

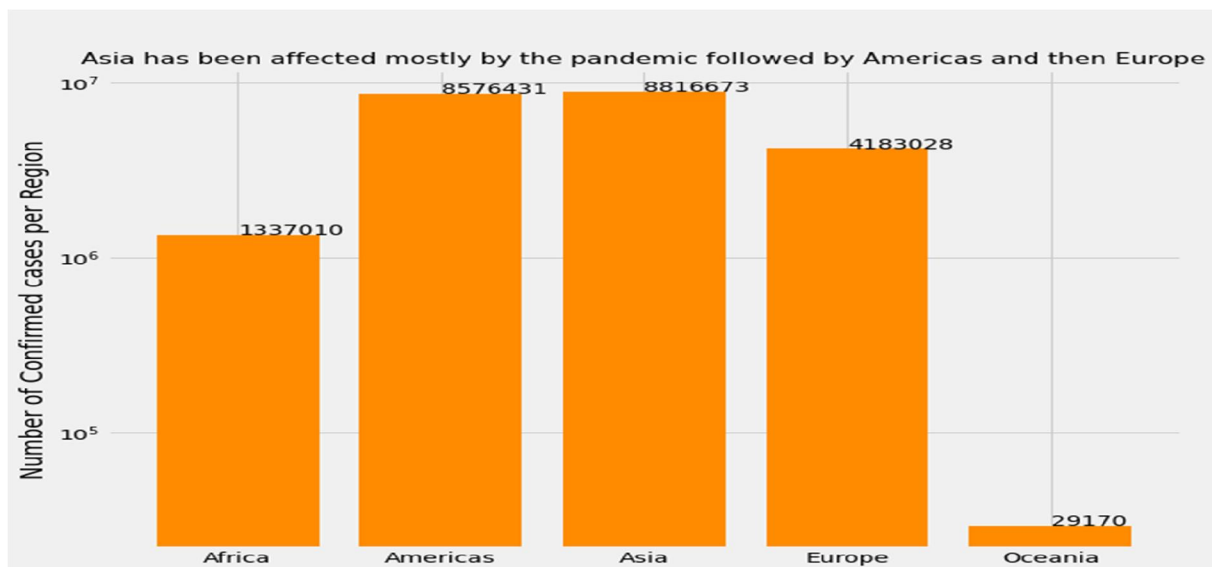
Tracking the spread of Coronavirus through Data Storytelling

The global pandemic, Coronavirus has affected over 180 countries in the five regions (Asia, Americas, Africa, Europe, and Oceania) of the world. Some indicators such as confirmed cases, confirmed deaths, recovered cases, recovery rates, fatality rates, prevalence have been used to track and measure the spread of the pandemic. The following analysis and inferences reflect the global pandemic data as of 16th September 2020 and these inferences derived have been divided into six sections:

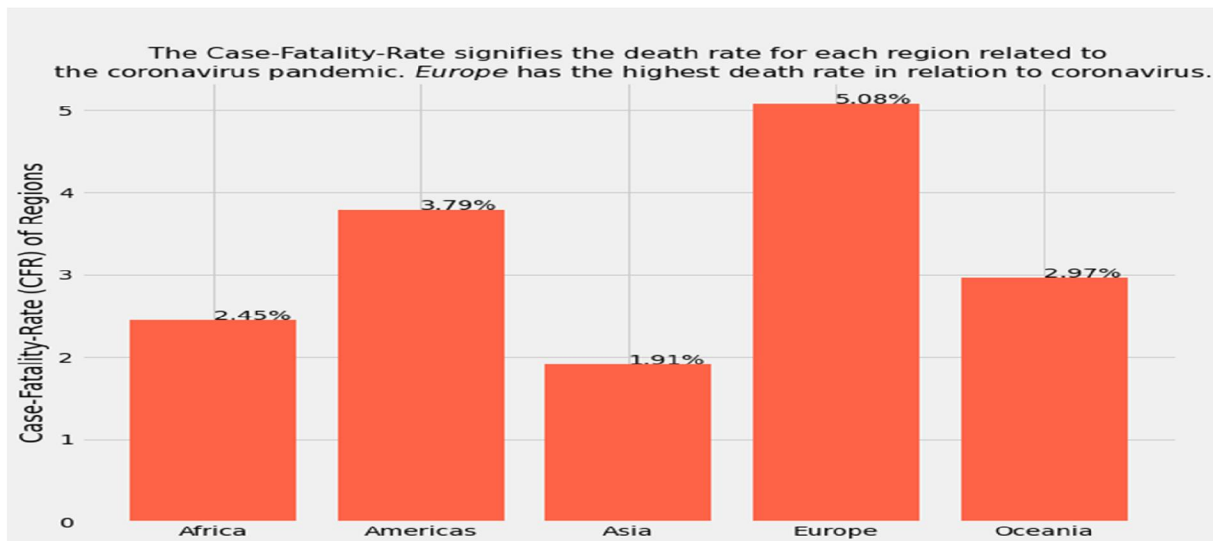
- Regional analysis based on fatality and recovery rates.
- Top 30 countries based on confirmed cases, fatality rate and prevalence.
- Global maps showing the spread in affected countries
- Monthly breakdown of indicators of the global pandemic.
- Nigeria confirmed cases and deaths by the States.

