```
 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_final==1,beta
```

Source	SS	df	MS	Number of obs	=	179
				F(6, 172)	=	23.74
Model	1.1248e+12	6	1.8746e+11	Prob > F	=	0.0000
Residual	1.3581e+12	172	7.8962e+09	R-squared	=	0.4530
				Adj R-squared	=	0.4339
Total	2.4829e+12	178	1.3949e+10	Root MSE	=	88861

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-1042.091	15863.39	-0.07	0.948	-.0046568
Sex	137235.4	13508.27	10.16	0.000	.5793234
w1Age	-2205.657	915.8583	-2.41	0.017	-.170054
Race	-70943.34	14277.89	-4.97	0.000	-.2966295
PovStat	-3462.836	15891.42	-0.22	0.828	-.0136324
TIME_V1SCAN	-21.69429	11.34101	-1.91	0.057	-.1163883
_cons	1199473	56936.53	21.07	0.000	.

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

Source	SS	df	MS	Number of obs	=	179
				F(6, 172)	=	26.96
Model	3.6698e+11	6	6.1163e+10	Prob > F	=	0.0000
Residual	3.9027e+11	172	2.2690e+09	R-squared	=	0.4846
				Adj R-squared	=	0.4666
Total	7.5724e+11	178	4.2542e+09	Root MSE	=	47634

GM	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-5763.177	8503.607	-0.68	0.499	-.0466341
Sex	71255.85	7241.138	9.84	0.000	.5446766
w1Age	-1876.906	490.948	-3.82	0.000	-.2620321
Race	-50628.8	7653.695	-6.61	0.000	-.383322
PovStat	-2861.528	8518.633	-0.34	0.737	-.0203986
TIME_V1SCAN	-8.380601	6.079376	-1.38	0.170	-.0814146
_cons	732423.2	30520.96	24.00	0.000	.

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

Source	SS	df	MS		
				Number of obs	= 179
				F(6, 172)	= 15.62
Model	1.7554e+11	6	2.9257e+10	Prob > F	= 0.0000
Residual	3.2210e+11	172	1.8727e+09	R-squared	= 0.3527
				Adj R-squared	= 0.3302
Total	4.9764e+11	178	2.7958e+09	Root MSE	= 43274

WM	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	2207.003	7725.356	0.29	0.775	.0220294
Sex	56078.11	6578.429	8.52	0.000	.5287738
w1Age	-726.8633	446.0164	-1.63	0.105	-.1251766
Race	-18214.05	6953.228	-2.62	0.010	-.1701105
PovStat	-5012.92	7739.007	-0.65	0.518	-.044081
TIME_V1SCAN	-11.76907	5.522991	-2.13	0.035	-.1410352
_cons	462002.5	27727.68	16.66	0.000	.

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

Source	SS	df	MS		
				Number of obs	= 179
				F(7, 171)	= 20.03
Model	11926689.6	7	1703812.8	Prob > F	= 0.0000
Residual	14543394.3	171	85049.0892	R-squared	= 0.4506
				Adj R-squared	= 0.4281
Total	26470083.9	178	148708.336	Root MSE	= 291.63

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-49.28463	52.06401	-0.95	0.345	-.0674518
Sex	-27.02596	59.51168	-0.45	0.650	-.0349413
w1Age	-5.377123	3.007343	-1.79	0.076	-.1269703
Race	-94.27503	51.05189	-1.85	0.067	-.1207266
PovStat	-136.1963	52.16752	-2.61	0.010	-.164213
TIME_V1SCAN	.0153326	.0374454	0.41	0.683	.0251932
ICV_volM2	.0016528	.0002205	7.50	0.000	.6090223
_cons	1999.996	338.0323	5.92	0.000	.

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

Source	SS	df	MS		
				Number of obs	= 179
				F(7, 171)	= 23.41
Model	14883111.2	7	2126158.75	Prob > F	= 0.0000
Residual	15528116.1	171	90807.6963	R-squared	= 0.4894
				Adj R-squared	= 0.4685
Total	30411227.3	178	170849.592	Root MSE	= 301.34

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-39.42339	53.79775	-0.73	0.465	-.0503381
Sex	-104.2478	61.49343	-1.70	0.092	-.1257437
w1Age	-3.699939	3.107488	-1.19	0.235	-.0815094
Race	-92.4084	52.75192	-1.75	0.082	-.1104024
PovStat	-108.963	53.9047	-2.02	0.045	-.1225694
TIME_V1SCAN	.048576	.0386923	1.26	0.211	.0744646
ICV_volM2	.0020849	.0002278	9.15	0.000	.716738
_cons	1619.737	349.2888	4.64	0.000	.

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

Source	SS	df	MS		
Model	285.065964	7	40.7237091	Prob > F	0.0057
Residual	2340.04537	171	13.6844759	R-squared	0.1086
				Adj R-squared	0.0721
Total	2625.11134	178	14.7478165	Root MSE	3.6993

Number of obs	=	179			
F(7, 171)	=	2.98			
Prob > F	=	0.0057			
R-squared	=	0.1086			
Adj R-squared	=	0.0721			
Root MSE	=	3.6993			

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	2.131364	.6604149	3.23	0.001	.2929163
Sex	.2055007	.7548862	0.27	0.786	.0266794
w1Age	.0110377	.0381472	0.29	0.773	.0261719
Race	1.357153	.6475765	2.10	0.038	.1745175
PovStat	.8483606	.6617278	1.28	0.202	.1027133
TIME_V1SCAN	-.0006923	.000475	-1.46	0.147	-.1142221
ICV_volM2	2.38e-06	2.80e-06	0.85	0.396	.0881269
_cons	-4.315704	4.287828	-1.01	0.316	.

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

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        179
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        171
DF adjustment:   Small sample                   DF:     min       =     169.03
                                                        avg       =     169.03
                                                        max       =     169.03
Model F test:       Equal FMI                   F(   7,  169.0)   =      20.34
Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1841.395	16513.95	0.11	0.911	-30758.75	34441.54
Sex	138399.1	13652.46	10.14	0.000	111447.8	165350.4
w1Age	-2315.926	933.3896	-2.48	0.014	-4158.528	-473.3242
Race	-70584.67	14313.29	-4.93	0.000	-98840.5	-42328.83
PovStat	-3739.518	15924.51	-0.23	0.815	-35176.06	27697.02
TIME_V1SCAN	-21.18421	11.38825	-1.86	0.065	-43.66572	1.297299
w1BMI	702.3806	1094.778	0.64	0.522	-1458.818	2863.579
_cons	1175497	68187.07	17.24	0.000	1040889	1310105

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

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 179
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 171
DF adjustment: Small sample — DF: min = 169.03
avg = 169.03
max = 169.03
Model F test: Equal FMI — F(7, 169.0) = 23.17
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-3706.587	8844.13	-0.42	0.676	-21165.76	13752.59
Sex	72085.84	7311.645	9.86	0.000	57651.94	86519.74
w1Age	-1955.553	499.8816	-3.91	0.000	-2942.368	-968.7381
Race	-50372.98	7665.558	-6.57	0.000	-65505.54	-35240.42
PovStat	-3058.866	8528.455	-0.36	0.720	-19894.87	13777.14
TIME_V1SCAN	-8.016796	6.099034	-1.31	0.190	-20.05688	4.023292
w1BMI	500.9592	586.314	0.85	0.394	-656.4818	1658.4
_cons	715322.6	36517.93	19.59	0.000	643232.7	787412.6

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

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 179
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 171
DF adjustment: Small sample — DF: min = 169.03
avg = 169.03
max = 169.03
Model F test: Equal FMI — F(7, 169.0) = 13.34
Within VCE type: OLS — Prob > F = 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	2986.694	8048.866	0.37	0.711	-12902.55	18875.94
Sex	56392.77	6654.182	8.47	0.000	43256.77	69528.78
w1Age	-756.68	454.9322	-1.66	0.098	-1654.761	141.4006
Race	-18117.06	6976.271	-2.60	0.010	-31888.9	-4345.225
PovStat	-5087.735	7761.576	-0.66	0.513	-20409.84	10234.37
TIME_V1SCAN	-11.63114	5.550609	-2.10	0.038	-22.58859	-.6736981
w1BMI	189.9226	533.5927	0.36	0.722	-863.4414	1243.287
_cons	455519.4	33234.24	13.71	0.000	389911.8	521127

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        179
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        170
DF adjustment:   Small sample                   DF:     min       =     168.03
                                                        avg       =     168.03
                                                        max       =     168.03
Model F test:       Equal FMI                   F(   8,  168.0)   =      17.52
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |  -39.85929     54.199    -0.74   0.463     -146.858    67.13942
         Sex |  -21.91688   60.14839    -0.36   0.716    -140.6608    96.82702
       w1Age |  -5.741327   3.065975    -1.87   0.063    -11.79412    .3114663
        Race |  -93.76387   51.14666    -1.83   0.069    -194.7367    7.208958
     PovStat |  -137.1409   52.27887    -2.62   0.010    -240.3489   -33.93287
  TIME_V1SCAN |   .0168683   .0375872     0.45   0.654    -.0573356    .0910722
       w1BMI |   2.299494   3.597711     0.64   0.524    -4.803043     9.40203
    ICV_volM2 |   .0016456   .0002211     7.44   0.000     .0012091    .0020822
        _cons |    1930.72   355.5421     5.43   0.000     1228.815    2632.624
------------------------------------------------------------------------------

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        179
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        170
DF adjustment:   Small sample                   DF:     min       =     168.03
                                                        avg       =     168.03
                                                        max       =     168.03
Model F test:       Equal FMI                   F(   8,  168.0)   =      20.50
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hipp~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |  -28.41234   55.98511    -0.51   0.612    -138.9372    82.11246
         Sex |   -98.2792   62.13056    -1.58   0.116    -220.9363    24.37785
       w1Age |  -4.125416   3.167013    -1.30   0.194    -10.37768    2.126845
        Race |  -91.81125   52.83218    -1.74   0.084    -196.1116    12.48911
     PovStat |  -110.0665    54.0017    -2.04   0.043    -216.6757   -3.457277
  TIME_V1SCAN |   .0503701   .0388258     1.30   0.196    -.0262792    .1270194
       w1BMI |   2.686354   3.716272     0.72   0.471    -4.650245    10.02295
    ICV_volM2 |   .0020765   .0002284     9.09   0.000     .0016256    .0025274
        _cons |    1538.806   367.2588     4.19   0.000     813.7706    2263.842
------------------------------------------------------------------------------
```

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        179
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        170
DF adjustment:   Small sample                   DF:     min       =     168.03
                                                        avg       =     168.03
                                                        max       =     168.03
Model F test:       Equal FMI                   F(   8,  168.0)   =       2.83
Within VCE type:          OLS                   Prob > F          =     0.0057

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   2.375599   .6848704     3.47   0.001      1.02354    3.727658
          Sex |   .3378902   .7600482     0.44   0.657    -1.162583    1.838364
        w1Age |   .0016003   .0387423     0.04   0.967    -.0748842    .0780847
         Race |   1.370398   .6463004     2.12   0.035     .0944836    2.646313
      PovStat |   .8238835   .6606072     1.25   0.214    -.4802754    2.128042
  TIME_V1SCAN |  -.0006525    .000475    -1.37   0.171    -.0015901    .0002852
       w1BMI |   .0595858   .0454615     1.31   0.192    -.0301634     .149335
    ICV_volM2 |   2.19e-06   2.79e-06     0.79   0.433    -3.32e-06    7.71e-06
        _cons |  -6.110826   4.492707    -1.36   0.176    -14.98025    2.758597
------------------------------------------------------------------------------

46 .
47 . save, replace
file finaldata_imputed.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_final==1 & Sex==2,beta
note: Sex omitted because of collinearity.

      Source |       SS           df       MS      Number of obs   =        80
-------------+----------------------------------   F(5, 74)        =      4.60
       Model |  2.4333e+11         5  4.8666e+10   Prob > F        =    0.0010
    Residual |  7.8269e+11        74  1.0577e+10   R-squared       =    0.2372
-------------+----------------------------------   Adj R-squared   =    0.1856
       Total |  1.0260e+12        79  1.2988e+10   Root MSE        =    1.0e+05

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|                     Beta
-------------+----------------------------------------------------------------
      LnNFLw1 |  -7470.208   24368.85    -0.31   0.760               -.0364924
          Sex |          0  (omitted)                                        .
        w1Age |  -2154.782    1560.59    -1.38   0.172               -.1650487
         Race |  -91483.46   24576.14    -3.72   0.000               -.3993359
      PovStat |   15685.37   27856.58     0.56   0.575                .059974
  TIME_V1SCAN |  -41.10008   19.54438    -2.10   0.039               -.2207111
        _cons |    1528065   95557.18    15.99   0.000                       .
------------------------------------------------------------------------------
```

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

Source	SS	df	MS		
				Number of obs	= 80
				F(5, 74)	= 7.81
Model	1.1190e+11	5	2.2381e+10	Prob > F	= 0.0000
Residual	2.1206e+11	74	2.8656e+09	R-squared	= 0.3454
				Adj R-squared	= 0.3012
Total	3.2396e+11	79	4.1007e+09	Root MSE	= 53532

GM	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-11061.53	12684.28	-0.87	0.386	-.096165
Sex	0	(omitted)			.
w1Age	-2221.66	812.3062	-2.74	0.008	-.3028441
Race	-63810	12792.18	-4.99	0.000	-.4956981
PovStat	3672.313	14499.69	0.25	0.801	.0249885
TIME_V1SCAN	-16.22951	10.17309	-1.60	0.115	-.1551028
_cons	928432.4	49738.69	18.67	0.000	.

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

Source	SS	df	MS		
				Number of obs	= 80
				F(5, 74)	= 2.60
Model	3.2662e+10	5	6.5324e+09	Prob > F	= 0.0320
Residual	1.8600e+11	74	2.5135e+09	R-squared	= 0.1494
				Adj R-squared	= 0.0919
Total	2.1866e+11	79	2.7679e+09	Root MSE	= 50135

WM	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-1459.575	11879.51	-0.12	0.903	-.0154449
Sex	0	(omitted)			.
w1Age	-460.3935	760.7678	-0.61	0.547	-.0763884
Race	-26324	11980.56	-2.20	0.031	-.2489071
PovStat	2519.992	13579.73	0.19	0.853	.0208716
TIME_V1SCAN	-22.67262	9.52764	-2.38	0.020	-.263738
_cons	592367.2	46582.92	12.72	0.000	.

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

Source	SS	df	MS		
				Number of obs	= 80
				F(6, 73)	= 11.51
Model	7098173.83	6	1183028.97	Prob > F	= 0.0000
Residual	7501157.7	73	102755.585	R-squared	= 0.4862
				Adj R-squared	= 0.4440
Total	14599331.5	79	184801.665	Root MSE	= 320.56

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-92.55859	76.0608	-1.22	0.228	-.1198663
Sex	0	(omitted)			.
w1Age	-3.77341	4.864397	-0.78	0.440	-.0766221
Race	-7.663059	85.57627	-0.09	0.929	-.0088677
PovStat	-267.5006	86.92969	-3.08	0.003	-.2711465
TIME_V1SCAN	.0017288	.0622041	0.03	0.978	.0024611
ICV_volM2	.0021111	.0003293	6.41	0.000	.6230145
_cons	1366.038	628.6577	2.17	0.033	.

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

Source	SS	df	MS		
				Number of obs	= 80
				F(6, 73)	= 12.40
Model	8112181.59	6	1352030.27	Prob > F	= 0.0000
Residual	7959376.83	73	109032.559	R-squared	= 0.5048
				Adj R-squared	= 0.4640
Total	16071558.4	79	203437.448	Root MSE	= 330.2

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	-63.36823	78.34951	-0.81	0.421	-.0782149
Sex	0	(omitted)			.
w1Age	-3.692922	5.010769	-0.74	0.463	-.0714706
Race	-5.542195	88.1513	-0.06	0.950	-.0061126
PovStat	-233.4949	89.54545	-2.61	0.011	-.2255766
TIME_V1SCAN	.0466475	.0640759	0.73	0.469	.0632934
ICV_volM2	.0024148	.0003393	7.12	0.000	.6792148
_cons	1021.457	647.5743	1.58	0.119	.

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

Source	SS	df	MS		
				Number of obs	= 80
				F(6, 73)	= 1.25
Model	66.4981106	6	11.0830184	Prob > F	= 0.2918
Residual	647.843228	73	8.87456477	R-squared	= 0.0931
				Adj R-squared	= 0.0185
Total	714.341339	79	9.04229543	Root MSE	= 2.979

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	1.476379	.7068572	2.09	0.040	.2733329
Sex	0	(omitted)			.
w1Age	-.055095	.0452064	-1.22	0.227	-.1599359
Race	1.337406	.7952875	1.68	0.097	.2212502
PovStat	.2537333	.8078653	0.31	0.754	.036768
TIME_V1SCAN	-.0006181	.0005781	-1.07	0.289	-.1257897
ICV_volM2	5.35e-07	3.06e-06	0.17	0.862	.0225902
_cons	3.910249	5.842316	0.67	0.505	.

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

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         80
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         73
DF adjustment:   Small sample                   DF:     min       =      71.08
                                                        avg       =      71.08
                                                        max       =      71.08
Model F test:       Equal FMI                   F(   6,   71.1)   =       3.80
Within VCE type:          OLS                   Prob > F          =     0.0024

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |  -6446.063   24762.92    -0.26   0.795    -55820.97    42928.84
         Sex |          0  (omitted)
       w1Age |  -2328.187   1675.831    -1.39   0.169    -5669.636    1013.261
        Race |  -91708.76   24740.72    -3.71   0.000    -141039.4   -42378.11
     PovStat |    15965.6   28045.84     0.57   0.571    -39955.13    71886.33
  TIME_V1SCAN |  -41.12961   19.66622    -2.09   0.040     -80.3422   -1.91703
       w1BMI |   741.1534   2501.633     0.30   0.768    -4246.865    5729.171
       _cons |    1513381   108174.1    13.99   0.000      1297692     1729070
------------------------------------------------------------------------------

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         80
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         73
DF adjustment:   Small sample                   DF:     min       =      71.08
                                                        avg       =      71.08
                                                        max       =      71.08
Model F test:       Equal FMI                   F(   6,   71.1)   =       6.50
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
          GM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |  -10056.94   12869.62    -0.78   0.437    -35717.73    15603.86
         Sex |          0  (omitted)
       w1Age |  -2391.754   870.9519    -2.75   0.008     -4128.35    -655.159
        Race |  -64030.99   12858.08    -4.98   0.000    -89668.79    -38393.2
     PovStat |   3947.194   14575.79     0.27   0.787    -25115.55    33009.94
  TIME_V1SCAN |  -16.25848    10.2208    -1.59   0.116    -36.63778    4.120824
       w1BMI |   727.0027   1300.132     0.56   0.578    -1865.337    3319.342
       _cons |   914028.8   56219.54    16.26   0.000     801932.3     1026125
------------------------------------------------------------------------------
```

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         80
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         73
DF adjustment:   Small sample                   DF:     min       =      71.08
                                                        avg       =      71.08
                                                        max       =      71.08
Model F test:       Equal FMI                   F(   6,   71.1)   =       2.14
Within VCE type:          OLS                   Prob > F          =     0.0593

------------------------------------------------------------------------------
          WM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |  -1652.631   12077.78    -0.14   0.892    -25734.58    22429.32
         Sex |          0  (omitted)
       w1Age |  -427.7059   817.3643    -0.52   0.602    -2057.453    1202.041
        Race |  -26281.53   12066.96    -2.18   0.033     -50341.9    -2221.17
     PovStat |   2467.167   13678.98     0.18   0.857    -24807.42    29741.75
  TIME_V1SCAN |  -22.66705   9.591937    -2.36   0.021    -41.79247   -3.541642
       w1BMI |  -139.7104   1220.138    -0.11   0.909    -2572.549    2293.128
       _cons |   595135.2   52760.49    11.28   0.000     489935.8    700334.6
------------------------------------------------------------------------------

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         80
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         72
DF adjustment:   Small sample                   DF:     min       =      70.08
                                                        avg       =      70.08
                                                        max       =      70.08
Model F test:       Equal FMI                   F(   7,   70.1)   =       9.86
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |  -85.26912   77.07584    -1.11   0.272     -238.989    68.45072
         Sex |          0  (omitted)
       w1Age |  -5.020282   5.210084    -0.96   0.339    -15.41126    5.370695
        Race |  -10.04322   85.95894    -0.12   0.907    -181.4795     161.393
     PovStat |     -265.4   87.30094    -3.04   0.003    -439.5127   -91.28723
  TIME_V1SCAN |   .0012659   .0624349     0.02   0.984    -.1232541     .125786
       w1BMI |   5.332857     7.7807     0.69   0.495    -10.18495    20.85066
    ICV_volM2 |   .0021045   .0003307     6.36   0.000      .001445    .0027641
       _cons |   1271.397   645.8861     1.97   0.053     -16.7567     2559.55
------------------------------------------------------------------------------
```

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         80
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         72
DF adjustment:   Small sample                   DF:     min       =      70.08
                                                        avg       =      70.08
                                                        max       =      70.08
Model F test:       Equal FMI                   F(   7,   70.1)   =      11.01
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hipp~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |  -48.63666    78.6537    -0.62   0.538    -205.5034      108.23
          Sex |          0  (omitted)
        w1Age |  -6.212776   5.316742    -1.17   0.247    -16.81647     4.39092
         Race |  -10.35236   87.71864    -0.12   0.906    -185.2982    164.5934
      PovStat |  -229.2496   89.08812    -2.57   0.012    -406.9267   -51.57254
  TIME_V1SCAN |   .0457121   .0637131     0.72   0.475     -.081357    .1727813
        w1BMI |   10.77738   7.939983     1.36   0.179    -5.058096    26.61286
    ICV_volM2 |   .0024015   .0003375     7.12   0.000     .0017285    .0030746
        _cons |   830.1927   659.1084     1.26   0.212    -484.3311    2144.717
------------------------------------------------------------------------------

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         80
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         72
DF adjustment:   Small sample                   DF:     min       =      70.08
                                                        avg       =      70.08
                                                        max       =      70.08
Model F test:       Equal FMI                   F(   7,   70.1)   =       1.08
Within VCE type:          OLS                   Prob > F          =     0.3835

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   1.435104   .7177581     2.00   0.049     .0036096    2.866599
          Sex |          0  (omitted)
        w1Age |  -.0480349   .0485182    -0.99   0.326    -.1447994    .0487296
         Race |   1.350883   .8004807     1.69   0.096    -.2455937    2.947359
      PovStat |   .2418388    .812978     0.30   0.767    -1.379562     1.86324
  TIME_V1SCAN |  -.0006155   .0005814    -1.06   0.293     -.001775    .0005441
        w1BMI |  -.0301961   .0724567    -0.42   0.678    -.1747035    .1143114
    ICV_volM2 |   5.73e-07   3.08e-06     0.19   0.853    -5.57e-06    6.71e-06
        _cons |   4.446133   6.014725     0.74   0.462    -7.549617    16.44188
------------------------------------------------------------------------------
```

```
 86 .
 87 . save, replace
   file finaldata_imputed.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_final==1 & Sex==1,beta
   note: Sex omitted because of collinearity.

