Analysing Singapore's First 100 Covid-19 Cases
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Description of Dataset:

Column Name	Attribute Type	Description
Confirmed Case ID	Categorial	ID number of the case
Date of Arrival in Singapore	Quantitative	Date when the patient arrived. Value can be empty incase the case was already residing in Singapore
Date Announced by MoH	Quantitative	Date of press release by MoH of the case (Ministry of Health)
Date of Symptoms	Quantitative	Date when the patient first experienced symptoms.
Date of Admission to Hospital	Quantitative	Date of patient admission to the hospital
Date Confirmed Positive	Quantitative	Date of Covid19 confirmation
Date Discharged	Quantitative	Date when the patient was discharged
Category	Categorical	Label to describe whether case was local or imported
Nationality	Categorical	Nationality of the patient
Age	Quantitative	Age of the patient
Gender	Categorical	Gender of the patient

Source: https://github.com/chuachinhon/covid_sg

Purpose of the Visualization:
The purpose of the visualization is to analyse the lifecycle from the time the patient first experiences symptoms till the patient is fully discharged. Essentially, it compares the 'Confirmation-Discharged Window' with the 'Symptoms-Confirmation Window'. It also gives a view on the average time taken by the first 100 fully recovered cases to get discharged.

Description of the Visualization:
- Here, each circle represents a case. The lifecycle of Covid-19 has been defined as - not infected, date of admission to the hospital, date of Covid19 confirmation and date of discharged.
- Each circle (or cases) goes through the different stages of this lifecycle.
- It took a total of 55 days for the first 100 fully recovered to go through the cycle of Covid-19.

Analysis of the confirmation-discharged window:

The window signifies the number of days between a patient's Covid-19 confirmation date, and his/her official discharged data as announced by MoH. They are 2 key observations:

- o There is a notable spike of infections especially in the early days of the pandemic. The proportions of confirmed cases were much more than those that have been discharged. This is in line with observation that Covid-19 is 3x more contagious that a common cold [1].
- o The recoveries are slow as compared to the rate of confirmation. As there is no cure for the virus, the treatment continues to be support treatment. This also proves why healthcare system can become easily overwhelmed incase of an uncontrolled outbreak (eg: Italy).
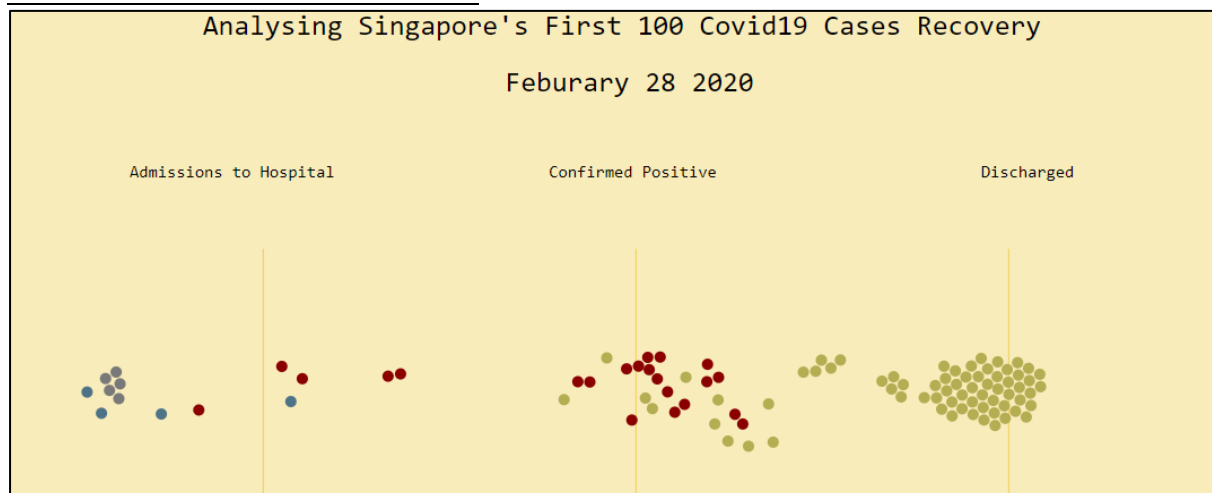
Analysis of the symptoms-confirmation window:

It signifies the number of days between the reported onset of symptoms and the official confirmation of the infection. From the visualization we can observe:

- o Singapore has managed to decrease the wait time between the date when the symptoms are first reported and the date of confirmation. This can be attributed to the new testing kits that have been developed.

[1]:https://www.channelnewsasia.com/news/cnainsider/scale-of-covid-19-contagion-may-be-more-serious-than-we-think-12437412

Screenshot of the Visualization:

Analysing Singapore's First 100 Covid19 Cases Recovery

Feburary 28 2020

Admissions to Hospital   Confirmed Positive   Discharged

Visual Encoding:

Data	Data Type	Encoding	Description
Confirmed Case ID	Categorical	node	Each node represent a unique case
Number of Admissions to the hospital	Quantitative	Color, position	Blue nodes located in "admissions to hospital" column
Number of confirmed positive	Quantitative	Color, position	Red nodes located in "confirmed positive" column
Number of discharged	Quantitative	Color, position	Yellow nodes located in "discharged" column

Link: https://ravneetkaur2159.github.io/VisualizingSingaporeCovidCases/