

Milestone 4

Team: Outbreak

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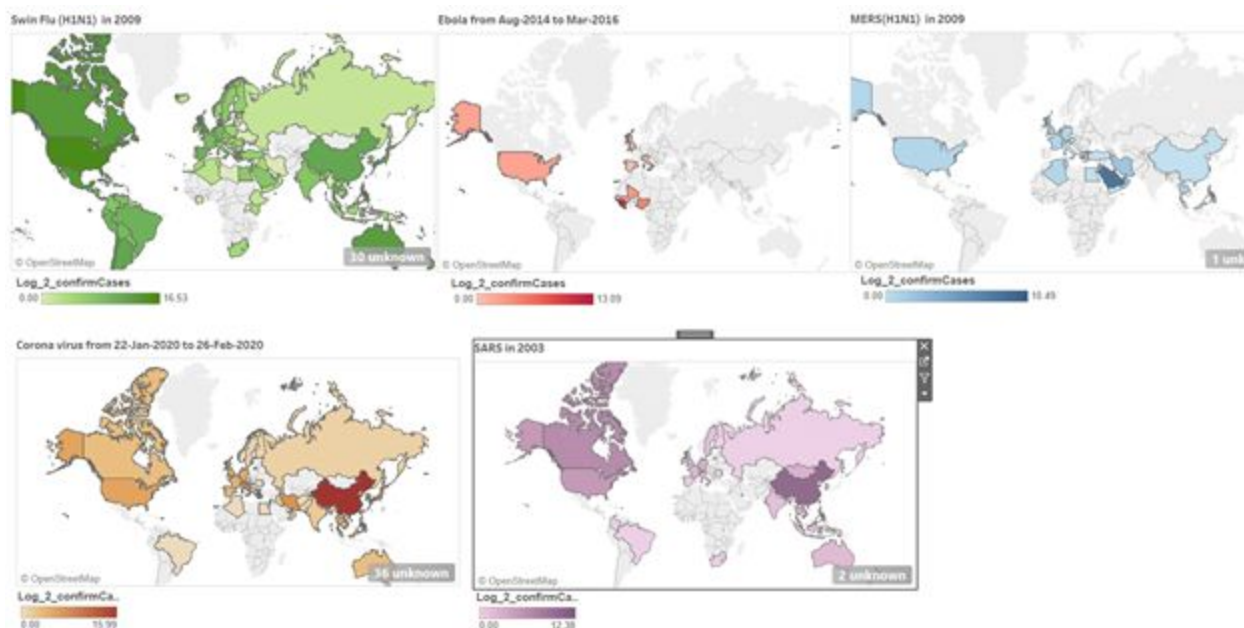
Message

There are several messages that we can tell with the data obtained. The overall theme will focus on covidid-19 and comparing it to other outbreaks. We will strive to illustrate the effect these outbreaks have on economies around the globe. Additionally, we will put the death toll, confirmed cases, geographical spread, peak, recovery rate, and disruption to transportation.

Explanatory Visualization (drafts)

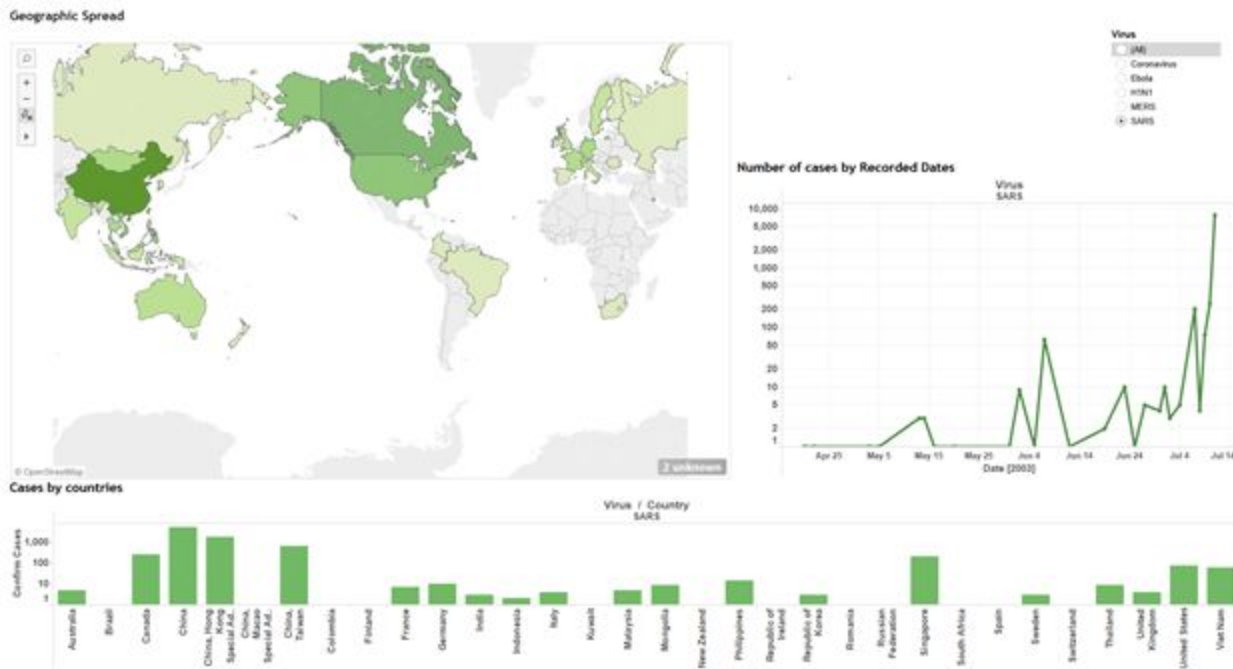
Here are some preliminary drafts of some of the stories we would like to clearly convey to our audience. Note these are preliminary drafts. We intend to continue to iterate on our explanatory visualizations.

- First, we would like to illustrate how these outbreaks have spread geographically.



This graph shows the spread of the virus in the same dashboard and we can see which countries were affected by with virus.

Making sure that what colour sequence belong to which graph.



This is the dashboard to show the spread of the diseases over time. When we select the virus from the top right, the map shows the countries that are affected by that disease, the line graph shows the evolution of the spread over time. The bar graph shows the count of positive cases by countries for the selected virus.