      Source |       SS           df       MS      Number of obs   =        99
-------------+----------------------------------   F(5, 93)        =      4.11
       Model |  1.1732e+11         5  2.3464e+10   Prob > F        =    0.0020
    Residual |  5.3076e+11        93  5.7071e+09   R-squared       =    0.1810
-------------+----------------------------------   Adj R-squared   =    0.1370
       Total |  6.4808e+11        98  6.6131e+09   Root MSE        =     75545

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|                     Beta
-------------+----------------------------------------------------------------
     LnNFLw1 |   7502.778   20834.69     0.36   0.720                .0463886
         Sex |          0  (omitted)                                        .
       w1Age |  -2502.318   1088.579    -2.30   0.024               -.2901834
        Race |  -55450.99   16486.57    -3.36   0.001               -.3363053
     PovStat |  -22982.21    18446.5    -1.25   0.216               -.1366412
 TIME_V1SCAN |  -3.568838   13.27333    -0.27   0.789               -.0286684
       _cons |   1302636   60066.42    21.69   0.000                       .
------------------------------------------------------------------------------

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

      Source |       SS           df       MS      Number of obs   =        99
-------------+----------------------------------   F(5, 93)        =      6.50
       Model |  5.7751e+10         5  1.1550e+10   Prob > F        =    0.0000
    Residual |  1.6522e+11        93  1.7765e+09   R-squared       =    0.2590
-------------+----------------------------------   Adj R-squared   =    0.2192
       Total |  2.2297e+11        98  2.2752e+09   Root MSE        =     42149

------------------------------------------------------------------------------
          GM | Coefficient  Std. err.      t    P>|t|                     Beta
-------------+----------------------------------------------------------------
     LnNFLw1 |   938.0293    11624.2     0.08   0.936                .0098878
         Sex |          0  (omitted)                                        .
       w1Age |  -1791.016   607.3461    -2.95   0.004               -.3540985
        Race |  -40537.76   9198.278    -4.41   0.000               -.4191587
     PovStat |  -9040.335   10291.77    -0.88   0.382               -.0916366
 TIME_V1SCAN |  -1.212567   7.405528    -0.16   0.870               -.0166064
       _cons |   766345.9   33512.58    22.87   0.000                       .
------------------------------------------------------------------------------
```

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

Source	SS	df	MS		
				Number of obs	= 99
				F(5, 93)	= 2.01
Model	1.3482e+10	5	2.6965e+09	Prob > F	= 0.0850
Residual	1.2505e+11	93	1.3447e+09	R-squared	= 0.0973
				Adj R-squared	= 0.0488
Total	1.3854e+11	98	1.4136e+09	Root MSE	= 36670

WM	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	8130.861	10113.16	0.80	0.423	.1087322
Sex	0	(omitted)			.
w1Age	-1081.256	528.3968	-2.05	0.044	-.2712006
Race	-11779.36	8002.589	-1.47	0.144	-.1545177
PovStat	-13648.75	8953.939	-1.52	0.131	-.1755152
TIME_V1SCAN	-2.049214	6.442879	-0.32	0.751	-.0356037
_cons	506556.5	29156.26	17.37	0.000	.

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

Source	SS	df	MS		
				Number of obs	= 99
				F(6, 92)	= 6.85
Model	2643537.71	6	440589.619	Prob > F	= 0.0000
Residual	5917013.63	92	64315.3655	R-squared	= 0.3088
				Adj R-squared	= 0.2637
Total	8560551.34	98	87352.5647	Root MSE	= 253.6

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	56.84843	70.04058	0.81	0.419	.09671
Sex	0	(omitted)			.
w1Age	-9.048852	3.671964	-2.46	0.016	-.2887265
Race	-149.0877	59.29978	-2.51	0.014	-.2487879
PovStat	-54.45541	62.31862	-0.87	0.384	-.0890828
TIME_V1SCAN	.0226017	.044559	0.51	0.613	.0499551
ICV_volM2	.0010785	.0002929	3.68	0.000	.3507993
_cons	2611.886	464.5115	5.62	0.000	.

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

Source	SS	df	MS		
				Number of obs	= 99
				F(6, 92)	= 9.40
Model	4210648.98	6	701774.83	Prob > F	= 0.0000
Residual	6868623.94	92	74658.9559	R-squared	= 0.3800
				Adj R-squared	= 0.3396
Total	11079272.9	98	113053.805	Root MSE	= 273.24

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	**28.73489**	**75.46287**	**0.38**	**0.704**	**.0429692**
Sex	**0**	(omitted)			**.**
w1Age	**-5.245958**	**3.956234**	**-1.33**	**0.188**	**-.1471341**
Race	**-147.0534**	**63.89056**	**-2.30**	**0.024**	**-.2157038**
PovStat	**-23.74655**	**67.1431**	**-0.35**	**0.724**	**-.0341467**
TIME_V1SCAN	**.0440112**	**.0480085**	**0.92**	**0.362**	**.0855062**
ICV_volM2	**.0017304**	**.0003156**	**5.48**	**0.000**	**.4947097**
_cons	**1870.489**	**500.4723**	**3.74**	**0.000**	**.**

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

Source	SS	df	MS		
				Number of obs	= **99**
				F(6, 92)	= **2.91**
Model	**300.098902**	**6**	**50.0164837**	Prob > F	= **0.0122**
Residual	**1583.85297**	**92**	**17.2157931**	R-squared	= **0.1593**
				Adj R-squared	= **0.1045**
Total	**1883.95187**	**98**	**19.2239987**	Root MSE	= **4.1492**

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	Beta
LnNFLw1	**2.896209**	**1.145924**	**2.53**	**0.013**	**.3321227**
Sex	**0**	(omitted)			**.**
w1Age	**.0508311**	**.0600765**	**0.85**	**0.400**	**.1093299**
Race	**1.417832**	**.9701954**	**1.46**	**0.147**	**.1594881**
PovStat	**1.599533**	**1.019586**	**1.57**	**0.120**	**.1763852**
TIME_V1SCAN	**-.0008352**	**.000729**	**-1.15**	**0.255**	**-.1244418**
ICV_volM2	**5.50e-06**	**4.79e-06**	**1.15**	**0.254**	**.1206709**
_cons	**-12.26275**	**7.599808**	**-1.61**	**0.110**	**.**

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

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         99
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         92
DF adjustment:   Small sample                   DF:     min       =      90.06
                                                        avg       =      90.06
                                                        max       =      90.06
Model F test:       Equal FMI                   F(   6,   90.1)   =       3.67
Within VCE type:          OLS                   Prob > F          =     0.0026
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	17727.07	22534.92	0.79	0.434	-27042.05	62496.18
Sex	0	(omitted)				
w1Age	-2722.12	1102.286	-2.47	0.015	-4911.983	-532.2569
Race	-53939.61	16502.71	-3.27	0.002	-86724.8	-21154.42
PovStat	-23927.01	18426.03	-1.30	0.197	-60533.18	12679.17
TIME_V1SCAN	-1.386778	13.37522	-0.10	0.918	-27.95873	25.18518
w1BMI	1355.506	1152.154	1.18	0.242	-933.427	3644.438
_cons	1246770	76471.98	16.30	0.000	1094847	1398694

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

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 99
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 92
DF adjustment: Small sample — DF: min = 90.06
avg = 90.06
max = 90.06
Model F test: Equal FMI — F(6, 90.1) = 5.84
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	7992.357	12522.64	0.64	0.525	-16885.82	32870.53
Sex	0	(omitted)				
w1Age	-1942.671	612.5399	-3.17	0.002	-3159.577	-725.7648
Race	-39494.97	9170.545	-4.31	0.000	-57713.68	-21276.25
PovStat	-9692.207	10239.34	-0.95	0.346	-30034.24	10649.83
TIME_V1SCAN	.2929621	7.432603	0.04	0.969	-14.47306	15.05898
w1BMI	935.2417	640.2513	1.46	0.148	-336.717	2207.2
_cons	727800.7	42495.44	17.13	0.000	643376.9	812224.5

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

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 99
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 92
DF adjustment: Small sample — DF: min = 90.06
avg = 90.06
max = 90.06
Model F test: Equal FMI — F(6, 90.1) = 1.85
Within VCE type: OLS — Prob > F = 0.0990

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	12451.78	10958.35	1.14	0.259	-9318.685	34222.24
Sex	0	(omitted)				
w1Age	-1174.147	536.0232	-2.19	0.031	-2239.041	-109.254
Race	-11140.63	8024.987	-1.39	0.168	-27083.52	4802.252
PovStat	-14048.04	8960.268	-1.57	0.120	-31849	3752.93
TIME_V1SCAN	-1.127047	6.504143	-0.17	0.863	-14.04854	11.79445
w1BMI	572.8545	560.2729	1.02	0.309	-540.2148	1685.924
_cons	482946.8	37187.03	12.99	0.000	409069	556824.6

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

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =         99
                                              Average RVI       =     0.0000
                                              Largest FMI       =     0.0000
                                              Complete DF       =         91
DF adjustment:   Small sample                 DF:     min       =      89.06
                                                      avg       =      89.06
                                                      max       =      89.06
Model F test:       Equal FMI                 F(   7,   89.1)   =       5.96
Within VCE type:          OLS                 Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   82.57299   76.24748     1.08   0.282    -68.92763    234.0736
          Sex |          0  (omitted)
        w1Age |  -9.629724   3.738635    -2.58   0.012    -17.05824   -2.201209
         Race |  -147.4625   59.41375    -2.48   0.015    -265.5152   -29.40979
      PovStat |  -57.49571    62.5068    -0.92   0.360    -181.6942    66.70274
  TIME_V1SCAN |    .027991   .0450596     0.62   0.536    -.0615405    .1175226
        w1BMI |   3.361344   3.907131     0.86   0.392    -4.401965    11.12465
    ICV_volM2 |   .0010493   .0002953     3.55   0.001     .0004626    .0016361
        _cons |   2515.068   478.5886     5.26   0.000     1564.132    3466.004
------------------------------------------------------------------------------

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

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =         99
                                              Average RVI       =     0.0000
                                              Largest FMI       =     0.0000
                                              Complete DF       =         91
DF adjustment:   Small sample                 DF:     min       =      89.06
                                                      avg       =      89.06
                                                      max       =      89.06
Model F test:       Equal FMI                 F(   7,   89.1)   =       7.98
Within VCE type:          OLS                 Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hipp~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   36.81562    82.4554     0.45   0.656    -127.0199    200.6511
          Sex |          0  (omitted)
        w1Age |  -5.428424   4.043028    -1.34   0.183    -13.46175    2.604906
         Race |  -146.5429    64.2511    -2.28   0.025    -274.2072   -18.87856
      PovStat |  -24.70158   67.59598    -0.37   0.716     -159.012    109.6089
  TIME_V1SCAN |   .0457041   .0487283     0.94   0.351    -.0511169    .1425252
        w1BMI |   1.055883   4.225242     0.25   0.803    -7.339499    9.451266
    ICV_volM2 |   .0017212   .0003193     5.39   0.000     .0010867    .0023557
        _cons |   1840.076   517.5543     3.56   0.001     811.7166    2868.435
------------------------------------------------------------------------------
```

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         99
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         91
DF adjustment:   Small sample                   DF:     min       =      89.06
                                                        avg       =      89.06
                                                        max       =      89.06
Model F test:       Equal FMI                   F(   7,   89.1)   =       3.38
Within VCE type:          OLS                   Prob > F          =     0.0030

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   4.004622   1.216989     3.29   0.001     1.586514     6.42273
          Sex |          0  (omitted)
        w1Age |   .0258026   .0596725     0.43   0.666    -.0927642    .1443695
         Race |   1.487858   .9483054     1.57   0.120    -.3963858    3.372102
      PovStat |   1.468533   .9976738     1.47   0.145    -.5138039     3.45087
  TIME_V1SCAN |   -.000603   .0007192    -0.84   0.404     -.002032     .000826
        w1BMI |   .1448326   .0623619     2.32   0.022     .0209221    .2687432
    ICV_volM2 |   4.25e-06   4.71e-06     0.90   0.370    -5.12e-06    .0000136
        _cons |  -16.43442   7.638773    -2.15   0.034    -31.61235   -1.256489
------------------------------------------------------------------------------

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

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

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        179
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        170
DF adjustment:   Small sample                   DF:     min       =     168.03
                                                        avg       =     168.03
                                                        max       =     168.03
Model F test:       Equal FMI                   F(   8,  168.0)   =      17.76
Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	10668.22	23321.26	0.46	0.648	-35372.18	56708.63
Sex						
Men	168037.8	56848.09	2.96	0.004	55809.29	280266.3
Sex#c.LnNFLw1						
Men	-14523.44	27037.82	-0.54	0.592	-67901.02	38854.14
Sex	0	(omitted)				
w1Age	-2419.567	955.0307	-2.53	0.012	-4304.972	-534.1624
Race	-70450.06	14345.35	-4.91	0.000	-98770.4	-42129.72
PovStat	-3108.254	16000.96	-0.19	0.846	-34697.07	28480.56
TIME_V1SCAN	-20.78975	11.43562	-1.82	0.071	-43.36574	1.786243
w1BMI	876.5224	1143.962	0.77	0.445	-1381.867	3134.911
_cons	1294299	74259.5	17.43	0.000	1147697	1440900

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

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 179
Average RVI = 0.0000
Largest FMI = 0.0000
Complete DF = 170
DF adjustment: Small sample — DF: min = 168.03
avg = 168.03
max = 168.03
Model F test: Equal FMI — F(8, 168.0) = 20.51
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	6796.199	12448.03	0.55	0.586	-17778.47	31370.87
Sex						
Men	107352	30343.42	3.54	0.001	47448.58	167255.5
Sex#c.LnNFLw1						
Men	-17281.02	14431.79	-1.20	0.233	-45772	11209.97
Sex	0	(omitted)				
w1Age	-2078.872	509.7602	-4.08	0.000	-3085.232	-1072.513
Race	-50212.82	7657.021	-6.56	0.000	-65329.17	-35096.46
PovStat	-2307.743	8540.723	-0.27	0.787	-19168.69	14553.2
TIME_V1SCAN	-7.547434	6.103911	-1.24	0.218	-19.59767	4.502798
w1BMI	708.1655	610.6046	1.16	0.248	-497.2793	1913.61
_cons	764090.2	39636.99	19.28	0.000	685839.5	842340.8

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        179
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        170
DF adjustment:   Small sample                   DF:     min       =     168.03
                                                        avg       =     168.03
                                                        max       =     168.03
Model F test:       Equal FMI                   F(   8,  168.0)   =      11.62
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
          WM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   5410.121   11373.32     0.48   0.635    -17042.88    27863.12
              |
          Sex |
          Men |   64530.14    27723.7     2.33   0.021     9798.512    119261.8
              |
Sex#c.LnNFLw1 |
          Men |  -3987.446   13185.81    -0.30   0.763    -30018.64    22043.75
              |
          Sex |          0  (omitted)
        w1Age |  -785.1348   465.7497    -1.69   0.094     -1704.61    134.3399
         Race |  -18080.11   6995.946    -2.58   0.011    -31891.38   -4268.837
      PovStat |  -4914.42   7803.353    -0.63   0.530    -20319.66    10490.82
  TIME_V1SCAN |  -11.52284   5.576925    -2.07   0.040    -22.53271   -.5129746
        w1BMI |   237.7337   557.8876     0.43   0.671    -863.6381    1339.105
        _cons |   506531.7    36214.9    13.99   0.000     435036.9    578026.5
------------------------------------------------------------------------------

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     =        179
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        169
DF adjustment:   Small sample                   DF:     min       =     167.03
                                                        avg       =     167.03
                                                        max       =     167.03
Model F test:       Equal FMI                   F(   9,  167.0)   =      15.77
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippoc~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   23.97901   76.31627     0.31   0.754    -126.6898    174.6478
              |
          Sex |
          Men |   193.9541   191.5662     1.01   0.313    -184.2489     572.157
              |
Sex#c.LnNFLw1 |
          Men |  -105.0187   88.49336    -1.19   0.237    -279.7283    69.69089
              |
          Sex |          0  (omitted)
        w1Age |  -6.495665   3.127573    -2.08   0.039    -12.67033   -.3209982
         Race |  -93.57421   51.08559    -1.83   0.069    -194.4309    7.282441
      PovStat |  -132.6251   52.35466    -2.53   0.012    -235.9872   -29.26295
  TIME_V1SCAN |   .0195665   .0376109     0.52   0.604    -.0546875    .0938205
------------------------------------------------------------------------------
```

w1BMI	3.565823	3.748484	0.95	0.343	-3.834689	10.96634
ICV_volM2	.0016371	.000221	7.41	0.000	.0012008	.0020733
_cons	1779.351	395.6469	4.50	0.000	998.2382	2560.464

```
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     =        179
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        169
DF adjustment:   Small sample                   DF:     min       =     167.03
                                                        avg       =     167.03
                                                        max       =     167.03
Model F test:       Equal FMI                   F(   9,  167.0)   =      18.34
Within VCE type:          OLS                   Prob > F          =     0.0000
```

Right_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	28.4293	78.9156	0.36	0.719	-127.3712	184.2298
Sex						
Men	93.93238	198.0909	0.47	0.636	-297.1522	485.017
Sex#c.LnNFLw1						
Men	-93.50871	91.50745	-1.02	0.308	-274.1689	87.15152
Sex	0	(omitted)				
w1Age	-4.797079	3.234098	-1.48	0.140	-11.18206	1.587898
Race	-91.64237	52.82557	-1.73	0.085	-195.9342	12.64947
PovStat	-106.0456	54.13786	-1.96	0.052	-212.9282	.8370495
TIME_V1SCAN	.0527725	.0388919	1.36	0.177	-.0240105	.1295556
w1BMI	3.813894	3.876158	0.98	0.327	-3.83868	11.46647
ICV_volM2	.0020689	.0002285	9.05	0.000	.0016178	.00252
_cons	1325.264	409.1227	3.24	0.001	517.5458	2132.981

```
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     =        179
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =        169
DF adjustment:   Small sample                   DF:     min       =     167.03
                                                        avg       =     167.03
                                                        max       =     167.03
Model F test:       Equal FMI                   F(   9,  167.0)   =       3.44
Within VCE type:          OLS                   Prob > F          =     0.0007
```

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4.195744	.9477675	4.43	0.000	2.324597	6.066891
Sex						
Men	6.49276	2.37905	2.73	0.007	1.795878	11.18964
Sex#c.LnNFLw1						
Men	-2.994273	1.098994	-2.72	0.007	-5.163982	-.8245639
Sex	0	(omitted)				
w1Age	-.0199073	.0388412	-0.51	0.609	-.0965901	.0567756
Race	1.375806	.6344292	2.17	0.032	.1232729	2.628339
PovStat	.9526373	.6501896	1.47	0.145	-.3310112	2.236286
TIME_V1SCAN	-.0005756	.0004671	-1.23	0.220	-.0014977	.0003466
w1BMI	.0956912	.0465522	2.06	0.041	.0037846	.1875977
ICV_volM2	1.95e-06	2.74e-06	0.71	0.478	-3.47e-06	7.37e-06
_cons	-9.463831	4.913517	-1.93	0.056	-19.16443	.2367676

```
153 .
154 . save, replace
    file finaldata_imputed.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,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     =        179
                                                    Average RVI       =     0.0053
                                                    Largest FMI       =     0.0523
                                                    Complete DF       =        169
    DF adjustment:   Small sample                   DF:     min       =     144.12
                                                            avg       =     163.90
                                                            max       =     167.03
    Model F test:       Equal FMI                   F(   9,  167.0)   =      15.57
    Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	297.6766	17228.05	0.02	0.986	-33715.33	34310.68
Sex	137806.8	13940.53	9.89	0.000	110284.4	165329.2
w1Age	-2278.285	958.7216	-2.38	0.019	-4171.087	-385.4829
Race	-70191.77	14437.8	-4.86	0.000	-98695.91	-41687.63
PovStat	-4099.508	16051.52	-0.26	0.799	-35789.51	27590.49
TIME_V1SCAN	-21.01101	11.56458	-1.82	0.071	-43.84269	1.820668
w1BMI	630.5683	1131.518	0.56	0.578	-1603.357	2864.493
w1dxDiabetes	-1732.895	14133.62	-0.12	0.903	-29668.85	26203.06
w1Glucose	110.6374	338.3819	0.33	0.744	-557.6181	778.8929
_cons	1168978	73143.38	15.98	0.000	1024566	1313390

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        179
                                                Average RVI       =     0.0019
                                                Largest FMI       =     0.0181
                                                Complete DF       =        169
DF adjustment:   Small sample                   DF:     min       =     162.03
                                                        avg       =     166.30
                                                        max       =     167.03
Model F test:       Equal FMI                   F(   9,  167.0)   =      17.97
Within VCE type:          OLS                   Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-5804.658	9203.231	-0.63	0.529	-23974.34	12365.02
Sex	71878.83	7449.28	9.65	0.000	57171.92	86585.74
w1Age	-1863.84	512.0127	-3.64	0.000	-2874.697	-852.9844
Race	-49814.67	7715.352	-6.46	0.000	-65046.88	-34582.46
PovStat	-3291.214	8577.486	-0.38	0.702	-20225.47	13643.04
TIME_V1SCAN	-8.277212	6.178414	-1.34	0.182	-20.47507	3.920646
w1BMI	462.6237	604.6579	0.77	0.445	-731.1367	1656.384
w1dxDiabetes	-5891.486	7425.58	-0.79	0.429	-20554.88	8771.905
w1Glucose	161.9843	179.5093	0.90	0.368	-192.4386	516.4072
_cons	702742.7	39026.96	18.01	0.000	625691.4	779794

