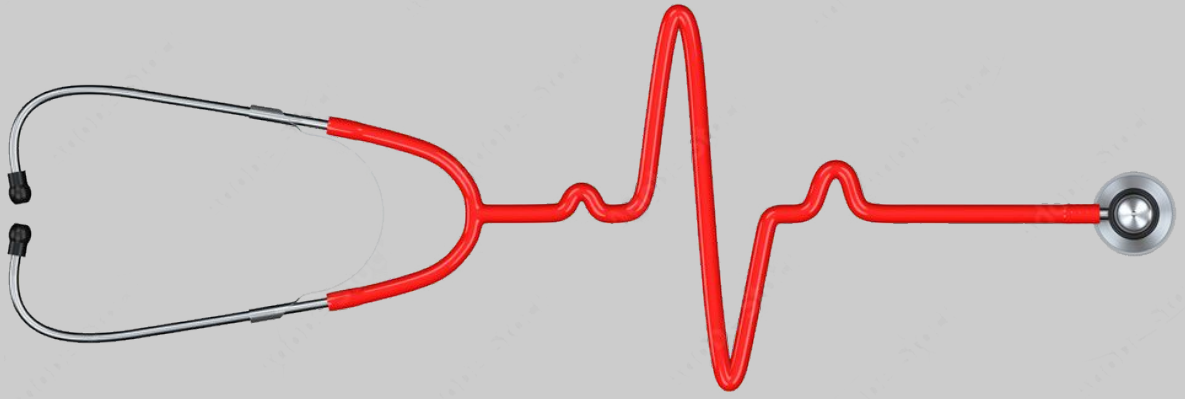


Stroke Predictor

University of Minnesota Data Visualization and Analytics Boot Camp

Team 2 — Janice Courtois, Alex Norgren, Tom Pankratz, Rachel Rautenberg

June 9, 2022

Team 2

Team 2 members all work at Mayo Clinic.

Janice Courtois

Alex Norgren

Tom Pankratz

- Optimization Mgr
- 19 years at Mayo
- Dad of 4
- Never a dull moment

Rachel Rautenberg

- Holds MHA
- 14 years at Mayo
- Mom of 4
- Enjoys the chaos

Have you wondered what a stroke is?

TBD ...

Top stroke risks ...

TBD ...

Reasons for selecting stroke mortality

All four team members work in health care at Mayo Clinic, so there was a desire to answer questions related to our industry. Also, several team members have family members who have had strokes, including a grandfather and a father, so the topic is personal as well and any insights gleaned will be helpful to better understand various factors that could lead to a stroke.

Selected topic: Stroke mortality

The goal of this project is to find out if we are able to predict which factors may correlate (and possibly contribute) to higher **stroke mortality rates** within the United States.

Potential factors

Factors that were explored, trained and tested through a machine learning model included:

Health-related factors:

- Smoking
- Obesity
- Access to healthy foods
- Access to exercise opportunities
- Primary care availability
- Availability of mental health providers

Social-related factors:

- College education
- Unemployment
- Income
- Violent crime rate
- Air pollution
- Length and type of commute to work
- Urban vs. rural

Source data

Factors that were explored, trained and tested through a machine learning model included:

- **Stroke Mortality Data Among US Adults (35+) by State/Territory and County (2018)**
  - Data.gov
  - Publisher: Centers for Disease Control and Prevention
  - This dataset is intended for public access and use.
  - https://catalog.data.gov/dataset/stroke-mortality-data-among-us-adults-35-by-state-territory-and-county-2017-2019-d738a
- **County Health Rankings (2018)**
  - Countyhealthrankings.org
  - Publisher: University of Wisconsin Population Health Institute (Program: County Health Rankings & Roadmaps (CHR&R))
  - https://www.countyhealthrankings.org/explore-health-rankings/rankings-data-documentation/national-data-documentation-2010-2019

Questions hoped to get answered

- Are we able to predict potential stroke mortality rates based on a set of health-related or social-related factors?
- Are there certain factors that are more important than others?

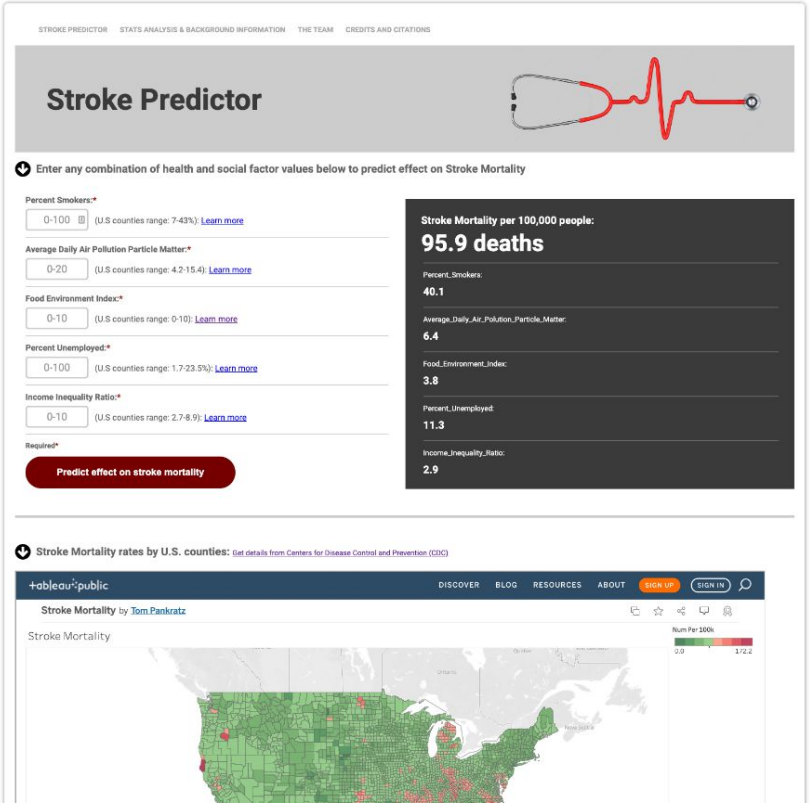
The data exploration phase

Description coming …

The analysis phase

Description coming …

The input form and dashboard



Description coming …