REGIONAL ANALYSIS BASED ON FATALITY RATES AND RECOVERY RATES

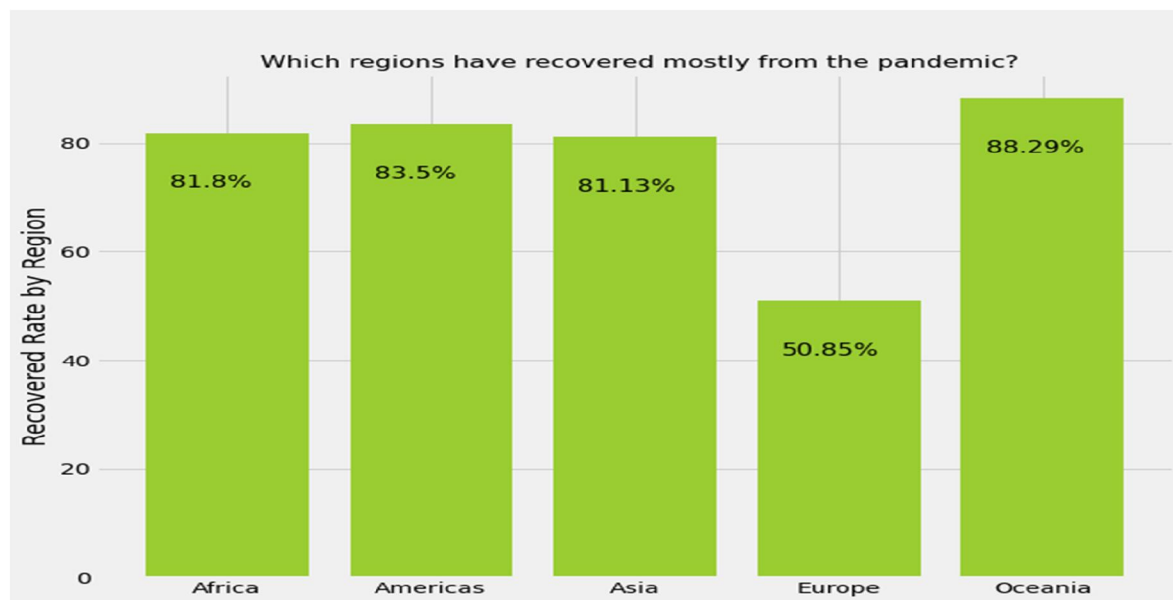
All the five regions (Asia, Americas, Europe, Africa, and Oceania) have been affected by the pandemic. **Asia** region has been greatly affected by the pandemic with a total number of **8,816,673** confirmed cases followed by the **Americas** with **8,576,431** confirmed cases and then **Europe** with **4,183,028** confirmed cases.



The spread of the pandemic in these regions was measured using metrics namely fatality rates and recovery rates. The fatality rate (also known as death rate) is the rate at which the country population are dying due to the pandemic. The recovery rate, on the other hand, is the rate at which those infected by the coronavirus recovered from it. **Europe** had the highest fatality rate of **5.08%** related to coronavirus pandemic followed by the **Americas (3.79%)** and then **Oceania (2.97%)**.



