




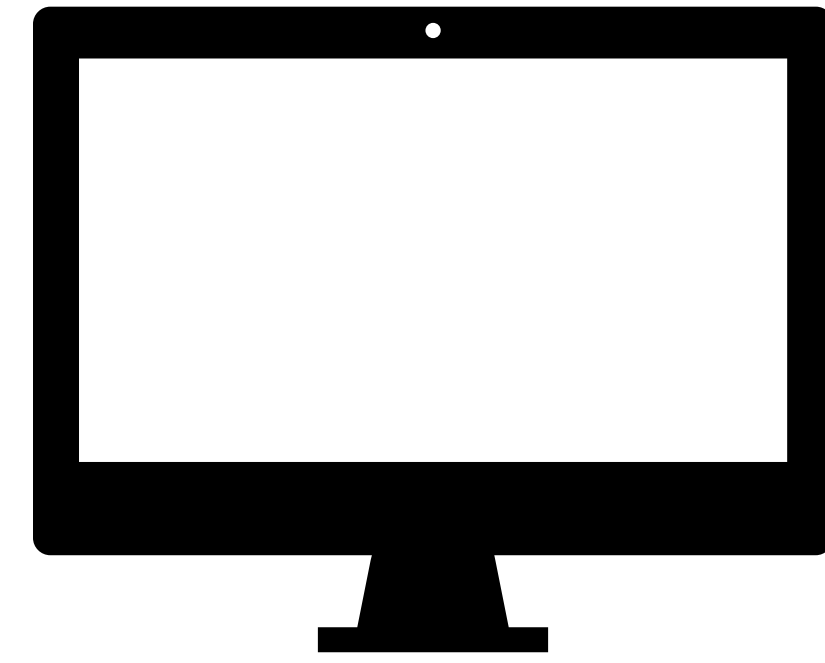
# Building dashboards with flexdashboard

Mine Çetinkaya-Rundel



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

[gallery.shinyapps.io/nhanesdash/](https://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

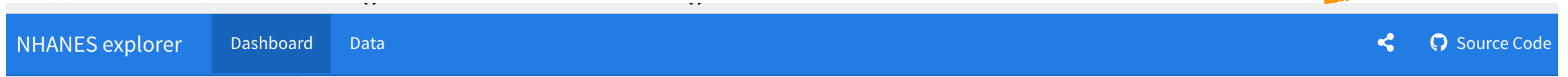


# Building a dashboard



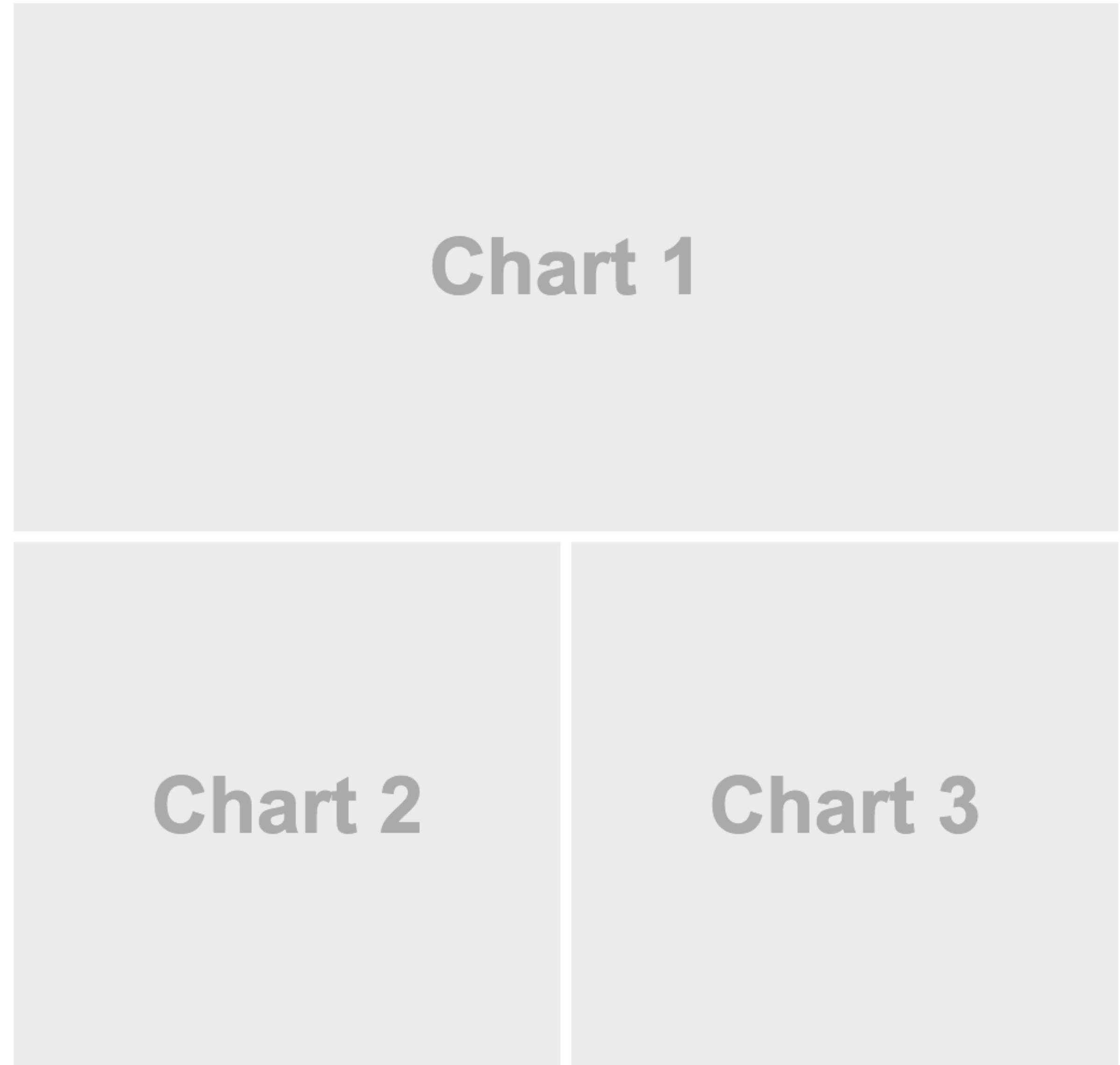
# 1. Set up the YAML

```
---  
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  
---
```