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =        179
                                                Average RVI       =     0.0081
                                                Largest FMI       =     0.0786
                                                Complete DF       =        169
DF adjustment:   Small sample                   DF:     min       =     126.86
                                                        avg       =     161.49
                                                        max       =     167.03
Model F test:       Equal FMI                   F(   9,  166.9)   =      10.19
Within VCE type:          OLS                   Prob > F          =     0.0000
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	2738.03	8399.734	0.33	0.745	-13845.52	19321.57
Sex	55999.02	6794.163	8.24	0.000	42585.48	69412.55
w1Age	-770.8079	467.5293	-1.65	0.101	-1693.86	152.244
Race	-18068.61	7036.406	-2.57	0.011	-31960.39	-4176.838
PovStat	-5271.81	7823.028	-0.67	0.501	-20716.56	10172.94
TIME_V1SCAN	-11.35779	5.637122	-2.01	0.046	-22.48705	-.2285206
w1BMI	148.8437	551.4585	0.27	0.788	-939.8859	1237.573
w1dxDiabetes	1475.59	6979.63	0.21	0.833	-12335.98	15287.16
w1Glucose	12.00697	165.9103	0.07	0.942	-315.7351	339.749
_cons	456331.3	35686.96	12.79	0.000	385870.4	526792.2

```
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 = 179
Average RVI = 0.0034
Largest FMI = 0.0342
Complete DF = 168
DF adjustment: Small sample — DF: min = 153.76
avg = 164.52
max = 166.03
Model F test: Equal FMI — F(10, 166.0) = 14.10
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-56.41285	56.28671	-1.00	0.318	-167.5433	54.71761
Sex	-29.43952	60.57867	-0.49	0.628	-149.0434	90.16439
w1Age	-5.509826	3.134592	-1.76	0.081	-11.69868	.6790322
Race	-90.7965	51.3292	-1.77	0.079	-192.1386	10.54565
PovStat	-141.8566	52.46782	-2.70	0.008	-245.4467	-38.26652
TIME_V1SCAN	.0205358	.0379771	0.54	0.589	-.0544447	.0955164
w1BMI	1.282954	3.700358	0.35	0.729	-6.022876	8.588785
w1dxDiabetes	-3.963821	45.78215	-0.09	0.931	-94.40704	86.4794
w1Glucose	1.123669	1.101637	1.02	0.309	-1.051709	3.299046
ICV_volM2	.0016376	.0002215	7.39	0.000	.0012003	.0020749
_cons	1888.436	365.7682	5.16	0.000	1166.272	2610.601

```
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 = 179
Average RVI = 0.0002
Largest FMI = 0.0018
Complete DF = 168
DF adjustment: Small sample — DF: min = 165.75
avg = 166.00
max = 166.03
Model F test: Equal FMI — F(10, 166.0) = 16.91
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-52.31499	57.78944	-0.91	0.367	-166.4119	61.7819
Sex	-110.4482	62.21036	-1.78	0.078	-233.2735	12.37715
w1Age	-3.886942	3.217282	-1.21	0.229	-10.239	2.465118
Race	-87.88604	52.71192	-1.67	0.097	-191.9581	16.186
PovStat	-117.3641	53.88452	-2.18	0.031	-223.7512	-10.9769
TIME_V1SCAN	.0567988	.0389954	1.46	0.147	-.020192	.1337896
w1BMI	1.073848	3.799905	0.28	0.778	-6.428513	8.576208
w1dxDiabetes	2.891289	46.27033	0.06	0.950	-88.46392	94.24649
w1Glucose	1.583669	1.123852	1.41	0.161	-.635224	3.802562
ICV_volM2	.002064	.0002275	9.07	0.000	.0016148	.0025131
_cons	1489.219	375.3848	3.97	0.000	748.0756	2230.362

```
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     =        179
                                                Average RVI       =     0.0002
                                                Largest FMI       =     0.0026
                                                Complete DF       =        168
DF adjustment:   Small sample                   DF:     min       =     165.60
                                                        avg       =     165.98
                                                        max       =     166.03
Model F test:       Equal FMI                   F(  10,  166.0)   =       2.35
Within VCE type:          OLS                   Prob > F          =     0.0128

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |    2.50893   .7124304     3.52   0.001     1.102339    3.915521
          Sex |    .4200636   .7669462     0.55   0.585    -1.094161    1.934288
        w1Age |    .0014186   .0396629     0.04   0.972    -.0768901    .0797272
         Race |    1.352172   .6498428     2.08   0.039     .0691514    2.635192
      PovStat |    .8710863   .6642934     1.31   0.192    -.4404644    2.182637
  TIME_V1SCAN |   -.0007018   .0004807    -1.46   0.146     -.001651    .0002473
        w1BMI |    .0702645    .046846     1.50   0.136    -.0222262    .1627552
 w1dxDiabetes |   -.1168073   .5706471    -0.20   0.838    -1.243489    1.009874
    w1Glucose |   -.0084435   .0138568    -0.61   0.543    -.0358018    .0189149
    ICV_volM2 |    2.28e-06   2.80e-06     0.81   0.417    -3.25e-06    7.82e-06
        _cons |   -5.96863   4.627828    -1.29   0.199    -15.10561     3.16835
------------------------------------------------------------------------------

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

180 .
181 .
182 . //Males//
183 .
184 . use finaldata_imputed,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     =         80
                                                Average RVI       =     0.0093
                                                Largest FMI       =     0.0807
                                                Complete DF       =         71
DF adjustment:   Small sample                   DF:     min       =      58.53
                                                        avg       =      67.49
                                                        max       =      69.04
Model F test:       Equal FMI                   F(   8,   69.0)   =       2.83
Within VCE type:          OLS                   Prob > F          =     0.0088
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-5016.857	26145.62	-0.19	0.848	-57176.16	47142.44
Sex	0	(omitted)				
w1Age	-2443.839	1728.227	-1.41	0.162	-5891.58	1003.903
Race	-90811.43	25041.59	-3.63	0.001	-140768	-40854.84
PovStat	17941.9	28456.63	0.63	0.530	-38826.92	74710.71
TIME_V1SCAN	-38.4091	20.92658	-1.84	0.071	-80.15697	3.33876
w1BMI	343.0904	2656.95	0.13	0.898	-4957.468	5643.649
w1dxDiabetes	17555.47	24050.49	0.73	0.468	-30577.52	65688.46
w1Glucose	-188.1489	479.5198	-0.39	0.696	-1145.5	769.2026
_cons	1529256	116846.7	13.09	0.000	1296145	1762366

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

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 80
Average RVI = 0.0032
Largest FMI = 0.0294
Complete DF = 71
DF adjustment: Small sample — DF: min = 66.33
avg = 68.66
max = 69.07
Model F test: Equal FMI — F(8, 69.1) = 4.74
Within VCE type: OLS — Prob > F = 0.0001

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-10676.63	13628.53	-0.78	0.436	-37864.34	16511.07
Sex	0	(omitted)				
w1Age	-2373.943	900.8139	-2.64	0.010	-4170.988	-576.8976
Race	-63783.72	13053.79	-4.89	0.000	-89824.81	-37742.62
PovStat	4191.834	14840.02	0.28	0.778	-25412.75	33796.42
TIME_V1SCAN	-15.2031	10.90886	-1.39	0.168	-36.96551	6.559313
w1BMI	597.3413	1385.031	0.43	0.668	-2165.713	3360.395
w1dxDiabetes	2524.97	12231.29	0.21	0.837	-21893.33	26943.27
w1Glucose	17.07248	247.6119	0.07	0.945	-476.985	511.1299
_cons	912386.4	60886.9	14.98	0.000	790920.5	1033852

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

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 80
Average RVI = 0.0143
Largest FMI = 0.1196
Complete DF = 71
DF adjustment: Small sample — DF: min = 51.67
avg = 66.42
max = 69.04
Model F test: Equal FMI — F(8, 69.0) = 1.70
Within VCE type: OLS — Prob > F = 0.1144

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-1054.898	12708.19	-0.08	0.934	-26407.74	24297.94
Sex	0	(omitted)				
w1Age	-490.8945	840.064	-0.58	0.561	-2166.831	1185.042
Race	-25624.95	12170.38	-2.11	0.039	-49904.65	-1345.242
PovStat	3779.974	13823.59	0.27	0.785	-23797.06	31357.01
TIME_V1SCAN	-20.54479	10.16864	-2.02	0.047	-40.83116	-.2584148
w1BMI	-442.119	1291.092	-0.34	0.733	-3017.854	2133.616
w1dxDiabetes	11839.01	11911.68	0.99	0.325	-12067.12	35745.13
w1Glucose	-107.3253	234.8665	-0.46	0.649	-576.5473	361.8967
_cons	604194.5	56804.64	10.64	0.000	490864.9	717524.1

```
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 = 80
Average RVI = 0.0077
Largest FMI = 0.0680
Complete DF = 70
DF adjustment: Small sample — DF: min = 59.86
avg = 66.93
max = 68.07
Model F test: Equal FMI — F(9, 68.0) = 7.77
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-106.64	80.67243	-1.32	0.191	-267.6196	54.33961
Sex	0	(omitted)				
w1Age	-4.296937	5.332155	-0.81	0.423	-14.9372	6.343323
Race	-7.129068	86.24241	-0.08	0.934	-179.2198	164.9617
PovStat	-261.351	87.9456	-2.97	0.004	-436.8412	-85.86071
TIME_V1SCAN	.0268847	.0655557	0.41	0.683	-.1039285	.1576979
w1BMI	2.116225	8.192154	0.26	0.797	-14.231	18.46345
w1dxDiabetes	44.5576	74.55489	0.60	0.552	-104.5814	193.6967
w1Glucose	.8447377	1.483845	0.57	0.571	-2.118138	3.807614
ICV_volM2	.0020791	.0003354	6.20	0.000	.0014099	.0027484
_cons	1239.17	676.5307	1.83	0.071	-110.9173	2589.256

```
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 = 80
Average RVI = 0.0012
Largest FMI = 0.0095
Complete DF = 70
DF adjustment: Small sample — DF: min = 67.43
avg = 67.96
max = 68.08
Model F test: Equal FMI — F(9, 68.1) = 9.21
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-86.00388	81.09325	-1.06	0.293	-247.8206	75.81286
Sex	0	(omitted)				
w1Age	-4.825443	5.358808	-0.90	0.371	-15.51863	5.867743
Race	-4.92756	86.73149	-0.06	0.955	-177.9944	168.1393
PovStat	-225.6803	88.42578	-2.55	0.013	-402.1275	-49.233
TIME_V1SCAN	.0844075	.0659042	1.28	0.205	-.0470997	.2159147
w1BMI	6.061318	8.234068	0.74	0.464	-10.36923	22.49187
w1dxDiabetes	46.24244	72.85758	0.63	0.528	-99.16504	191.6499
w1Glucose	1.676368	1.476109	1.14	0.260	-1.269317	4.622052
ICV_volM2	.0023797	.000337	7.06	0.000	.0017071	.0030522
_cons	720.1738	679.157	1.06	0.293	-635.0594	2075.407

```
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 = 80
Average RVI = 0.0013
Largest FMI = 0.0125
Complete DF = 70
DF adjustment: **Small sample** — DF: min = 67.16
avg = 67.95
max = 68.08
Model F test: **Equal FMI** — F(9, 68.1) = 0.89
Within VCE type: **OLS** — Prob > F = 0.5368

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1.578688	.7569523	2.09	0.041	.0682453	3.08913
Sex	0	(omitted)				
w1Age	-.0535302	.0500207	-1.07	0.288	-.1533429	.0462825
Race	1.330713	.8096929	1.64	0.105	-.2849713	2.946398
PovStat	.2315801	.8256244	0.28	0.780	-1.415899	1.879059
TIME_V1SCAN	-.0007568	.0006154	-1.23	0.223	-.0019847	.0004711
w1BMI	-.0132069	.0768804	-0.17	0.864	-.1666173	.1402034
w1dxDiabetes	-.1400091	.6812319	-0.21	0.838	-1.499694	1.219675
w1Glucose	-.0066515	.0137794	-0.48	0.631	-.0341491	.0208462
ICV_volM2	6.30e-07	3.15e-06	0.20	0.842	-5.65e-06	6.91e-06
_cons	4.931644	6.339187	0.78	0.439	-7.717859	17.58115

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

200 .
201 .
```

```
202 .
203 . //Females//
204 .
205 . use finaldata_imputed,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     =         99
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         90
DF adjustment:   Small sample                   DF:     min       =      88.06
                                                        avg       =      88.06
                                                        max       =      88.06
Model F test:       Equal FMI                   F(   8,   88.1)   =       2.94
Within VCE type:          OLS                   Prob > F          =     0.0059

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   12621.52    23534.9     0.54   0.593    -34148.66    59391.71
         Sex |           0  (omitted)
       w1Age |   -2420.36   1131.201    -2.14   0.035    -4668.362   -172.3581
        Race |  -50567.21   16876.35    -3.00   0.004    -84105.07   -17029.35
     PovStat |  -21402.57   18619.05    -1.15   0.253    -58403.64    15598.51
  TIME_V1SCAN |  -4.758817   13.81291    -0.34   0.731     -32.2088    22.69116
       w1BMI |   1287.135   1207.485     1.07   0.289    -1112.463    3686.733
w1dxDiabetes |  -22193.46   17861.34    -1.24   0.217    -57688.76    13301.85
   w1Glucose |   440.7975   546.0905     0.81   0.422    -644.4315    1526.027
       _cons |    1207556   84164.49    14.35   0.000      1040299     1374814
------------------------------------------------------------------------------

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         99
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         90
DF adjustment:   Small sample                   DF:     min       =      88.06
                                                        avg       =      88.06
                                                        max       =      88.06
Model F test:       Equal FMI                   F(   8,   88.1)   =       4.75
Within VCE type:          OLS                   Prob > F          =     0.0001

------------------------------------------------------------------------------
          GM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   4233.223   12999.38     0.33   0.745    -21600.05    30066.49
         Sex |           0  (omitted)
       w1Age |  -1724.832   624.8133    -2.76   0.007    -2966.505   -483.1598
        Race |  -37031.03   9321.566    -3.97   0.000     -55555.5   -18506.57
     PovStat |  -7883.073   10284.14    -0.77   0.445    -28320.43    12554.28
  TIME_V1SCAN |  -2.170291    7.62949    -0.28   0.777    -17.33215    12.99156
       w1BMI |   881.2428   666.9479     1.32   0.190    -444.1625    2206.648
w1dxDiabetes |  -16070.69   9865.621    -1.63   0.107    -35676.34    3534.962
   w1Glucose |   324.1407   301.6303     1.07   0.285      -275.28    923.5613
       _cons |     699255   46487.82    15.04   0.000     606871.2    791638.8
------------------------------------------------------------------------------
```

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

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         99
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         90
DF adjustment:   Small sample                   DF:     min       =      88.06
                                                        avg       =      88.06
                                                        max       =      88.06
Model F test:       Equal FMI                   F(   8,   88.1)   =       1.49
Within VCE type:          OLS                   Prob > F          =     0.1718
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	11324.63	11481.4	0.99	0.327	-11492	34141.26
Sex	0	(omitted)				
w1Age	-1059.645	551.8517	-1.92	0.058	-2156.323	37.03276
Race	-10185.36	8233.054	-1.24	0.219	-26546.65	6175.942
PovStat	-12944.09	9083.224	-1.43	0.158	-30994.9	5106.727
TIME_V1SCAN	-2.086816	6.738568	-0.31	0.758	-15.47817	11.30454
w1BMI	598.1013	589.0661	1.02	0.313	-572.5319	1768.735
w1dxDiabetes	-7877.003	8713.579	-0.90	0.368	-25193.23	9439.227
w1Glucose	101.8563	266.4079	0.38	0.703	-427.5679	631.2805
_cons	470682.7	41059.28	11.46	0.000	389086.9	552278.6

```
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     =         99
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         89
DF adjustment:   Small sample                   DF:     min       =      87.07
                                                        avg       =      87.07
                                                        max       =      87.07
Model F test:       Equal FMI                   F(   9,   87.1)   =       4.99
Within VCE type:          OLS                   Prob > F          =     0.0000
```

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	56.05201	78.86121	0.71	0.479	-100.6915	212.7955
Sex	0	(omitted)				
w1Age	-8.43296	3.799236	-2.22	0.029	-15.98427	-.8816474
Race	-135.8089	59.71019	-2.27	0.025	-254.4881	-17.12969
PovStat	-49.57833	62.663	-0.79	0.431	-174.1265	74.96986
TIME_V1SCAN	.0110263	.0462392	0.24	0.812	-.080878	.1029307
w1BMI	2.789174	4.055987	0.69	0.493	-5.272455	10.8508
w1dxDiabetes	-100.5555	60.4759	-1.66	0.100	-220.7566	19.64568
w1Glucose	2.415952	1.846163	1.31	0.194	-1.253458	6.085361
ICV_volM2	.0009722	.0002978	3.26	0.002	.0003802	.0015641
_cons	2430.141	479.5194	5.07	0.000	1477.054	3383.227

```
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     =         99
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         89
DF adjustment:   Small sample                   DF:     min       =      87.07
                                                        avg       =      87.07
                                                        max       =      87.07
Model F test:       Equal FMI                   F(   9,   87.1)   =       6.24
Within VCE type:          OLS                   Prob > F          =     0.0000
```

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	18.26986	86.14319	0.21	0.833	-152.9472	189.487
Sex	0	(omitted)				
w1Age	-4.69576	4.150054	-1.13	0.261	-12.94435	3.552835
Race	-138.6489	65.22378	-2.13	0.036	-268.2869	-9.01095
PovStat	-20.30848	68.44926	-0.30	0.767	-156.3573	115.7404
TIME_V1SCAN	.0343632	.0505088	0.68	0.498	-.0660275	.134754
w1BMI	.5633876	4.430514	0.13	0.899	-8.242646	9.369421
w1dxDiabetes	-63.43676	66.0602	-0.96	0.340	-194.7372	67.86365
w1Glucose	1.6718	2.016636	0.83	0.409	-2.336439	5.68004
ICV_volM2	.0016709	.0003253	5.14	0.000	.0010243	.0023175
_cons	1784.17	523.7978	3.41	0.001	743.0766	2825.264

```
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     =         99
                                                Average RVI       =     0.0000
                                                Largest FMI       =     0.0000
                                                Complete DF       =         89
DF adjustment:   Small sample                   DF:     min       =      87.07
                                                        avg       =      87.07
                                                        max       =      87.07
Model F test:       Equal FMI                   F(   9,   87.1)   =       2.72
Within VCE type:          OLS                   Prob > F          =     0.0076
```

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4.330649	1.270455	3.41	0.001	1.805509	6.855789
Sex	0	(omitted)				
w1Age	.0248216	.0612057	0.41	0.686	-.0968301	.1464733
Race	1.378227	.9619318	1.43	0.156	-.533696	3.290151
PovStat	1.521852	1.009502	1.51	0.135	-.4846203	3.528325
TIME_V1SCAN	-.0004633	.0007449	-0.62	0.536	-.0019439	.0010173
w1BMI	.1640384	.065342	2.51	0.014	.0341655	.2939114
w1dxDiabetes	.3296367	.9742674	0.34	0.736	-1.606805	2.266078
w1Glucose	-.0273753	.0297417	-0.92	0.360	-.0864895	.031739
ICV_volM2	4.71e-06	4.80e-06	0.98	0.329	-4.83e-06	.0000142
_cons	-15.8493	7.725062	-2.05	0.043	-31.20354	-.4950653

```
220 .
221 . save, replace
    file finaldata_imputed.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     =        179
                                                  Average RVI       =     0.0048
                                                  Largest FMI       =     0.0519
                                                  Complete DF       =        168
    DF adjustment:   Small sample                 DF:     min       =     143.53
                                                          avg       =     163.27
                                                          max       =     166.04
    Model F test:       Equal FMI                 F(  10,  166.0)   =      13.99
    Within VCE type:          OLS                 Prob > F          =     0.0000

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |    9018.68   24013.48     0.38   0.708    -38392.65    56430.01
             |
         Sex |
         Men |   166843.7   57291.31     2.91   0.004     53730.36    279957.1
             |
Sex#c.LnNFLw1|
         Men |  -14215.79    27202.3    -0.52   0.602    -67922.78     39491.2
             |
         Sex |          0  (omitted)
       w1Age |  -2382.081   981.1366    -2.43   0.016    -4319.222   -444.9406
        Race |  -70079.53   14470.49    -4.84   0.000    -98649.46   -41509.59
     PovStat |  -3465.888   16131.77    -0.21   0.830    -35315.73    28383.96
  TIME_V1SCAN |  -20.62916    11.6126    -1.78   0.077    -43.55665    2.298336
       w1BMI |   804.2804   1181.644     0.68   0.497    -1528.709    3137.27
 w1dxDiabetes |  -1609.665   14163.94    -0.11   0.910    -29606.53    26387.2
    w1Glucose |   104.7707   339.2831     0.31   0.758    -565.2931    774.8345
        _cons |    1287998   78635.02    16.38   0.000      1132739    1443256
------------------------------------------------------------------------------

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     =        179
                                                  Average RVI       =     0.0017
                                                  Largest FMI       =     0.0179
                                                  Complete DF       =        168
    DF adjustment:   Small sample                 DF:     min       =     161.15
                                                          avg       =     165.40
                                                          max       =     166.03
    Model F test:       Equal FMI                 F(  10,  166.0)   =      16.35
    Within VCE type:          OLS                 Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4553.251	12788.18	0.36	0.722	-20695.2	29801.7
Sex						
Men	106365.9	30516.35	3.49	0.001	46115.82	166616
Sex#c.LnNFLw1						
Men	-16884.06	14489.28	-1.17	0.246	-45491.03	11722.91
Sex	0	(omitted)				
w1Age	-1987.119	522.3037	-3.80	0.000	-3018.338	-955.9008
Race	-49681.37	7707.998	-6.45	0.000	-64899.73	-34463.01
PovStat	-2538.66	8592.719	-0.30	0.768	-19503.74	14426.42
TIME_V1SCAN	-7.82368	6.184154	-1.27	0.208	-20.03341	4.386047
w1BMI	668.9405	629.4192	1.06	0.289	-573.7594	1911.64
w1dxDiabetes	-5745.114	7418.077	-0.77	0.440	-20394.29	8904.065
w1Glucose	155.0163	179.4138	0.86	0.389	-199.2333	509.266
_cons	752308	41837.4	17.98	0.000	669704.9	834911.1