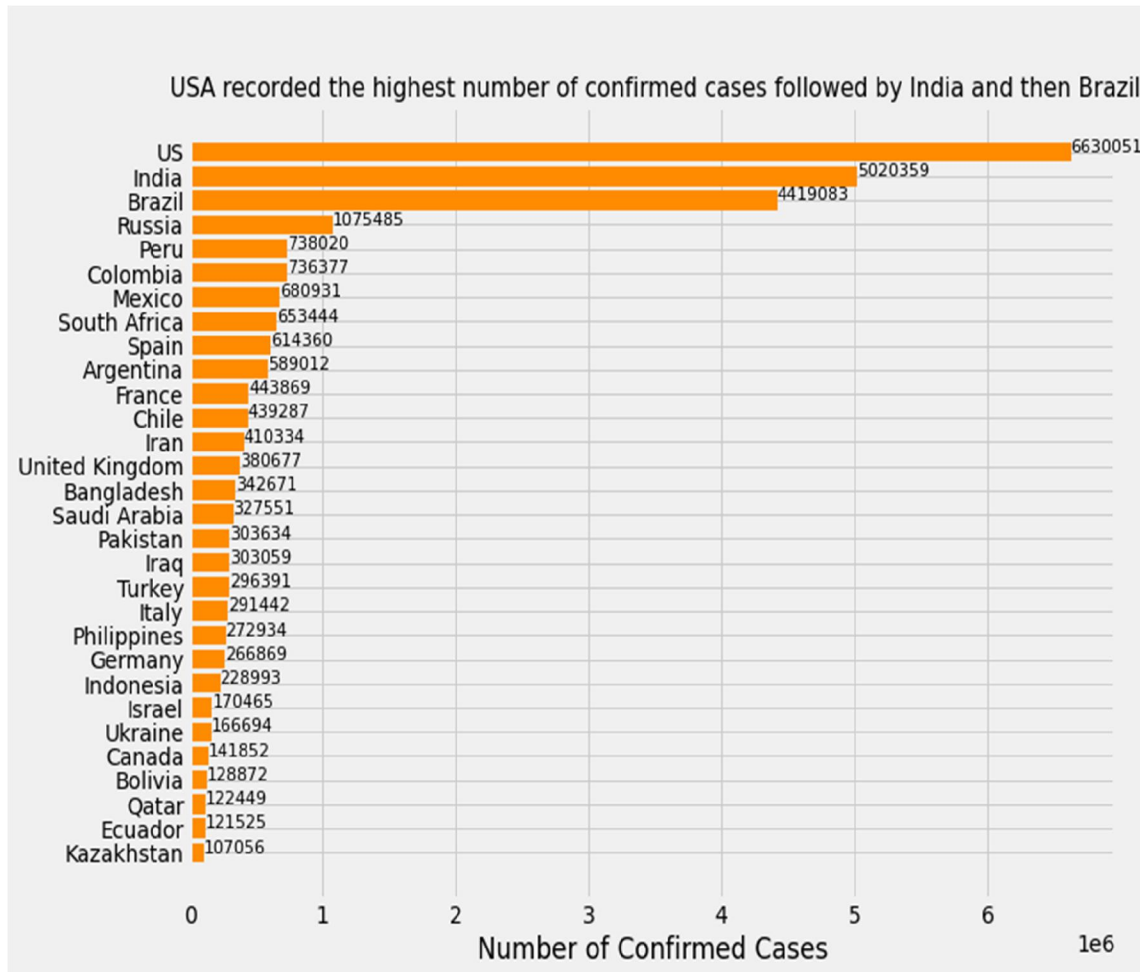
Oceania has recovered mostly from the pandemic with a recovery rate of **88.29%** followed by the **Americas (83.5%)** and then **Africa (81.8%)**.



