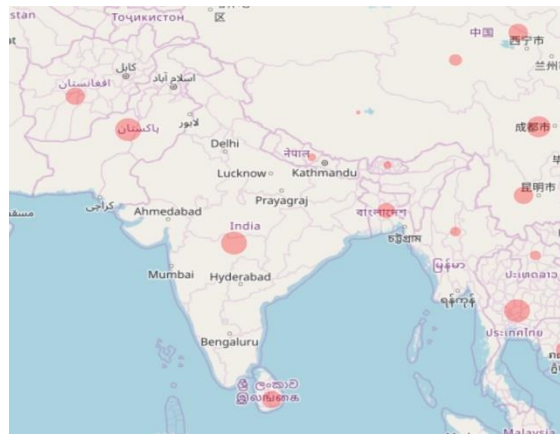


## Covid19 Pandemic: A reiew from Indian perspective



India is consistently taking the 41<sup>st</sup> position since quite a last few days based on the total confirmed cases.

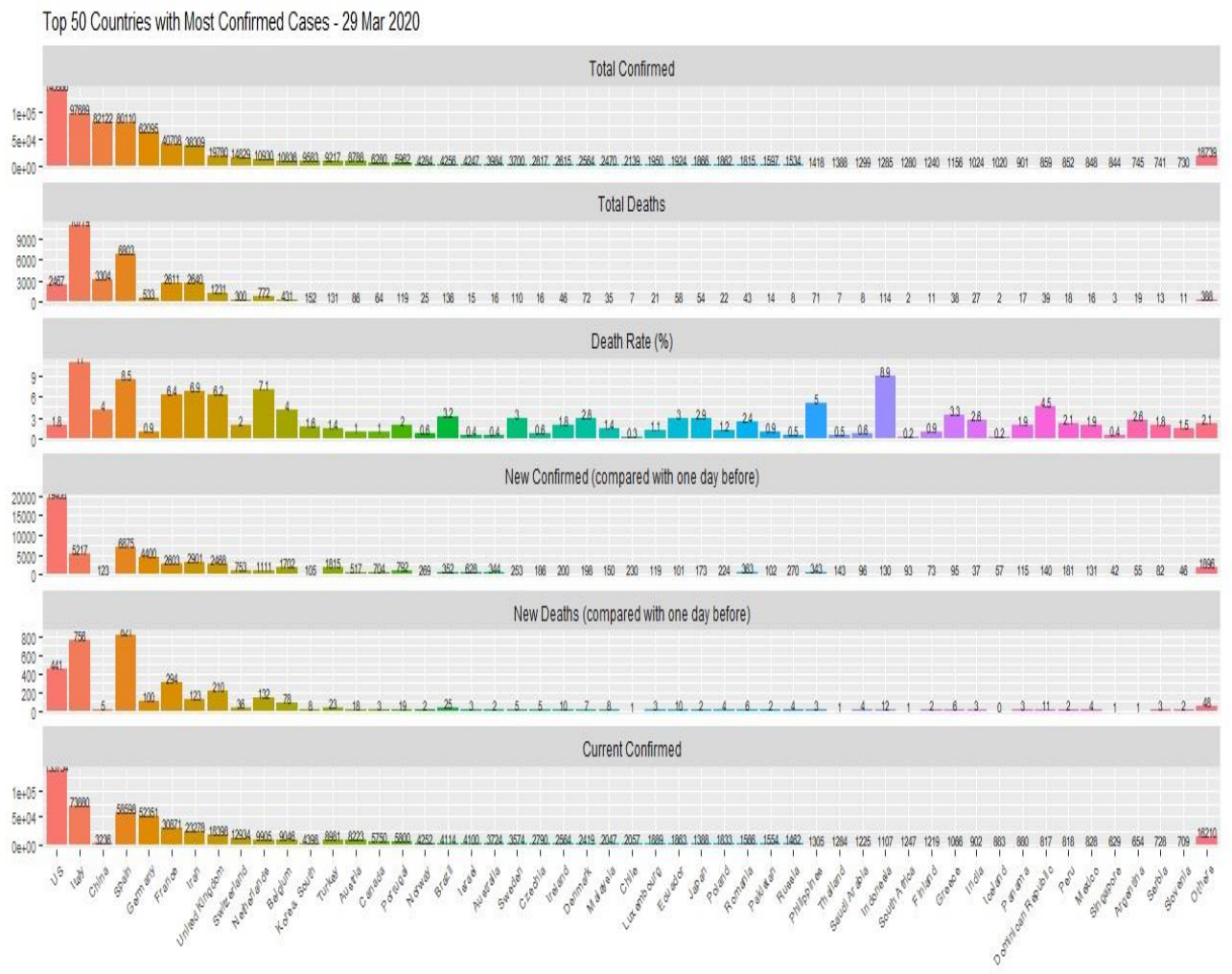


Figure 1: The top 50 countries in the world based on current confirmed cases.

