Sex	75086.03	7468.211	10.05	0.000	60330.36	89841.7
w1Age	-2389.731	509.4927	-4.69	0.000	-3396.459	-1383.002
Race	-43011.18	7998.822	-5.38	0.000	-58815.49	-27206.87
PovStat	-3295.701	9104.034	-0.36	0.718	-21283.94	14692.54
TIME_V1SCAN	-5.674939	6.38339	-0.89	0.375	-18.28789	6.93801
w1BMI	484.489	585.4899	0.83	0.409	-672.3342	1641.312
w1currdrugs	-10567.94	9555.539	-1.11	0.271	-29463.65	8327.775
w1SRH	6909.204	4875.77	1.42	0.159	-2724.48	16542.89
_cons	684881.7	38825.56	17.64	0.000	608169.5	761593.8

```
423 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if sample_final2==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0036
                                                Largest FMI       =     0.0194
                                                Complete DF       =        153
DF adjustment:   Small sample                   DF:     min       =     146.27
                                                        avg       =     150.31
                                                        max       =     150.95
Model F test:       Equal FMI                   F(   9,  151.0)   =      10.01
Within VCE type:          OLS                   Prob > F          =     0.0000
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	5251.48	9139.404	0.57	0.566	-12806.52	23309.48
Sex	58763.99	7042.995	8.34	0.000	44848.36	72679.61
w1Age	-865.0422	478.9143	-1.81	0.073	-1811.291	81.20654
Race	-19370.74	7538.507	-2.57	0.011	-34265.49	-4475.988
PovStat	-1337.179	8570.333	-0.16	0.876	-18270.48	15596.12
TIME_V1SCAN	-10.79621	6.012252	-1.80	0.075	-22.67561	1.08318
w1BMI	360.57	551.7074	0.65	0.514	-729.4976	1450.638
w1currdrugs	10096.25	8907.465	1.13	0.259	-7507.707	27700.2
w1SRH	3116.298	4597.163	0.68	0.499	-5966.941	12199.54
_cons	435959.4	36597.5	11.91	0.000	363649.5	508269.3

```
424 .
425 . //ANALYSIS B//
426 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0033
Largest FMI = 0.0280
Complete DF = 152
DF adjustment: Small sample — DF: min = 142.15
avg = 149.23
max = 150.03
Model F test: Equal FMI — F(10, 150.0) = 12.94
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-33.82872	62.18096	-0.54	0.587	-156.6927	89.03522
Sex	14.01251	65.35275	0.21	0.831	-115.1185	143.1435
w1Age	-6.26772	3.266469	-1.92	0.057	-12.72196	.1865247
Race	-90.32463	55.08753	-1.64	0.103	-199.1735	18.5242
PovStat	-173.4482	58.28101	-2.98	0.003	-288.606	-58.29051
TIME_V1SCAN	.0355444	.0409777	0.87	0.387	-.0454242	.1165131
w1BMI	3.30523	3.759106	0.88	0.381	-4.122458	10.73292
w1currdrugs	-38.97324	60.84292	-0.64	0.523	-159.2471	81.30062
w1SRH	-38.92439	31.42829	-1.24	0.217	-101.024	23.17519
ICV_volM2	.0016102	.0002386	6.75	0.000	.0011387	.0020817
_cons	2013.946	377.7774	5.33	0.000	1267.492	2760.4

```
427 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0058
Largest FMI = 0.0470
Complete DF = 152
DF adjustment: Small sample — DF: min = 133.46
avg = 148.37
max = 150.01
Model F test: Equal FMI — F(10, 150.0) = 16.08
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-25.22499	63.34198	-0.40	0.691	-150.3836	99.93359
Sex	-90.44103	66.57761	-1.36	0.176	-221.993	41.11091
w1Age	-4.723335	3.326573	-1.42	0.158	-11.29634	1.849668
Race	-93.15905	56.12595	-1.66	0.099	-204.0606	17.74252
PovStat	-168.8783	59.35577	-2.85	0.005	-286.1597	-51.59686
TIME_V1SCAN	.0786253	.041764	1.88	0.062	-.003898	.1611486
w1BMI	3.586872	3.828609	0.94	0.350	-3.97816	11.1519
w1currdrugs	-56.07593	62.54844	-0.90	0.372	-179.7904	67.63856
w1SRH	-52.27373	32.02291	-1.63	0.105	-115.5488	11.00133
ICV_volM2	.0021244	.000243	8.74	0.000	.0016441	.0026046
_cons	1607.401	384.7419	4.18	0.000	847.1849	2367.617