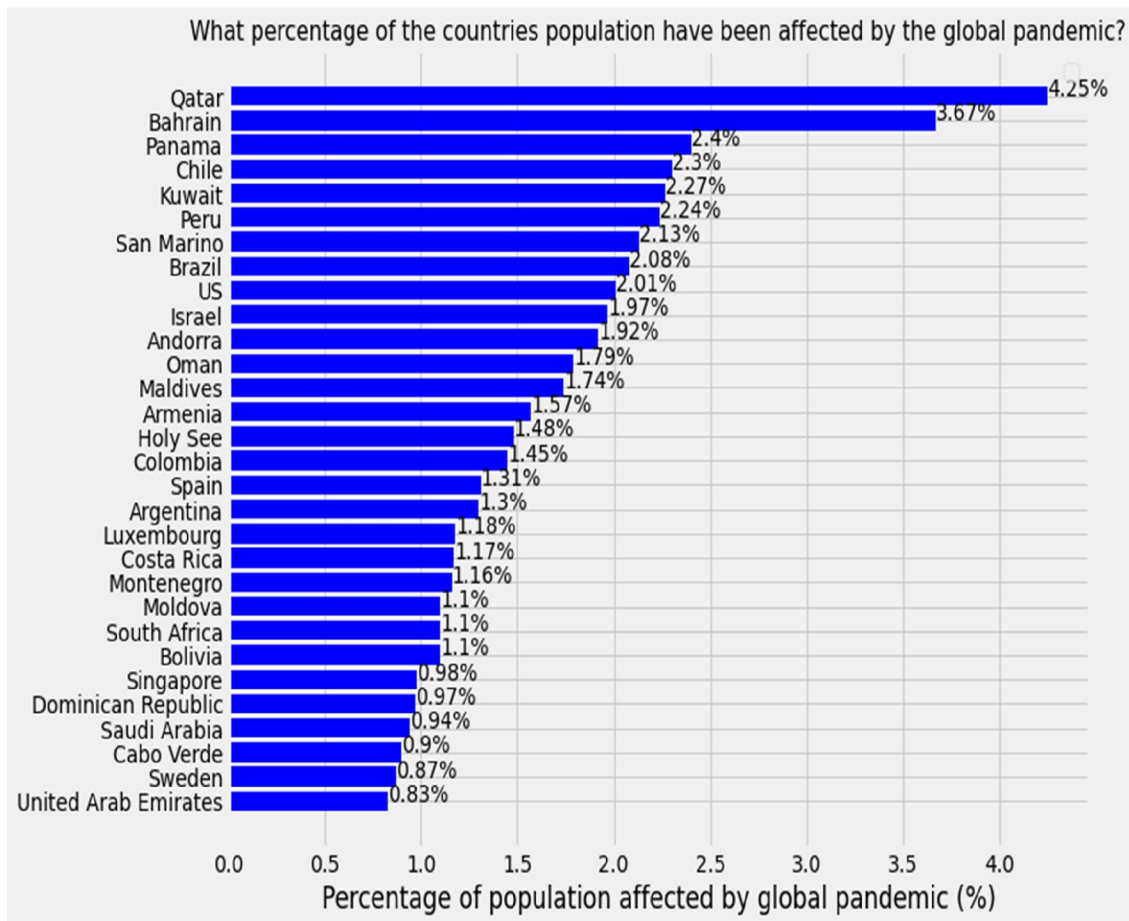
TOP 30 COUNTRIES BASED ON CONFIRMED CASES, FATALITY RATE AND PREVALENCE

Over 180 countries in the world have recorded coronavirus cases. Moreover, out of these confirmed cases in the countries, deaths and recoveries have also been recorded. As of 16th September, the **United States of America** topped the list of reporting countries with a total number of **6,630,051** confirmed cases followed by India with **5,020,359** confirmed cases and then Brazil with **4,419,083**. The origin of

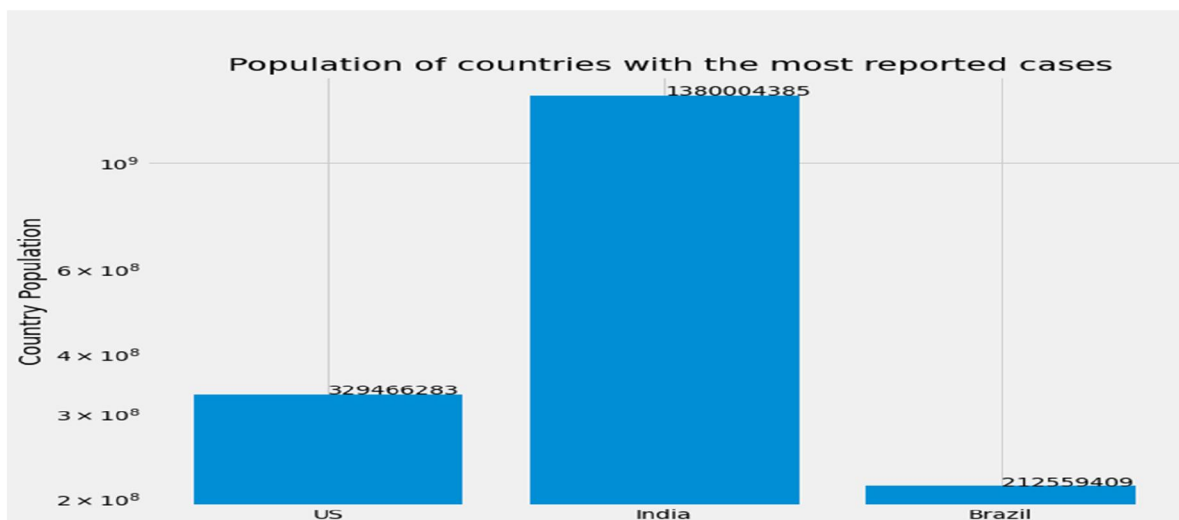
the pandemic, **China** is not among the top 30 countries based on total reported cases meaning that many countries have surpassed the origin of the pandemic.



