Statistics Canada - LODE and COVID-19 Visualization

Shreeram Murali, Sofia Bahmutsky, Ngan Lyle, Kaitlyn Hobbs

Team Introduction

Sofia

KT

Ngan

Shreeram

Summary of Client

Statistics Canada Statistique Canada

Contacts: Bruno St-Aubin, Marian Radulescu

Weekly Meetings: Wednesdays at 11:30 AM

Aims:

(1) Assess the quality and possible improvement of our open data sources.

(2) Build a product that shows that the open data sources we've produced are useable in complex analytical cases.

Introduction

- Coronavirus/COVID-19 Pandemic
- First appeared in China December 31, 2019
- Rapid spread
  - > 180 countries
  - > 3 million cases
  - > 230,000 deaths
- In Canada
  - Almost 60,000 confirmed cases
  - Almost half of deaths in seniors living in long term care facilities

Data

(1) *Ontario provincial health COVID-19 data* - *.CSV*

(2) *Open Database for Health Facilities* (ODHF) - .CSV

(3) Open Database of Buildings (ODB) data for Ontario - Spatial files

(4) Potentially, *Proximity Data* for transit, health care, pharmacies.

Statement of Work

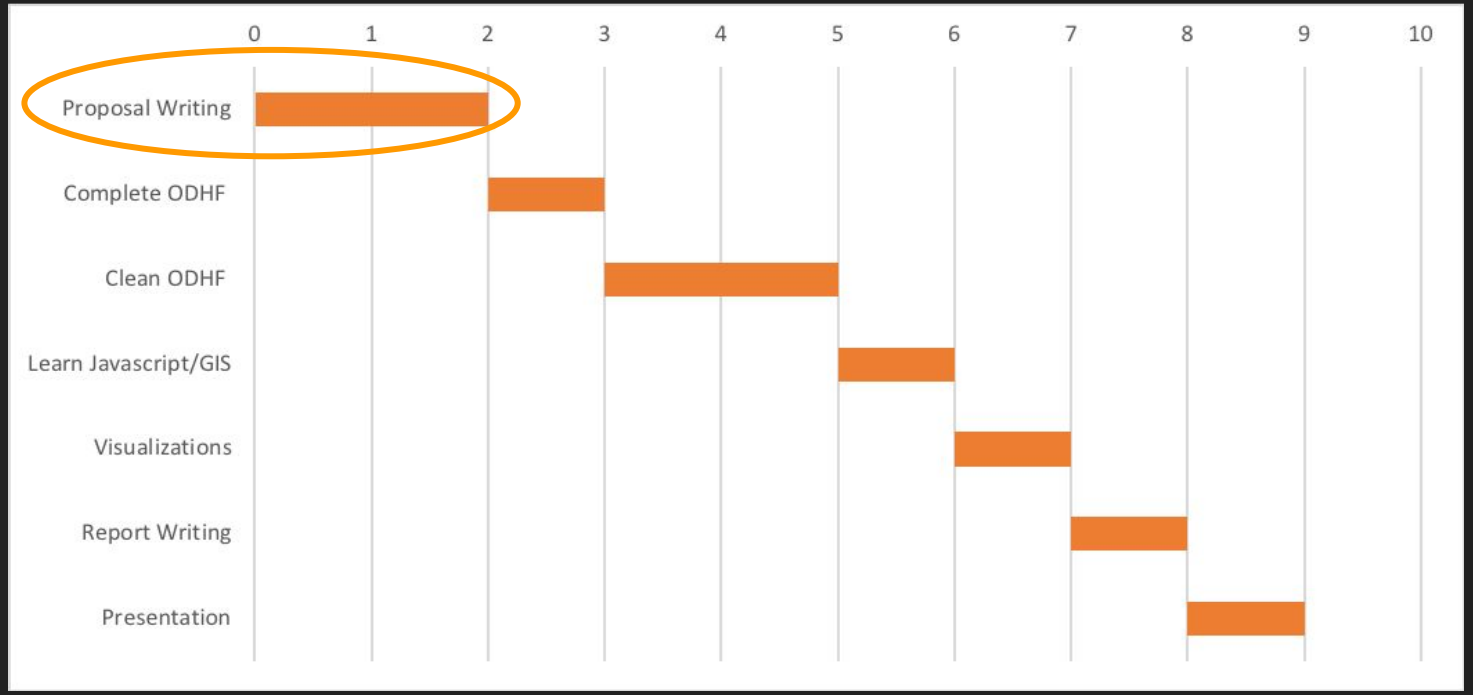
1. Deliver completed and cleaned ODB dataset, focus on healthcare facilities and potentially other facility types as needed and time allowing (ex. meat processing plants). Completed using R or Python, depending on Statistics Canada preference.

2. Deliver visualizations for healthcare facilities, potentially including proximity metrics.

3. Produce a research paper including exploratory analysis of patterns and/or connection between ODB, ODHF, proximity data, and COVID-19 data.

Project Overview

https://trello.com/b/BOM8D6zv



Week 1: Summary of Individual and Team Work Logs

1. Wednesday April 29 we had a virtual meeting with our capstone partners, Bruno St-Aubin and Marian Radulescu from Statistics Canada. The general idea of the project was introduced to us.

2. We worked together on the proposal, which we will send as a draft to our capstone partners on Tuesday May 5, so they will have time to review and provide us with feedback. We can make required edits for the final draft of the proposal after our next virtual meeting with our partners on May 6.

3. We worked together to create presentation slides for Tuesday May 5 presentation to Dr. Scott Fazackerley and TA's.

4. Individually, we each did personal research to get more background information about COVID-19 situation in Canada, especially Ontario.

Potential Limitations

1. Requested by client to use GIS and JavaScript for D3 visualizations provides a learning curve.

2. Ensuring data and visualizations update live.

Next Week’s Agenda

Shreeram & Kaitlyn - Web Scraping outbreaks in Ontario long-term care facilities and cross referencing with ODHF.

Ngan & Sofia - Integration of OpenStreetmap data to complete missing addresses of ODHF.