Ilana’s work plan, summer 2019

May 28 – June 1:

* Revise abstracts
* Meet with Gary (?)
* Get salary figured out

June 3-14: Ilana in Scotland

Remainder of summer:

* Less math, more simulations
* Maya will help simulate data
  + Maya will generate data, Ilana will work on missingness algorithm
* Only worry about full rank X

Specific tasks

* Brandy will show Ilana where she to store files and how to document
* Finish Bonferroni correction proof
* Make data generator that can generate correlated outcomes for different sample sizes, percentages of missingness, correlations between outcomes (sigma), and betas.
  + Is this what Maya will work on as well?
  + Generate Gaussian data using missingness mechanism developed by Qaqish
    - Kevin Josey paper describes mechanism, as well as Qaqish paper in dropbox folder
  + Start with full Y, sick the gremlin on it, then generate X (or else may run into less than full rank X)
  + Continuous Y
* Pick betas for testing under the alternative
  + Search algorithm
  + Pick so complete data has power of 0.2, 0.5, 0.8
* Run GEE and mixed models on simulated data
  + Tabulate Type I error, convergence, biasedness of estimates, and power
* Literature review

Things to keep in mind:

* We can talk to Katerina or Harry Smith about CPG data
* F31 grant
* Ilana has funding from BIOS department to use on a conference