```
. 
. //ANALYSIS C//
. mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if s

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0010
                                                Largest FMI       =     0.0097
                                                Complete DF       =        152
DF adjustment:   Small sample                   DF:     min       =     148.16
                                                        avg       =     149.85
                                                        max       =     150.04
Model F test:       Equal FMI                   F(  10,  150.0)   =       2.47
Within VCE type:          OLS                   Prob > F          =     0.0092

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |    2.76873    .807503     3.43   0.001     1.173181    4.364278
          Sex |   .4023472   .8486751     0.47   0.636    -1.274551    2.079245
        w1Age |   .0009682   .0424241     0.02   0.982     -.082858    .0847943
         Race |   1.622483   .7150879     2.27   0.025     .2095374    3.035429
      PovStat |   1.181099   .7569895     1.56   0.121    -.3146406    2.676838
  TIME_V1SCAN |  -.0009344    .000532    -1.76   0.081    -.0019856    .0001168
        w1BMI |   .0718726   .0488035     1.47   0.143    -.0245584    .1683037
  w1currdrugs |   .0275805   .7831273     0.04   0.972    -1.519961    1.575122
        w1SRH |  -.3020864   .4080616    -0.74   0.460    -1.108376    .5042031
    ICV_volM2 |   2.63e-06   3.10e-06     0.85   0.397    -3.49e-06    8.76e-06
        _cons |  -7.522639   4.905601    -1.53   0.127    -17.21563    2.170349
------------------------------------------------------------------------------

. 
. save, replace
file finaldata_imputed_final.dta saved

. 
. 
. //Males//
. 
. 
. use finaldata_imputed_final,clear

. 
. 
. //ANALYSIS A//
. mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if sample_final2==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         69
                                                Average RVI       =     0.0015
                                                Largest FMI       =     0.0057
                                                Complete DF       =         60
DF adjustment:   Small sample                   DF:     min       =      57.81
                                                        avg       =      58.00
                                                        max       =      58.09
Model F test:       Equal FMI                   F(   8,   58.1)   =       2.41
Within VCE type:          OLS                   Prob > F          =     0.0256
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4718.797	28837.94	0.16	0.871	-53010.57	62448.17
Sex	0	(omitted)				
w1Age	-3149.493	1757.105	-1.79	0.078	-6666.792	367.8071
Race	-91158.9	29367.97	-3.10	0.003	-149944.1	-32373.67
PovStat	22931.41	30075.64	0.76	0.449	-37270.74	83133.56
TIME_V1SCAN	-31.42254	22.36856	-1.40	0.165	-76.19948	13.35441
w1BMI	1665.761	2709.724	0.61	0.541	-3758.166	7089.688
w1currdrugs	21631.82	34685.33	0.62	0.535	-47797.96	91061.61
w1SRH	-12731.69	18030.16	-0.71	0.483	-48822.02	23358.64
_cons	1507715	118489.9	12.72	0.000	1270537	1744893

443 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if sample_final2==1 & Sex=

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0010
Largest FMI = 0.0101
Complete DF = 60
DF adjustment: Small sample — DF: min = 57.52
avg = 58.02
max = 58.09
Model F test: Equal FMI — F(8, 58.1) = 3.73
Within VCE type: OLS — Prob > F = 0.0014

