

CAPSTONE PROJECT

An Overview of Healthcare System Capacity for Covid-19 Pandemic at Orange County, California, U.S.A



INTRODUCTION

Problem:

The novel coronavirus (COVID-19) outbreak has been sweeping the United States like explosive wildfires and infected more than 1 million people as of April 27th, 2020. All states have been enforcing “social distancing” and “stay home order” to allow the healthcare system to function within its capacity. However, a growing number of admitted patients has overwhelmed the healthcare system nation-wide. Not mention the frontline health workers have to work non-stop to treat patients, but they are facing the shortage of personal protection equipment (PPE) to protect themselves properly.

Target Audience:

Let's shift our attention to Orange County, California. Government agencies need to know if the medical resources are sufficient enough to support the community. By evaluating the number of local hospitals and existing COVID-19 patients, the government agencies can perceive the general picture of the healthcare system preparedness in this area. If certain areas are in short of medical institutes, the government has to act immediately to provide financial as well as logistic support.

DATA

I refer to the statistics “Covid-19 Case Counts by Cities” posted on the orange county government website: <https://occcovid19.ochealthinfo.com/coronavirus-in-oc>. The dataset contains the names of the cities in orange county, as well as populations and total diagonalized cases in each city.

In addition, I will use Foursquare geolocation data to identify local hospitals. Combining the two datasets allows me to observe the distribution of medical institutes and thus find out if the healthcare system is functioning properly in Orange County.