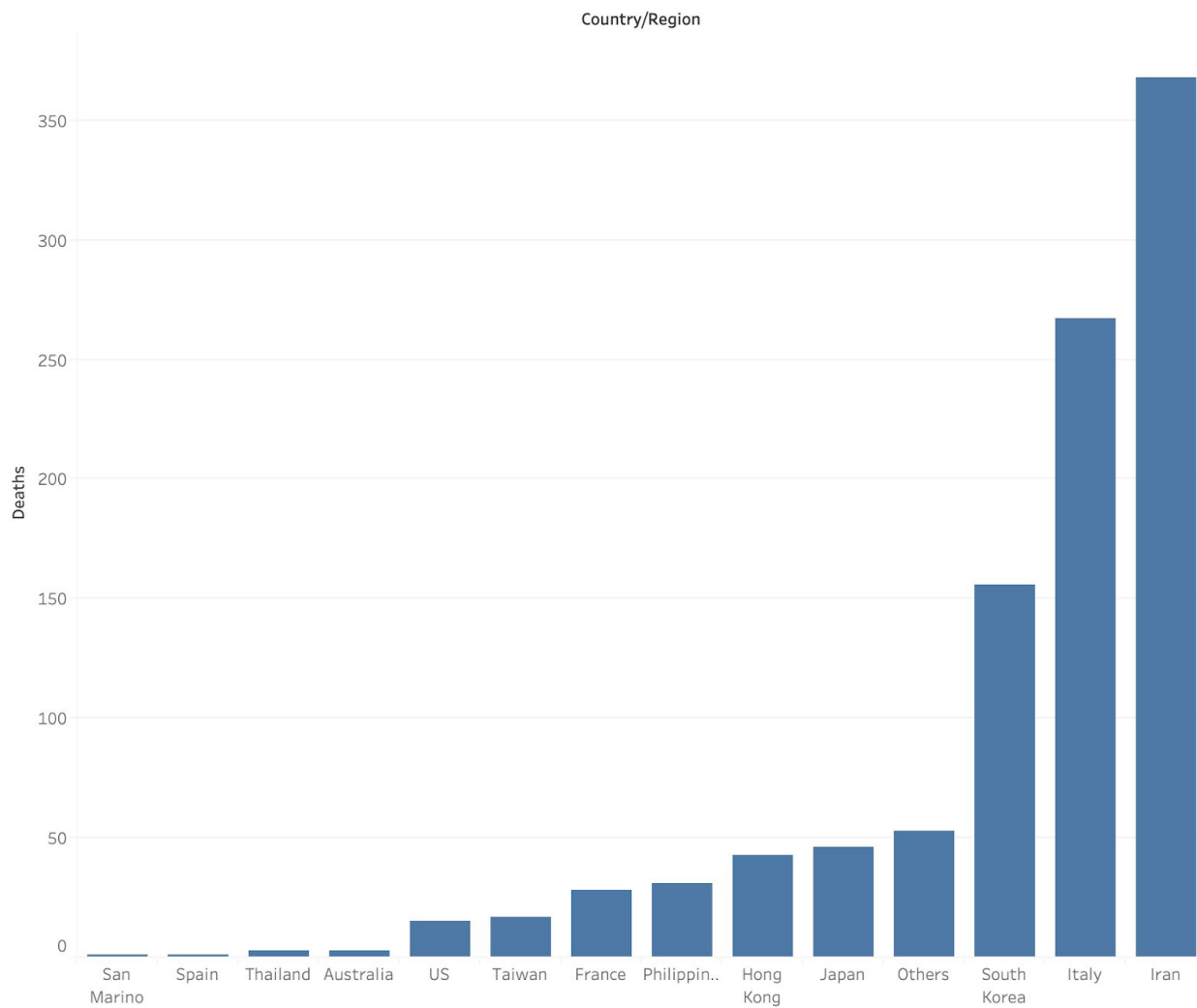
I think it is too much information in one dashboard.

- Next we show the effect these viruses are having on different sectors of the world economy.

- Death

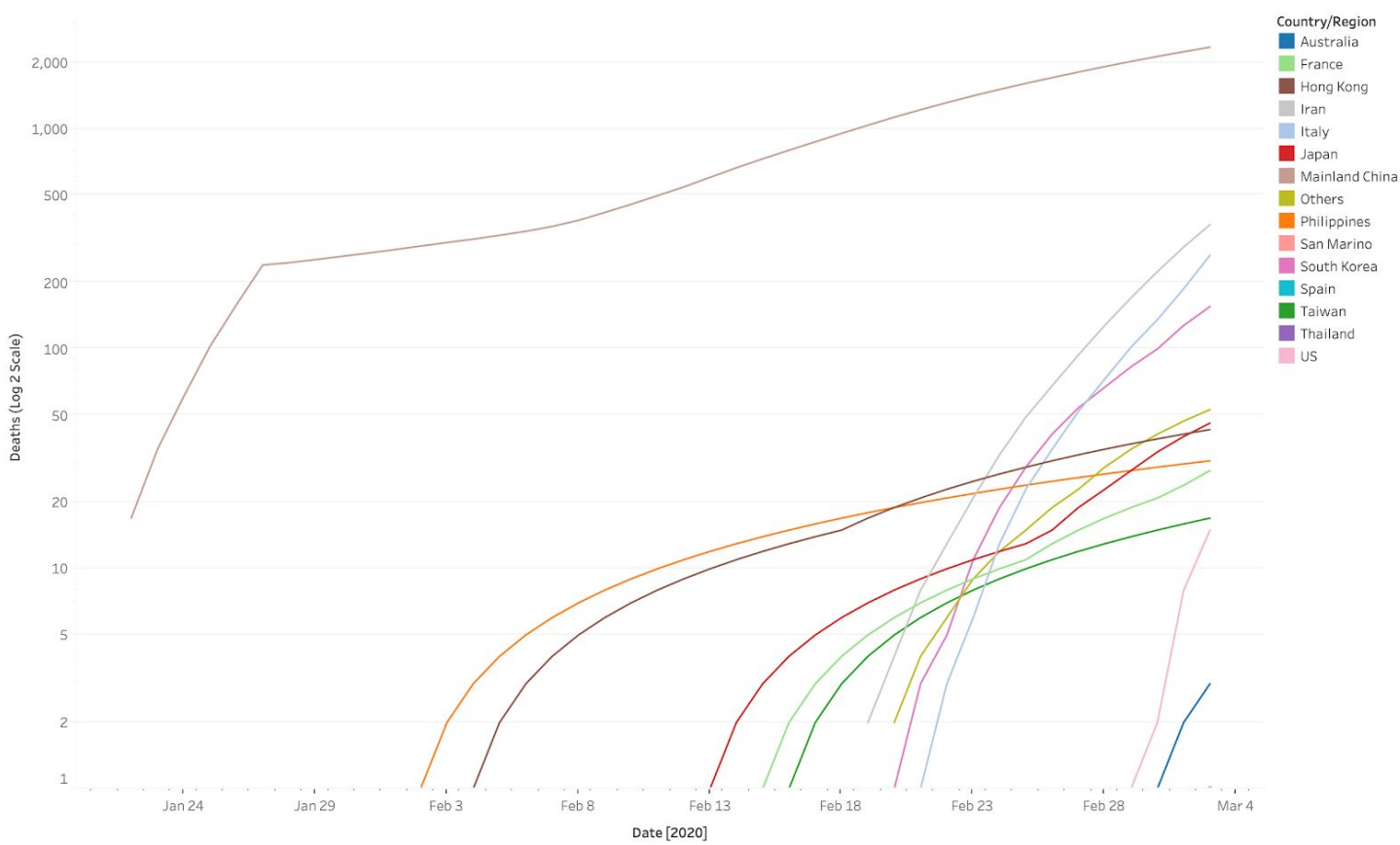
For the final visualization, we would like to keep covid-19 deaths in perspective compared to other Outbreaks. As of submitting this milestone, we are processing the data from the other virus dataset to arrange an aligned baseline. There seems to be a lot of concern as to the severity of this virus. So it would be nice to put these into protection. WHO estimates the mortality rate is at 3.2%. The following graph arranges each country based on the number of deaths (lowest to highest). I feel the bar chart does a fantastic a job at clearly illustrating this and easy decode based on length. On my iteration, I will add in the other outbreak. I still need to figure out how I will do this.

Where are most Coronavirus Deaths Occuring?

