Chart

Description automatically generated

How to use the app?

1. Convert your data set as a CSV file. Make sure to name the outcome as Y and the binary treatment as A
2. Make sure you installed the package “Shiny” in R
3. In R session, run shiny::runApp(PATH), where PATH is the path of the folder
   1. Eg: shiny::runApp("~/Desktop/HuangGroup/cvtmle\_plasmode/Code/SMILE4")
4. Set the “Path of the data” to your data path
5. Set 4 models and other parameters
   1. Models should in format of R formula: https://stat.ethz.ch/R-manual/R-devel/library/stats/html/formula.html
6. Click the “Run” button

What does this do?

This tool is mainly used to check the appropriateness of the effect estimation on the average treatment effect (ATE). After one obtains an estimate, the program simulates multiple datasets using the linear model with the estimated parameter. We then use the same model to perform estimation on the simulated datasets. If it gives too much bias or less than the nominal coverage, then it might not be a good method given the covariate structure presented in the dataset.

Q&A:

1. How the plasmode are run when you open the program (re-estimated every time you hit run? So there may be different estimates each time).
   1. There is a place we can set seed. If we fix the seed then the result will change everytime we click run. Right now the seed is hard-coded.
2. How the (true) fixed effect size is determined.
   1. The true fixed effect size is determined by performing the selected estimation method using the full data.