Day 3, Session 1: Installing R and RStudio

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EPI/BIOST Bootcamp 2018

25 September 2018

Learning objectives

By the end of this session, you should be able to

- **describe** some of the advantages of using R
- **describe** some of the advantages of using RStudio
- **install** R and RStudio on your own computer

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While R is sometimes said to have a steep learning curve, it is relatively easy to get set up with the basics and analyze some data.

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- Sometimes packages don't do what they say they do...
  - ...but you can trust basically anything written by the R Core Team, the RStudio Team, Hadley Wickham, or Yihui Xie

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It includes a console, text editor that allows for direct execution of code, as well as tools for importing/exporting data, plotting, file management, and debugging. (We will cover all of these terms later!)

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The only downside to RStudio is that it takes a decent amount of memory to run... but for most purposes, this isn't a problem.

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- write R scripts to save your work, along with comments for what your code does
- write reports with code embedded (using Rmarkdown)
- organize your data analysis workflow (e.g., reading in data, access help files)

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The combination of R and RStudio makes reproducible research attainable by everyday users. The RStudio environment has many easy options to facilitate this through R, and a lot of support behind the scenes.

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   - Windows users, select install R for the first time
   - Mac users, click the R-[replace with most recent version number].pkg link and install
   - Linux users, I assume you know what you are doing

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5. Choose the correct installer for your operating system and click the link