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-1082.213	14868.97	-0.07	0.942	-30844.72	28680.29
Sex	0	(omitted)				
w1Age	-2847.054	906.9259	-3.14	0.003	-4662.406	-1031.702
Race	-57263.22	15181.57	-3.77	0.000	-87652.31	-26874.12
PovStat	4639.339	15534.49	0.30	0.766	-26455.28	35733.95
TIME_V1SCAN	-10.86745	11.54241	-0.94	0.350	-33.97133	12.23643
w1BMI	1075.14	1400.204	0.77	0.446	-1727.578	3877.858
w1currdrugs	-1623.983	17991.15	-0.09	0.928	-37643.55	34395.59
w1SRH	-2602.15	9315.328	-0.28	0.781	-21248.16	16043.86
_cons	897449.3	61213.59	14.66	0.000	774921.2	1019977

444 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if sample_final2==1 & Sex==

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0057
Largest FMI = 0.0171
Complete DF = 60
DF adjustment: Small sample — DF: min = 57.00
avg = 57.73
max = 58.08
Model F test: Equal FMI — F(8, 58.1) = 1.67
Within VCE type: OLS — Prob > F = 0.1259

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-1141.75	14347.24	-0.08	0.937	-29871.61	27588.11
Sex	0	(omitted)				
w1Age	-761.645	872.0897	-0.87	0.386	-2507.629	984.3388
Race	-32946.92	14546.2	-2.26	0.027	-62065.16	-3828.688
PovStat	6892.175	14898.93	0.46	0.645	-22932.56	36716.91
TIME_V1SCAN	-18.35564	11.11283	-1.65	0.104	-40.60579	3.894505
w1BMI	411.1658	1340.795	0.31	0.760	-2272.65	3094.982
w1currdrugs	21085.89	17190.81	1.23	0.225	-13327.84	55499.61
w1SRH	-9213.535	8925.877	-1.03	0.306	-27080.6	8653.532
_cons	610014.5	58658.31	10.40	0.000	492596.9	727432.2

```
445 .
446 .
447 .
448 . //ANALYSIS B//
449 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0118
Largest FMI = 0.0361
Complete DF = 59
DF adjustment: Small sample — DF: min = 54.35
avg = 56.31
max = 57.07
Model F test: Equal FMI — F(9, 57.0) = 7.02
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-42.54185	91.37044	-0.47	0.643	-225.7019	140.6182
Sex	0	(omitted)				
w1Age	-7.614275	5.537852	-1.37	0.175	-18.71002	3.481468
Race	62.83347	102.5439	0.61	0.542	-142.5258	268.1927
PovStat	-284.9349	94.54395	-3.01	0.004	-474.2933	-95.57648
TIME_V1SCAN	-.0302283	.0713142	-0.42	0.673	-.173138	.1126813
w1BMI	11.00058	8.464986	1.30	0.199	-5.949811	27.95098
w1currdrugs	-192.233	110.033	-1.75	0.086	-412.5871	28.12115
w1SRH	97.93046	56.59255	1.73	0.089	-15.3972	211.2581
ICV_volM2	.0022748	.0003614	6.29	0.000	.0015512	.0029985
_cons	708.9765	711.3097	1.00	0.323	-715.3648	2133.318