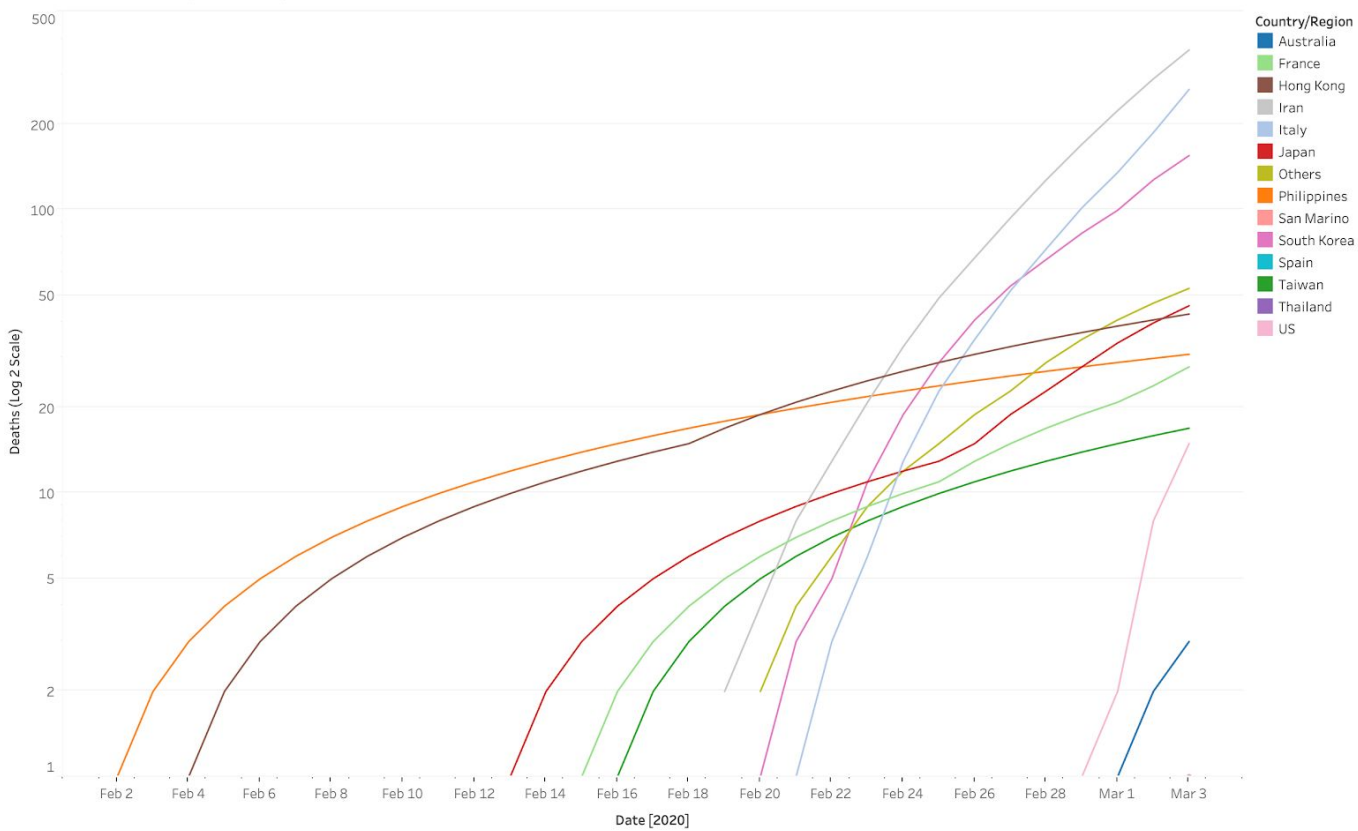


The following graph plots the number of deaths per country. We are using a logarithmic scale as China's numbers are substantial. The following graphs so a nice way to show the evolution of covid-19. We hope to further enhance this on the next iteration.