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 = 179
Average RVI = 0.0073
Largest FMI = 0.0782
Complete DF = 168
DF adjustment: Small sample — DF: min = 126.53
avg = 161.14
max = 166.03
Model F test: Equal FMI — F(10, 165.9) = 9.14
Within VCE type: OLS — Prob > F = 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	5148.154	11712.68	0.44	0.661	-17977.03	28273.34
Sex						
Men	64023.62	27937.28	2.29	0.023	8865.513	119181.7
Sex#c.LnNFLw1						
Men	-3928.652	13264.84	-0.30	0.767	-30118.17	22260.86
Sex	0	(omitted)				
w1Age	-799.493	478.7194	-1.67	0.097	-1744.679	145.693
Race	-18037.59	7056.233	-2.56	0.011	-31969.12	-4106.059
PovStat	-5096.705	7866.469	-0.65	0.518	-20627.91	10434.5
TIME_V1SCAN	-11.25226	5.663656	-1.99	0.049	-22.4344	-.0701129
w1BMI	196.8507	576.2056	0.34	0.733	-940.7857	1334.487
w1dxDiabetes	1509.643	6998.03	0.22	0.830	-12338.69	15357.98
w1Glucose	10.38568	166.4389	0.06	0.950	-318.4141	339.1854
_cons	507138.3	38378.52	13.21	0.000	431361.4	582915.1

```
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     =        179
                                                Average RVI       =     0.0031
                                                Largest FMI       =     0.0344
                                                Complete DF       =        167
DF adjustment:   Small sample                   DF:     min       =     152.78
                                                        avg       =     163.66
                                                        max       =     165.04
Model F test:       Equal FMI                   F(  11,  165.0)   =      12.96
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippoc~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
--------------+---------------------------------------------------------------
      LnNFLw1 |   6.025752    78.2384     0.08   0.939     -148.452    160.5035
              |
          Sex |
          Men |   179.9139   192.1504     0.94   0.350     -199.476    559.3038
              |
Sex#c.LnNFLw1 |
          Men |  -101.7722    88.6562    -1.15   0.253    -276.8188    73.27434
              |
          Sex |          0  (omitted)
        w1Age |  -6.257892    3.19882    -1.96   0.052    -12.57384     .058057
         Race |  -90.74022   51.28069    -1.77   0.079    -191.9911    10.51065
      PovStat |  -137.3714   52.56367    -2.61   0.010    -241.1554   -33.5875
  TIME_V1SCAN |   .0231286   .0380086     0.61   0.544    -.0519174    .0981747
        w1BMI |    2.53237   3.853689     0.66   0.512    -5.076527    10.14127
 w1dxDiabetes |  -3.049612   45.75007    -0.07   0.947    -93.43406    87.33483
    w1Glucose |    1.08203   1.101261     0.98   0.327    -1.092706    3.256766
     ICV_volM2 |   .0016294   .0002214     7.36   0.000     .0011923    .0020666
         _cons |   1736.208   404.4356     4.29   0.000     937.6667    2534.749
------------------------------------------------------------------------------

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     =        179
                                                Average RVI       =     0.0001
                                                Largest FMI       =     0.0018
                                                Complete DF       =        167
DF adjustment:   Small sample                   DF:     min       =     164.75
                                                        avg       =     165.00
                                                        max       =     165.04
Model F test:       Equal FMI                   F(  11,  165.0)   =      15.45
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
--------------+---------------------------------------------------------------
      LnNFLw1 |   2.145703   80.42315     0.03   0.979    -156.6452    160.9366
              |
          Sex |
          Men |   72.15576   197.5556     0.37   0.715    -317.9065     462.218
              |
Sex#c.LnNFLw1 |
          Men |  -88.76863   91.14961    -0.97   0.332    -268.7383    91.20104
              |
          Sex |          0  (omitted)
        w1Age |  -4.539425   3.286789    -1.38   0.169      -11.029    1.950153
```

Race	-87.83696	52.72004	-1.67	0.098	-191.9297	16.25572
PovStat	-113.452	54.0423	-2.10	0.037	-220.1554	-6.748559
TIME_V1SCAN	.0590603	.0390705	1.51	0.133	-.0180821	.1362027
w1BMI	2.163622	3.9618	0.55	0.586	-5.658726	9.985969
w1dxDiabetes	3.688667	46.28453	0.08	0.937	-87.69865	95.07598
w1Glucose	1.547351	1.124644	1.38	0.171	-.6732045	3.767907
ICV_volM2	.0020568	.0002276	9.04	0.000	.0016074	.0025063
_cons	1271.67	415.6095	3.06	0.003	451.0731	2092.268

```
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     =        179
                                                Average RVI       =     0.0002
                                                Largest FMI       =     0.0028
                                                Complete DF       =        167
DF adjustment:   Small sample                   DF:     min       =     164.55
                                                        avg       =     164.98
                                                        max       =     165.04
Model F test:       Equal FMI                   F(  11,  165.0)   =       2.90
Within VCE type:          OLS                   Prob > F          =     0.0016
```

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4.364669	.972591	4.49	0.000	2.444343	6.284994
Sex						
Men	6.642262	2.389123	2.78	0.006	1.925076	11.35945
Sex#c.LnNFLw1						
Men	-3.024776	1.10231	-2.74	0.007	-5.201224	-.8483281
Sex	0	(omitted)				
w1Age	-.0208147	.0397488	-0.52	0.601	-.0992964	.057667
Race	1.353844	.6375702	2.12	0.035	.0949982	2.61269
PovStat	1.00439	.653556	1.54	0.126	-.2860185	2.294799
TIME_V1SCAN	-.0006248	.0004725	-1.32	0.188	-.0015577	.0003081
w1BMI	.1073984	.047912	2.24	0.026	.0127988	.2019979
w1dxDiabetes	-.0896366	.560027	-0.16	0.873	-1.195402	1.016129
w1Glucose	-.009681	.0136033	-0.71	0.478	-.0365402	.0171782
ICV_volM2	2.04e-06	2.75e-06	0.74	0.460	-3.40e-06	7.47e-06
_cons	-9.197987	5.026183	-1.83	0.069	-19.1219	.725929

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

242 .
```

```
. 
. 
. 
. ***********MODEL 4: MODEL 2+liver/kidney disease******
. 
. //Overall//
. 
. use finaldata_imputed,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     =        179
                                                Average RVI       =     0.0241
                                                Largest FMI       =     0.2570
                                                Complete DF       =        166
DF adjustment:   Small sample                   DF:     min       =      46.03
                                                        avg       =     152.79
                                                        max       =     163.99
Model F test:       Equal FMI                   F(  12,  163.5)   =      13.14
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |  -4751.979   16520.04    -0.29   0.774    -37371.43    27867.47
         Sex |     167380   17397.09     9.62   0.000     132998.5    201761.5
       w1Age |  -1548.696   968.2607    -1.60   0.112    -3460.561    363.1693
        Race |  -67546.09   14959.43    -4.52   0.000    -97087.17   -38005.01
     PovStat |  -1677.909   15686.37    -0.11   0.915    -32651.29    29295.48
  TIME_V1SCAN |  -21.62704    11.2405    -1.92   0.056    -43.82226    .5681882
       w1BMI |   2179.533   1172.238     1.86   0.065    -135.1039     4494.17
w1Creatinine |  -15312.28   39173.08    -0.39   0.698    -94162.22    63537.67
 w1USpecGrav |   85270.45    1145779     0.07   0.941     -2177129     2347670
       w1BUN |   102.7434   2006.968     0.05   0.959    -3861.259    4066.746
       w1ALP |   282.3003   327.1091     0.86   0.389    -363.5886    928.1891
  w1UricAcid |  -18425.71   5760.565    -3.20   0.002    -29800.49    -7050.93
       _cons |     1066173    1153682     0.92   0.357     -1211831     3344176
------------------------------------------------------------------------------

. 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     =        179
                                                Average RVI       =     0.0183
                                                Largest FMI       =     0.2032
                                                Complete DF       =        166
DF adjustment:   Small sample                   DF:     min       =      61.43
                                                        avg       =     154.48
                                                        max       =     163.96
Model F test:       Equal FMI                   F(  12,  163.7)   =      14.28
Within VCE type:          OLS                   Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-7780.391	8952.369	-0.87	0.386	-25457.29	9896.508
Sex	84108.98	9388.764	8.96	0.000	65558.42	102659.5
w1Age	-1698.034	524.8685	-3.24	0.001	-2734.417	-661.6515
Race	-48147.63	8086.544	-5.95	0.000	-64115.66	-32179.59
PovStat	-1619.735	8496.585	-0.19	0.849	-18396.57	15157.1
TIME_V1SCAN	-8.506388	6.091325	-1.40	0.164	-20.53426	3.521483
w1BMI	1139.392	635.6278	1.79	0.075	-115.7058	2394.489
w1Creatinine	2651.925	20592.24	0.13	0.898	-38519.02	43822.87
w1USpecGrav	-240002.2	621046.4	-0.39	0.700	-1466303	986298.2
w1BUN	597.93	1083.398	0.55	0.582	-1541.636	2737.496
w1ALP	210.0734	177.2852	1.18	0.238	-139.9855	560.1324
w1UricAcid	-8605.049	3118.54	-2.76	0.006	-14762.83	-2447.27
_cons	936607.7	625419.1	1.50	0.136	-298330.1	2171545

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 = 179
Average RVI = 0.0376
Largest FMI = 0.3486
Complete DF = 166
DF adjustment: **Small sample** — DF: min = 29.75
avg = 148.24
max = 163.90
Model F test: **Equal FMI** — F(12, 162.8) = 8.94
Within VCE type: **OLS** — Prob > F = 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	560.899	8038.086	0.07	0.944	-15310.77	16432.57
Sex	71541.9	8588.87	8.33	0.000	54546.91	88536.88
w1Age	-361.4605	471.8383	-0.77	0.445	-1293.158	570.2368
Race	-16920.32	7306.22	-2.32	0.022	-31350.33	-2490.317
PovStat	-4390.043	7628.078	-0.58	0.566	-19452.01	10671.93
TIME_V1SCAN	-11.55318	5.470612	-2.11	0.036	-22.3555	-.7508534
w1BMI	923.8859	572.2014	1.61	0.108	-206.0422	2053.814
w1Creatinine	-16102.98	20128.06	-0.80	0.430	-57224.52	25018.56
w1USpecGrav	137889.7	559626.4	0.25	0.806	-967228.3	1243008
w1BUN	-210.1024	988.2262	-0.21	0.832	-2163.31	1743.105
w1ALP	101.3754	159.1191	0.64	0.525	-212.8129	415.5637
w1UricAcid	-8458.523	2803.493	-3.02	0.003	-13994.38	-2922.663
_cons	310922.2	563512.1	0.55	0.582	-801870.5	1423715

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 = 179
Average RVI = 0.0424
Largest FMI = 0.3704
Complete DF = 165
DF: min = 27.02
avg = 147.88
DF adjustment: **Small sample** — max = 162.99
F(12, .) = .
Within VCE type: **OLS** — Prob > F = .

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-46.08662	55.98793	-0.82	0.412	-156.6433	64.47007
Sex	-28.60585	76.77417	-0.37	0.710	-180.3579	123.1462
w1Age	-5.942988	3.282719	-1.81	0.072	-12.42523	.5392491
Race	-75.00867	55.08858	-1.36	0.175	-183.8047	33.78733
PovStat	-134.2964	53.15182	-2.53	0.012	-239.2525	-29.34037
TIME_V1SCAN	.0151062	.0383342	0.39	0.694	-.0605924	.0908048
w1BMI	2.035893	4.006237	0.51	0.612	-5.874987	9.946773
w1Creatinine	-6.016731	142.3017	-0.04	0.967	-297.985	285.9516
w1USpecGrav	-1914.674	3963.256	-0.48	0.630	-9747.328	5917.98
w1BUN	7.170885	6.876716	1.04	0.299	-6.419295	20.76107
w1ALP	-.782888	1.110225	-0.71	0.482	-2.975203	1.409427
w1UricAcid	-3.919335	19.93909	-0.20	0.844	-43.29354	35.45487
ICV_volM2	.0016723	.0002303	7.26	0.000	.0012175	.0021271
_cons	3846.925	3991.835	0.96	0.337	-4042.244	11736.09

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 = 179
Average RVI = 0.0134
Largest FMI = 0.1239
Complete DF = 165
DF: min = 96.70
avg = 155.96
DF adjustment: **Small sample** max = 162.95
F(12, .) = .
Within VCE type: **OLS** Prob > F = .

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-47.06249	57.5738	-0.82	0.415	-160.7497	66.62473
Sex	-102.101	77.60912	-1.32	0.190	-255.3695	51.16746
w1Age	-4.257574	3.375131	-1.26	0.209	-10.92222	2.407069
Race	-68.06511	56.39321	-1.21	0.229	-179.4235	43.29327
PovStat	-108.6887	54.66313	-1.99	0.048	-216.6282	-.7490662
TIME_V1SCAN	.0453079	.0394096	1.15	0.252	-.0325132	.123129
w1BMI	2.309858	4.12036	0.56	0.576	-5.826324	10.44604
w1Creatinine	37.63954	127.156	0.30	0.768	-214.7398	290.0189
w1USpecGrav	429.9676	4062.779	0.11	0.916	-7597.597	8457.532
w1BUN	10.65167	6.962272	1.53	0.128	-3.097551	24.40089
w1ALP	-.0825929	1.14218	-0.07	0.942	-2.338006	2.17282
w1UricAcid	-14.89916	20.48011	-0.73	0.468	-55.34038	25.54206
ICV_volM2	.0020848	.000237	8.80	0.000	.0016168	.0025528
_cons	1032.785	4090.817	0.25	0.801	-7050.071	9115.64

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	= **179**
		Average RVI	= **0.0014**
		Largest FMI	= **0.0131**
		Complete DF	= **165**
		DF: min	= **159.91**
		avg	= **162.67**
DF adjustment: **Small sample**		max	= **163.00**
		F(12, .)	= **.**
Within VCE type: **OLS**		Prob > F	= **.**

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	**2.347178**	**.7080767**	**3.31**	**0.001**	**.9489916**	**3.745365**
Sex	**-.162122**	**.9499113**	**-0.17**	**0.865**	**-2.037861**	**1.713617**
w1Age	**-.0010014**	**.0415235**	**-0.02**	**0.981**	**-.0829951**	**.0809923**
Race	**1.467206**	**.6927199**	**2.12**	**0.036**	**.0993423**	**2.835069**
PovStat	**.7774002**	**.6723053**	**1.16**	**0.249**	**-.5501508**	**2.104951**
TIME_V1SCAN	**-.0006812**	**.0004843**	**-1.41**	**0.161**	**-.0016376**	**.0002752**
w1BMI	**.0381352**	**.0506855**	**0.75**	**0.453**	**-.0619497**	**.1382201**
w1Creatinine	**.4374598**	**1.479735**	**0.30**	**0.768**	**-2.484883**	**3.359803**
w1USpecGrav	**33.09921**	**49.15378**	**0.67**	**0.502**	**-63.96249**	**130.1609**
w1BUN	**.0384001**	**.0852878**	**0.45**	**0.653**	**-.1300125**	**.2068126**
w1ALP	**-.0070671**	**.0140413**	**-0.50**	**0.615**	**-.0347935**	**.0206593**
w1UricAcid	**.1016758**	**.2517083**	**0.40**	**0.687**	**-.3953542**	**.5987057**
ICV_volM2	**2.71e-06**	**2.92e-06**	**0.93**	**0.355**	**-3.05e-06**	**8.46e-06**
_cons	**-39.96267**	**49.5063**	**-0.81**	**0.421**	**-137.7205**	**57.79519**

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

268 .
269 . //Males//
270 .
271 . use finaldata_imputed,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	= **80**
		Average RVI	= **0.0527**
		Largest FMI	= **0.4273**
		Complete DF	= **68**
DF adjustment: **Small sample**		DF: min	= **16.53**
		avg	= **60.22**
		max	= **66.05**
Model F test: **Equal FMI**		F(**11**, **65.5**)	= **2.59**
Within VCE type: **OLS**		Prob > F	= **0.0085**

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-20634.29	26291.57	-0.78	0.435	-73134.2	31865.63
Sex	0	(omitted)				
w1Age	-2112.548	1811.714	-1.17	0.248	-5730.365	1505.27
Race	-92238.22	27379.4	-3.37	0.001	-146988.3	-37488.16
PovStat	19355.85	28101.97	0.69	0.493	-36758.52	75470.23
TIME_V1SCAN	-40.22062	19.74196	-2.04	0.046	-79.64667	-.7945562
w1BMI	3807.291	2834.945	1.34	0.184	-1858.463	9473.046
w1Creatinine	-22884.37	85185.48	-0.27	0.792	-203000.4	157231.7
w1USpecGrav	-2299758	2006716	-1.15	0.256	-6306840	1707323
w1BUN	273.8399	3530.506	0.08	0.938	-6792.585	7340.265
w1ALP	624.3107	688.215	0.91	0.368	-749.7354	1998.357
w1UricAcid	-18783.5	11139.24	-1.69	0.096	-41025.73	3458.729
_cons	3876894	2040865	1.90	0.062	-198464.6	7952252

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 = 80
Average RVI = 0.0633
Largest FMI = 0.4768
Complete DF = 68
DF adjustment: Small sample — DF: min = 14.05
avg = 59.63
max = 66.04
Model F test: Equal FMI — F(11, 65.3) = 3.97
Within VCE type: OLS — Prob > F = 0.0002

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-19116.77	13668.56	-1.40	0.167	-46411.15	8177.616
Sex	0	(omitted)				
w1Age	-2247.635	943.9959	-2.38	0.020	-4132.967	-362.3037
Race	-63935.26	14212.43	-4.50	0.000	-92352.56	-35517.96
PovStat	7389.624	14590.34	0.51	0.614	-21743.3	36522.55
TIME_V1SCAN	-15.76377	10.26497	-1.54	0.129	-36.26419	4.736651
w1BMI	2106.086	1475.734	1.43	0.159	-843.618	5055.79
w1Creatinine	6179.472	45888.22	0.13	0.895	-92210.76	104569.7
w1USpecGrav	-1577702	1046157	-1.51	0.136	-3667042	511637.2
w1BUN	598.3174	1850.216	0.32	0.748	-3108.762	4305.397
w1ALP	392.0297	357.673	1.10	0.277	-322.0793	1106.139
w1UricAcid	-9389.156	5790.895	-1.62	0.110	-20952.3	2173.991
_cons	2506081	1064635	2.35	0.022	379707.8	4632453

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 = 80
Average RVI = 0.0417
Largest FMI = 0.3534
Complete DF = 68
DF adjustment: Small sample — DF: min = 21.30
avg = 60.32
max = 66.03
Model F test: Equal FMI — F(11, 65.7) = 1.75
Within VCE type: OLS — Prob > F = 0.0811

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-5860.401	12804.89	-0.46	0.649	-31428.64	19707.84
Sex	0	(omitted)				
w1Age	-523.8342	884.3287	-0.59	0.556	-2289.872	1242.203
Race	-27562.55	13301.39	-2.07	0.042	-54153	-972.1068
PovStat	3315.091	13678.81	0.24	0.809	-23997.22	30627.41
TIME_V1SCAN	-22.21819	9.628715	-2.31	0.024	-41.448	-2.988377
w1BMI	1531.469	1387.066	1.10	0.274	-1241.522	4304.46
w1Creatinine	-23438.69	39550.11	-0.59	0.560	-105616.3	58738.89
w1USpecGrav	-1116542	988193.1	-1.13	0.263	-3090992	857907.4
w1BUN	-495.4251	1719.301	-0.29	0.774	-3936.286	2945.436
w1ALP	333.7874	335.5117	0.99	0.323	-336.0771	1003.652
w1UricAcid	-6890.401	5418.986	-1.27	0.208	-17709.83	3929.03
_cons	1749603	1005224	1.74	0.087	-258969.3	3758175

```
278 .
279 .
280 . //ANALYSIS B//
281 . 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 = 80
Average RVI = 0.0588
Largest FMI = 0.4383
Complete DF = 67
DF adjustment: Small sample — DF: min = 15.85
avg = 58.85
max = 64.95
Model F test: Equal FMI — F(11, 64.4) = 5.49
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-86.62295	85.96425	-1.01	0.317	-258.3162	85.07031
Sex	0	(omitted)				
w1Age	-4.403652	5.927675	-0.74	0.460	-16.24609	7.438788
Race	-8.318737	98.72919	-0.08	0.933	-205.6459	189.0085
PovStat	-264.7496	91.8094	-2.88	0.005	-448.1284	-81.37082
TIME_V1SCAN	.0030607	.0656466	0.05	0.963	-.1280577	.1341791
w1BMI	4.20863	9.296785	0.45	0.652	-14.36796	22.78522
w1Creatinine	49.52657	280.6294	0.18	0.862	-545.8529	644.9061
w1USpecGrav	1133.813	6754.759	0.17	0.867	-12386.27	14653.9
w1BUN	1.286896	11.60014	0.11	0.912	-21.95592	24.52971
w1ALP	-.4879778	2.252838	-0.22	0.829	-4.987308	4.011352
w1UricAcid	-4.806111	37.06508	-0.13	0.897	-78.84901	69.23678
ICV_volM2	.0021173	.0003577	5.92	0.000	.001403	.0028316
_cons	90.19665	6967.778	0.01	0.990	-13857.89	14038.28

```
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     =         80
                                                Average RVI       =     0.0335
                                                Largest FMI       =     0.2813
                                                Complete DF       =         67
DF adjustment:   Small sample                   DF:     min       =      27.39
                                                        avg       =      60.56
                                                        max       =      65.06
Model F test:       Equal FMI                   F(  11,   64.8)   =       6.88
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hipp~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |  -93.52372   85.74488    -1.09   0.279    -264.7731    77.72566
         Sex |          0  (omitted)
       w1Age |  -3.333049   5.896502    -0.57   0.574    -15.11104    8.444942
        Race |   23.02012   97.96071     0.23   0.815    -172.6935    218.7338
     PovStat |  -225.5226   91.50714    -2.46   0.016    -408.2851   -42.76017
 TIME_V1SCAN |   .0510558   .0654401     0.78   0.438    -.0796421    .1817538
       w1BMI |   8.838681   9.224613     0.96   0.342    -9.587393    27.26475
w1Creatinine |     68.407   253.1041     0.27   0.789    -450.5781    587.3921
 w1USpecGrav |   3153.107    6727.72     0.47   0.641    -10309.65    16615.86
       w1BUN |   13.11187   11.38463     1.15   0.254    -9.656861     35.8806
       w1ALP |   .2851114   2.247904     0.13   0.899    -4.204285    4.774508
  w1UricAcid |  -36.34815   36.91669    -0.98   0.328    -110.0863    37.38997
   ICV_volM2 |   .0023928   .0003568     6.71   0.000     .0016803    .0031053
       _cons |  -2483.005   6934.167    -0.36   0.722    -16359.22    11393.21
------------------------------------------------------------------------------