```
450 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0216
Largest FMI = 0.0573
Complete DF = 59
DF adjustment: Small sample — DF: min = 52.06
avg = 55.60
max = 57.06
Model F test: Equal FMI — F(9, 57.0) = 8.94
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-15.07039	91.79664	-0.16	0.870	-199.2691	169.1283
Sex	0	(omitted)				
w1Age	-9.95163	5.537533	-1.80	0.078	-21.05155	1.14829
Race	66.13429	102.3048	0.65	0.521	-138.7847	271.0533
PovStat	-276.4446	94.20257	-2.93	0.005	-465.1423	-87.74696
TIME_V1SCAN	.0414912	.0714318	0.58	0.564	-.1017426	.184725
w1BMI	19.70624	8.417628	2.34	0.023	2.850578	36.5619
w1currdrugs	-253.4468	110.3393	-2.30	0.025	-474.5289	-32.36461
w1SRH	40.92611	56.34035	0.73	0.471	-71.90352	153.7557
ICV_volM2	.002637	.0003594	7.34	0.000	.0019174	.0033566
_cons	264.6417	707.214	0.37	0.710	-1151.496	1680.779

```
451 .
452 . //ANALYSIS C//
453 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if s
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 69
Average RVI = 0.0047
Largest FMI = 0.0382
Complete DF = 59
DF adjustment: **Small sample** — DF: min = 54.13
avg = 56.73
max = 57.08
Model F test: **Equal FMI** — F(9, 57.1) = 0.80
Within VCE type: **OLS** — Prob > F = 0.6137

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1.609893	.910591	1.77	0.082	-.213548	3.433335
Sex	0	(omitted)				
w1Age	-.0529872	.0555194	-0.95	0.344	-.1641622	.0581878
Race	1.45961	1.037855	1.41	0.165	-.6187868	3.538006
PovStat	.6989568	.9532362	0.73	0.466	-1.209825	2.607738
TIME_V1SCAN	-.0009055	.0007135	-1.27	0.210	-.0023342	.0005233
w1BMI	-.01221	.0857157	-0.14	0.887	-.1838475	.1594276
w1currdrugs	.3941745	1.131775	0.35	0.729	-1.874769	2.663118
w1SRH	-.1455389	.5723954	-0.25	0.800	-1.291708	1.00063
ICV_volM2	1.43e-07	3.66e-06	0.04	0.969	-7.19e-06	7.47e-06
_cons	4.574626	7.205049	0.63	0.528	-9.85307	19.00232

```
454 .
455 . save, replace
    file finaldata_imputed_final.dta saved

456 .
457 .
```

```
458 .
459 . //Females//
460 .
461 . use finaldata_imputed_final,clear

462 .
463 .
464 . //ANALYSIS A//
465 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if sample_final2==1
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0065
Largest FMI = 0.0562
Complete DF = 85
DF adjustment: Small sample — DF: min = 74.50
avg = 81.96
max = 83.04
Model F test: Equal FMI — F(8, 83.0) = 3.72
Within VCE type: OLS — Prob > F = 0.0009

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	34120.34	24455.89	1.40	0.167	-14521.99	82762.66
Sex	0	(omitted)				
w1Age	-3549.862	1156.634	-3.07	0.003	-5850.463	-1249.261
Race	-45942.62	16630.92	-2.76	0.007	-79020.63	-12864.62
PovStat	-14259.88	20155.78	-0.71	0.481	-54349.88	25830.13
TIME_V1SCAN	.3495878	13.77851	0.03	0.980	-27.05558	27.75476
w1BMI	1307.245	1169.34	1.12	0.267	-1018.623	3633.113
w1currdrugs	-10248.32	20261.99	-0.51	0.614	-50616.72	30120.07
w1SRH	29704.34	10371.73	2.86	0.005	9075.509	50333.17
_cons	1167014	85050.75	13.72	0.000	997845.1	1336183

```
466 . mi estimate: reg GM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH  if sample_final2==1 & Sex=
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0113
Largest FMI = 0.0844
Complete DF = 85
DF adjustment: Small sample — DF: min = 68.25
avg = 80.99
max = 82.91
Model F test: Equal FMI — F(8, 83.0) = 5.31
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	17578.29	13500.06	1.30	0.197	-9274.659	44431.23
Sex	0	(omitted)				
w1Age	-2507.065	638.7063	-3.93	0.000	-3777.58	-1236.55
Race	-34305.6	9171.321	-3.74	0.000	-52547.27	-16063.93
PovStat	-8670.289	11124.56	-0.78	0.438	-30798.32	13457.74
TIME_V1SCAN	2.398238	7.605379	0.32	0.753	-12.72953	17.52601
w1BMI	773.8017	645.6023	1.20	0.234	-510.4173	2058.021
w1currdrugs	-13677.73	11322.79	-1.21	0.231	-36270.51	8915.051
w1SRH	14112.56	5722.549	2.47	0.016	2730.269	25494.85
_cons	700259.6	46953.32	14.91	0.000	606861.8	793657.4

