

Relationship of Neighborhoods and The spread of Covid-19 in Santa Clara County



Introduction

Santa Clara County has been one of the first counties hit by Covid-19. While government officials have been vigilant on minimizing the spread of the virus, Covid-19 still spreads at an alarming rate.

Covid-19 have been spreading in our neighborhood for a year, yet we only know a little about why some neighborhoods have more infection than others. This study will try to learn if venues near a neighborhood affects the chance of Covid-19's infection and transmission.

Disclaimer

This study will not be an exhaustive study of Covid-19's spread but just a simple glimpse of the relationship of neighborhoods in Santa Clara county.

The stakeholders of this study are:

- The general population
- Santa Clara County government officials
- Health workers

This study will answer the following questions:

- Which Neighborhoods has the most Covid-19 infections?
- What kind of venues affect the number of Covid-19 positivity ?
- What kind of neighborhoods need more help?
- What is the difference between neighborhoods that affects Covid-19 spread?

This study can be used by government officials to know which neighborhoods need more help, equipment and manpower. The general population can use this study to determine which venues should be avoided.

Data Used

This study will use this data:

Santa Clara County Open Data COVID-19 cases by zip code of residence:

<https://data.sccgov.org/COVID-19/COVID-19-cases-by-zip-code-of-residence/j2gj-bg6c/data>

Opendatasoft US Zip Code Latitude and Longitude:

<https://public.opendatasoft.com/explore/dataset/us-zip-code-latitude-and-longitude/table/>

Foursquare venues data:

<https://foursquare.com/>

Using this data will let us explore, analyze and answer our questions. The Covid-19 cases data will show us the number of infections by zip code, and the Us zipcodes will give us the coordinates in longitude and latitude of the neighborhoods. The Foursquare api will be used to explore and get the venues in a given neighborhood and cluster it to determine if a certain kind of neighborhood affects Covid-19 spread.