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     =         80
                                                Average RVI       =     0.0042
                                                Largest FMI       =     0.0351
                                                Complete DF       =         67
DF adjustment:   Small sample                   DF:     min       =      61.89
                                                        avg       =      64.65
                                                        max       =      65.08
Model F test:       Equal FMI                   F(  11,   65.1)   =       1.20
Within VCE type:          OLS                   Prob > F          =     0.3058

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   1.936747   .7712641     2.51   0.015      .396441    3.477053
         Sex |          0  (omitted)
       w1Age |  -.0471039   .0529215    -0.89   0.377    -.1527971    .0585893
        Race |   1.157377   .8753313     1.32   0.191    -.5907742    2.905529
     PovStat |   .1360849    .822487     0.17   0.869    -1.506512    1.778682
 TIME_V1SCAN |  -.0006595   .0005886    -1.12   0.267     -.001835     .000516
       w1BMI |  -.0865167   .0829735    -1.04   0.301    -.2522486    .0792153
w1Creatinine |   .9443865   2.004828     0.47   0.639    -3.063347     4.95212
 w1USpecGrav |   51.64327   59.04183     0.87   0.385     -66.2797    169.5662
       w1BUN |  -.1034113   .1005485    -1.03   0.308    -.3042391    .0974165
       w1ALP |  -.0331433   .0202249    -1.64   0.106    -.0735343    .0072476
  w1UricAcid |     .28907   .3312995     0.87   0.386    -.3725791    .9507191
   ICV_volM2 |   1.97e-06   3.22e-06     0.61   0.543    -4.46e-06    8.40e-06
       _cons |  -48.12713   60.85865    -0.79   0.432    -169.6806    73.42635
------------------------------------------------------------------------------
```

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

288 .
289 .
290 .
291 . //Females//
292 .
293 . use finaldata_imputed,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     =         99
                                                    Average RVI       =     0.0228
                                                    Largest FMI       =     0.2303
                                                    Complete DF       =         87
    DF adjustment:   Small sample                   DF:     min       =      38.70
                                                            avg       =      81.00
                                                            max       =      85.01
    Model F test:       Equal FMI                   F(  11,   84.8)   =       3.24
    Within VCE type:          OLS                   Prob > F          =     0.0010

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   21124.46   21926.65     0.96   0.338    -22471.86    64720.78
          Sex |          0  (omitted)
        w1Age |  -1524.472   1178.092    -1.29   0.199    -3866.835    817.8903
         Race |  -53079.81   16946.08    -3.13   0.002    -86774.63   -19384.99
      PovStat |   -21480.6   17897.73    -1.20   0.233       -57066     14104.8
  TIME_V1SCAN |  -.8927053   13.13872    -0.07   0.946    -27.01604    25.23063
        w1BMI |   2997.357    1269.91     2.36   0.021     472.3299    5522.385
 w1Creatinine |   1063.369   43215.67     0.02   0.980    -86369.94    88496.68
  w1USpecGrav |    1904972    1319809     1.44   0.153      -719170     4529113
        w1BUN |  -2149.407   2502.385    -0.86   0.393    -7125.509    2826.695
        w1ALP |   135.4686   369.5565     0.37   0.715    -599.3162    870.2535
   w1UricAcid |  -19582.17    6825.22    -2.87   0.005    -33153.15   -6011.188
        _cons |  -696981.1    1332307    -0.52   0.602     -3345969     1952007
------------------------------------------------------------------------------

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     =         99
                                                    Average RVI       =     0.0365
                                                    Largest FMI       =     0.3348
                                                    Complete DF       =         87
    DF adjustment:   Small sample                   DF:     min       =      25.41
                                                            avg       =      79.76
                                                            max       =      85.05
    Model F test:       Equal FMI                   F(  11,   84.6)   =       3.84
    Within VCE type:          OLS                   Prob > F          =     0.0002
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	9705.79	12491.67	0.78	0.439	-15131.43	34543.01
Sex	0	(omitted)				
w1Age	-1484.838	671.2135	-2.21	0.030	-2819.408	-150.2675
Race	-38871.85	9657.847	-4.02	0.000	-58075.56	-19668.14
PovStat	-8552.255	10195.74	-0.84	0.404	-28824.25	11719.74
TIME_V1SCAN	.3486102	7.479968	0.05	0.963	-14.52344	15.22066
w1BMI	1690.958	723.5492	2.34	0.022	252.2647	3129.651
w1Creatinine	5531.159	26156.85	0.21	0.834	-48295.85	59358.17
w1USpecGrav	781527.1	751572.5	1.04	0.301	-712801.3	2275855
w1BUN	-797.0283	1430.687	-0.56	0.579	-3642.51	2048.453
w1ALP	121.8907	210.4992	0.58	0.564	-296.6446	540.4259
w1UricAcid	-9223.669	3890.402	-2.37	0.020	-16959.42	-1487.921
_cons	-75847.28	758634.4	-0.10	0.921	-1584211	1432517

```
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     =         99
                                                Average RVI       =     0.0048
                                                Largest FMI       =     0.0402
                                                Complete DF       =         87
DF adjustment:   Small sample                   DF:     min       =      79.44
                                                        avg       =      84.49
                                                        max       =      85.05
Model F test:       Equal FMI                   F(  11,   85.0)   =       2.49
Within VCE type:          OLS                   Prob > F          =     0.0092
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	13332.18	10531.93	1.27	0.209	-7608.281	34272.64
Sex	0	(omitted)				
w1Age	-556.0168	565.6778	-0.98	0.328	-1680.727	568.6929
Race	-9897.925	8132.319	-1.22	0.227	-26067.42	6271.568
PovStat	-12837.15	8595.428	-1.49	0.139	-29927.07	4252.769
TIME_V1SCAN	-1.255445	6.312377	-0.20	0.843	-13.80627	11.29539
w1BMI	1353.292	609.9444	2.22	0.029	140.5076	2566.077
w1Creatinine	-6337.48	18820.95	-0.34	0.737	-43796.4	31121.44
w1USpecGrav	1115623	633909.5	1.76	0.082	-144762.5	2376008
w1BUN	-703.256	1197.153	-0.59	0.558	-3083.517	1677.005
w1ALP	23.79748	177.4847	0.13	0.894	-329.0925	376.6875
w1UricAcid	-10007.95	3274.778	-3.06	0.003	-16519.17	-3496.74
_cons	-648492	639928.2	-1.01	0.314	-1920844	623859.7

```
300 .
301 .
302 . //ANALYSIS B//
303 . 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     =         99
                                                Average RVI       =     0.0010
                                                Largest FMI       =     0.0086
                                                Complete DF       =         86
DF adjustment:   Small sample                   DF:     min       =      83.29
                                                        avg       =      83.98
                                                        max       =      84.06
Model F test:       Equal FMI                   F(  12,   84.1)   =       3.65
Within VCE type:          OLS                   Prob > F          =     0.0002
```

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	70.14907	78.25195	0.90	0.373	-85.46209	225.7602
Sex	0	(omitted)				
w1Age	-10.92176	4.177238	-2.61	0.011	-19.22858	-2.614945
Race	-110.7297	64.33054	-1.72	0.089	-238.6568	17.1973
PovStat	-48.91314	63.88229	-0.77	0.446	-175.949	78.12271
TIME_V1SCAN	.0150911	.0465959	0.32	0.747	-.0775693	.1077515
w1BMI	3.124063	4.610573	0.68	0.500	-6.044496	12.29262
w1Creatinine	-27.16114	136.9729	-0.20	0.843	-299.5805	245.2583
w1USpecGrav	-3947.986	4734.487	-0.83	0.407	-13363.04	5467.068
w1BUN	13.40727	8.911029	1.50	0.136	-4.313219	31.12777
w1ALP	-.8470383	1.311132	-0.65	0.520	-3.454344	1.760267
w1UricAcid	-9.098217	24.9249	-0.37	0.716	-58.66396	40.46753
ICV_volM2	.0011018	.000315	3.50	0.001	.0004754	.0017282
_cons	6478.902	4734.496	1.37	0.175	-2936.163	15893.97

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 = 99
Average RVI = 0.0065
Largest FMI = 0.0693
Complete DF = 86
DF adjustment: **Small sample** — DF: min = 72.46
avg = 83.04
max = 84.05
Model F test: **Equal FMI** — F(12, 84.0) = 4.51
Within VCE type: **OLS** — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	25.37475	85.55475	0.30	0.768	-144.7593	195.5088
Sex	0	(omitted)				
w1Age	-6.69951	4.566643	-1.47	0.146	-15.7807	2.381685
Race	-123.8685	70.37641	-1.76	0.082	-263.8214	16.08436
PovStat	-21.81197	69.8445	-0.31	0.756	-160.7048	117.0808
TIME_V1SCAN	.0374609	.0509383	0.74	0.464	-.0638349	.1387566
w1BMI	-.2097623	5.041445	-0.04	0.967	-10.23522	9.815699
w1Creatinine	-17.39188	154.291	-0.11	0.911	-324.9319	290.1482
w1USpecGrav	-1848.688	5185.397	-0.36	0.722	-12161.06	8463.683
w1BUN	9.086992	9.758167	0.93	0.354	-10.31919	28.49317
w1ALP	-.5086747	1.433768	-0.35	0.724	-3.35988	2.34253
w1UricAcid	3.978507	27.24923	0.15	0.884	-50.20949	58.1665
ICV_volM2	.0017875	.0003444	5.19	0.000	.0011027	.0024724
_cons	3653.108	5185.849	0.70	0.483	-6660.181	13966.4

305 .

```
306 . //ANALYSIS C//
307 . 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     =         99
                                                  Average RVI       =     0.0045
                                                  Largest FMI       =     0.0397
                                                  Complete DF       =         86
    DF adjustment:   Small sample                 DF:     min       =      78.64
                                                          avg       =      83.56
                                                          max       =      84.06
    Model F test:       Equal FMI                 F(  12,   84.0)   =       2.12
    Within VCE type:          OLS                 Prob > F          =     0.0236

    ------------------------------------------------------------------------------
    LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
    -------------+----------------------------------------------------------------
         LnNFLw1 |    3.95772   1.25238     3.16   0.002     1.467225    6.448215
             Sex |          0  (omitted)
           w1Age |   .0078203   .0668506     0.12   0.907    -.1251191    .1407598
            Race |   1.696868   1.029657     1.65   0.103    -.3507199    3.744457
         PovStat |   1.481498   1.022299     1.45   0.151    -.5514503    3.514445
     TIME_V1SCAN |  -.0007456   .0007462    -1.00   0.321    -.0022295    .0007383
           w1BMI |   .1612278   .0738277     2.18   0.032     .0144107    .3080448
      w1Creatinine |    .825482   2.225548     0.37   0.712    -3.604677    5.255641
       w1USpecGrav |   18.24339   75.73758     0.24   0.810    -132.3685    168.8553
           w1BUN |    .131102   .1426118     0.92   0.361    -.1524984    .4147024
           w1ALP |   .0153835   .0209988     0.73   0.466    -.0263757    .0571428
      w1UricAcid |  -.3993053   .3989818    -1.00   0.320    -1.192734    .3941229
       ICV_volM2 |   3.40e-06   5.04e-06     0.67   0.502    -6.62e-06    .0000134
           _cons |   -35.1351   75.73667    -0.46   0.644     -185.745    115.4748
    ------------------------------------------------------------------------------

308 .
309 . save, replace
    file finaldata_imputed.dta saved

310 .
311 . **INTERACTION BY Sex**
312 .
313 .
314 . //ANALYSIS A//
315 . 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     =        179
                                                  Average RVI       =     0.0203
                                                  Largest FMI       =     0.2361
                                                  Complete DF       =        165
    DF adjustment:   Small sample                 DF:     min       =      51.23
                                                          avg       =     154.35
                                                          max       =     163.03
    Model F test:       Equal FMI                 F(  13,  162.7)   =      12.28
    Within VCE type:          OLS                 Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	12968.14	23148.85	0.56	0.576	-32742.08	58678.37
Sex						
Men	228732.9	58767.58	3.89	0.000	112687.2	344778.5
Sex#c.LnNFLw1						
Men	-29335.24	26868.25	-1.09	0.277	-82389.93	23719.45
Sex	0	(omitted)				
w1Age	-1735.743	982.7348	-1.77	0.079	-3676.276	204.7896
Race	-67499.09	14943.22	-4.52	0.000	-97009.1	-37989.09
PovStat	-243.8698	15732	-0.02	0.988	-31308.77	30821.03
TIME_V1SCAN	-20.75122	11.25968	-1.84	0.067	-42.98522	1.48278
w1BMI	2617.211	1238.115	2.11	0.036	172.3889	5062.033
w1Creatinine	-15289.3	38715.86	-0.39	0.695	-93006.3	62427.7
w1USpecGrav	21764.52	1146922	0.02	0.985	-2243005	2286534
w1BUN	-37.61868	2007.786	-0.02	0.985	-4003.243	3928.006
w1ALP	322.0412	328.9282	0.98	0.329	-327.4688	971.5511
w1UricAcid	-19115.61	5791.419	-3.30	0.001	-30551.82	-7679.401
_cons	1257327	1157372	1.09	0.279	-1028075	3542729

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	= 179
		Average RVI	= 0.0142
		Largest FMI	= 0.1739
		Complete DF	= 165
DF adjustment:	Small sample	DF: min	= 72.29
		avg	= 156.10
		max	= 162.99
Model F test:	Equal FMI	F(13, 162.8)	= 13.60
Within VCE type:	OLS	Prob > F	= 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	6918.483	12482.81	0.55	0.580	-17730.48	31567.45
Sex						
Men	135000	31688.3	4.26	0.000	72426.24	197573.7
Sex#c.LnNFLw1						
Men	-24334.26	14484.68	-1.68	0.095	-52936.09	4267.564
Sex	0	(omitted)				
w1Age	-1853.178	530.0811	-3.50	0.001	-2899.9	-806.4565
Race	-48109.57	8037.342	-5.99	0.000	-63980.94	-32238.19
PovStat	-429.8203	8479.483	-0.05	0.960	-17173.63	16313.99
TIME_V1SCAN	-7.780512	6.070911	-1.28	0.202	-19.76852	4.207495
w1BMI	1502.448	667.9795	2.25	0.026	183.4165	2821.48
w1Creatinine	2683.889	20175.08	0.13	0.895	-37531.64	42899.42
w1USpecGrav	-292622.5	618120	-0.47	0.637	-1513188	927943.1
w1BUN	481.3017	1078.049	0.45	0.656	-1647.694	2610.297
w1ALP	243.0507	177.366	1.37	0.172	-107.1822	593.2836
w1UricAcid	-9177.565	3119.891	-2.94	0.004	-15338.28	-3016.848
_cons	1040372	623891.3	1.67	0.097	-191593.2	2272338

```
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     =        179
                                                Average RVI       =     0.0325
                                                Largest FMI       =     0.3303
                                                Complete DF       =        165
DF adjustment:   Small sample                   DF:     min       =      32.24
                                                        avg       =     151.43
                                                        max       =     162.97
Model F test:       Equal FMI                   F(  13,  162.2)   =       8.34
Within VCE type:          OLS                   Prob > F          =     0.0000
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	7217.59	11276.98	0.64	0.523	-15050.33	29485.51
Sex						
Men	94590.09	28646.63	3.30	0.001	38021.84	151158.4
Sex#c.LnNFLw1						
Men	-11019.64	13085.33	-0.84	0.401	-36858.28	14819
Sex	0	(omitted)				
w1Age	-431.731	479.521	-0.90	0.369	-1378.639	515.1769
Race	-16902.25	7308.467	-2.31	0.022	-31337.05	-2467.457
PovStat	-3851.541	7661.448	-0.50	0.616	-18980.09	11277.01
TIME_V1SCAN	-11.22386	5.488112	-2.05	0.042	-22.06118	-.3865424
w1BMI	1088.299	604.8488	1.80	0.074	-106.1295	2282.728
w1Creatinine	-16100.97	19927.83	-0.81	0.425	-56680.58	24478.65
w1USpecGrav	114027.1	560445.1	0.20	0.839	-992737	1220791
w1BUN	-262.7444	989.8473	-0.27	0.791	-2219.069	1693.58
w1ALP	116.2969	160.2374	0.73	0.469	-200.1138	432.7075
w1UricAcid	-8717.548	2822.531	-3.09	0.002	-14291.24	-3143.855
_cons	391404.4	565812.1	0.69	0.490	-725970.6	1508779

```
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     =        179
                                                Average RVI       =     0.0372
                                                Largest FMI       =     0.3565
                                                Complete DF       =        164
DF adjustment:   Small sample                   DF:     min       =      28.64
                                                        avg       =     149.68
                                                        max       =     162.00
Model F test:       Equal FMI                   F(  13,  161.0)   =      10.38
Within VCE type:          OLS                   Prob > F          =     0.0000
```

Left_Hippoc~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	10.70442	78.5462	0.14	0.892	-144.4037	165.8125
Sex						
Men	171.8605	208.9722	0.82	0.412	-240.8222	584.5432
Sex#c.LnNFLw1						
Men	-94.11315	91.28074	-1.03	0.304	-274.3671	86.14077
Sex	0	(omitted)				
w1Age	-6.537067	3.332237	-1.96	0.052	-13.11738	.0432505
Race	-76.48724	55.0839	-1.39	0.167	-185.2783	32.30377
PovStat	-129.7665	53.31978	-2.43	0.016	-235.059	-24.47403
TIME_V1SCAN	.017591	.0383895	0.46	0.647	-.0582198	.0934017
w1BMI	3.480894	4.243871	0.82	0.413	-4.899618	11.86141
w1Creatinine	-6.02308	141.0851	-0.04	0.966	-294.7301	282.6839
w1USpecGrav	-2108.134	3959.721	-0.53	0.595	-9933.249	5716.981
w1BUN	6.690776	6.884612	0.97	0.333	-6.914753	20.29631
w1ALP	-.6509724	1.117409	-0.58	0.561	-2.857578	1.555633
w1UricAcid	-6.440551	20.08057	-0.32	0.749	-46.09576	33.21466
ICV_volM2	.0016548	.0002309	7.17	0.000	.0011988	.0021108
_cons	3909.487	4001.08	0.98	0.330	-3997.497	11816.47

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	= 179
		Average RVI	= 0.0112
		Largest FMI	= 0.1104
		Complete DF	= 164
DF adjustment:	Small sample	DF: min	= 104.07
		avg	= 156.40
		max	= 161.95
Model F test:	Equal FMI	F(13, 161.9)	= 12.64
Within VCE type:	OLS	Prob > F	= 0.0000

Right_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4.121931	80.86083	0.05	0.959	-155.5565	163.8003
Sex						
Men	78.57216	214.7826	0.37	0.715	-345.5699	502.7142
Sex#c.LnNFLw1						
Men	-84.8231	93.99291	-0.90	0.368	-270.433	100.7868
Sex	0	(omitted)				
w1Age	-4.792967	3.429	-1.40	0.164	-11.5643	1.978366
Race	-69.39946	56.43467	-1.23	0.221	-180.8445	42.04556
PovStat	-104.6053	54.87815	-1.91	0.058	-212.9744	3.763809
TIME_V1SCAN	.0475462	.0395018	1.20	0.230	-.0304603	.1255527
w1BMI	3.612187	4.368425	0.83	0.410	-5.014245	12.23862
w1Creatinine	37.65534	126.4312	0.30	0.766	-213.0605	288.3712
w1USpecGrav	255.8448	4063.858	0.06	0.950	-7773.575	8285.264
w1BUN	10.21856	6.978522	1.46	0.145	-3.563165	24.00028
w1ALP	.0363128	1.150283	0.03	0.975	-2.235201	2.307826
w1UricAcid	-17.17184	20.64295	-0.83	0.407	-57.93637	23.59269
ICV_volM2	.002069	.0002378	8.70	0.000	.0015994	.0025386
_cons	1012.601	4103.535	0.25	0.805	-7095.048	9120.249

```
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 = **179**
Average RVI = **0.0006**
Largest FMI = **0.0037**
Complete DF = **164**
DF adjustment: **Small sample** — DF: min = **161.40**
avg = **161.93**
max = **162.01**
Model F test: **Equal FMI** — F(**13**, **162.0**) = **2.38**
Within VCE type: **OLS** — Prob > F = **0.0061**

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	**4.073444**	**.9781092**	**4.16**	**0.000**	**2.141955**	**6.004934**
Sex						
Men	**5.931576**	**2.59636**	**2.28**	**0.024**	**.804504**	**11.05865**
Sex#c.LnNFLw1						
Men	**-2.860701**	**1.137167**	**-2.52**	**0.013**	**-5.106283**	**-.6151199**
Sex	**0**	(omitted)				
w1Age	**-.0190601**	**.0414953**	**-0.46**	**0.647**	**-.1010018**	**.0628817**
Race	**1.422365**	**.6819825**	**2.09**	**0.039**	**.075644**	**2.769087**
PovStat	**.9150694**	**.6639376**	**1.38**	**0.170**	**-.3960183**	**2.226157**
TIME_V1SCAN	**-.0006056**	**.0004775**	**-1.27**	**0.206**	**-.0015486**	**.0003373**
w1BMI	**.0820569**	**.0528568**	**1.55**	**0.123**	**-.0223204**	**.1864342**
w1Creatinine	**.4360025**	**1.450546**	**0.30**	**0.764**	**-2.428495**	**3.3005**
w1USpecGrav	**27.21426**	**48.40702**	**0.56**	**0.575**	**-68.37628**	**122.8048**
w1BUN	**.0238264**	**.0841282**	**0.28**	**0.777**	**-.1423034**	**.1899563**
w1ALP	**-.0030588**	**.0139096**	**-0.22**	**0.826**	**-.0305264**	**.0244088**
w1UricAcid	**.0250598**	**.2495875**	**0.10**	**0.920**	**-.4678046**	**.5179241**
ICV_volM2	**2.17e-06**	**2.88e-06**	**0.76**	**0.451**	**-3.51e-06**	**7.85e-06**
_cons	**-37.34859**	**48.89881**	**-0.76**	**0.446**	**-133.9103**	**59.2131**

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

328 .
329 . ***********MODEL 5: MODEL 2+oxidative stress******
330 .
331 . //Overall//
332 .
333 . use finaldata_imputed,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     =        179
                                                Average RVI       =     0.0125
                                                Largest FMI       =     0.1063
                                                Complete DF       =        168
DF adjustment:   Small sample                   DF:     min       =     108.38
                                                        avg       =     159.25
                                                        max       =     165.93
Model F test:       Equal FMI                   F(  10,  165.8)   =      14.02
Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-2779.111	17176.94	-0.16	0.872	-36694.58	31136.36
Sex	139676.5	14209.93	9.83	0.000	111619.9	167733
w1Age	-2287.513	938.798	-2.44	0.016	-4141.052	-433.9744
Race	-65204.13	16574.32	-3.93	0.000	-97941.41	-32466.85
PovStat	-1857.318	16088.83	-0.12	0.908	-33622.83	29908.2
TIME_V1SCAN	-19.84112	11.78951	-1.68	0.094	-43.11851	3.436271
w1BMI	663.6866	1158.842	0.57	0.568	-1624.301	2951.675
w1TotalD	785.0093	816.4853	0.96	0.338	-833.3427	2403.361
w1Albumin	-5145.254	27481.76	-0.19	0.852	-59404.25	49113.74
w1EosinPct	-2425.682	3533.221	-0.69	0.493	-9402.651	4551.286
_cons	1181464	153605.8	7.69	0.000	878184.3	1484745

