Please “sign in” by sending an email to juliegil@umich.edu

Introduction to RShiny

MICOM - Marisa Eisenberg & Julie (Jules) Gilbert

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Agenda

10:45am - 11:00am

- Introductions & Set-up

11:00am-12:00pm

- Hands-on Learning!

12:00pm-12:30pm

- Questions, Applications & Uses, Discussion

Set-up

You should have:

- R & RStudio Installed
- R libraries of:
  - Tidyverse - `install.packages("tidyverse")`
  - Lubridate - `install.packages("lubridate")`
  - Reshape2 - `install.packages("reshape2")`
  - Shiny - `install.packages("shiny")`
- Download [example_wchd] folder and place it in your Documents folder

Introductions

- Marisa Eisenberg
- Julie (Jules) Gilbert
- Round table

What is RShiny?

- R library to build web apps
- Interactive R
- Examples
  - https://shiny.posit.co/r/gallery/#user-showcase
  - https://shiny.posit.co/py/gallery/
  - http://um.wastewatermonitoring.dataepi.org (made by Jules!)
  - http://dataepi.org/#vaccine-projections (really silly example by me from a while ago)

Open RStudio

Type

```
library(shiny)
runExample("01_hello")
```

into your Console

Edit & Play with example_wchd/app.R

Navigate to the folder where you placed [example_wchd] and double click on app.R - this will open it in RStudio

Click “Run App” to see what it looks like 

Add a new chart to example_wchd/app.R

- Goal: Add a full date range view of a particular air detection to the app view
- We'll need:
  - A new date range selector? Or can we use the single one that's there?
  - Build a new reactive function
  - Build a new renderPlot function
  - Add plot to the UI

Ultimately = Build + Publish

- Don’t necessarily have to publish (you can just run the app locally)
- Publishing looks different depending on goals/security requirements/etc.

https://shiny.posit.co/r/getstarted/shiny-basics/lesson7/