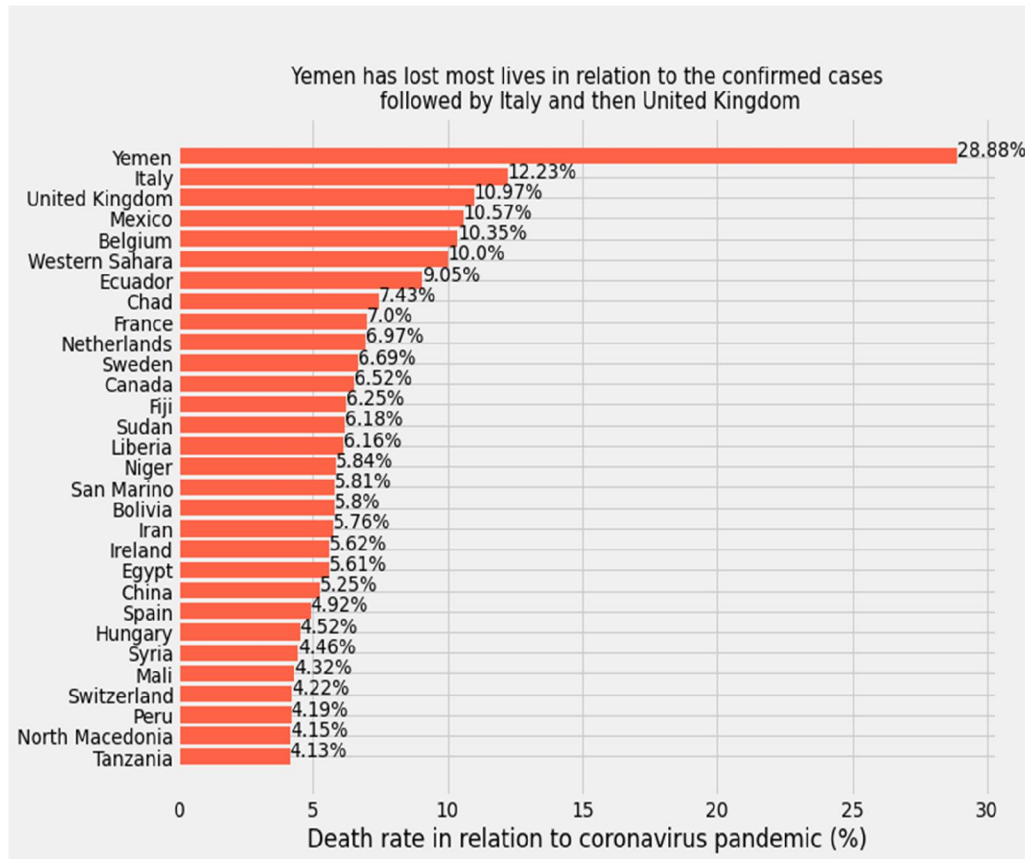
The prevalence is used to measure the spread of the pandemic in a country population. Based on population, the **prevalence** (also known as **a case-population ratio**) of a global pandemic in a country is the proportion of the country population that has been infected by the pandemic. Hence, the prevalence of coronavirus pandemic in a country is the proportion of that country that has been affected by the pandemic. Although countries like the United States, India and Brazil have recorded high proportions from the global total confirmed cases, the pandemic has not been highly prevalent in these countries highly due to the dense population of these countries. **Qatar** recorded the highest case-population ratio of **4.2%** that is, 4.2% of the Qatar population have been affected by the pandemic followed by **Bahrain (3.67%)** and then **Panama (2.4%)**.



The pandemic has not affected **up to 3%** of each of the top reporting countries' population. From my research, it was discovered that the population of the United States is **329,466,283**, India is **1,380,004,385** and Brazil is **212,559,409**.



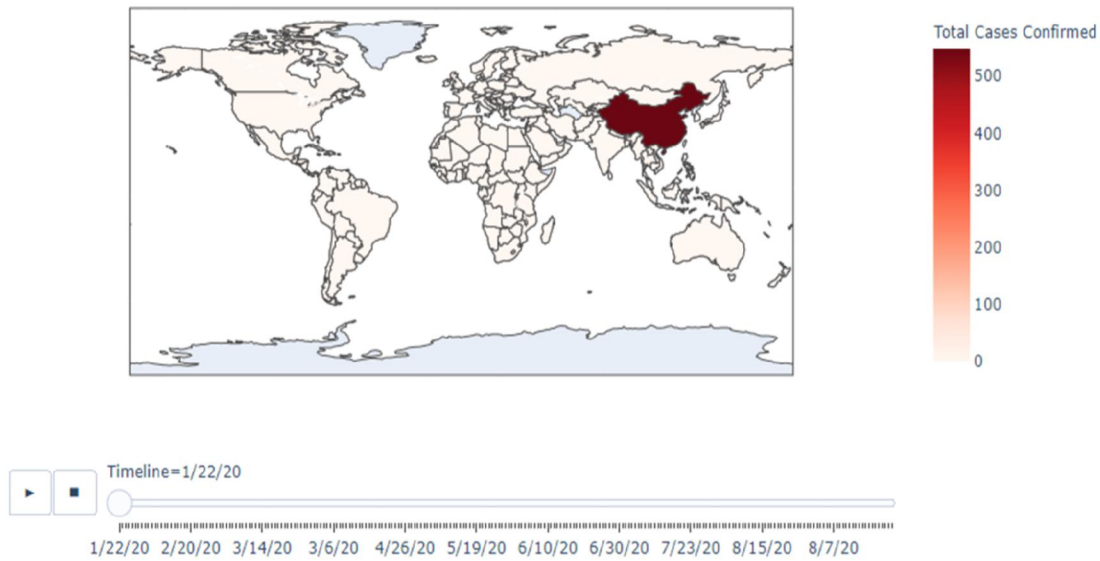
Also, further analysis shows that **Yemen** has **28.88% fatality rate** that is, 28.88% of Yemen population have died due to the pandemic. The second is **Italy** with **12.23% fatality rate** and then the **United Kingdom** by **10.97% fatality rate**.