## 2. Pick a layout

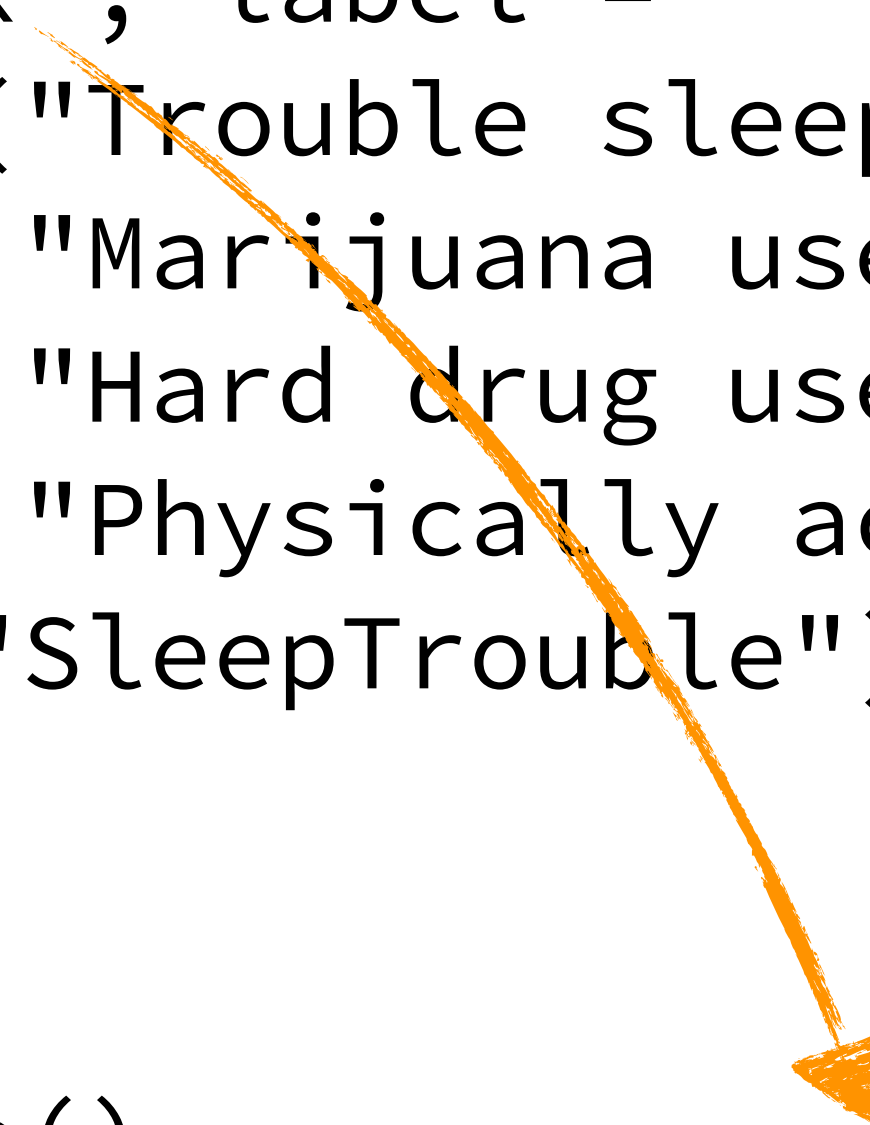
```
1 |---
2 | title: "Row Orientation"
3 | output:
4 |   flexdashboard::flex_dashboard:
5 |     orientation: rows
6 | ---
7 |
8 | Row
9 | -----
10 |
11 | ### Chart 1
12 |
13 | ```{r}
14 |
15 | ```
16 |
17 | Row
18 | -----
19 |
20 | ### Chart 2
21 |
22 | ```{r}
23 |
24 | ```
25 |
26 | ### Chart 3
27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



### 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

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