```
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     =        179
                                                Average RVI       =     0.0072
                                                Largest FMI       =     0.0643
                                                Complete DF       =        168
DF adjustment:   Small sample                   DF:     min       =     135.64
                                                        avg       =     162.53
                                                        max       =     165.98
Model F test:       Equal FMI                   F(  10,  165.9)   =      15.85
Within VCE type:          OLS                   Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-4428.886	9213.59	-0.48	0.631	-22620.31	13762.54
Sex	71394.66	7625.658	9.36	0.000	56338.64	86450.68
w1Age	-1950.052	504.1572	-3.87	0.000	-2945.441	-954.6634
Race	-47412.05	8853.027	-5.36	0.000	-64894.32	-29929.77
PovStat	-2680.073	8639.521	-0.31	0.757	-19737.67	14377.52
TIME_V1SCAN	-7.086875	6.328869	-1.12	0.264	-19.58251	5.408762
w1BMI	588.946	622.3618	0.95	0.345	-639.8234	1817.715
w1TotalD	264.2693	429.4673	0.62	0.539	-585.0484	1113.587
w1Albumin	3124.707	14761.92	0.21	0.833	-26020.63	32270.05
w1EosinPct	409.8111	1892.812	0.22	0.829	-3327.582	4147.204
_cons	687814.1	82464.12	8.34	0.000	524998.5	850629.7

```
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     =        179
                                                Average RVI       =     0.0143
                                                Largest FMI       =     0.1145
                                                Complete DF       =        168
DF adjustment:   Small sample                   DF:     min       =     103.40
                                                        avg       =     158.28
                                                        max       =     165.88
Model F test:       Equal FMI                   F(  10,  165.8)   =       9.50
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
          WM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   43.59935   8336.053     0.01   0.996    -16416.11    16503.31
         Sex |   57111.78   6897.494     8.28   0.000     43492.83    70730.73
       w1Age |    -733.86   455.3875    -1.61   0.109    -1632.972    165.2524
        Race |  -14939.33   8058.579    -1.85   0.066    -30858.71     980.044
     PovStat |  -3870.435   7802.985    -0.50   0.621    -19276.59    11535.72
 TIME_V1SCAN |  -10.59031   5.717619    -1.85   0.066    -21.87931    .6987009
       w1BMI |    183.462   562.0921     0.33   0.745    -926.3261     1293.25
    w1TotalD |    499.862   397.5201     1.26   0.211    -288.4892    1288.213
   w1Albumin |   -243.924   13326.39    -0.02   0.985    -26555.13    26067.28
  w1EosinPct |  -2059.328    1715.73    -1.20   0.232    -5447.513    1328.858
       _cons |   446903.5   74502.92     6.00   0.000     299803.6    594003.5
------------------------------------------------------------------------------

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     =        179
                                                Average RVI       =     0.0220
                                                Largest FMI       =     0.1890
                                                Complete DF       =        167
DF adjustment:   Small sample                   DF:     min       =      66.71
                                                        avg       =     154.89
                                                        max       =     165.00
Model F test:       Equal FMI                   F(  11,  164.6)   =      12.69
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |  -30.29866   56.26251    -0.54   0.591    -141.3963    80.79893
         Sex |  -39.38538   61.75664    -0.64   0.525    -161.3207    82.54997
       w1Age |  -5.654338   3.071481    -1.84   0.067    -11.71881    .4101366
        Race |  -87.74623   57.66655    -1.52   0.130     -201.659    26.16658
     PovStat |  -139.7245   52.64648    -2.65   0.009     -243.674   -35.77504
 TIME_V1SCAN |   .0277066   .0387907     0.71   0.476     -.048887    .1043003
       w1BMI |   3.944562   3.792737     1.04   0.300    -3.544037    11.43316
    w1TotalD |  -.0771704   2.794248    -0.03   0.978    -5.654953    5.500612
   w1Albumin |   143.7572   89.99188     1.60   0.112    -33.92834    321.4428
  w1EosinPct |  -1.192609   11.63729    -0.10   0.919    -24.17952     21.7943
   ICV_volM2 |   .0016587   .0002221     7.47   0.000     .0012202    .0020972
       _cons |   1221.078   580.1831     2.10   0.037     75.52509    2366.631
------------------------------------------------------------------------------
```

```
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 = 179
Average RVI = 0.0101
Largest FMI = 0.0650
Complete DF = 167
DF adjustment: **Small sample** — DF: min = 134.50
avg = 161.03
max = 165.03
Model F test: **Equal FMI** — F(11, 164.9) = 14.81
Within VCE type: **OLS** — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-9.674185	58.06455	-0.17	0.868	-124.3217	104.9733
Sex	-114.3403	63.95922	-1.79	0.076	-240.6249	11.94429
w1Age	-4.145631	3.182055	-1.30	0.194	-10.42848	2.137214
Race	-104.936	59.20947	-1.77	0.078	-221.8576	11.98563
PovStat	-116.6215	54.49162	-2.14	0.034	-224.2134	-9.029554
TIME_V1SCAN	.0523263	.0401131	1.30	0.194	-.0268764	.131529
w1BMI	3.613358	3.926108	0.92	0.359	-4.138541	11.36526
w1TotalD	-2.434392	2.714169	-0.90	0.371	-7.802361	2.933578
w1Albumin	96.04688	93.1266	1.03	0.304	-87.82629	279.9201
w1EosinPct	3.972319	12.09445	0.33	0.743	-19.9221	27.86673
ICV_volM2	.0021003	.00023	9.13	0.000	.0016463	.0025544
_cons	1115.916	600.4383	1.86	0.065	-69.61992	2301.452

```
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 = 179
Average RVI = 0.0092
Largest FMI = 0.0954
Complete DF = 167
DF adjustment: **Small sample** — DF: min = 114.73
avg = 160.38
max = 164.98
Model F test: **Equal FMI** — F(11, 164.9) = 2.22
Within VCE type: **OLS** — Prob > F = 0.0157

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	2.559761	.7113085	3.60	0.000	1.155237	3.964285
Sex	.1029813	.7817983	0.13	0.895	-1.440639	1.646601
w1Age	.0009404	.0388878	0.02	0.981	-.0758415	.0777223
Race	1.480766	.7239749	2.05	0.042	.0511213	2.910411
PovStat	.7696067	.6658597	1.16	0.249	-.5451001	2.084313
TIME_V1SCAN	-.0005769	.0004905	-1.18	0.241	-.0015453	.0003915
w1BMI	.0767774	.0480038	1.60	0.112	-.0180036	.1715585
w1TotalD	-.0089849	.033697	-0.27	0.790	-.0757338	.057764
w1Albumin	1.088256	1.139068	0.96	0.341	-1.160784	3.337296
w1EosinPct	.1584714	.1453661	1.09	0.277	-.1285466	.4454894
ICV_volM2	2.42e-06	2.81e-06	0.86	0.391	-3.13e-06	7.97e-06
_cons	-12.10361	7.341393	-1.65	0.101	-26.59884	2.391625

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

. 
. 
. //Males//
. 
. 
. use finaldata_imputed,clear

. 
. 
. //ANALYSIS A//
. 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     =         80
                                                Average RVI       =     0.0135
                                                Largest FMI       =     0.0616
                                                Complete DF       =         70
DF adjustment:   Small sample                   DF:     min       =      60.88
                                                        avg       =      66.60
                                                        max       =      68.01
Model F test:       Equal FMI                   F(   9,   68.0)   =       2.68
Within VCE type:          OLS                   Prob > F          =     0.0100

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   -11788.9   26210.08    -0.45   0.654    -64105.76    40527.96
         Sex |           0  (omitted)
       w1Age |   -2303.929   1764.129    -1.31   0.196     -5824.46    1216.601
        Race |   -71116.33   30231.12    -2.35   0.022    -131467.6   -10765.07
     PovStat |    19409.01   29187.72     0.66   0.508    -38867.12    77685.14
  TIME_V1SCAN |   -36.63042   20.42647    -1.79   0.077     -77.3907    4.129873
       w1BMI |     1390.24    2657.49     0.52   0.603    -3913.292    6693.771
    w1TotalD |    2094.562   1554.502     1.35   0.183    -1013.981    5203.105
   w1Albumin |    2234.658   55450.51     0.04   0.968    -108429.2    112898.5
  w1EosinPct |   -1328.724   6993.409    -0.19   0.850    -15284.69    12627.24
       _cons |     1408595   339087.4     4.15   0.000     731809.7     2085381
------------------------------------------------------------------------------

. 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     =         80
                                                Average RVI       =     0.0108
                                                Largest FMI       =     0.0669
                                                Complete DF       =         70
DF adjustment:   Small sample                   DF:     min       =      60.04
                                                        avg       =      66.77
                                                        max       =      68.05
Model F test:       Equal FMI                   F(   9,   68.0)   =       4.37
Within VCE type:          OLS                   Prob > F          =     0.0002
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-10591.87	13604.66	-0.78	0.439	-37742.37	16558.63
Sex	0	(omitted)				
w1Age	-2307.357	918.3105	-2.51	0.014	-4139.876	-474.8375
Race	-54656.47	15745.65	-3.47	0.001	-86089.17	-23223.76
PovStat	5750.771	15159.36	0.38	0.706	-24510.3	36011.85
TIME_V1SCAN	-13.23177	10.64123	-1.24	0.218	-34.46574	8.002207
w1BMI	1207.278	1383.768	0.87	0.386	-1554.209	3968.766
w1TotalD	780.2008	812.169	0.96	0.341	-844.3583	2404.76
w1Albumin	18635.19	28835.81	0.65	0.520	-38908.07	76178.45
w1EosinPct	-665.4149	3641.698	-0.18	0.856	-7932.543	6601.713
_cons	777856.3	176344.9	4.41	0.000	425921.9	1129791

```
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     =         80
                                                Average RVI       =     0.0143
                                                Largest FMI       =     0.0343
                                                Complete DF       =         70
DF adjustment:   Small sample                   DF:     min       =      64.78
                                                        avg       =      66.70
                                                        max       =      67.92
Model F test:       Equal FMI                   F(   9,   68.0)   =       1.75
Within VCE type:          OLS                   Prob > F          =     0.0944
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-5827.321	12745.12	-0.46	0.649	-31274.58	19619.93
Sex	0	(omitted)				
w1Age	-454.8465	854.6464	-0.53	0.596	-2160.471	1250.778
Race	-14678.42	14648.9	-1.00	0.320	-43924.73	14567.89
PovStat	4173.208	14133.93	0.30	0.769	-24047.54	32393.95
TIME_V1SCAN	-20.75448	9.891669	-2.10	0.040	-40.49343	-1.015536
w1BMI	107.192	1287.146	0.08	0.934	-2461.647	2676.031
w1TotalD	1282.641	742.2335	1.73	0.089	-199.796	2765.078
w1Albumin	-9859.673	26904.64	-0.37	0.715	-63560.59	43841.24
w1EosinPct	-656.3319	3386.406	-0.19	0.847	-7414.36	6101.697
_cons	591739.1	164503	3.60	0.001	263365	920113.2

```
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     =         80
                                                Average RVI       =     0.0122
                                                Largest FMI       =     0.0822
                                                Complete DF       =         69
DF adjustment:   Small sample                   DF:     min       =      56.74
                                                        avg       =      65.57
                                                        max       =      67.02
Model F test:       Equal FMI                   F(  10,   67.0)   =       6.90
Within VCE type:          OLS                   Prob > F          =     0.0000
```

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-104.7411	81.61518	-1.28	0.204	-267.6887	58.20646
Sex	0	(omitted)				
w1Age	-5.739769	5.482753	-1.05	0.299	-16.68363	5.204096
Race	24.72756	100.2366	0.25	0.806	-175.5003	224.9554
PovStat	-268.5402	90.19826	-2.98	0.004	-448.589	-88.49139
TIME_V1SCAN	.0157136	.064655	0.24	0.809	-.1133405	.1447676
w1BMI	7.256885	8.282108	0.88	0.384	-9.276323	23.79009
w1TotalD	4.80558	4.916857	0.98	0.333	-5.041222	14.65238
w1Albumin	17.9959	172.5014	0.10	0.917	-326.3525	362.3443
w1EosinPct	-19.59167	21.74042	-0.90	0.371	-62.98553	23.80219
ICV_volM2	.0020766	.0003362	6.18	0.000	.0014056	.0027476
_cons	1127.328	1168.099	0.97	0.338	-1204.591	3459.246

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 = 80
Average RVI = 0.0086
Largest FMI = 0.0828
Complete DF = 69
DF adjustment: Small sample — DF: min = 56.66
avg = 65.92
max = 67.07
Model F test: Equal FMI — F(10, 67.0) = 7.56
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-66.12848	83.266	-0.79	0.430	-232.3288	100.0719
Sex	0	(omitted)				
w1Age	-7.805458	5.619076	-1.39	0.169	-19.02096	3.410041
Race	-31.0511	102.322	-0.30	0.762	-235.3757	173.2735
PovStat	-247.1481	92.40908	-2.67	0.009	-431.5994	-62.69685
TIME_V1SCAN	.0447397	.0662998	0.67	0.502	-.0875948	.1770742
w1BMI	9.814745	8.481363	1.16	0.251	-7.114836	26.74433
w1TotalD	.0118235	5.046155	0.00	0.998	-10.09426	10.11791
w1Albumin	-95.33451	176.4896	-0.54	0.591	-447.6036	256.9346
w1EosinPct	-21.46451	22.29736	-0.96	0.339	-65.96943	23.04041
ICV_volM2	.0024227	.0003447	7.03	0.000	.0017347	.0031108
_cons	1478.205	1193.92	1.24	0.220	-904.8718	3861.281

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 = 80
Average RVI = 0.0132
Largest FMI = 0.1047
Complete DF = 69
DF adjustment: Small sample — DF: min = 52.97
avg = 65.37
max = 67.07
Model F test: Equal FMI — F(10, 67.0) = 0.80
Within VCE type: OLS — Prob > F = 0.6325

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1.408667	.7617891	1.85	0.069	-.1118455	2.929179
Sex	0	(omitted)				
w1Age	-.0431003	.0514697	-0.84	0.405	-.1458348	.0596341
Race	1.717324	.9417787	1.82	0.073	-.1639962	3.598644
PovStat	.3506588	.8484596	0.41	0.681	-1.343115	2.044433
TIME_V1SCAN	-.000559	.0006072	-0.92	0.361	-.0017711	.000653
w1BMI	-.017795	.0777073	-0.23	0.820	-.1729121	.1373221
w1TotalD	.0327784	.0466964	0.70	0.486	-.060884	.1264407
w1Albumin	.2320422	1.615361	0.14	0.886	-2.992168	3.456252
w1EosinPct	.0502554	.2043205	0.25	0.806	-.35758	.4580907
ICV_volM2	2.73e-07	3.16e-06	0.09	0.931	-6.03e-06	6.57e-06
_cons	1.644706	10.94327	0.15	0.881	-20.19935	23.48877

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

371 .
372 .
373 .
374 . //Females//
375 .
376 . use finaldata_imputed,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     =         99
                                                  Average RVI       =     0.0220
                                                  Largest FMI       =     0.1775
                                                  Complete DF       =         89
    DF adjustment:   Small sample                 DF:     min       =      49.05
                                                          avg       =      82.28
                                                          max       =      87.04
    Model F test:       Equal FMI                 F(   9,   86.8)   =       2.38
    Within VCE type:          OLS                 Prob > F          =     0.0185
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	17345.42	23864.1	0.73	0.469	-30097.19	64788.04
Sex	0	(omitted)				
w1Age	-2595.493	1130.644	-2.30	0.024	-4842.762	-348.2243
Race	-56593.71	18878.92	-3.00	0.004	-94144.12	-19043.3
PovStat	-20786.86	19161.65	-1.08	0.281	-58872.7	17298.99
TIME_V1SCAN	-4.104126	14.14413	-0.29	0.772	-32.2199	24.01165
w1BMI	1106.235	1212.802	0.91	0.364	-1304.341	3516.81
w1TotalD	-106.8858	931.5526	-0.11	0.909	-1978.861	1765.089
w1Albumin	-15993.15	29715.58	-0.54	0.592	-75055.66	43069.37
w1EosinPct	-2276.42	4011.728	-0.57	0.572	-10254.14	5701.299
_cons	1330627	159986.1	8.32	0.000	1012622	1648632

```
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     =         99
                                              Average RVI       =     0.0170
                                              Largest FMI       =     0.1464
                                              Complete DF       =         89
DF adjustment:   Small sample                 DF:     min       =      55.91
                                                      avg       =      83.33
                                                      max       =      87.05
Model F test:       Equal FMI                 F(   9,   86.9)   =       3.84
Within VCE type:          OLS                 Prob > F          =     0.0004
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	8931.637	13210.24	0.68	0.501	-17329	35192.28
Sex	0	(omitted)				
w1Age	-1958.164	626.888	-3.12	0.002	-3204.168	-712.161
Race	-39877.55	10431.38	-3.82	0.000	-60621.38	-19133.73
PovStat	-10023.05	10622.7	-0.94	0.348	-31136.74	11090.63
TIME_V1SCAN	-.6714877	7.836788	-0.09	0.932	-16.24912	14.90614
w1BMI	857.2338	672.2802	1.28	0.206	-478.987	2193.455
w1TotalD	-152.9635	508.1389	-0.30	0.765	-1170.923	864.9958
w1Albumin	-12730.65	16474.79	-0.77	0.442	-45475.81	20014.51
w1EosinPct	1069.016	2211.777	0.48	0.630	-3328.078	5466.109
_cons	787144.5	88639.37	8.88	0.000	610959.6	963329.4

```
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     =         99
                                              Average RVI       =     0.0189
                                              Largest FMI       =     0.1482
                                              Complete DF       =         89
DF adjustment:   Small sample                 DF:     min       =      55.50
                                                      avg       =      83.00
                                                      max       =      87.04
Model F test:       Equal FMI                 F(   9,   86.9)   =       1.37
Within VCE type:          OLS                 Prob > F          =     0.2147
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	11997.14	11523.87	1.04	0.301	-10911.76	34906.04
Sex	0	(omitted)				
w1Age	-1084.638	546.4929	-1.98	0.050	-2170.846	1.569433
Race	-13134.47	9100.939	-1.44	0.153	-31233.33	4964.395
PovStat	-11877.53	9262.27	-1.28	0.203	-30287.29	6532.232
TIME_V1SCAN	-2.049876	6.83235	-0.30	0.765	-15.63094	11.53119
w1BMI	502.0896	586.2984	0.86	0.394	-663.2454	1667.425
w1TotalD	-6.834043	443.4624	-0.02	0.988	-895.3725	881.7044
w1Albumin	3390.391	14363.45	0.24	0.814	-25158.32	31939.1
w1EosinPct	-2444.683	1942.786	-1.26	0.212	-6308.53	1419.164
_cons	475292.2	77314.22	6.15	0.000	321615.4	628968.9

```
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	= 99
		Average RVI	= 0.0273
		Largest FMI	= 0.1785
		Complete DF	= 88
DF adjustment: **Small sample**		DF: min	= 48.47
		avg	= 81.34
		max	= 86.01
Model F test: **Equal FMI**		F(10, 85.8)	= 4.50
Within VCE type: **OLS**		Prob > F	= 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	110.651	79.12959	1.40	0.166	-46.68127	267.9833
Sex	0	(omitted)				
w1Age	-10.03328	3.761718	-2.67	0.009	-17.51143	-2.555128
Race	-170.7204	65.89981	-2.59	0.011	-301.7958	-39.64506
PovStat	-69.94852	64.13385	-1.09	0.279	-197.4779	57.58084
TIME_V1SCAN	.0327316	.0467657	0.70	0.486	-.0602433	.1257064
w1BMI	4.811021	4.024695	1.20	0.235	-3.189848	12.81189
w1TotalD	-3.195876	3.083916	-1.04	0.305	-9.394963	3.003211
w1Albumin	165.0137	98.97346	1.67	0.099	-31.7405	361.7678
w1EosinPct	-.4224886	13.43289	-0.03	0.975	-27.16084	26.31586
ICV_volM2	.0011084	.0002962	3.74	0.000	.0005196	.0016972
_cons	1764.533	698.8969	2.52	0.013	375.1734	3153.892

```
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	= 99
		Average RVI	= 0.0147
		Largest FMI	= 0.0652
		Complete DF	= 88
DF adjustment: **Small sample**		DF: min	= 75.01
		avg	= 83.69
		max	= 86.01
Model F test: **Equal FMI**		F(10, 86.0)	= 5.96
Within VCE type: **OLS**		Prob > F	= 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	70.60252	85.36351	0.83	0.410	-99.10787	240.3129
Sex	0	(omitted)				
w1Age	-6.16027	4.068368	-1.51	0.134	-14.24802	1.927483
Race	-166.9012	70.81023	-2.36	0.021	-307.6963	-26.10621
PovStat	-44.32213	69.22433	-0.64	0.524	-181.9613	93.31704
TIME_V1SCAN	.0524533	.0506018	1.04	0.303	-.0481497	.1530564
w1BMI	2.788451	4.353496	0.64	0.524	-5.866092	11.44299
w1TotalD	-3.6647	3.146748	-1.16	0.248	-9.933011	2.60361
w1Albumin	162.8411	107.0133	1.52	0.132	-49.89396	375.5762
w1EosinPct	7.376155	14.65398	0.50	0.616	-21.81602	36.56833
ICV_volM2	.0017853	.0003204	5.57	0.000	.0011484	.0024222
_cons	1080.688	756.1526	1.43	0.157	-422.5078	2583.883