GLOBAL MAPS SHOWING THE SPREAD IN AFFECTED COUNTRIES

The coronavirus pandemic has affected most countries in the world. Although the virus originated from **China** which recorded the most cases (**over 500**) as of 22nd January, other countries like **USA**, **India**, **Brazil**, and **Russia** have surpassed the origin of the pandemic as of 16th September. This signifies that China is getting a decline in the number of cases recorded and might be taking control measures to flatten the curve. The same applies to the number of deaths recorded in these countries compared to the origin of the virus, China.

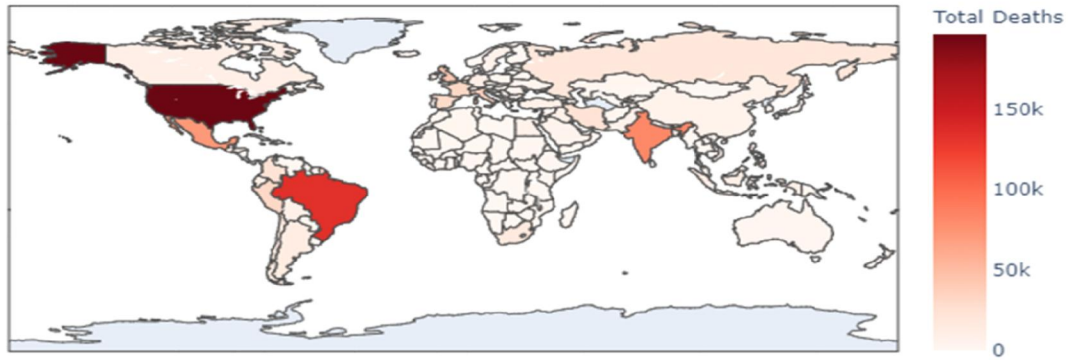
The Global pandemic originated in China as indicated on the map