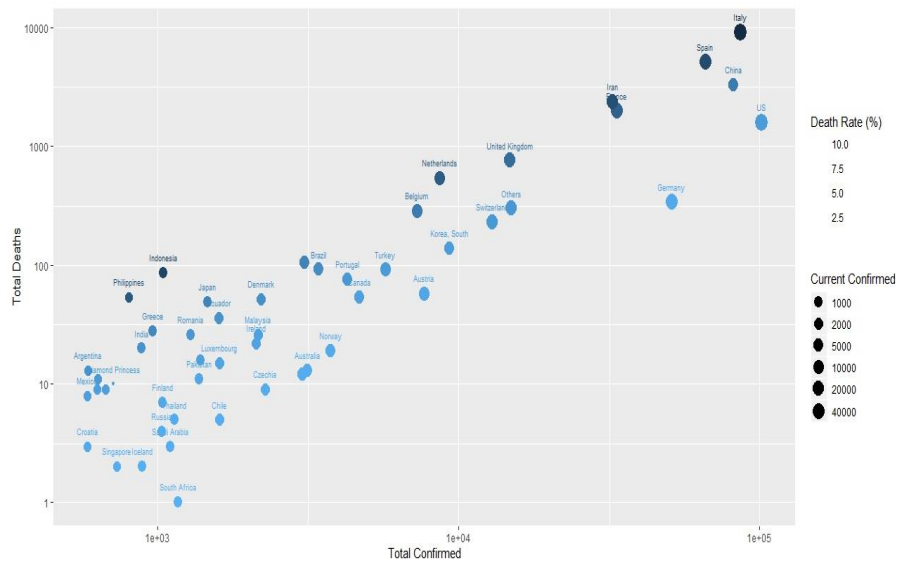


Figure 2: Relative position of the top 50 countries based on total confirmed cases and total deaths

And this is the relative position based on the new confirmed and new cases.

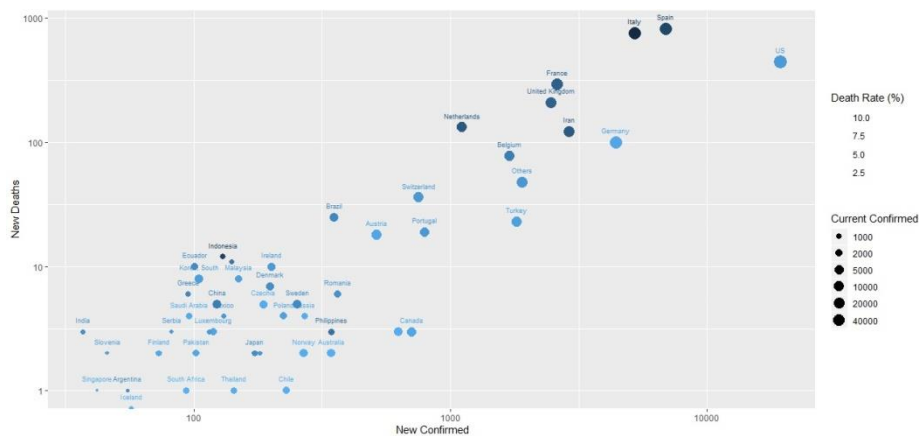
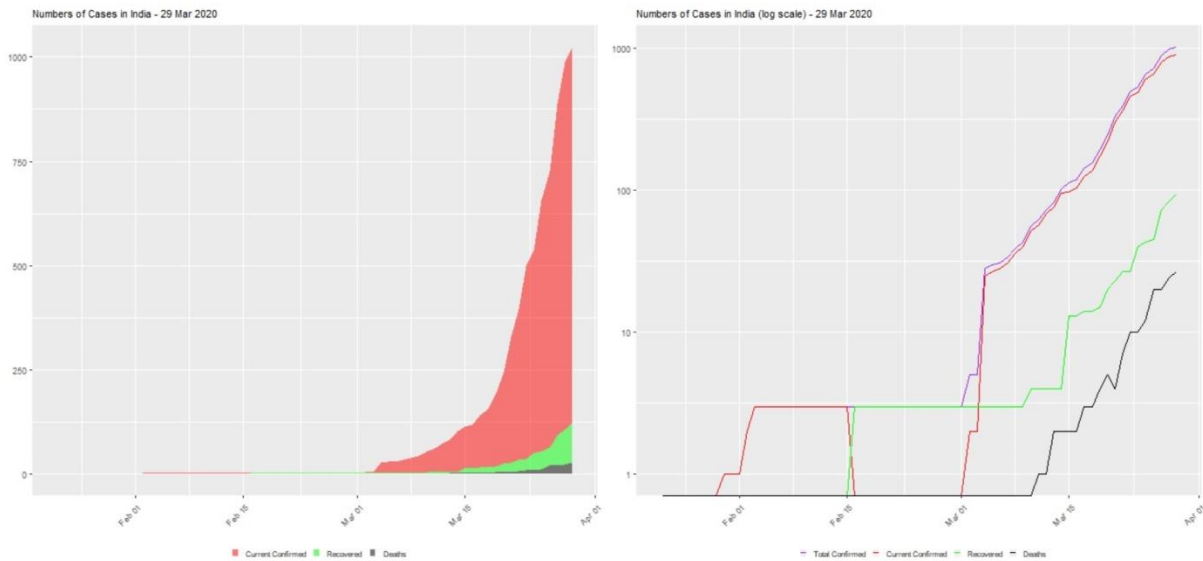