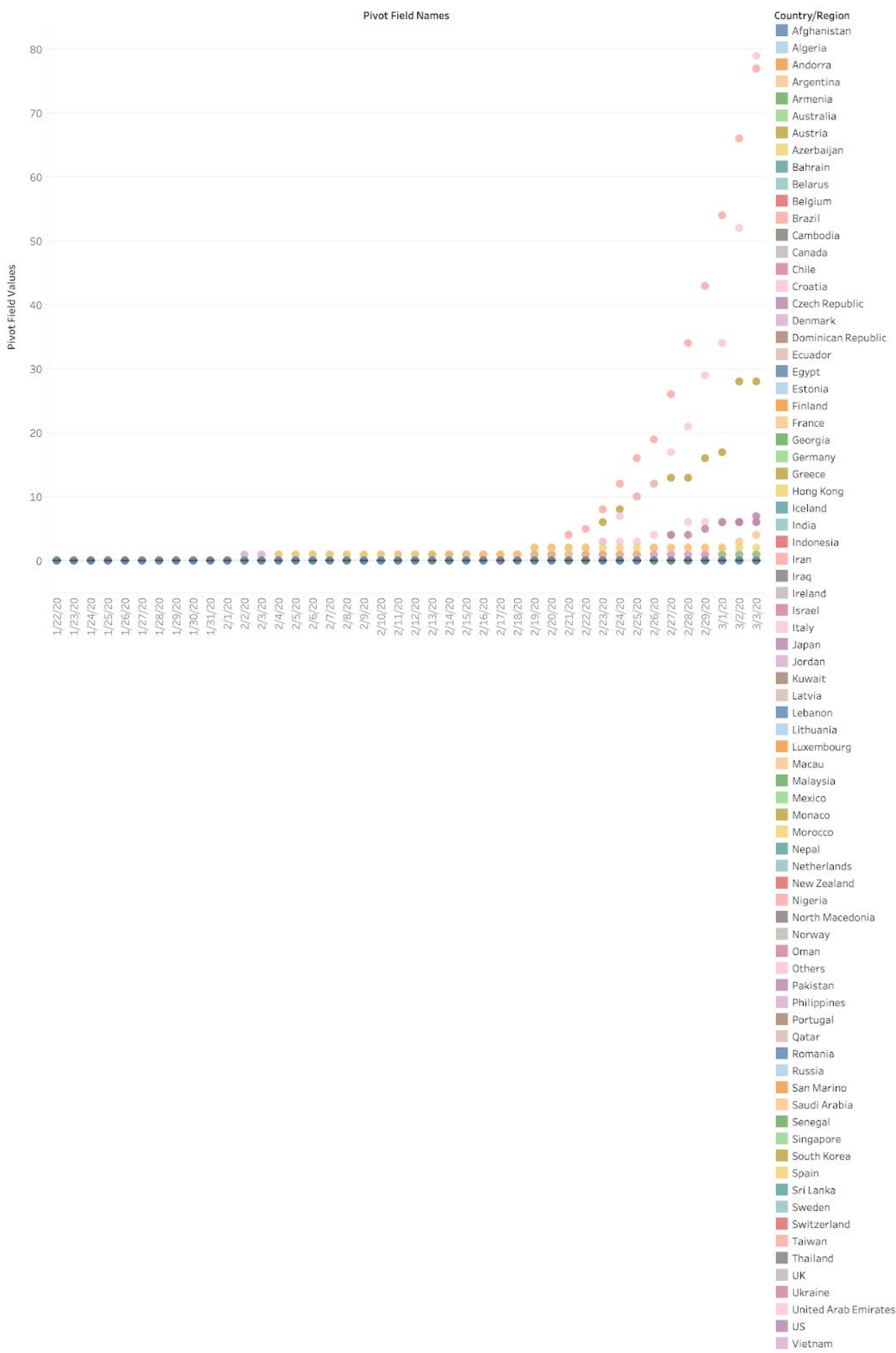
Covid-19 Deaths By Country



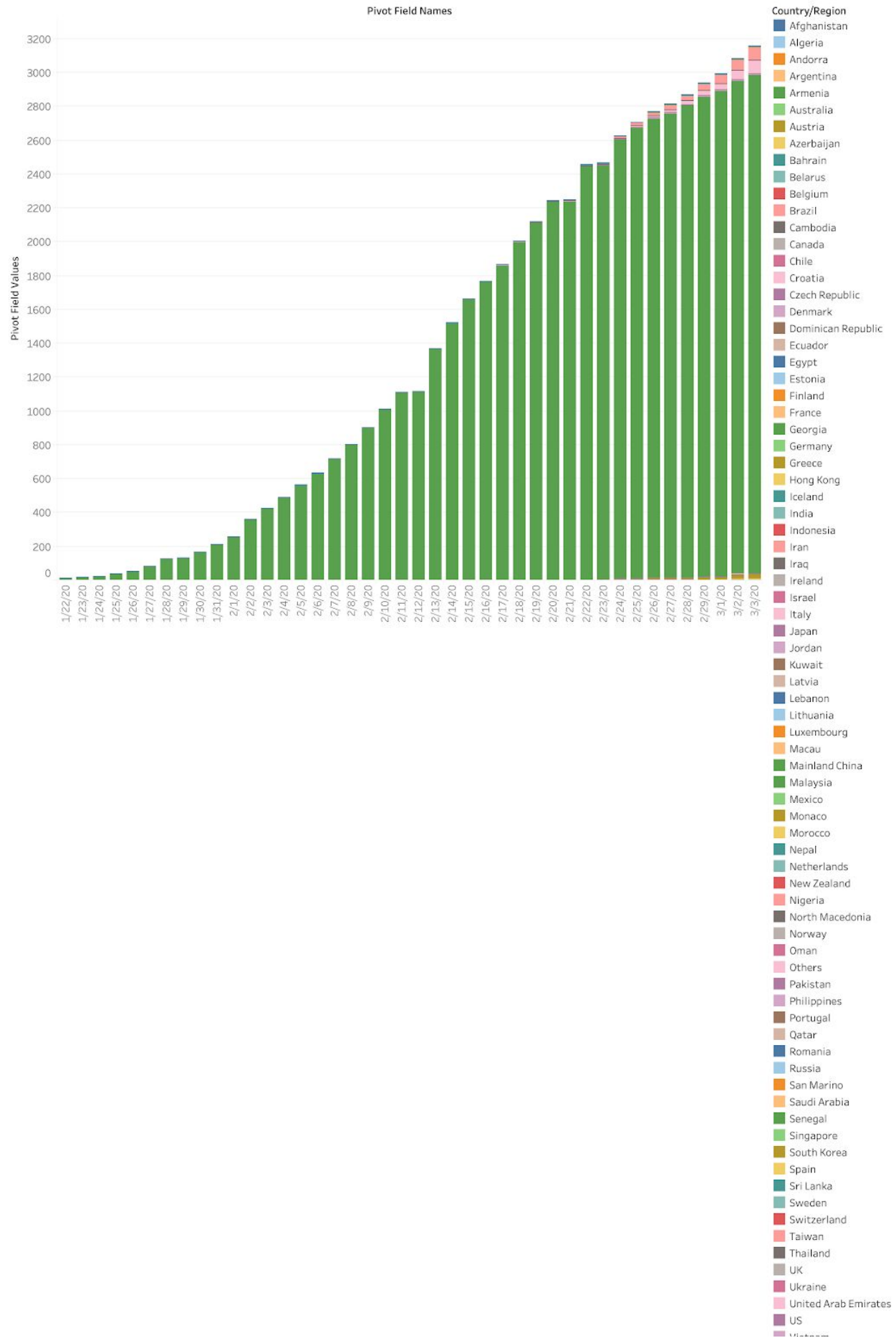
Covid-19 Deaths By Country



Covid-19 Deaths By Country



Covid-19 Deaths By Country

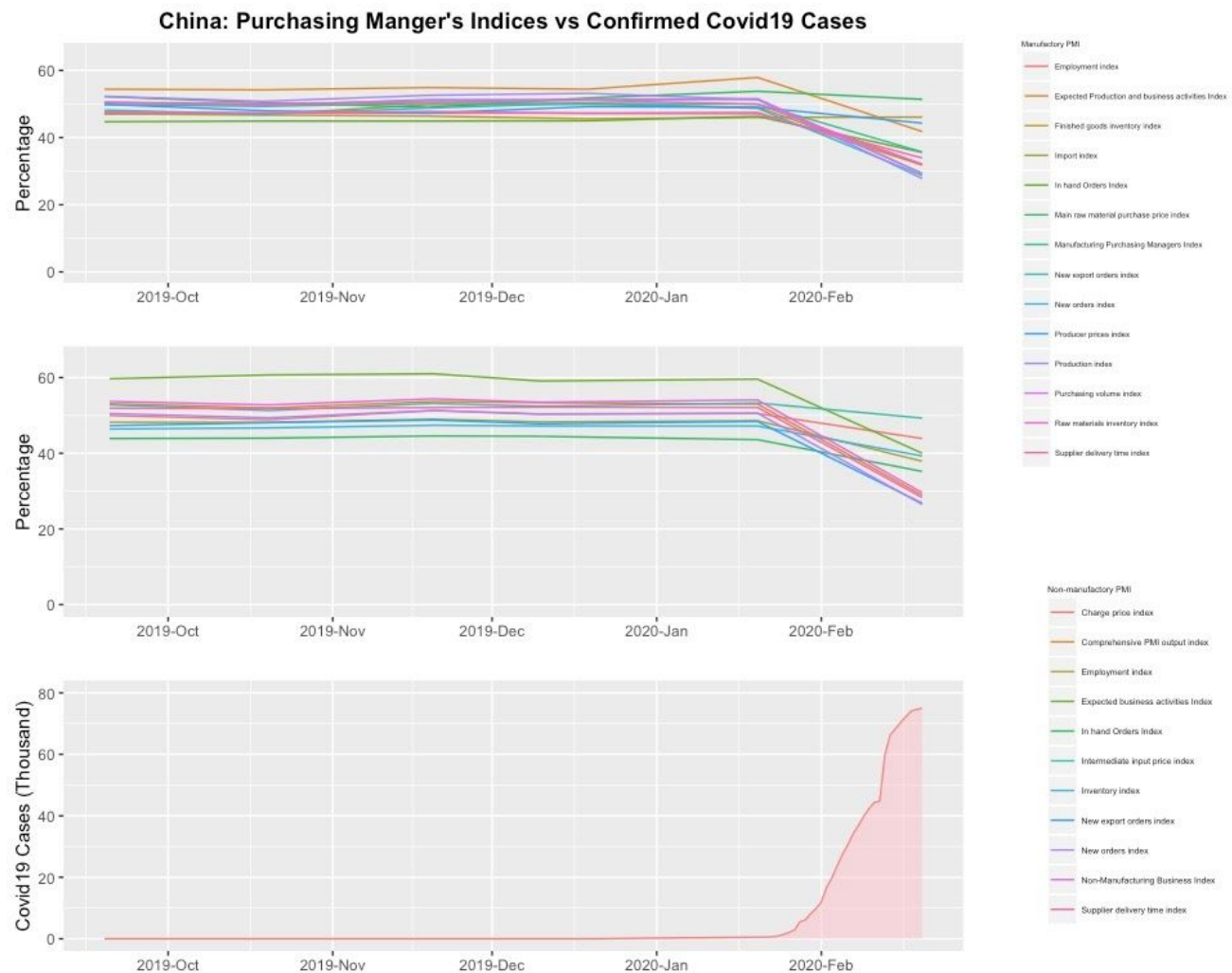


- When It reaches its peak
- Its impact on the stock market

- Its impact on China's economy

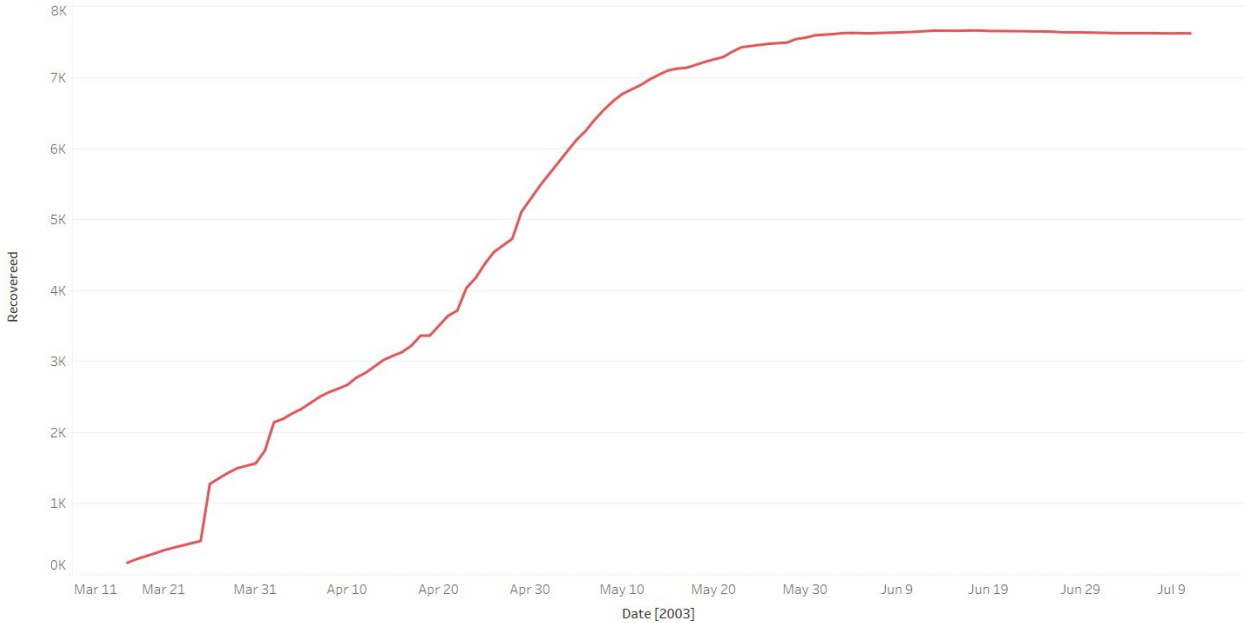
There are several issues which will be improved after this milestone, including layout, the color of the lines. Besides, we could not find data of confirmed covid-19 infection cases before Jan 22.