```
467 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if sample_final2==1 & Sex==
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0032
Largest FMI = 0.0243
Complete DF = 85
DF adjustment: Small sample — DF: min = 80.29
avg = 82.66
max = 83.04
Model F test: Equal FMI — F(8, 83.0) = 2.23
Within VCE type: OLS — Prob > F = 0.0328

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	17242.77	12029	1.43	0.155	-6682.388	41167.93
Sex	0	(omitted)				
w1Age	-1351.34	568.2269	-2.38	0.020	-2481.513	-221.1681
Race	-9439.318	8183.858	-1.15	0.252	-25716.59	6837.955
PovStat	-6828.048	9911.844	-0.69	0.493	-26542.39	12886.3
TIME_V1SCAN	-.8723776	6.77951	-0.13	0.898	-14.35665	12.6119
w1BMI	699.3179	574.9819	1.22	0.227	-444.3189	1842.955
w1currdrugs	6522.666	9815.338	0.66	0.508	-13009.39	26054.72
w1SRH	13865.31	5105.644	2.72	0.008	3710.327	24020.3
_cons	435497.8	41846.52	10.41	0.000	352263.9	518731.8

```
468 .
469 .
470 . //ANALYSIS B//
471 . mi estimate: reg Left_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0194
Largest FMI = 0.1600
Complete DF = 84
DF adjustment: Small sample — DF: min = 50.67
avg = 78.59
max = 82.07
Model F test: Equal FMI — F(9, 81.9) = 5.26
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	30.95918	84.14333	0.37	0.714	-136.4321	198.3504
Sex	0	(omitted)				
w1Age	-8.007872	4.018117	-1.99	0.050	-16.00217	-.0135784
Race	-162.8453	59.36493	-2.74	0.007	-280.9396	-44.75096
PovStat	-138.3001	68.52679	-2.02	0.047	-274.6324	-1.967915
TIME_V1SCAN	.0605933	.0466807	1.30	0.198	-.0322716	.1534582
w1BMI	1.997883	3.991935	0.50	0.618	-5.944401	9.940166
w1currdrugs	-9.973704	72.71546	-0.14	0.891	-155.9791	136.0317
w1SRH	-91.13614	37.28476	-2.44	0.017	-165.3067	-16.96557
ICV_volM2	.0012188	.00032	3.81	0.000	.0005822	.0018554
_cons	2624.498	499.2402	5.26	0.000	1631.205	3617.792

