




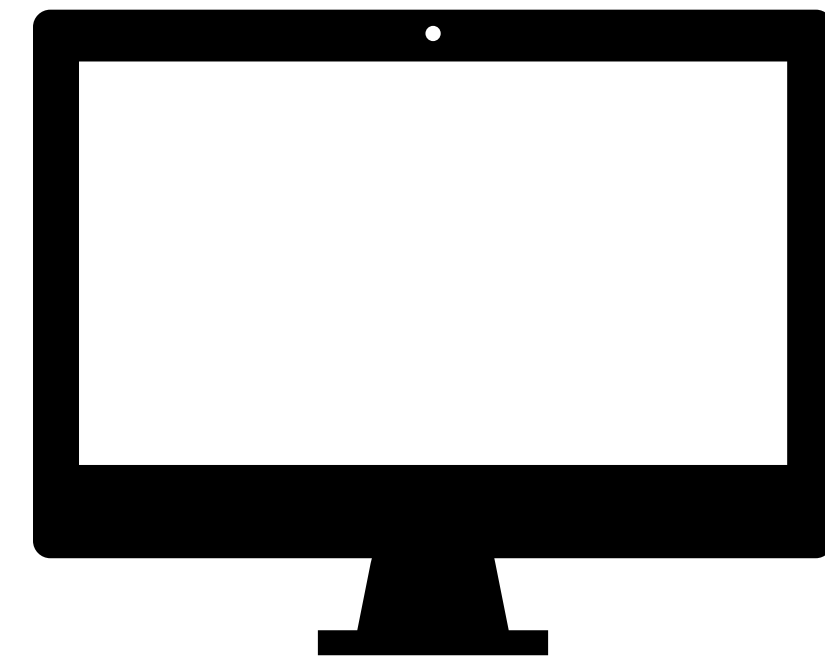
Building dashboards with flexdashboard

Mine Çetinkaya-Rundel



@minebocek 
mine-cetinkaya-rundel 
mine@rstudio.com 

gallery.shinyapps.io/nhanesdash/



DEMO



Dashboards

- Built in layouts and UI elements
- Good venue for displaying automatically updating data
- May or may not be interactive



UI

- Static:
 - R code runs once and generates an HTML page
 - Generation of this HTML can be scheduled
- Dynamic:
 - Client web browser connects to an R session running on server
 - User input causes server to do things and send information back to client
 - Interactivity can be on client and server
 - Can update data in real time
- User potentially can do anything that R can do



Building a dashboard



1. Set up the YAML

```
---  
title: "NHANES explorer"  
output:  
  flexdashboard::flex_dashboard:  
    orientation: rows  
    social: menu  
    source_code: https://github.com/rstudio-education/shiny-rmed18/blob/master/01-flexdash/nhanesdash.Rmd  
runtime: shiny  
---
```

NHANES explorer

Dashboard

Data



Source Code



2. Pick a layout

```
1 ---
2 title: "Row Orientation"
3 output:
4   flexdashboard::flex_dashboard:
5     orientation: rows
6   ---
7
8   Row
9   -----
10
11  ### Chart 1
12
13  ```{r}
14
15  ```
16
17  Row
18  -----
19
20  ### Chart 2
21
22  ```{r}
23
24  ```
25
26  ### Chart 3
27
28  ```{r}
29
30  ```
31
```

