

Covid-19 – Analysis of Geographic Spread of this Emerging Viral Disease

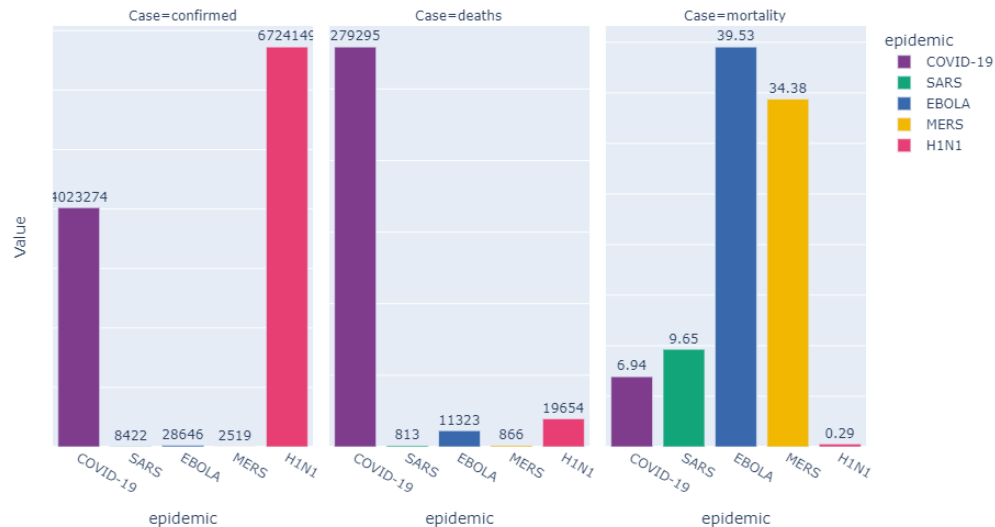


Figure 1: COVID-19 vs Other Similar Epidemic statistics. Coronavirus has the major death rate compare with other Past outbreaks only in first six months of the pandemic

A pandemic is an epidemic that spreads across many countries and impacts many people. The current corona virus disease (COVID-19) pandemic has had a major influence on the worldwide healthcare system, as well as the global economy, sociopolitical environment, and cultural surroundings. There will be a time history of confirmed cases reported fatalities and recoveries for Coronavirus Disease 2019 (COVID-19) from the duration 1/1/2020 to 31/6/2020. Because the data presented through July 2020 was quite accurate, we shall investigate the period from January to July 2020. Data is broken down per nation (and sometimes subregion). The Severe Acute Respiratory Coronavirus 2 (SARS-CoV-2) was the reason of this Coronavirus Disease (COVID-19), which has had a global impact. On March 11, 2020, the World Health Organization (WHO) declared it a pandemic, claiming about 118,000 instances of coronavirus infection in more than 110 countries and territories at the time.

This dataset contains time series statistics on the number of persons worldwide who have been infected with COVID-19, including:

- Coronavirus infection has been verified through tests.
- the number of persons who have died after contracting Coronavirus

- the number of persons who are said to have recovered

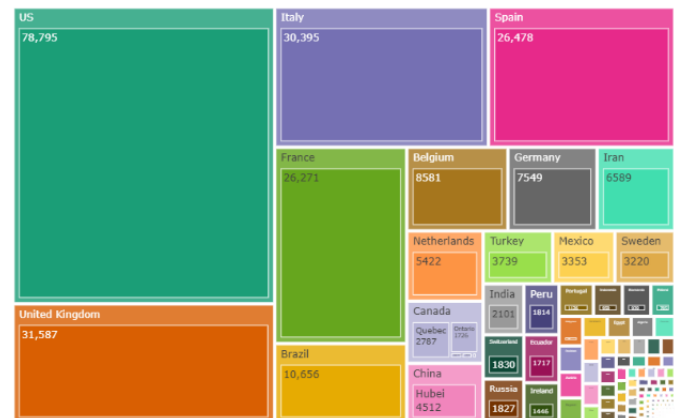
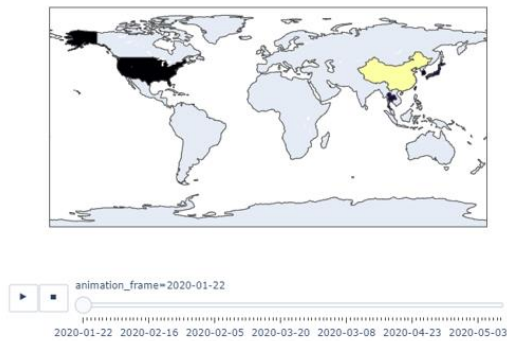


Figure 2: A Tree-map plot showing country-wise data of deaths in first six months of this pandemic. United States is continuing to remain the most-affected country following by United Kingdom.

