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## Introduction to RShiny

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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**

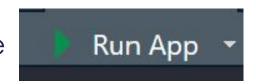
#### Type

```
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/