The data will be calculated using public information.



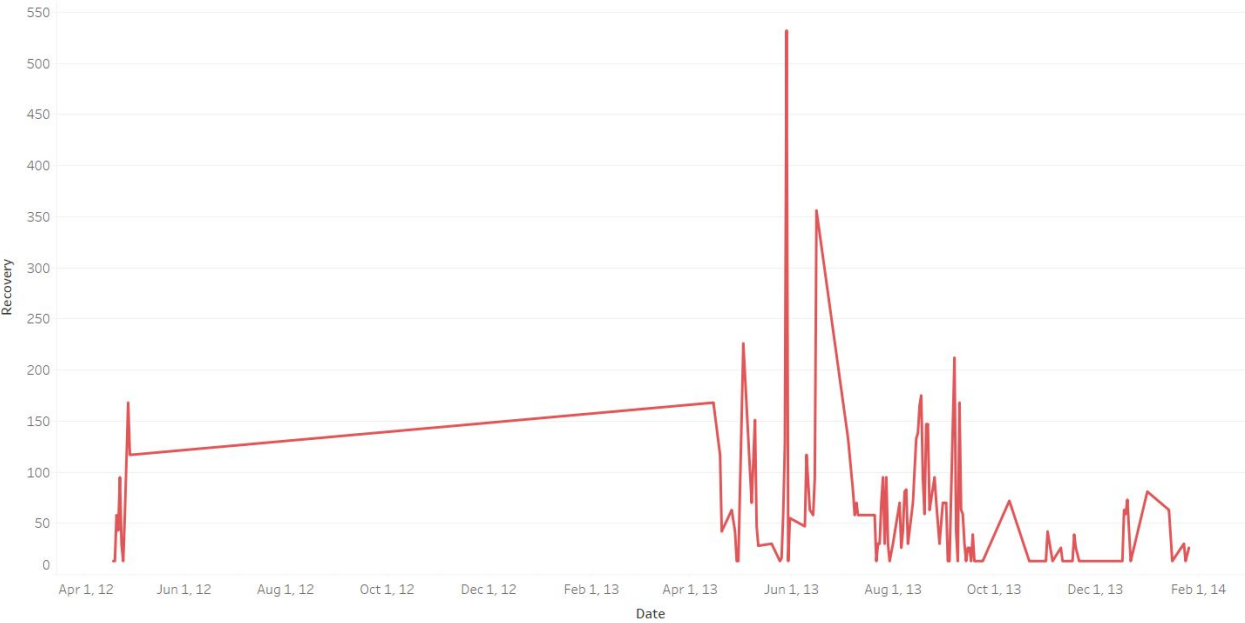
- The amount of people who recover

SARS RECOVERY 2003



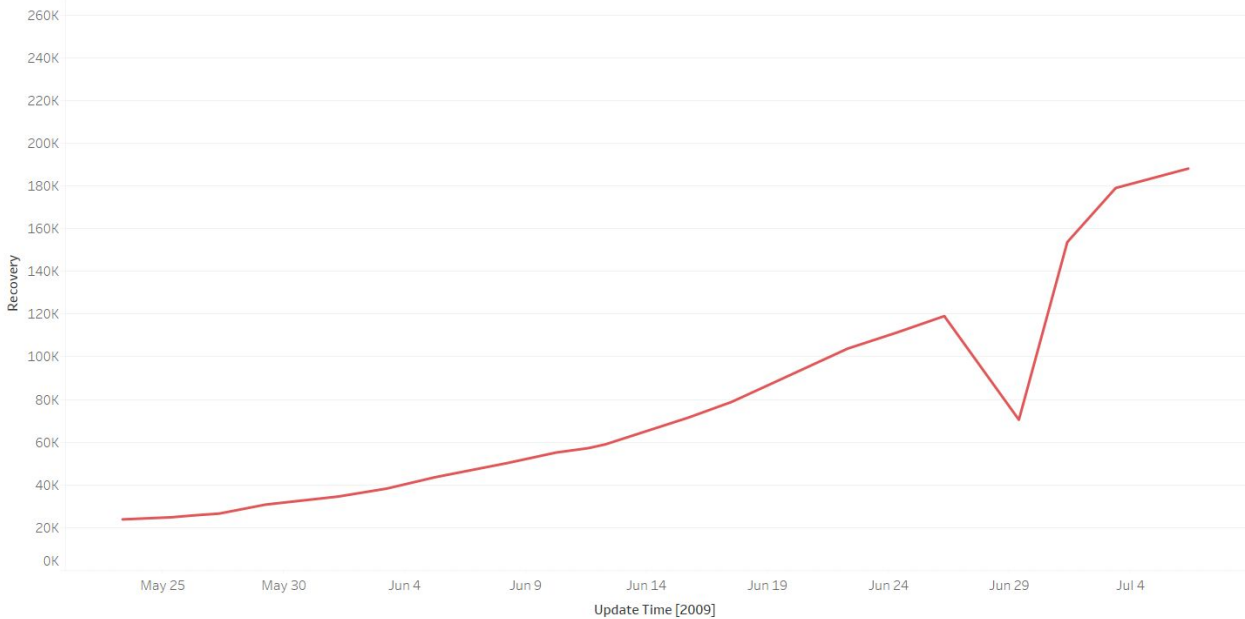
The trend of sum of Recovereed for Date.

MERS RECOVERY



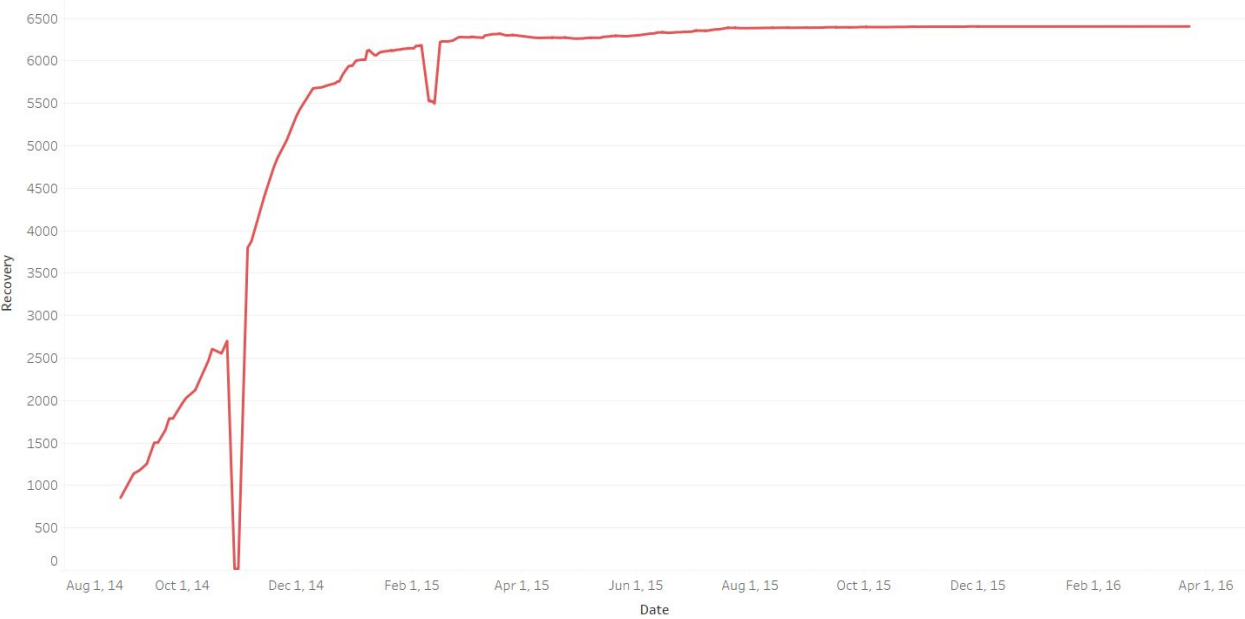
The trend of sum of Recovery for Date.