```
. 
. //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     =         99
                                                Average RVI       =     0.0061
                                                Largest FMI       =     0.0327
                                                Complete DF       =         88
DF adjustment:   Small sample                   DF:     min       =      81.74
                                                        avg       =      85.39
                                                        max       =      86.04
Model F test:       Equal FMI                   F(  10,   86.0)   =       2.53
Within VCE type:          OLS                   Prob > F          =     0.0101

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   4.469661    1.27192     3.51   0.001     1.941091    6.998231
         Sex |          0  (omitted)
       w1Age |   .0185514   .0607282     0.31   0.761    -.1021752    .1392781
        Race |    1.10908   1.052718     1.05   0.295     -.983786    3.201947
     PovStat |   1.268751   1.031349     1.23   0.222      -.78176    3.319262
  TIME_V1SCAN |  -.0006471   .0007541    -0.86   0.393    -.0021463    .0008521
       w1BMI |   .1555899   .0649429     2.40   0.019     .0264875    .2846923
     w1TotalD |  -.0566329   .0462348    -1.22   0.224     -.148613    .0353473
    w1Albumin |   .8558197   1.596538     0.54   0.593    -2.317974    4.029613
   w1EosinPct |   .0858167   .2122473     0.40   0.687    -.3361396     .507773
    ICV_volM2 |   4.65e-06   4.78e-06     0.97   0.334    -4.86e-06    .0000142
        _cons |  -19.59267   11.28742    -1.74   0.086    -42.03182    2.846483
------------------------------------------------------------------------------

. 
. save, replace
file finaldata_imputed.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     =        179
                                                Average RVI       =     0.0109
                                                Largest FMI       =     0.1014
                                                Complete DF       =        167
DF adjustment:   Small sample                   DF:     min       =     110.95
                                                        avg       =     159.19
                                                        max       =     164.95
Model F test:       Equal FMI                   F(  11,  164.9)   =      12.74
Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	5983.846	24157.32	0.25	0.805	-41716.39	53684.08
Sex						
Men	169230.4	58823.49	2.88	0.005	53083.1	285377.8
Sex#c.LnNFLw1						
Men	-14358.94	27711.53	-0.52	0.605	-69074.94	40357.05
Sex	0	(omitted)				
w1Age	-2390.455	961.5268	-2.49	0.014	-4288.952	-491.9579
Race	-65762.6	16637.44	-3.95	0.000	-98625.08	-32900.11
PovStat	-1269.422	16160.28	-0.08	0.937	-33177.31	30638.47
TIME_V1SCAN	-19.67493	11.81711	-1.66	0.098	-43.00775	3.657895
w1BMI	807.6459	1193.782	0.68	0.500	-1549.423	3164.714
w1TotalD	736.2364	822.4552	0.90	0.373	-893.5216	2365.994
w1Albumin	-6204.261	27615.36	-0.22	0.823	-60729.39	48320.87
w1EosinPct	-2674.155	3572.765	-0.75	0.455	-9729.479	4381.169
_cons	1310269	156754.6	8.36	0.000	1000760	1619779

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 = 179
Average RVI = 0.0056
Largest FMI = 0.0548
Complete DF = 167
DF adjustment: Small sample — DF: min = 141.00
avg = 162.46
max = 165.00
Model F test: Equal FMI — F(11, 165.0) = 14.56
Within VCE type: OLS — Prob > F = 0.0000

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	5377.697	12920.87	0.42	0.678	-20134.49	30889.88
Sex						
Men	104467.9	31484.17	3.32	0.001	42303.41	166632.4
Sex#c.LnNFLw1						
Men	-16067.85	14837.01	-1.08	0.280	-45362.95	13227.25
Sex	0	(omitted)				
w1Age	-2065.231	514.9603	-4.01	0.000	-3081.994	-1048.469
Race	-48042.17	8856.667	-5.42	0.000	-65531.68	-30552.66
PovStat	-2023.356	8654.856	-0.23	0.815	-19111.95	15065.23
TIME_V1SCAN	-6.901832	6.326436	-1.09	0.277	-19.39317	5.589508
w1BMI	750.0071	639.4418	1.17	0.243	-512.537	2012.551
w1TotalD	209.2729	430.4642	0.49	0.628	-641.7255	1060.271
w1Albumin	1939.899	14793.96	0.13	0.896	-27269.97	31149.77
w1EosinPct	132.0177	1909.079	0.07	0.945	-3637.655	3901.691
_cons	747059.6	83928.1	8.90	0.000	581346.8	912772.4

```
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     =        179
                                                Average RVI       =     0.0129
                                                Largest FMI       =     0.1124
                                                Complete DF       =        167
DF adjustment:   Small sample                   DF:     min       =     104.20
                                                        avg       =     158.14
                                                        max       =     164.91
Model F test:       Equal FMI                   F(  11,  164.8)   =       8.62
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
          WM | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   2473.744   11728.92     0.21   0.833    -20686.27    25633.75
              |
          Sex |
          Men |   65308.22   28558.11     2.29   0.023     8919.154    121697.3
              |
    Sex#c.LnNFLw1 |
          Men |  -3982.632   13449.39    -0.30   0.768    -30538.49    22573.22
              |
          Sex |          0  (omitted)
        w1Age |  -762.4078   466.6793    -1.63   0.104    -1683.855    159.0399
         Race |  -15092.15   8097.241    -1.86   0.064    -31088.48    904.1728
      PovStat |  -3706.974   7841.821    -0.47   0.637    -19190.44     11776.5
  TIME_V1SCAN |  -10.54386   5.734287    -1.84   0.068    -21.86625    .7785187
        w1BMI |   223.4108   579.3129     0.39   0.700    -920.4229    1367.245
     w1TotalD |   486.4975   401.2176     1.21   0.228     -309.114    1282.109
    w1Albumin |  -537.8788   13398.34    -0.04   0.968    -26992.28    25916.52
   w1EosinPct |  -2128.305    1735.73    -1.23   0.222    -5556.106    1299.497
        _cons |   500993.5   76074.94     6.59   0.000     350783.5    651203.5
------------------------------------------------------------------------------

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     =        179
                                                Average RVI       =     0.0218
                                                Largest FMI       =     0.2031
                                                Complete DF       =        166
DF adjustment:   Small sample                   DF:     min       =      61.44
                                                        avg       =     154.12
                                                        max       =     163.98
Model F test:       Equal FMI                   F(  12,  163.6)   =      11.75
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippoc~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   30.54226    78.9523     0.39   0.699    -125.3691    186.4536
              |
          Sex |
          Men |   167.3255    197.378     0.85   0.398    -222.4125    557.0635
              |
    Sex#c.LnNFLw1 |
          Men |  -99.72074    90.4463    -1.10   0.272    -278.3143    78.87284
              |
          Sex |          0  (omitted)
        w1Age |  -6.373449   3.138304    -2.03   0.044    -12.57015   -.1767435
```

Race	-92.36784	57.9033	-1.60	0.113	-206.7656	22.02997
PovStat	-135.6882	52.7405	-2.57	0.011	-239.828	-31.54827
TIME_V1SCAN	.0287093	.0387806	0.74	0.460	-.0478681	.1052867
w1BMI	4.949409	3.896733	1.27	0.206	-2.744832	12.64365
w1TotalD	-.415835	2.834419	-0.15	0.884	-6.08278	5.25111
w1Albumin	136.2755	90.1761	1.51	0.133	-41.78142	314.3325
w1EosinPct	-2.925386	11.73703	-0.25	0.804	-26.11029	20.25952
ICV_volM2	.0016509	.0002221	7.43	0.000	.0012124	.0020893
_cons	1118.063	607.8035	1.84	0.068	-82.0756	2318.201

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 = 179
Average RVI = 0.0104
Largest FMI = 0.0730
Complete DF = 166
DF adjustment: Small sample — DF: min = 128.66
avg = 159.71
max = 164.03
Model F test: Equal FMI — F(12, 163.9) = 13.67
Within VCE type: OLS — Prob > F = 0.0000

Right_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	49.11743	81.61037	0.60	0.548	-112.034	210.2689
Sex						
Men	85.37719	204.5148	0.42	0.677	-318.4543	489.2086
Sex#c.LnNFLw1						
Men	-96.35086	93.71494	-1.03	0.305	-281.3992	88.69748
Sex	0	(omitted)				
w1Age	-4.840574	3.253278	-1.49	0.139	-11.26437	1.58322
Race	-109.3985	59.42439	-1.84	0.067	-226.7538	7.956775
PovStat	-112.7172	54.62111	-2.06	0.041	-220.5699	-4.86445
TIME_V1SCAN	.0532943	.040123	1.33	0.186	-.0259316	.1325203
w1BMI	4.584313	4.036506	1.14	0.258	-3.385903	12.55453
w1TotalD	-2.761511	2.744556	-1.01	0.316	-8.191819	2.668798
w1Albumin	88.81937	93.3718	0.95	0.343	-95.54618	273.1849
w1EosinPct	2.297812	12.21378	0.19	0.851	-21.83445	26.43008
ICV_volM2	.0020928	.0002301	9.10	0.000	.0016385	.0025471
_cons	940.073	629.3753	1.49	0.137	-302.6508	2182.797

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 = 179
Average RVI = 0.0079
Largest FMI = 0.0857
Complete DF = 166
DF adjustment: Small sample — DF: min = 120.40
avg = 160.26
max = 164.01
Model F test: Equal FMI — F(12, 164.0) = 2.65
Within VCE type: OLS — Prob > F = 0.0028

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4.328422	.982015	4.41	0.000	2.38927	6.267574
Sex						
Men	6.112099	2.45679	2.49	0.014	1.261062	10.96314
Sex#c.LnNFLw1						
Men	-2.898976	1.125843	-2.57	0.011	-5.122008	-.6759437
Sex	0	(omitted)				
w1Age	-.0199686	.0391132	-0.51	0.610	-.0971994	.0572623
Race	1.346911	.7131448	1.89	0.061	-.061363	2.755186
PovStat	.8871053	.6564586	1.35	0.178	-.409097	2.183308
TIME_V1SCAN	-.0005477	.0004826	-1.13	0.258	-.0015007	.0004053
w1BMI	.1059906	.0485476	2.18	0.030	.0101318	.2018494
w1TotalD	-.0187834	.0332232	-0.57	0.573	-.0845607	.0469939
w1Albumin	.870759	1.123436	0.78	0.439	-1.347515	3.089033
w1EosinPct	.1080569	.1443386	0.75	0.455	-.1769462	.3930601
ICV_volM2	2.19e-06	2.77e-06	0.79	0.430	-3.27e-06	7.65e-06
_cons	-13.85125	7.569799	-1.83	0.069	-28.79809	1.095599

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

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

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

    Multiple-imputation estimates                   Imputations       =          5
    Linear regression                               Number of obs     =        179
                                                    Average RVI       =     0.0019
                                                    Largest FMI       =     0.0174
                                                    Complete DF       =        169
    DF adjustment:   Small sample                   DF:     min       =     162.30
                                                            avg       =     166.48
                                                            max       =     167.02
    Model F test:       Equal FMI                   F(   9,  167.0)   =      16.13
    Within VCE type:          OLS                   Prob > F          =     0.0000
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	8533.058	17077.99	0.50	0.618	-25183.74	42249.86
Sex	135739.1	13760.54	9.86	0.000	108572.1	162906.1
w1Age	-2563.178	951.0465	-2.70	0.008	-4440.813	-685.5435
Race	-68074.33	14569.8	-4.67	0.000	-96839.15	-39309.51
PovStat	-189.3218	16200.15	-0.01	0.991	-32172.85	31794.21
TIME_V1SCAN	-23.41696	11.51737	-2.03	0.044	-46.15543	-.6784953
w1BMI	724.9021	1103.62	0.66	0.512	-1453.945	2903.749
w1currdrugs	-5984.259	17631.96	-0.34	0.735	-40801.88	28833.36
w1SRH	14337.88	9041.314	1.59	0.115	-3512.11	32187.88
_cons	1142967	72138.1	15.84	0.000	1000547	1285387

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

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =        179
                                              Average RVI       =     0.0049
                                              Largest FMI       =     0.0307
                                              Complete DF       =        169
DF adjustment:   Small sample                 DF:     min       =     156.44
                                                      avg       =     165.44
                                                      max       =     167.01
Model F test:       Equal FMI                 F(   9,  167.0)   =      18.80
Within VCE type:          OLS                 Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1544.405	9106.339	0.17	0.866	-16435.04	19523.85
Sex	69838.74	7317.683	9.54	0.000	55391.65	84285.82
w1Age	-2173.814	506.9499	-4.29	0.000	-3174.722	-1172.907
Race	-47553.79	7753.678	-6.13	0.000	-62861.9	-32245.69
PovStat	-1656.741	8621.678	-0.19	0.848	-18678.51	15365.03
TIME_V1SCAN	-9.027316	6.138837	-1.47	0.143	-21.14759	3.092957
w1BMI	445.1349	587.1962	0.76	0.449	-714.1611	1604.431
w1currdrugs	-12089.36	9437.982	-1.28	0.202	-30731.67	6552.959
w1SRH	8856.483	4813.063	1.84	0.068	-645.9664	18358.93
_cons	699232.6	38381.65	18.22	0.000	623456.1	775009

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

Multiple-imputation estimates                 Imputations       =          5
Linear regression                             Number of obs     =        179
                                              Average RVI       =     0.0022
                                              Largest FMI       =     0.0130
                                              Complete DF       =        169
DF adjustment:   Small sample                 DF:     min       =     163.83
                                                      avg       =     166.57
                                                      max       =     166.98
Model F test:       Equal FMI                 F(   9,  167.0)   =      10.53
Within VCE type:          OLS                 Prob > F          =     0.0000
```

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	3722.541	8344.86	0.45	0.656	-12752.59	20197.67
Sex	56288.7	6725.512	8.37	0.000	43010.67	69566.73
w1Age	-756.4107	464.6187	-1.63	0.105	-1673.697	160.8759
Race	-18813.54	7119.779	-2.64	0.009	-32869.99	-4757.095
PovStat	-3124.41	7915.412	-0.39	0.694	-18751.59	12502.77
TIME_V1SCAN	-12.72226	5.632162	-2.26	0.025	-23.84186	-1.602666
w1BMI	276.1763	539.2369	0.51	0.609	-788.4247	1340.777
w1currdrugs	7790.591	8596.598	0.91	0.366	-9183.817	24765
w1SRH	4299.655	4420.667	0.97	0.332	-4428.026	13027.34
_cons	441208.1	35251.81	12.52	0.000	371611.3	510805

```
. 
. //ANALYSIS B//
. 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 = **179**
Average RVI = **0.0039**
Largest FMI = **0.0360**
Complete DF = **168**
DF adjustment: **Small sample** — DF: min = **152.78**
avg = **164.76**
max = **166.03**
Model F test: **Equal FMI** — F(**10**, **166.0**) = **13.97**
Within VCE type: **OLS** — Prob > F = **0.0000**

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-46.91153	56.31646	-0.83	0.406	-158.1002	64.27715
Sex	-23.57667	60.42877	-0.39	0.697	-142.8847	95.73138
w1Age	-5.587591	3.140472	-1.78	0.077	-11.78801	.6128303
Race	-90.38694	52.0104	-1.74	0.084	-193.075	12.30111
PovStat	-147.1119	53.4146	-2.75	0.007	-252.5714	-41.65243
TIME_V1SCAN	.0228672	.03825	0.60	0.551	-.0526522	.0983865
w1BMI	1.904884	3.645553	0.52	0.602	-5.292791	9.102558
w1currdrugs	-29.18088	58.69416	-0.50	0.620	-145.1378	86.77608
w1SRH	-25.99182	30.01283	-0.87	0.388	-85.24796	33.26433
ICV_volM2	.0016654	.0002233	7.46	0.000	.0012246	.0021062
_cons	1984.436	360.7313	5.50	0.000	1272.221	2696.651

```
. 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 = **179**
Average RVI = **0.0061**
Largest FMI = **0.0541**
Complete DF = **168**
DF adjustment: **Small sample** — DF: min = **142.21**
avg = **163.75**
max = **166.03**
Model F test: **Equal FMI** — F(**10**, **166.0**) = **16.42**
Within VCE type: **OLS** — Prob > F = **0.0000**

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-36.25274	58.0577	-0.62	0.533	-150.8793	78.3738
Sex	-100.8754	62.3086	-1.62	0.107	-223.8954	22.14445
w1Age	-3.988596	3.237291	-1.23	0.220	-10.38017	2.402973
Race	-86.46075	53.63738	-1.61	0.109	-192.3618	19.44025
PovStat	-123.3062	55.06438	-2.24	0.026	-232.0229	-14.58946
TIME_V1SCAN	.0583014	.0394496	1.48	0.141	-.019587	.1361898
w1BMI	2.13072	3.758607	0.57	0.572	-5.290178	9.551618
w1currdrugs	-44.38366	61.05259	-0.73	0.468	-165.0715	76.30421
w1SRH	-32.69876	30.95017	-1.06	0.292	-93.80588	28.40836
ICV_volM2	.0021008	.0002302	9.13	0.000	.0016464	.0025553
_cons	1610.322	371.8971	4.33	0.000	876.0611	2344.583

```
428 .
429 . //ANALYSIS C//
430 . 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     =        179
                                                Average RVI       =     0.0007
                                                Largest FMI       =     0.0066
                                                Complete DF       =        168
DF adjustment:   Small sample                   DF:     min       =     164.70
                                                        avg       =     165.90
                                                        max       =     166.03
Model F test:       Equal FMI                   F(  10,  166.0)   =       2.28
Within VCE type:          OLS                   Prob > F          =     0.0158

------------------------------------------------------------------------------
LnLesion_V~e | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
      LnNFLw1 |   2.299536    .712966     3.23   0.002     .8918878    3.707184
          Sex |   .3305388   .7649334     0.43   0.666    -1.179711    1.840789
        w1Age |   .0038124   .0397531     0.10   0.924    -.0746745    .0822992
         Race |   1.382893   .6580793     2.10   0.037     .0836084    2.682177
      PovStat |   .7472021   .6761875     1.11   0.271    -.5878321    2.082236
   TIME_V1SCAN |  -.0006048   .0004841    -1.25   0.213    -.0015607    .0003511
        w1BMI |   .0571114   .0461315     1.24   0.217    -.0339686    .1481914
   w1currdrugs |  -.1382655   .7323092    -0.19   0.850     -1.58419    1.307659
        w1SRH |  -.2270985   .3798902    -0.60   0.551    -.9771368    .5229399
     ICV_volM2 |   2.38e-06   2.83e-06     0.84   0.402    -3.20e-06    7.96e-06
         _cons |    -5.7082   4.565621    -1.25   0.213    -14.72236    3.305962
------------------------------------------------------------------------------

431 .
432 . save, replace
    file finaldata_imputed.dta saved

433 .
434 .
435 . //Males//
436 .
437 .
438 . use finaldata_imputed,clear

439 .
440 .
441 . //ANALYSIS A//
442 . mi estimate: reg TOTALBRAIN LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if sample_final==1

Multiple-imputation estimates                   Imputations       =          5
Linear regression                               Number of obs     =         80
                                                Average RVI       =     0.0019
                                                Largest FMI       =     0.0133
                                                Complete DF       =         71
DF adjustment:   Small sample                   DF:     min       =      68.07
                                                        avg       =      68.90
                                                        max       =      69.07
Model F test:       Equal FMI                   F(   8,   69.1)   =       2.80
Within VCE type:          OLS                   Prob > F          =     0.0095
```

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-6188.756	26185.3	-0.24	0.814	-58428.58	46051.07
Sex	0	(omitted)				
w1Age	-2285.057	1706.283	-1.34	0.185	-5689.026	1118.912
Race	-95481.77	27059.81	-3.53	0.001	-149464.8	-41498.7
PovStat	16501.03	28447.38	0.58	0.564	-40249.39	73251.46
TIME_V1SCAN	-43.1178	20.85289	-2.07	0.042	-84.7185	-1.517104
w1BMI	647.0368	2545.459	0.25	0.800	-4430.918	5724.991
w1currdrugs	13266.61	33718.98	0.39	0.695	-54017.36	80550.58
w1SRH	4333.985	17008.88	0.25	0.800	-29597.16	38265.13
_cons	1509705	114761.9	13.16	0.000	1280764	1738645

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

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 80
Average RVI = 0.0036
Largest FMI = 0.0329
Complete DF = 71
DF adjustment: Small sample — DF: min = 65.89
avg = 68.68
max = 69.08
Model F test: Equal FMI — F(8, 69.1) = 4.86
Within VCE type: OLS — Prob > F = 0.0001

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-7201.615	13545.99	-0.53	0.597	-34224.69	19821.46
Sex	0	(omitted)				
w1Age	-2417.796	883.1267	-2.74	0.008	-4179.553	-656.0396
Race	-63000.61	14040.3	-4.49	0.000	-91012.32	-34988.9
PovStat	3874.804	14730.07	0.26	0.793	-25510.28	33259.89
TIME_V1SCAN	-18.78376	10.79266	-1.74	0.086	-40.3141	2.746584
w1BMI	628.0792	1318.373	0.48	0.635	-2001.949	3258.108
w1currdrugs	-2158.248	17632.57	-0.12	0.903	-37363.92	33047.43
w1SRH	7214.267	8809.363	0.82	0.416	-10359.57	24788.11
_cons	899633	59436.21	15.14	0.000	781063	1018203

444 . mi estimate: reg WM LnNFLw1 Sex w1Age Race PovStat TIME_V1SCAN w1BMI w1currdrugs w1SRH if sample_final==1 & Sex==2

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 80
Average RVI = 0.0026
Largest FMI = 0.0095
Complete DF = 71
DF adjustment: Small sample — DF: min = 68.41
avg = 68.86
max = 69.06
Model F test: Equal FMI — F(8, 69.1) = 1.71
Within VCE type: OLS — Prob > F = 0.1116

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-4181.577	12735.16	-0.33	0.744	-29591.45	21228.3
Sex	0	(omitted)				
w1Age	-359.6136	829.1103	-0.43	0.666	-2013.791	1294.564
Race	-31140.92	13116.08	-2.37	0.020	-57306.44	-4975.41
PovStat	3068.08	13806.11	0.22	0.825	-24474.9	30611.06
TIME_V1SCAN	-22.18732	10.13682	-2.19	0.032	-42.41187	-1.962767
w1BMI	-137.7396	1234.478	-0.11	0.911	-2600.415	2324.936
w1currdrugs	15634.06	16258.81	0.96	0.340	-16801.2	48069.33
w1SRH	-2701.552	8251.324	-0.33	0.744	-19162.41	13759.3
_cons	605604.7	55665.42	10.88	0.000	494555.8	716653.6