Chart 1

Chart 2

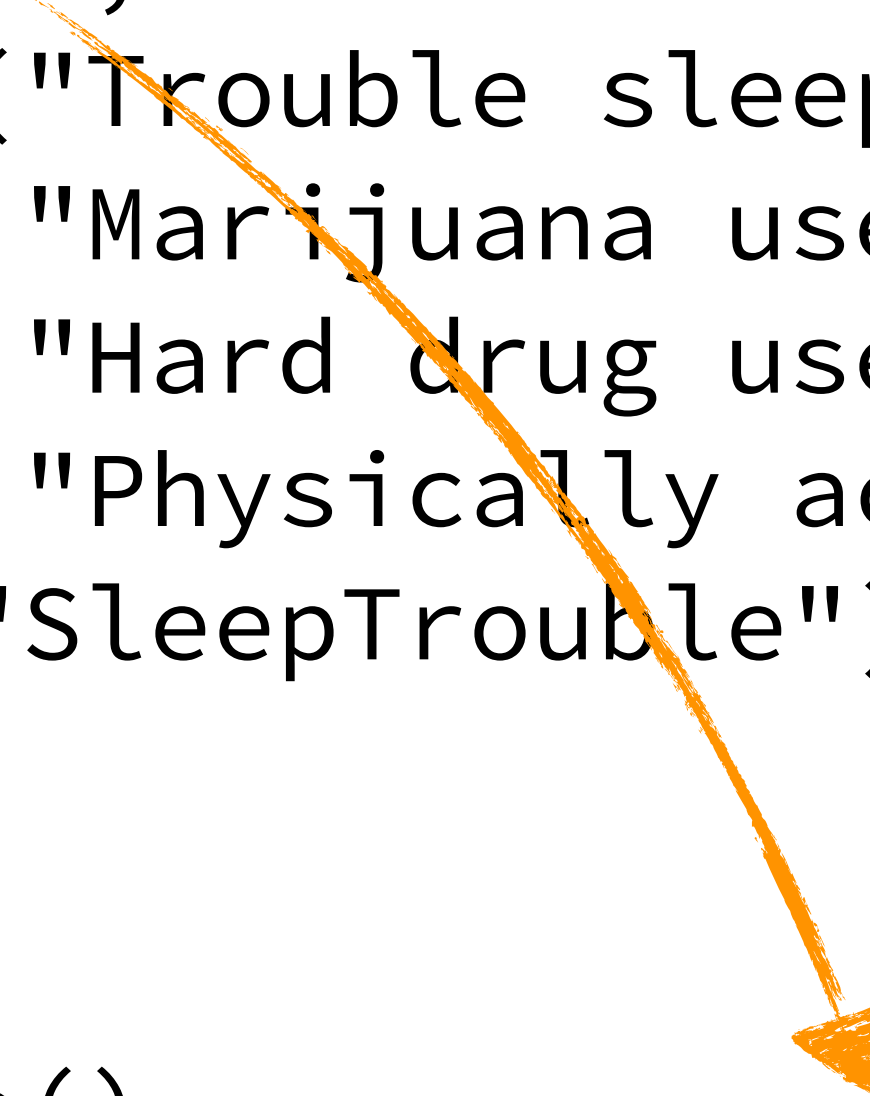
Chart 3



3. Use R Markdown and/or Shiny code to add components

```
selectInput(inputId = "x", label = "",  
            choices = c("Trouble sleeping" = "SleepTrouble",  
                        "Marijuana use" = "Marijuana",  
                        "Hard drug use" = "HardDrugs",  
                        "Physically active" = "PhysActive"),  
            selected = "SleepTrouble")
```

```
renderPlot({  
  ggplot(data = sel_data(),  
        mapping = aes_string(x = input$x, y = "AlcoholYear")) +  
    geom_boxplot() +  
    coord_flip() +  
    labs(x = xlab(), y = "")},  
height = 275, width = 650)
```



Your turn

```
checkboxGroupInput(  
  inputId = "survey_year", label = "Survey year",  
  choices = c("2011 - 2012" = "2011_12",  
              "2009 - 2010" = "2009_10"),  
  selected = "2011_12")
```



Survey year

☒ 2011 - 2012

☐ 2009 - 2010

- Open `nhanesdash.Rmd`
- Change the default selection of survey year to the 2009 - 2010 survey
- Run the app
- Select view mode in the drop down menu next to Run App to Preview in Viewer Pane
- Rerun the app



3_m 00_s