Geographical distribution of Confirmed Cases

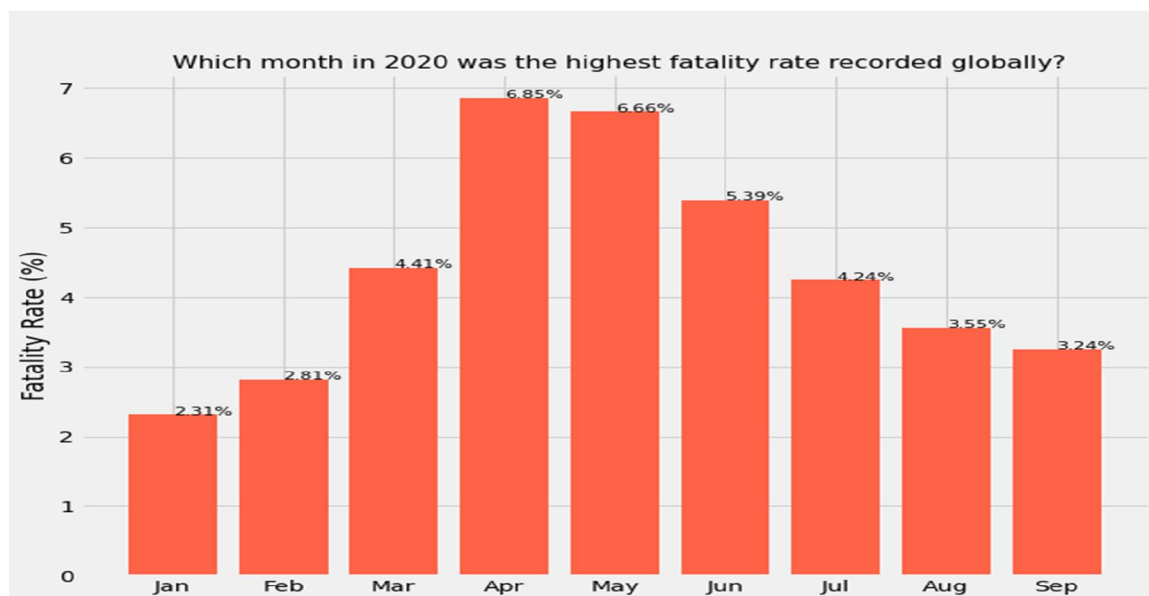


Geographical distribution of Confirmed Deaths

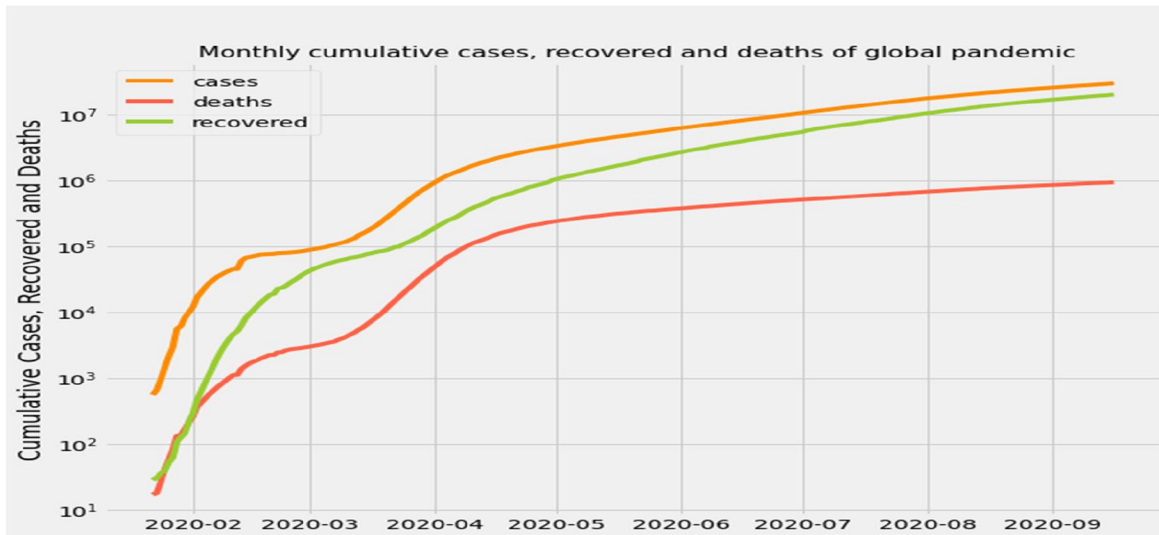


MONTHLY BREAKDOWN OF INDICATORS OF THE GLOBAL PANDEMIC

April recorded the highest fatality rate of **6.85%** compared to other months from January 2020 to September 2020 and there has been a decline in the rate at which people are dying due to the coronavirus pandemic. **September** recorded a fatality rate of **3.24%** close to that of **January (2.31%)**, the month the whole pandemic started. This signifies that the rate at which people are dying due to coronavirus has been declining.

