We use the variance-Covariance from this model to perform power for Aim 1

Mixed-effects REML regression Number of obs = 107,551

Group variable: newid Number of groups = 28,846

Obs per group:

min = 1

avg = 3.7

max = 20

Wald chi2(22) = 22817.04

Log restricted-likelihood = -344681.28 Prob > chi2 = 0.0000

---------------------------------------------------------------------------------------------

gcp | Coef. Std. Err. z P>|z| [95% Conf. Interval]

----------------------------+----------------------------------------------------------------

cogtime\_y2 | -.1376132 .0150696 -9.13 0.000 -.167149 -.1080773

1.black | -4.898359 .2459591 -19.92 0.000 -5.38043 -4.416288

mean\_glu\_all | -.004 .0015016 -2.66 0.008 -.006943 -.001057

|

black#c.cogtime\_y2 |

1 | -.0199922 .0094223 -2.12 0.034 -.0384596 -.0015247

|

black#c.mean\_glu\_all |

1 | -.0048507 .0021242 -2.28 0.022 -.0090141 -.0006874

|

c.mean\_glu\_all#c.cogtime\_y2 | -.0009594 .0001423 -6.74 0.000 -.0012383 -.0006805

|

cohortd |

Carida | .3275705 .1314993 2.49 0.013 .0698367 .5853043

Chs | -2.981228 .104458 -28.54 0.000 -3.185962 -2.776494

fos | 1.200276 .1178717 10.18 0.000 .969252 1.431301

Mesa | .4980296 .1410168 3.53 0.000 .2216417 .7744176

Nomas | -1.12063 .1951793 -5.74 0.000 -1.503174 -.7380856

|

1.female0 | 2.115205 .0719928 29.38 0.000 1.974102 2.256308

educ1 | -10.98476 .1549603 -70.89 0.000 -11.28848 -10.68104

educ2 | -7.690571 .1308013 -58.80 0.000 -7.946936 -7.434205

educ3 | -3.84763 .0901239 -42.69 0.000 -4.02427 -3.670991

educ4 | -2.548555 .103754 -24.56 0.000 -2.751909 -2.345201

|

bmicat |

1 | -.0781341 .0847951 -0.92 0.357 -.2443294 .0880612

2 | .1269291 .0969497 1.31 0.190 -.0630887 .3169469

|

smoke | -.5102029 .0956151 -5.34 0.000 -.6976051 -.3228007

physact | .7936346 .0990547 8.01 0.000 .5994911 .9877782

hxafib | -2.224574 .2856191 -7.79 0.000 -2.784377 -1.664771

htntx | -.98213 .0824916 -11.91 0.000 -1.14381 -.8204495

\_cons | 56.15797 .1948422 288.22 0.000 55.77609 56.53986

---------------------------------------------------------------------------------------------

------------------------------------------------------------------------------

Random-effects Parameters | Estimate Std. Err. [95% Conf. Interval]

-----------------------------+------------------------------------------------

newid: Unstructured |

var(cogtim~2) | .0938907 .0022642 .0895562 .098435

var(\_cons) | 27.37622 .3443094 26.70964 28.05944

cov(cogtim~2,\_cons) | -.3132447 .0243398 -.3609498 -.2655396

-----------------------------+------------------------------------------------

var(Residual) | 21.05299 .1179094 20.82316 21.28536

------------------------------------------------------------------------------

LR test vs. linear model: chi2(3) = 39135.64 Prob > chi2 = 0.0000