HIN1 RECOVERY MAY-JULY 2009



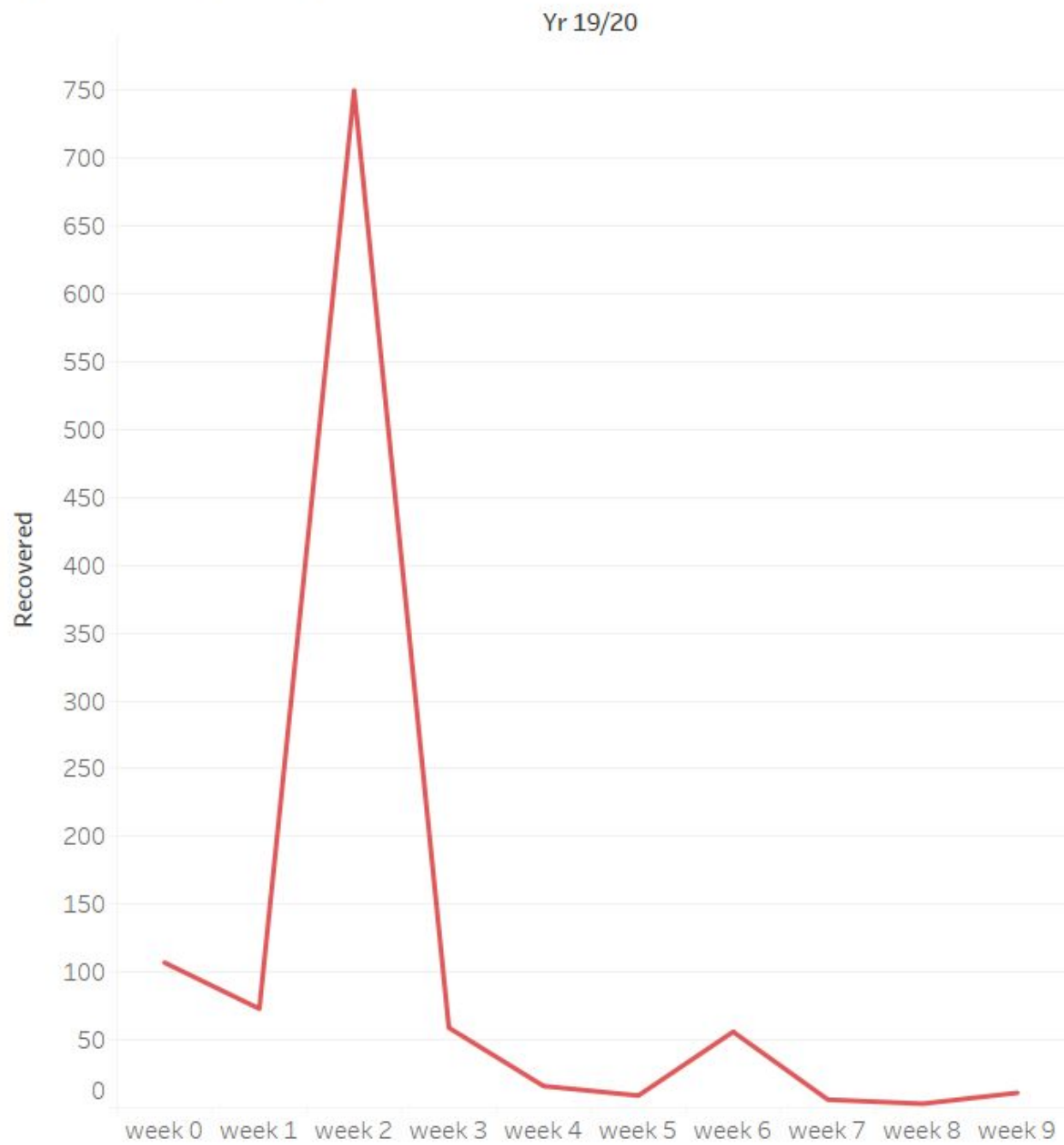
The trend of sum of Recovery for Update Time.

EBOLA 2014-2016 RECOVERY



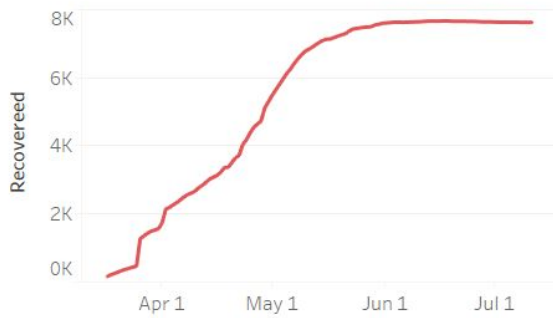
The trend of sum of Recovery for Date.

CORONA RECOVERY



The trend of sum of Recovered for Yr 19/20. The view is filtered on Yr 19/20, which excludes week 34.