```
472 . mi estimate: reg Right_Hippocampus LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0153
Largest FMI = 0.1294
Complete DF = 84
DF adjustment: **Small sample** — DF: min = 57.26
avg = 79.33
max = 82.07
Model F test: **Equal FMI** — F(9, 81.9) = 7.13
Within VCE type: **OLS** — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-27.42921	89.95733	-0.30	0.761	-206.3869	151.5284
Sex	0	(omitted)				
w1Age	-3.363039	4.292237	-0.78	0.436	-11.90246	5.176377
Race	-165.8219	63.46425	-2.61	0.011	-292.071	-39.57285
PovStat	-119.2788	73.21875	-1.63	0.107	-264.9427	26.38516
TIME_V1SCAN	.085478	.049909	1.71	0.091	-.0138095	.1847656
w1BMI	-.5898211	4.261439	-0.14	0.890	-9.067833	7.888191
w1currdrugs	-4.03477	76.52252	-0.05	0.958	-157.2537	149.1841
w1SRH	-102.8306	39.85796	-2.58	0.012	-182.12	-23.54124
ICV_volM2	.0019652	.000342	5.75	0.000	.0012848	.0026456
_cons	1901.847	532.9281	3.57	0.001	841.5895	2962.105

```
473 .
474 . //ANALYSIS C//
475 . mi estimate: reg LnLesion_Volume LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_volM2 if s
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 94
Average RVI = 0.0058
Largest FMI = 0.0518
Complete DF = 84
DF adjustment: **Small sample** — DF: min = 74.54
avg = 81.22
max = 82.06
Model F test: **Equal FMI** — F(9, 82.0) = 2.95
Within VCE type: **OLS** — Prob > F = 0.0044

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4.295792	1.395139	3.08	0.003	1.520418	7.071165
Sex	0	(omitted)				
w1Age	.0300253	.0664872	0.45	0.653	-.1022422	.1622928
Race	1.62509	.9849698	1.65	0.103	-.334306	3.584486
PovStat	1.800259	1.13502	1.59	0.117	-.4576997	4.058218
TIME_V1SCAN	-.0009139	.000774	-1.18	0.241	-.0024537	.000626
w1BMI	.1508951	.0660229	2.29	0.025	.0195521	.282238
w1currdrugs	.0759021	1.142298	0.07	0.947	-2.199905	2.35171
w1SRH	-.5788579	.6185684	-0.94	0.352	-1.809374	.6516578
ICV_volM2	6.58e-06	5.31e-06	1.24	0.219	-3.98e-06	.0000171
_cons	-19.16767	8.255694	-2.32	0.023	-35.59127	-2.744072

```
476 .
477 . save, replace
    file finaldata_imputed_final.dta saved

478 .
479 . ******************INTERACTION BY Sex**********************
480 .
481 .
482 . //ANALYSIS A//
483 . mi estimate: reg TOTALBRAIN c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if sample_fi

    Multiple-imputation estimates                 Imputations       =          5
    Linear regression                             Number of obs     =        163
                                                  Average RVI       =     0.0022
                                                  Largest FMI       =     0.0236
                                                  Complete DF       =        152
    DF adjustment:   Small sample                 DF:     min       =     143.86
                                                          avg       =     149.43
                                                          max       =     150.04
    Model F test:       Equal FMI                 F(  10,  150.0)   =      14.18
    Within VCE type:          OLS                 Prob > F          =     0.0000

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   22138.97   24864.79     0.89   0.375    -26991.6    71269.53
             |
         Sex |
         Men |   164084.5   61907.95     2.65   0.009     41760.46    286408.6
             |
Sex#c.LnNFLw1|
         Men |  -10157.23   29637.59    -0.34   0.732    -68718.25    48403.79
             |
         Sex |          0  (omitted)
       w1Age |  -2990.917   993.0197    -3.01   0.003     -4953.04   -1028.794
        Race |  -63973.99    15232.8    -4.20   0.000    -94072.66   -33875.32
     PovStat |   1563.665   17342.01     0.09   0.928     -32702.6    35829.93
 TIME_V1SCAN |  -18.23901   12.18641    -1.50   0.137    -42.31823    5.840209
       w1BMI |   993.1613   1165.862     0.85   0.396    -1310.471    3296.793
  w1currdrugs |  -1426.509   18092.86    -0.08   0.937    -37188.72    34335.7
       w1SRH |   11111.96   9283.523     1.20   0.233    -7231.366    29455.29
       _cons |    1252256   78837.22    15.88   0.000      1096482     1408031
------------------------------------------------------------------------------

484 . mi estimate: reg GM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH  if sample_final2==1

