

# Visualization dashboards in healthcare

# Introduction

- Healthcare systems generate lots of big data
- Question is how to take advantage of them and gain insight?
- Vis dashboards!
- My survey paper aims to:
  - Describe why vis dashboards are used in healthcare
  - What content is included in dashboards
  - How to show them
  - Technical challenges of creating/implementing dashboards

# Content/How data displayed

- Question dependent
  - Hospital performance: visuals about staff, patient, revenue, costs
    - Data usually displayed with bar charts and pie graphs
  - Clinical trials: visuals about efficiency of drug
    - data usually displayed with scatterplots to show range between months/years
- Some dashboards can include more than 1 type of domain
  - Combination of bar charts, scatterplots, pie graphs
    - To answer the same question OR
    - To answer different questions

# My progress so far

- 25 research papers identified
  - Previous survey papers
  - Papers on dashboards
  - Papers on dashboards in healthcare systems
- Currently categorizing information:
  - Those about technical challenges
  - Those about what content to include in dashboards
  - Those about how to visualize data ~ which domains are used, which are most popular?

# My progress so far II

- Adding paragraphs to paper, divided into sections
  - Introduction → what is data vis, what are dashboards, why dashboards are useful in healthcare systems
  - What content is included in dashboards
  - How are they shown in dashboards
    - What data vis domains are used?
  - What are some technical challenges in vis dashboard implementation?
- May add other subtopics later