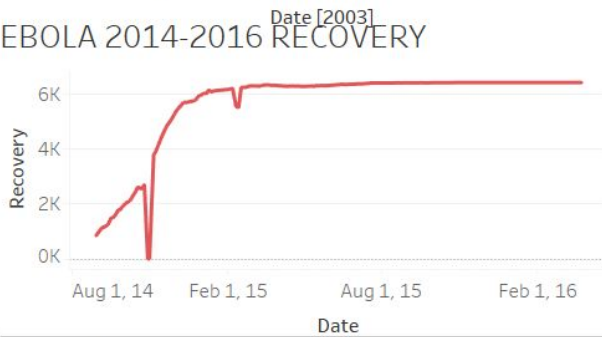
SARS RECOVERY 2003



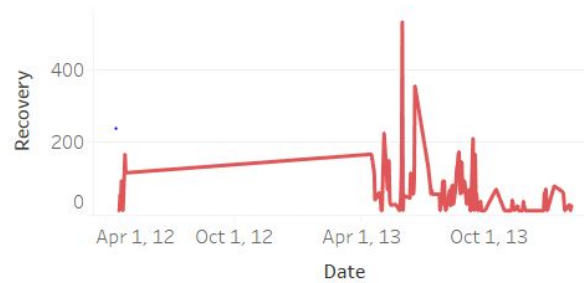
H1N1 RECOVERY MAY-JULY 2009



EBOLA 2014-2016 RECOVERY



MERS RECOVERY

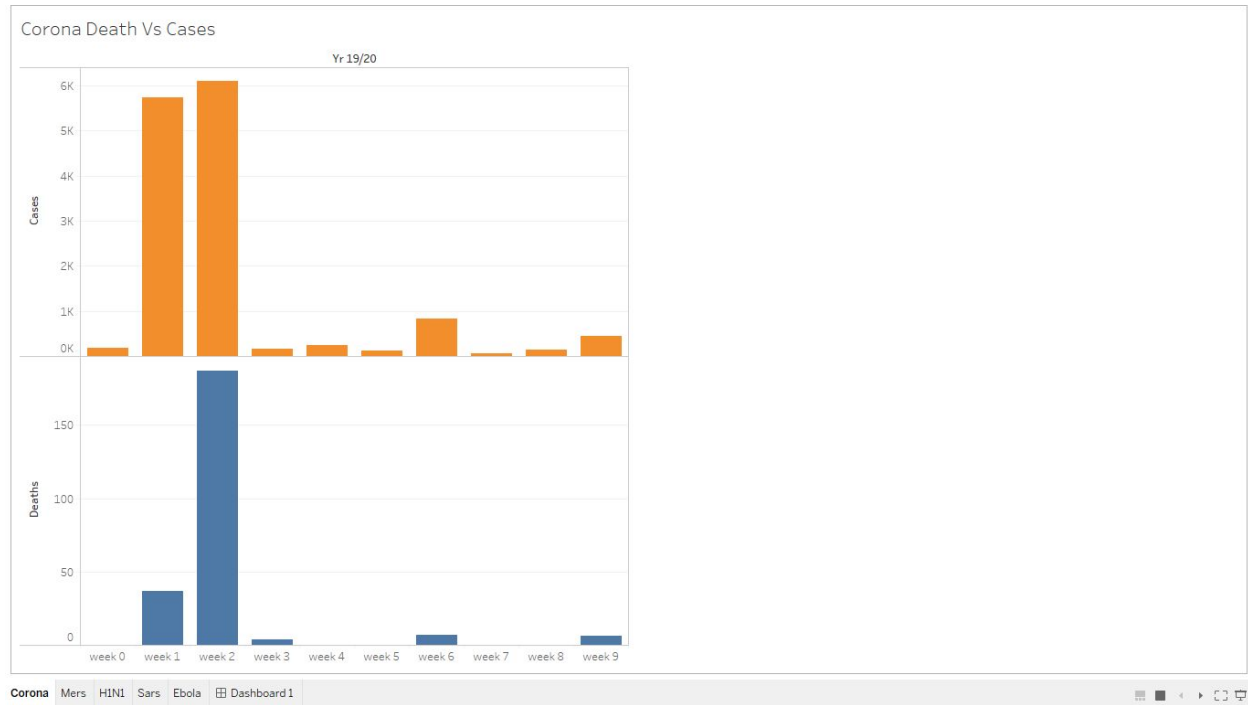


CORONA RECOVERY



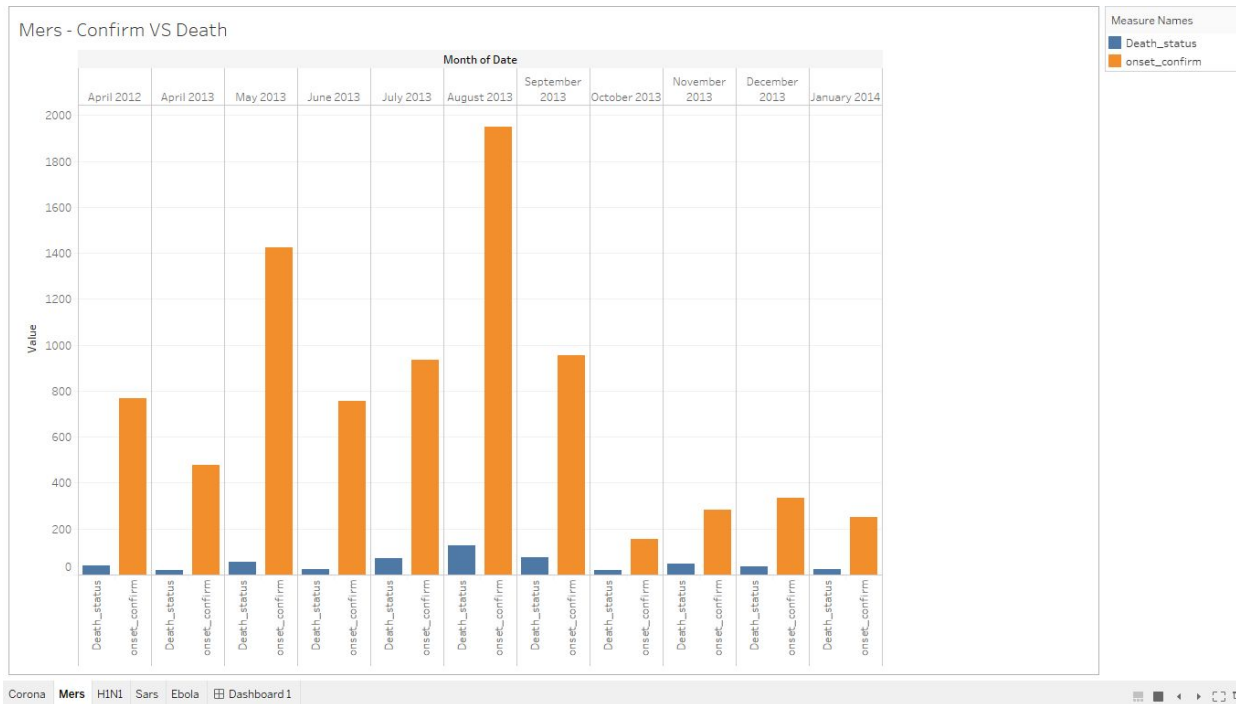
The graphs are plotted based on the recovery of the patients with respect to different time .The time frame is based on when epidemic happened .We can see H1N1 had the largest recovery.The MERS had the best recovery which means it wasn't as effective as the others .The Corona has the less recovery when compares to others.We will have to change the aspect ratio to make it visually good. Amendments to the following graphs will be made in the next milestone.Data for corona can be a bit more detailed ,like based on exact dates .The transformation of scales can also be included to optimize the visualizations.

Peaks of All Viruses



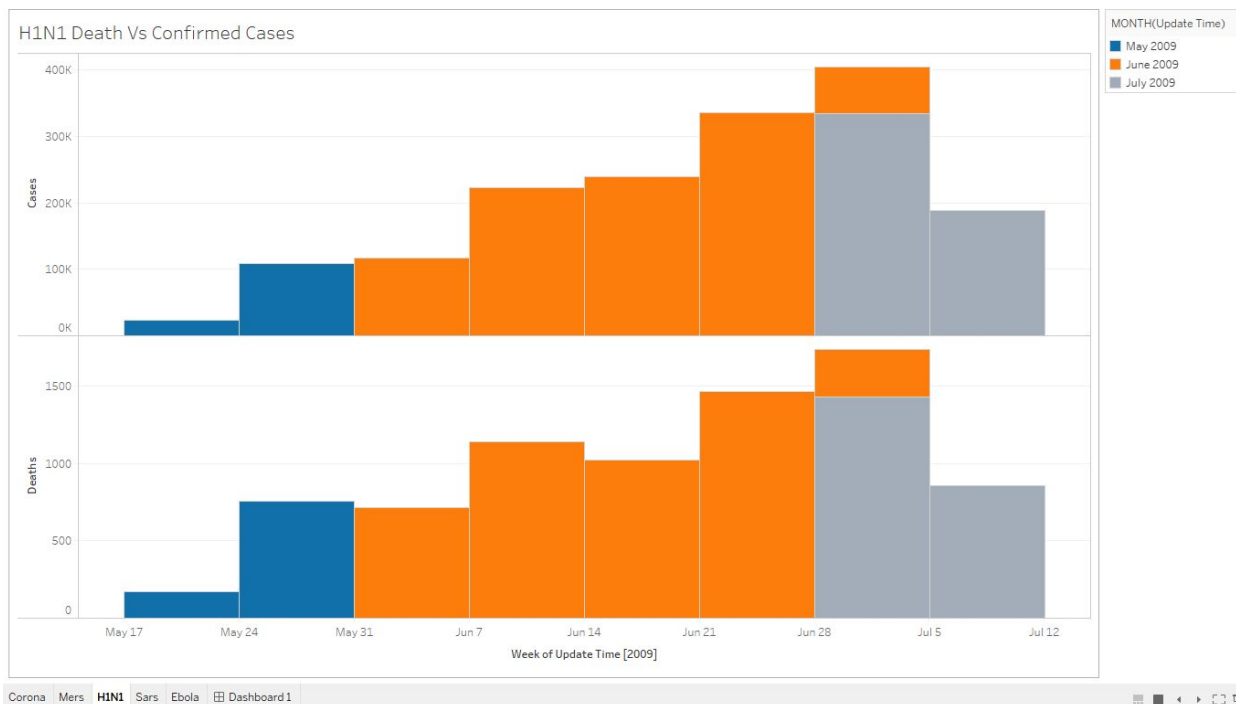
Corona - Graph

-This graph shows week wise data from December 2019 to March 2020 comparing the confirm cases to confirm deaths in the last 3 months.It clearly shows that the huge rise in death and confirm cases in intail 3 weeks and the number of cases are coming down after 4th week.