    Multiple-imputation estimates                 Imputations       =          5
    Linear regression                             Number of obs     =        163
                                                  Average RVI       =     0.0052
                                                  Largest FMI       =     0.0361
                                                  Complete DF       =        152
    DF adjustment:   Small sample                 DF:     min       =     138.70
                                                          avg       =     148.54
                                                          max       =     149.80
    Model F test:       Equal FMI                 F(  10,  150.0)   =      16.85
    Within VCE type:          OLS                 Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	15142.94	13076.17	1.16	0.249	-10695.06	40980.93
Sex						
Men	104404.2	32537.16	3.21	0.002	40113.05	168695.3
Sex#c.LnNFLw1						
Men	-14421.59	15579.29	-0.93	0.356	-45205.28	16362.11
Sex	0	(omitted)				
w1Age	-2498.512	522.9743	-4.78	0.000	-3531.926	-1465.098
Race	-43195.63	8005.415	-5.40	0.000	-59013.83	-27377.42
PovStat	-2873.813	9119.196	-0.32	0.753	-20892.96	15145.34
TIME_V1SCAN	-5.104493	6.416277	-0.80	0.428	-17.78312	7.57413
w1BMI	650.6452	612.6567	1.06	0.290	-559.9199	1861.21
w1currdrugs	-11187.55	9560.587	-1.17	0.244	-30090.9	7715.786
w1SRH	6780.152	4880.856	1.39	0.167	-2864.132	16424.44
_cons	743034.7	41432.4	17.93	0.000	661167.3	824902.2

485 . mi estimate: reg WM c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if sample_final2==1

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0033
Largest FMI = 0.0186
Complete DF = 152
DF adjustment: Small sample — DF: min = 145.59
avg = 149.38
max = 149.93
Model F test: Equal FMI — F(10, 150.0) = 8.96
Within VCE type: OLS — Prob > F = 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	7087.029	12344.53	0.57	0.567	-17304.72	31478.78
Sex						
Men	65402.52	30759.83	2.13	0.035	4623.013	126182
Sex#c.LnNFLw1						
Men	-3264.921	14731.02	-0.22	0.825	-32372.71	25842.87
Sex	0	(omitted)				
w1Age	-889.6118	492.8858	-1.80	0.073	-1863.512	84.28837
Race	-19414.96	7563.856	-2.57	0.011	-34360.57	-4469.341
PovStat	-1240.227	8608.475	-0.14	0.886	-18249.82	15769.37
TIME_V1SCAN	-10.66769	6.058485	-1.76	0.080	-22.63906	1.303674
w1BMI	398.2933	578.8527	0.69	0.492	-745.4702	1542.057
w1currdrugs	9971.17	8958.558	1.11	0.268	-7734.457	27676.8
w1SRH	3087.504	4613.466	0.67	0.504	-6028.443	12203.45
_cons	490883.2	39155.39	12.54	0.000	413515.1	568251.3

```
. 
. 
. //ANALYSIS B//
. mi estimate: reg Left_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_vo

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0042
                                                Largest FMI       =     0.0381
                                                Complete DF       =        151
DF adjustment:   Small sample                   DF:     min       =     136.88
                                                        avg       =     147.91
                                                        max       =     149.03
Model F test:       Equal FMI                   F(  11,  149.0)   =      11.96
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippoc~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
--------------+---------------------------------------------------------------
      LnNFLw1 |    38.1077   83.60857     0.46   0.649    -127.1041    203.3195
              |
          Sex |
          Men |    274.8487   213.4771     1.29   0.200    -146.9872    696.6846
              |
Sex#c.LnNFLw1 |
          Men |   -127.7905   99.61181    -1.28   0.202    -324.6269     69.0458
              |
          Sex |           0  (omitted)
        w1Age |   -7.237627   3.345839    -2.16   0.032    -13.84906   -.6261984
         Race |   -92.43878   55.00775    -1.68   0.095    -201.1363    16.25875
      PovStat |   -169.7187   58.22909    -2.91   0.004      -284.78   -54.65728
  TIME_V1SCAN |    .0405184   .0410827     0.99   0.326    -.0406624    .1216992
        w1BMI |    4.782951   3.923761     1.22   0.225    -2.970497     12.5364
  w1currdrugs |   -44.41986    61.2022    -0.73   0.469    -165.4439    76.60421
        w1SRH |   -39.98827   31.37793    -1.27   0.205    -101.9919    22.01536
    ICV_volM2 |    .0016046   .0002382     6.74   0.000      .001134    .0020752
        _cons |    1885.62    419.948     4.49   0.000     1055.795    2715.444
------------------------------------------------------------------------------

. mi estimate: reg Right_Hippocampus c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_v

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        163
                                                Average RVI       =     0.0072
                                                Largest FMI       =     0.0629
                                                Complete DF       =        151
DF adjustment:   Small sample                   DF:     min       =     124.22
                                                        avg       =     146.74
                                                        max       =     149.01
Model F test:       Equal FMI                   F(  11,  149.0)   =      14.73
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
--------------+---------------------------------------------------------------
      LnNFLw1 |    37.4558   85.29892     0.44   0.661    -131.0971    206.0087
              |
          Sex |
          Men |    136.8277   217.8344     0.63   0.531    -293.6225    567.2779
              |
Sex#c.LnNFLw1 |
          Men |    -111.347   101.6808    -1.10   0.275    -312.2751    89.58112
              |
          Sex |           0  (omitted)
        w1Age |   -5.568537   3.412229    -1.63   0.105    -12.31115    1.174072
```

