

Cleveland HealthPulse

Team Members: Vino Sundaram, Myron Bennett, Brittany Parsons, Matthew Vance, Vimig Socrates, Alli Davinia

The Idea

- The Cleveland Department of Public Health (CDPH) seeks to find an innovative and visual way to utilize social media analytics to better understand health and illness trends and patterns in the City of Cleveland, Ohio
- Additionally, CDPH desires to use predictive analytics, using the findings from social media and population health data.

The Solution

- A website where users can choose the health indicator, the social media platform, and the population health data.
- After selecting all variables, the interface produces a map where the variables can be added as layers, in order to show the relationship between all variables

Data Visualization

- First question was to identify possible data sources. Our Team Leader provided us with Cleveland Health data resources. We mined further to find specialized data from these findings.
- Second step was to take a step back and look at out “data pool.” “What data did we have? Did it have any use in our mission or goals? What could it tell us?”
- After combing the “possibles” we refocused on our mission and used Medical Examiner death data to identify incidents and social media.
- Through this the important question developed. Data point Y and Data point X....can they be overlaid? Using the Google Maps API, this was done.

The Technology

- Server: Heroku
 - Cloud-based platform-as-a-service
- Data Layer: MySQL
 - Open-source RDBMS
- Business Layer: PHP
 - Open-source scripting language for web development
- Presentation Layer:
 - Bootstrap: Open-source front-end development framework
 - jQuery: Open-source Javascript framework
 - Leaflet: Open-source Javascript library to create maps

The Interface

<http://clevelandhealthpulse.herokuapp.com/>