Figure 3: Relative position of the top 50 countries based on new confirmed cases and new deaths

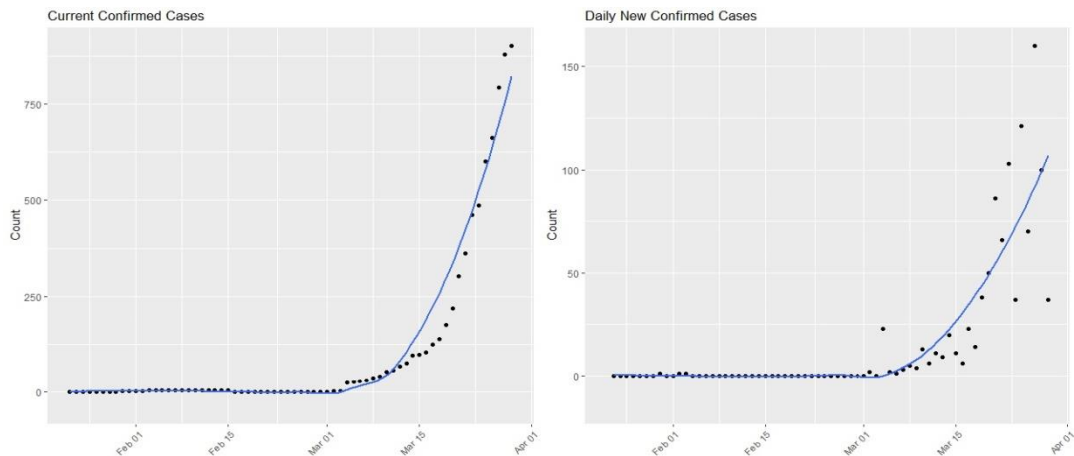
- Barring a few exceptions, there is almost a **linear relationship between the number of confirmed cases and the number of deaths**. Since the virus has affected all the continents across the globe, this would suggest that **climate, demography, ethnicity** or **economy** has yet to play any role in the death rate due to the disease.
- The major exceptions are **Indonesia, Philippines, Netherlands** and **Belgium** where the death rate is heavily spiked. To a lesser extent **Netherlands, China, Belgium** and **Japan** show the same a comparatively high death rate followed by countries like India **Brazil** and **Greece**.

- On the other end of the spectrum, **USA** and **Germany**, in spite of their large number of confirmed cases, show a distinctly low death rate.

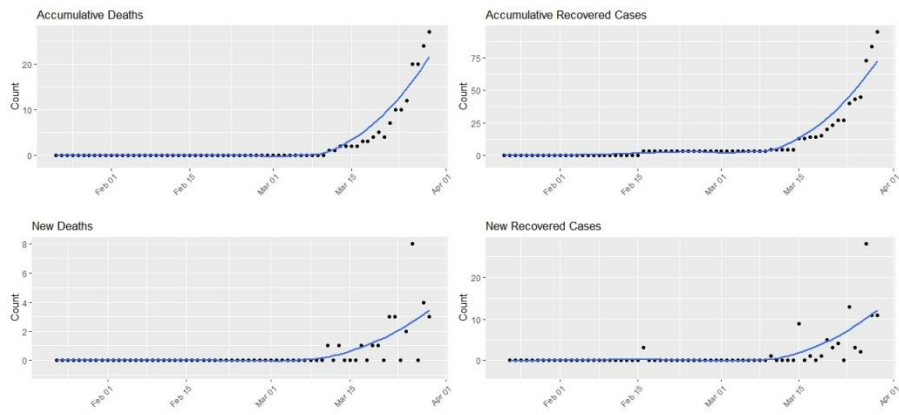


**Figure 4:** Area and line plots for deaths

- In the Indian context, there were very few cases till **end-February**, but since **early March**, the number of **new cases has increased exponentially**. With time to recovery about a week, the prevalence of confirmed cases also shows an exponential increase. If, as most studies suggest, the number of cases over time is hump-shaped, then India is still in the upward swing.
- Both the time to death and time to recovery has a lag of 8 to 10 days and commensurate with the increase in cases they too are rapidly increasing since the second week of March.



**Figure 5:** The numbers of current and new confirmed cases. The blue lines are smoothed conditional means.



**Figure 6:** The numbers of deaths and recovered cases along with the smoothed conditional means.

**All the plots and hence the subsequent analysis have been prepared based on the data available upto 29<sup>th</sup> March, 2020.**