Race	-94.99497	56.1291	-1.69	0.093	-205.9094	15.91944
PovStat	-165.6323	59.39018	-2.79	0.006	-282.9881	-48.27649
TIME_V1SCAN	.0829617	.0419379	1.98	0.050	.0000897	.1658338
w1BMI	4.874203	4.001877	1.22	0.225	-3.033606	12.78201
w1currdrugs	-60.85967	63.19531	-0.96	0.337	-185.9387	64.21942
w1SRH	-53.20236	32.02064	-1.66	0.099	-116.4767	10.07197
ICV_volM2	.0021195	.0002429	8.72	0.000	.0016395	.0025995
_cons	1392.945	428.3391	3.25	0.001	546.5376	2239.351

```
491 .
492 . //ANALYSIS C//
493 . mi estimate: reg LnLesion_Volume c.LnNFLw1##Sex Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH ICV_vol
```

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 163
Average RVI = 0.0031
Largest FMI = 0.0340
Complete DF = 151
DF adjustment: Small sample — DF: min = 138.72
avg = 148.13
max = 149.04
Model F test: Equal FMI — F(11, 149.0) = 3.07
Within VCE type: OLS — Prob > F = 0.0010

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4.787672	1.064032	4.50	0.000	2.685127	6.890218
Sex						
Men	7.723105	2.715703	2.84	0.005	2.356842	13.08937
Sex#c.LnNFLw1						
Men	-3.586567	1.266924	-2.83	0.005	-6.090028	-1.083107
Sex	0	(omitted)				
w1Age	-.026249	.0425853	-0.62	0.539	-.1103984	.0579005
Race	1.562921	.6997534	2.23	0.027	.1801897	2.945653
PovStat	1.2859	.741104	1.74	0.085	-.1785332	2.750334
TIME_V1SCAN	-.0007949	.0005225	-1.52	0.130	-.0018273	.0002376
w1BMI	.113356	.0499184	2.27	0.025	.0147166	.2119954
w1currdrugs	-.1239421	.7772662	-0.16	0.874	-1.660763	1.412879
w1SRH	-.3318987	.3991124	-0.83	0.407	-1.120549	.4567516
ICV_volM2	2.48e-06	3.03e-06	0.82	0.415	-3.51e-06	8.47e-06
_cons	-11.11558	5.343017	-2.08	0.039	-21.67343	-.5577202

```
494 .
495 . save, replace
    file finaldata_imputed_final.dta saved

496 .
497 .
498 .
499 . capture log close
```