In Wuhan, a metropolis of more than 11 million residents in central China, an epidemic of "pneumonia of unknown source" was proclaimed on December 31, 2019.

Six months later, life on the other side of the world is no longer recognizable. Travel has been suspended, entire countries have been placed under lockdown, and hundreds of thousands of

Cases over time



Cases over time

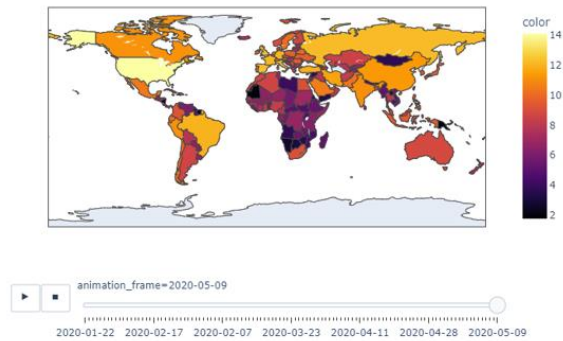


Figure 3: In the First month of 2020, Only Two Countries China and United States report Coronavirus patients while Japan and Thailand were there too but with very few patients, within next 6 Months the whole world was facing this deadly outbreak. (Dark colors are showing a greater number of patients in respective countries.)

people have died. COVID-19 is the disease because of the virus that started the epidemic. It has already spread to at least 188 nations and territories. It is still sweeping the globe almost a year later. It will also be a permanent element of our existence.

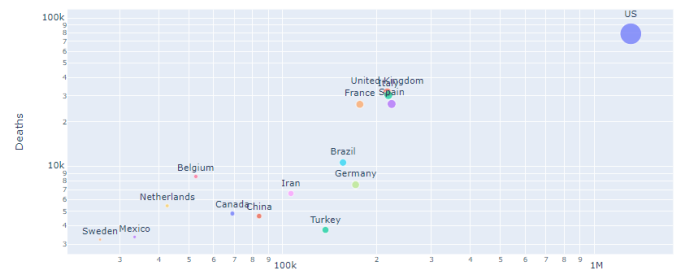
The WHO proclaimed the COVID-19 pandemic on March 11, 2020, however several nations responded before like Australia on 24/02/2020 before WHO.

In the United States, the new coronavirus SARS-CoV-2 has infected approximately 33 million individuals. Over 600,000 people have died across the country because of the COVID-19 epidemic, which has forced schools and businesses to close. Due to flaws in test results, the scope of the virus's

population had been infected, indicating that the country was still far from vaccinated people.

Figure 5: Scatter plot for Deaths vs confirmed cases. The size of circle is showing the percentage of the population in respective country.

Deaths vs Confirmed Cases (Cases are on log10 scale)



Conclusion:

According to the Covid-19 preprocessed dataset (statistics of first 6 months), which are considered as the most accurate reporting until now, the world active covid-19 patients were over 1 million in just 6 months timespan which is the greatest number until now in all the past outbreaks including influenza Virus (H1N1) or Black death in northeastern China which was considered as the deadliest pandemics in the history.

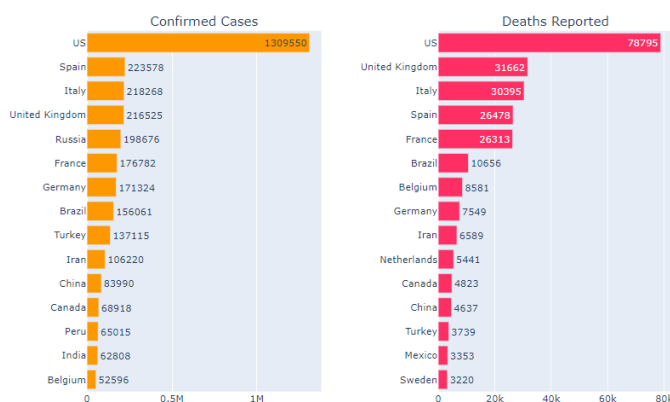


Figure 4: The statistics was shown by the dataset is Top 15 countries death and confirmed cases through the world. United states because on the population is on top, and these numbers showing are the 20% of the US population.

transmission remains unknown. To estimate the real number of illnesses in all nations, we use several data sources. We discovered that around 60% of illnesses get undetected. Even Nevertheless, as of early March 2021, only around 20% of the US



Figure 6: Active, Confirmed and Death cases through the world in first 6 months of the Covid-19 Pandemic.

Covid-19 Dataset resource:

<https://www.ons.gov.uk/economy/economicoutputandproductivity/output/datasets/businessimpactofcovid19surveybicsresults>