```
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 = 80
Average RVI = 0.0048
Largest FMI = 0.0153
Complete DF = 70
DF adjustment: Small sample — DF: min = 66.91
avg = 67.70
max = 68.06
Model F test: Equal FMI — F(9, 68.1) = 8.79
Within VCE type: OLS — Prob > F = 0.0000

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-30.53829	78.75149	-0.39	0.699	-187.731	126.6544
Sex	0	(omitted)				
w1Age	-5.847431	5.110536	-1.14	0.257	-16.04714	4.352277
Race	40.87788	90.73672	0.45	0.654	-140.1883	221.944
PovStat	-271.724	85.1378	-3.19	0.002	-441.6228	-101.8251
TIME_V1SCAN	-.0305372	.063733	-0.48	0.633	-.1577429	.0966684
w1BMI	4.031001	7.59753	0.53	0.597	-11.12939	19.19139
w1currdrugs	-124.3501	100.9432	-1.23	0.222	-325.7918	77.09149
w1SRH	109.3882	50.78485	2.15	0.035	8.048597	210.7277
ICV_volM2	.0021727	.0003239	6.71	0.000	.0015263	.0028191
_cons	907.1967	645.0475	1.41	0.164	-379.9663	2194.36

```
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 = 80
Average RVI = 0.0101
Largest FMI = 0.0245
Complete DF = 70
DF adjustment: Small sample — DF: min = 65.95
avg = 67.29
max = 68.05
Model F test: Equal FMI — F(9, 68.0) = 9.44
Within VCE type: OLS — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-2.504528	81.29729	-0.03	0.976	-164.822	159.8129
Sex	0	(omitted)				
w1Age	-7.120972	5.269072	-1.35	0.181	-17.63887	3.396922
Race	58.51565	93.45105	0.63	0.533	-127.9843	245.0156
PovStat	-237.4398	87.60549	-2.71	0.009	-412.2727	-62.60697
TIME_V1SCAN	.0282498	.0657571	0.43	0.669	-.1030246	.1595242
w1BMI	10.0931	7.808484	1.29	0.201	-5.488301	25.6745
w1currdrugs	-182.832	104.3531	-1.75	0.084	-391.1399	25.47598
w1SRH	73.6027	52.23015	1.41	0.163	-30.62408	177.8295
ICV_volM2	.0024858	.0003329	7.47	0.000	.0018216	.0031501
_cons	487.8266	662.8082	0.74	0.464	-834.7708	1810.424

```
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 = 80
Average RVI = 0.0037
Largest FMI = 0.0305
Complete DF = 70
DF adjustment: **Small sample** — DF: min = 65.25
avg = 67.74
max = 68.08
Model F test: **Equal FMI** — F(9, 68.1) = 0.84
Within VCE type: **OLS** — Prob > F = 0.5832

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	1.361715	.7596953	1.79	0.078	-.1542373	2.877668
Sex	0	(omitted)				
w1Age	-.0465192	.049406	-0.94	0.350	-.1451068	.0520683
Race	1.222521	.881319	1.39	0.170	-.5361914	2.981234
PovStat	.2563841	.8251153	0.31	0.757	-1.390082	1.902851
TIME_V1SCAN	-.000598	.0006156	-0.97	0.335	-.0018264	.0006304
w1BMI	-.0295102	.0737517	-0.40	0.690	-.1766764	.1176559
w1currdrugs	.3542368	.99214	0.36	0.722	-1.627061	2.335535
w1SRH	-.1018634	.4928564	-0.21	0.837	-1.085329	.881602
ICV_volM2	4.18e-07	3.14e-06	0.13	0.895	-5.86e-06	6.69e-06
_cons	5.02796	6.262149	0.80	0.425	-7.46785	17.52377

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

456 .
457 .
```

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

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

Multiple-imputation estimates — Imputations = **5**
Linear regression — Number of obs = **99**
Average RVI = **0.0059**
Largest FMI = **0.0487**
Complete DF = **90**
DF adjustment: **Small sample** — DF: min = **80.37**; avg = **87.04**; max = **88.02**
Model F test: **Equal FMI** — F(**8**, **88.0**) = **3.79**
Within VCE type: **OLS** — Prob > F = **0.0007**

TOTALBRAIN	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	**34749.19**	**22913.61**	**1.52**	**0.133**	**-10788.03**	**80286.42**
Sex	**0**	(omitted)				
w1Age	**-3474.628**	**1124.67**	**-3.09**	**0.003**	**-5709.784**	**-1239.472**
Race	**-48206.65**	**16203.92**	**-2.97**	**0.004**	**-80408.45**	**-16004.86**	
PovStat	**-13953.94**	**18718.63**	**-0.75**	**0.458**	**-51153.86**	**23245.98**
TIME_V1SCAN	**-2.510657**	**13.12299**	**-0.19**	**0.849**	**-28.59014**	**23.56883**
w1BMI	**1489.245**	**1153.626**	**1.29**	**0.200**	**-803.4211**	**3781.912**
w1currdrugs	**-13582.28**	**19731.73**	**-0.69**	**0.493**	**-52846.92**	**25682.37**
w1SRH	**26172.6**	**10132.01**	**2.58**	**0.011**	**6037.36**	**46307.83**
_cons	**1172859**	**83464.02**	**14.05**	**0.000**	**1006987**	**1338730**

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

Multiple-imputation estimates — Imputations = **5**
Linear regression — Number of obs = **99**
Average RVI = **0.0100**
Largest FMI = **0.0707**
Complete DF = **90**
DF adjustment: **Small sample** — DF: min = **75.26**; avg = **86.20**; max = **87.88**
Model F test: **Equal FMI** — F(**8**, **88.0**) = **5.38**
Within VCE type: **OLS** — Prob > F = **0.0000**

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	**17400.68**	**12794.44**	**1.36**	**0.177**	**-8027.928**	**42829.28**
Sex	**0**	(omitted)				
w1Age	**-2406.871**	**627.9778**	**-3.83**	**0.000**	**-3654.991**	**-1158.751**
Race	**-36678.45**	**9037.279**	**-4.06**	**0.000**	**-54638.49**	**-18718.41**
PovStat	**-6379.578**	**10443.67**	**-0.61**	**0.543**	**-27135.23**	**14376.07**
TIME_V1SCAN	**.4100519**	**7.324902**	**0.06**	**0.955**	**-14.14754**	**14.96764**
w1BMI	**884.047**	**643.9578**	**1.37**	**0.173**	**-395.797**	**2163.891**
w1currdrugs	**-15408.18**	**11116.56**	**-1.39**	**0.170**	**-37552.25**	**6735.896**
w1SRH	**11986.91**	**5654.24**	**2.12**	**0.037**	**749.8403**	**23223.99**
_cons	**702017.4**	**46587.16**	**15.07**	**0.000**	**609428**	**794606.8**

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

Multiple-imputation estimates — Imputations = **5**
Linear regression — Number of obs = **99**
Average RVI = **0.0026**
Largest FMI = **0.0207**
Complete DF = **90**
DF adjustment: **Small sample** — DF: min = **85.63**
avg = **87.72**
max = **88.04**
Model F test: **Equal FMI** — F(**8**, **88.0**) = **2.30**
Within VCE type: **OLS** — Prob > F = **0.0272**

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	18536.83	11154.69	1.66	0.100	-3630.682	40704.35
Sex	0	(omitted)				
w1Age	-1379.347	547.104	-2.52	0.013	-2466.596	-292.0982
Race	-8627.95	7895.596	-1.09	0.277	-24318.7	7062.798
PovStat	-7586.214	9117.03	-0.83	0.408	-25704.39	10531.96
TIME_V1SCAN	-2.50473	6.393401	-0.39	0.696	-15.21032	10.20086
w1BMI	785.6512	561.7546	1.40	0.165	-330.73	1902.032
w1currdrugs	5569.716	9484.012	0.59	0.559	-13285.05	24424.48
w1SRH	12609.13	4937.937	2.55	0.012	2795.991	22422.27
_cons	436691.6	40663.74	10.74	0.000	355879.4	517503.9

```
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 = **99**
Average RVI = **0.0208**
Largest FMI = **0.1707**
Complete DF = **89**
DF adjustment: **Small sample** — DF: min = **50.49**
avg = **82.98**
max = **87.06**
Model F test: **Equal FMI** — F(**9**, **86.9**) = **5.41**
Within VCE type: **OLS** — Prob > F = **0.0000**

Left_Hippo~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	29.02371	79.1136	0.37	0.715	-128.2325	186.2799
Sex	0	(omitted)				
w1Age	-7.459926	3.90505	-1.91	0.059	-15.22292	.3030719
Race	-149.8196	58.13815	-2.58	0.012	-265.3745	-34.26478
PovStat	-92.92339	63.58707	-1.46	0.148	-219.3166	33.46982
TIME_V1SCAN	.0349636	.044453	0.79	0.434	-.0533934	.1233206
w1BMI	1.907262	3.945258	0.48	0.630	-5.935246	9.74977
w1currdrugs	-8.673996	71.73344	-0.12	0.904	-152.72	135.372
w1SRH	-88.69922	35.99331	-2.46	0.016	-160.2393	-17.15913
ICV_volM2	.0012705	.0003061	4.15	0.000	.000662	.0018789
_cons	2511.039	483.4473	5.19	0.000	1549.975	3472.103

```
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 = 99
Average RVI = 0.0162
Largest FMI = 0.1365
Complete DF = 89
DF adjustment: **Small sample** — DF: min = 58.25
avg = 83.85
max = 87.05
Model F test: **Equal FMI** — F(9, 86.9) = 7.11
Within VCE type: **OLS** — Prob > F = 0.0000

Right_Hipp~s	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	-25.16578	85.42697	-0.29	0.769	-194.971	144.6395
Sex	0	(omitted)				
w1Age	-2.820784	4.213084	-0.67	0.505	-11.19584	5.554267
Race	-148.9189	62.78163	-2.37	0.020	-273.7032	-24.13473
PovStat	-61.97918	68.64242	-0.90	0.369	-198.4195	74.46118
TIME_V1SCAN	.0526639	.0480063	1.10	0.276	-.0427561	.1480839
w1BMI	-.38621	4.254906	-0.09	0.928	-8.84386	8.07144
w1currdrugs	4.816154	76.09846	0.06	0.950	-147.4975	157.1298
w1SRH	-98.45812	38.86685	-2.53	0.013	-175.7096	-21.20665
ICV_volM2	.0019752	.0003305	5.98	0.000	.0013183	.002632
_cons	1810.576	521.2797	3.47	0.001	774.3625	2846.789

```
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 = 99
Average RVI = 0.0039
Largest FMI = 0.0351
Complete DF = 89
DF adjustment: **Small sample** — DF: min = 82.23
avg = 86.52
max = 87.06
Model F test: **Equal FMI** — F(9, 87.0) = 2.64
Within VCE type: **OLS** — Prob > F = 0.0093

LnLesion_V~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	3.762832	1.299268	2.90	0.005	1.18038	6.345284
Sex	0	(omitted)				
w1Age	.0350561	.0639675	0.55	0.585	-.092088	.1622002
Race	1.475447	.9563487	1.54	0.127	-.4253802	3.376273
PovStat	1.275354	1.044201	1.22	0.225	-.8001096	3.350818
TIME_V1SCAN	-.0005587	.0007308	-0.76	0.447	-.0020113	.0008938
w1BMI	.1364834	.064684	2.11	0.038	.0079169	.26505
w1currdrugs	-.1566235	1.101902	-0.14	0.887	-2.348565	2.035318
w1SRH	-.443696	.5920766	-0.75	0.456	-1.620502	.7331098
ICV_volM2	5.29e-06	5.03e-06	1.05	0.296	-4.71e-06	.0000153
_cons	-16.28777	7.916856	-2.06	0.043	-32.02348	-.5520579

```
476 .
477 . save, replace
    file finaldata_imputed.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     =        179
                                                  Average RVI       =     0.0016
                                                  Largest FMI       =     0.0157
                                                  Complete DF       =        168
    DF adjustment:   Small sample                 DF:     min       =     161.94
                                                          avg       =     165.60
                                                          max       =     166.01
    Model F test:       Equal FMI                 F(  10,  166.0)   =      14.48
    Within VCE type:          OLS                 Prob > F          =     0.0000

------------------------------------------------------------------------------
  TOTALBRAIN | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     LnNFLw1 |   16413.45   23714.64     0.69   0.490    -30407.91    63234.81
             |
         Sex |
         Men |   162278.9   56969.22     2.85   0.005     49801.39    274756.5
             |
Sex#c.LnNFLw1|
         Men |  -13007.59   27091.35    -0.48   0.632    -66495.59     40480.4
             |
         Sex |           0  (omitted)
       w1Age |  -2656.733   972.9508    -2.73   0.007    -4577.698   -735.7681
        Race |  -67898.38   14607.85    -4.65   0.000     -96739.6   -39057.16
     PovStat |     268.038   16264.98     0.02   0.987    -31844.89    32380.97
TIME_V1SCAN  |  -23.00395   11.57588    -1.99   0.049    -45.85895   -.1489529
       w1BMI |   875.5038    1149.73     0.76   0.447    -1394.476    3145.483
  w1currdrugs |  -6503.549   17698.21    -0.37   0.714    -41452.58    28445.48
       w1SRH |   14116.94   9073.816     1.56   0.122    -3798.013    32031.89
       _cons |    1261934   77524.38    16.28   0.000      1108873     1414995
------------------------------------------------------------------------------

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

    Multiple-imputation estimates                 Imputations       =          5
    Linear regression                             Number of obs     =        179
                                                  Average RVI       =     0.0045
                                                  Largest FMI       =     0.0274
                                                  Complete DF       =        168
    DF adjustment:   Small sample                 DF:     min       =     157.11
                                                          avg       =     164.74
                                                          max       =     165.77
    Model F test:       Equal FMI                 F(  10,  166.0)   =      17.12
    Within VCE type:          OLS                 Prob > F          =     0.0000
```

GM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	11967.51	12580.83	0.95	0.343	-12872.15	36807.16
Sex						
Men	104940.3	30210.29	3.47	0.001	45293.68	164586.9
Sex#c.LnNFLw1						
Men	-17204.12	14369.4	-1.20	0.233	-45574.9	11166.67
Sex	0	(omitted)				
w1Age	-2297.564	516.6293	-4.45	0.000	-3317.622	-1277.507
Race	-47320.3	7747.246	-6.11	0.000	-62616.42	-32024.19
PovStat	-1052.117	8625.557	-0.12	0.903	-18082.3	15978.07
TIME_V1SCAN	-8.480767	6.148739	-1.38	0.170	-20.62116	3.659624
w1BMI	644.2913	609.5768	1.06	0.292	-559.2436	1847.826
w1currdrugs	-12781.25	9432.161	-1.36	0.177	-31411.46	5848.954
w1SRH	8564.013	4814.219	1.78	0.077	-941.1781	18069.2
_cons	746889.6	41108.41	18.17	0.000	665725.9	828053.2

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

Multiple-imputation estimates — Imputations = 5
Linear regression — Number of obs = 179
Average RVI = 0.0020
Largest FMI = 0.0125
Complete DF = 168
DF adjustment: Small sample — DF: min = 163.04
avg = 165.61
max = 165.97
Model F test: Equal FMI — F(10, 166.0) = 9.43
Within VCE type: OLS — Prob > F = 0.0000

WM	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	5302.028	11593.11	0.46	0.648	-17586.97	28191.03
Sex						
Men	61611.09	27863.34	2.21	0.028	6598.565	116623.6
Sex#c.LnNFLw1						
Men	-2608.206	13252.84	-0.20	0.844	-28774.29	23557.88
Sex	0	(omitted)				
w1Age	-775.138	475.5135	-1.63	0.105	-1713.973	163.6969
Race	-18779.55	7142.355	-2.63	0.009	-32881.19	-4677.918
PovStat	-3032.236	7951.936	-0.38	0.703	-18732.23	12667.75
TIME_V1SCAN	-12.63977	5.663726	-2.23	0.027	-23.82216	-1.457369
w1BMI	306.4309	562.1097	0.55	0.586	-803.3759	1416.238
w1currdrugs	7694.546	8638.462	0.89	0.374	-9363.143	24752.24
w1SRH	4255.613	4439.159	0.96	0.339	-4508.968	13020.19
_cons	494131.2	37910.69	13.03	0.000	419281.7	568980.8

```
. 
. 
. //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     =        179
                                                Average RVI       =     0.0045
                                                Largest FMI       =     0.0448
                                                Complete DF       =        167
DF adjustment:   Small sample                   DF:     min       =     147.05
                                                        avg       =     163.44
                                                        max       =     165.03
Model F test:       Equal FMI                   F(  11,  165.0)   =      12.88
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Left_Hippoc~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
--------------+---------------------------------------------------------------
      LnNFLw1 |    21.1934   77.94787     0.27   0.786    -132.7107    175.0975
              |
          Sex |
          Men |    206.9954   192.4662     1.08   0.284    -173.0194    587.0103
              |
Sex#c.LnNFLw1 |
          Men |   -112.3084   89.03696    -1.26   0.209    -288.1078    63.49104
              |
          Sex |           0  (omitted)
        w1Age |   -6.401839   3.200796    -2.00   0.047    -12.72164   -.0820327
         Race |   -89.57791   51.93315    -1.72   0.086    -192.1183     12.9625
      PovStat |   -143.1775   53.41138    -2.68   0.008    -248.6353   -37.71972
  TIME_V1SCAN |    .0262714   .0382832     0.69   0.494     -.049317    .1018597
        w1BMI |    3.212091   3.783636     0.85   0.397    -4.258532    10.68271
  w1currdrugs |   -33.71185   58.98192    -0.57   0.568    -150.2736    82.84987
        w1SRH |   -27.77903   29.99708    -0.93   0.356    -87.00682    31.44876
    ICV_volM2 |    .0016574    .000223     7.43   0.000     .0012172    .0020976
        _cons |    1827.169   399.1391     4.58   0.000     1039.089    2615.249
------------------------------------------------------------------------------

. 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     =        179
                                                Average RVI       =     0.0071
                                                Largest FMI       =     0.0679
                                                Complete DF       =        167
DF adjustment:   Small sample                   DF:     min       =     132.60
                                                        avg       =     162.16
                                                        max       =     165.03
Model F test:       Equal FMI                   F(  11,  165.0)   =      15.05
Within VCE type:          OLS                   Prob > F          =     0.0000

------------------------------------------------------------------------------
Right_Hippo~s | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
--------------+---------------------------------------------------------------
      LnNFLw1 |    26.38323   80.45918     0.33   0.743    -132.4801    185.2466
              |
          Sex |
          Men |     111.173   198.6604     0.56   0.577    -281.0738    503.4197
              |
Sex#c.LnNFLw1 |
          Men |    -103.287   91.92294    -1.12   0.263    -284.7862    78.21221
              |
          Sex |           0  (omitted)
        w1Age |   -4.737509   3.302745    -1.43   0.153     -11.2586    1.783587
```

Race	-85.71308	53.61455	-1.60	0.112	-191.5743	20.1481
PovStat	-119.6892	55.11477	-2.17	0.031	-228.5102	-10.86814
TIME_V1SCAN	.0614334	.0395257	1.55	0.122	-.016609	.1394759
w1BMI	3.33277	3.9045	0.85	0.395	-4.376502	11.04204
w1currdrugs	-48.57421	61.57083	-0.79	0.432	-170.3623	73.21384
w1SRH	-34.34342	30.96626	-1.11	0.269	-95.48522	26.79837
ICV_volM2	.0020935	.0002301	9.10	0.000	.0016392	.0025478
_cons	1386.502	411.8904	3.37	0.001	573.2448	2199.759

```
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 = 179
Average RVI = 0.0021
Largest FMI = 0.0214
Complete DF = 167
DF adjustment: Small sample — DF: min = 158.84
avg = 164.47
max = 165.03
Model F test: Equal FMI — F(11, 165.0) = 2.84
Within VCE type: OLS — Prob > F = 0.0020

LnLesion_Vo~e	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
LnNFLw1	4.15532	.9695555	4.29	0.000	2.240982	6.069657
Sex						
Men	6.613561	2.39377	2.76	0.006	1.887191	11.33993
Sex#c.LnNFLw1						
Men	-3.060341	1.107297	-2.76	0.006	-5.246642	-.8740399
Sex	0	(omitted)				
w1Age	-.0183734	.039811	-0.46	0.645	-.096978	.0602312
Race	1.404835	.6456858	2.18	0.031	.1299578	2.679713
PovStat	.8544464	.6643375	1.29	0.200	-.45725	2.166143
TIME_V1SCAN	-.0005121	.0004761	-1.08	0.284	-.0014521	.000428
w1BMI	.0927368	.0470479	1.97	0.050	-.0001569	.1856304
w1currdrugs	-.2610874	.7251916	-0.36	0.719	-1.693349	1.171174
w1SRH	-.2757738	.3730557	-0.74	0.461	-1.012352	.4608047
ICV_volM2	2.16e-06	2.77e-06	0.78	0.437	-3.32e-06	7.63e-06
_cons	-9.020875	4.963948	-1.82	0.071	-18.82192	.7801648

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

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