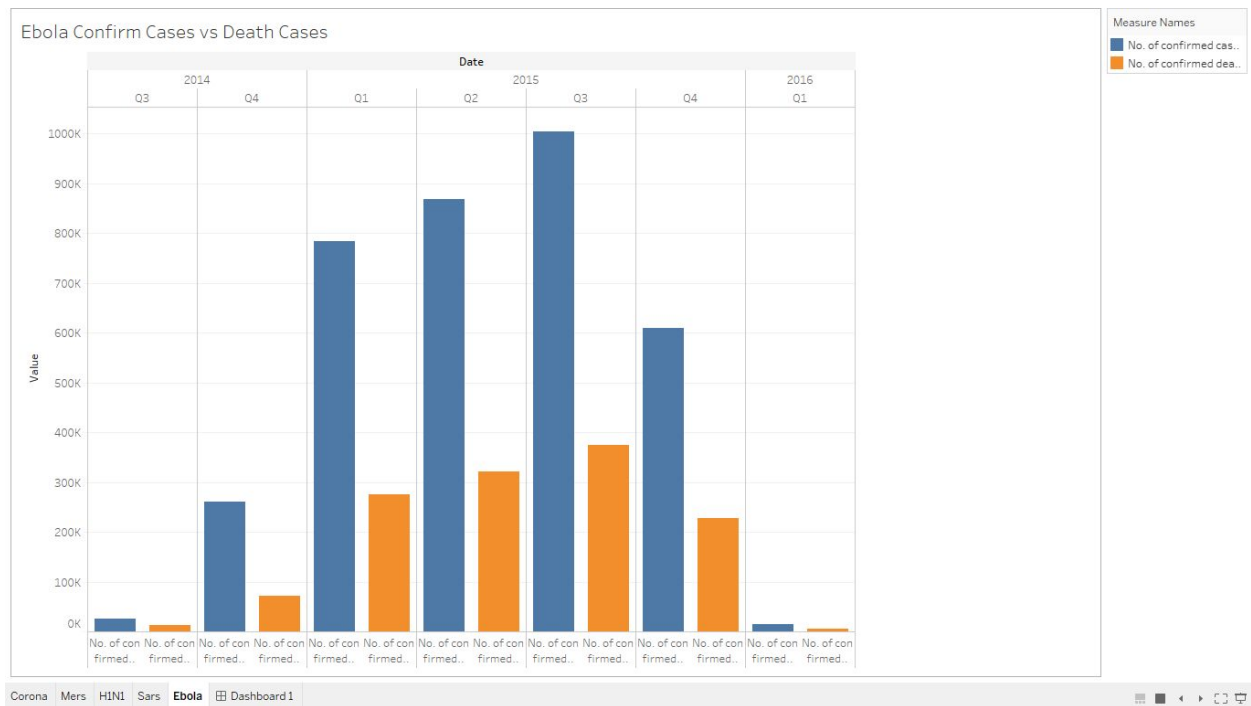
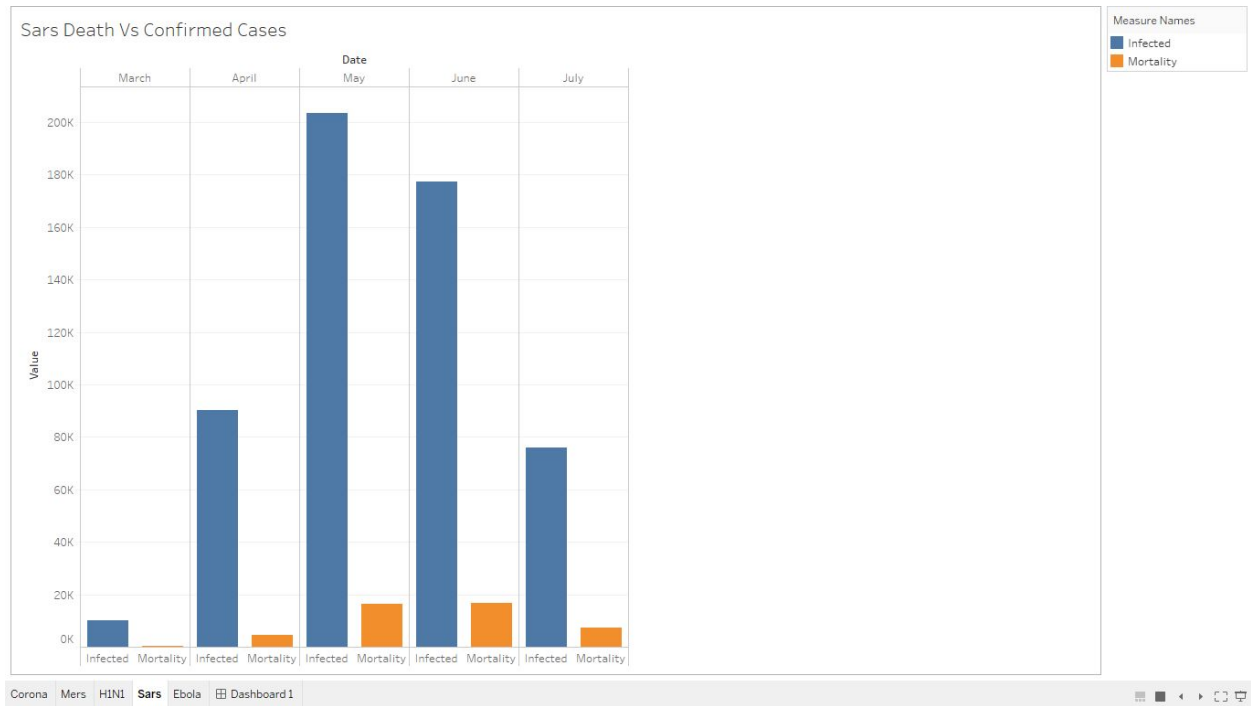
Mers - Graph

-This graph explains the number of deaths and confirm cases in Gulf countries and from 2012 to 2014, This graph is calculating the numbers based on the number. The number of cases increased in 2013 very much when compared to others.



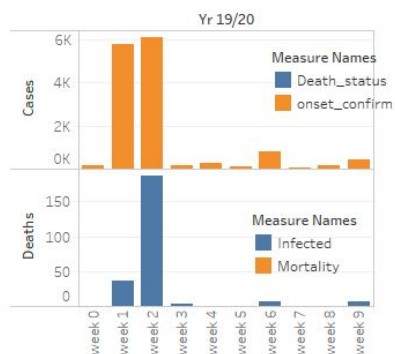
H1N1- Graph

This graph explains the confirmed death cases and number of cases reported for H1N1 virus. The death count in June is more when compared to other months

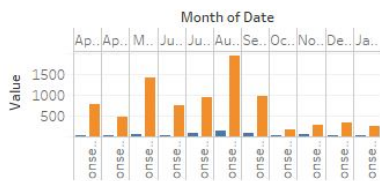


The number of death rates and confirmed death rates for each quarter in 2009.

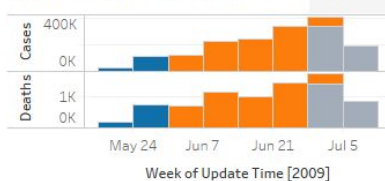
Corona Death Vs Cases



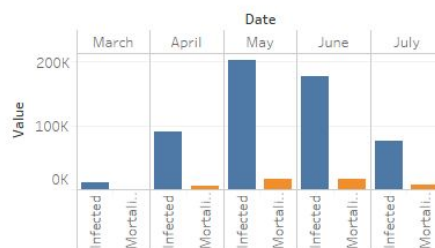
Mers - Confirm VS Death



H1N1 Death Vs Confirmed Cases



Sars Death Vs Confirmed Cases



Ebola Confirm Cases vs Death Cases



The above graph mentions the death rates and confirms cases of all H1N1, MERS, SARS, EBOLA, CORONAVIRUS. The sum of death cases are reducing with the increase in time(year). During the initial state of each virus the death cases are more and are reducing later. Mers, Ebola and Sars the death and confirm count increases and reduces gradually. H1N1 the rate is gradually increasing when calculated for 2009. Will find more detailed death rates in the coming milestone

I have calculated the Mers number keeping in consideration the Gulf countries number and the remaining numbers are compared with all over the world.