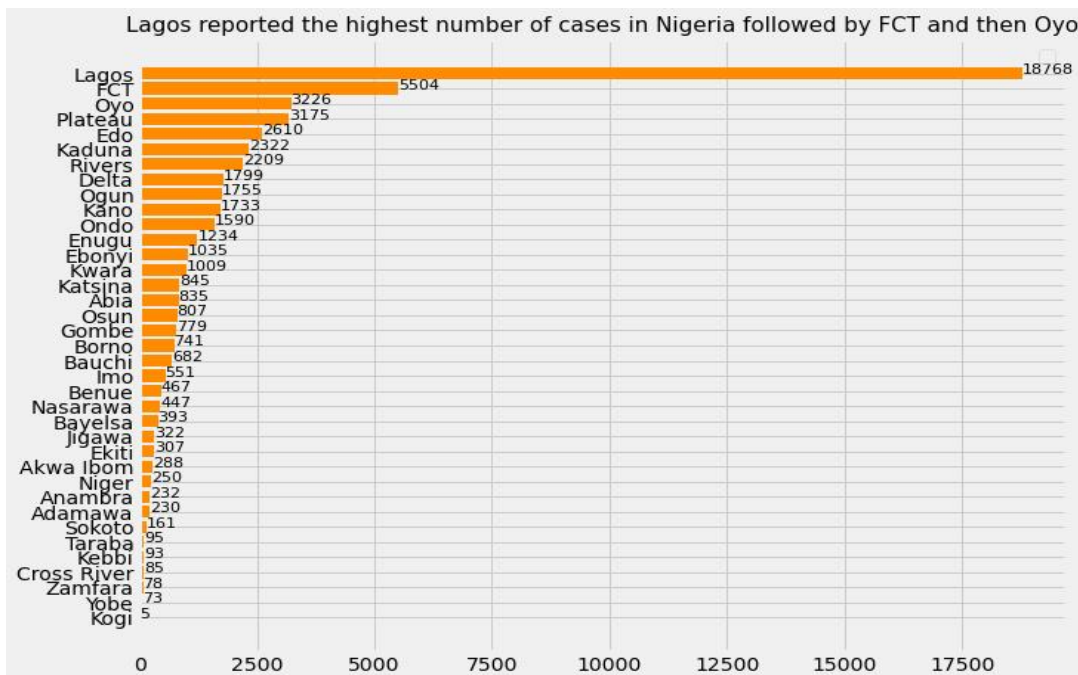


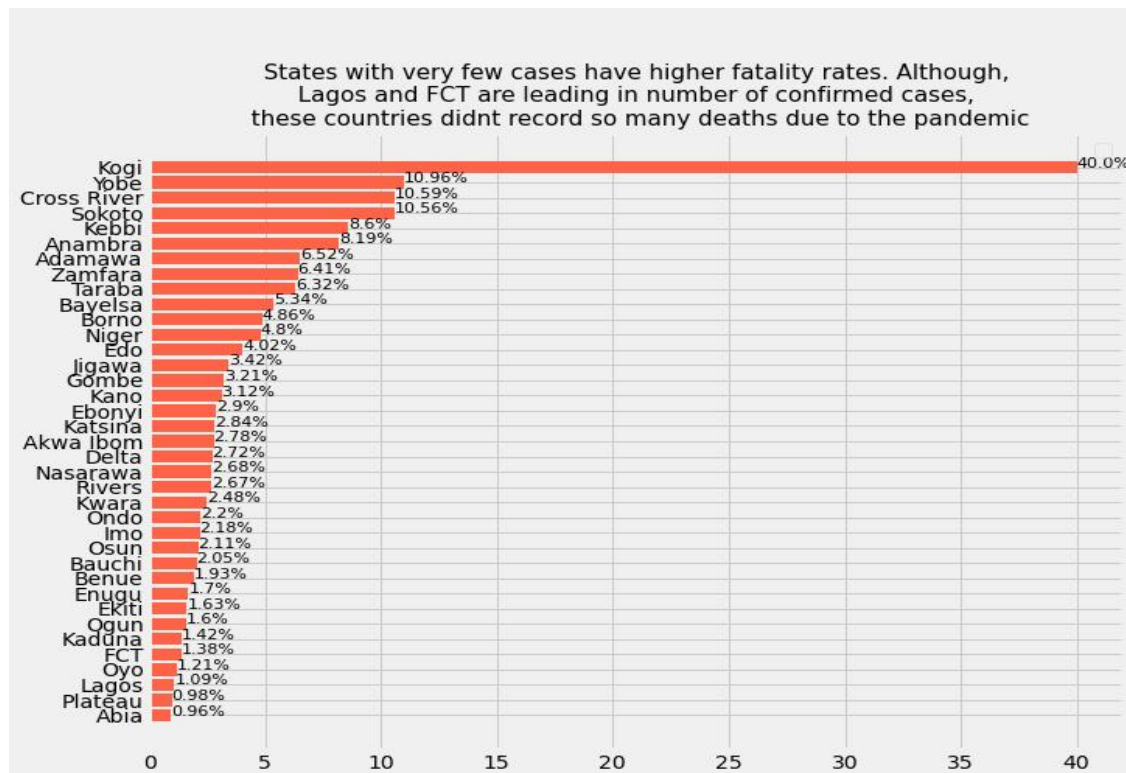
Globally, there has been a monthly increase from March in the total confirmed cases and confirmed deaths. This signifies that the curve has not been flattened globally as more cases are being recorded monthly.



NIGERIA CONFIRMED CASES AND DEATHS BY THE STATES

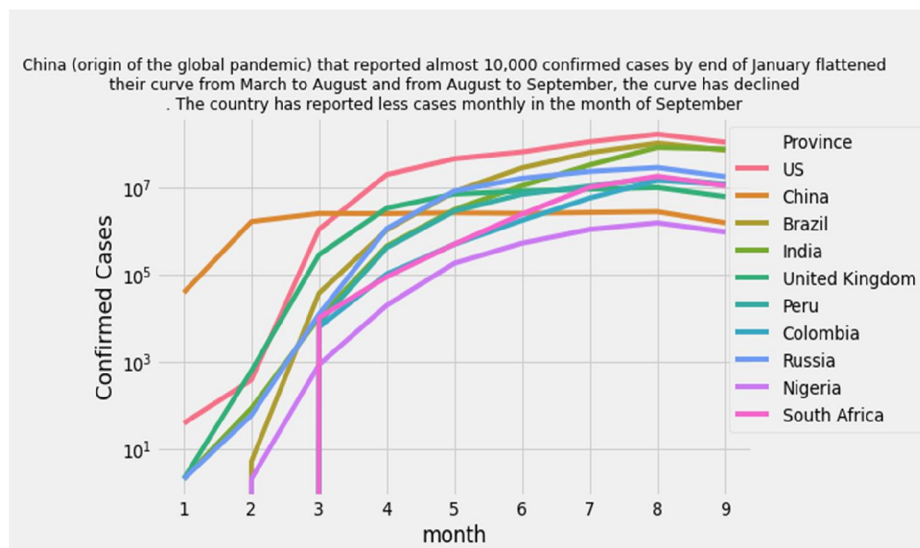
Measuring the spread of the pandemic on a country basis and using Nigeria as a case study, it was discovered that **Lagos** reported the highest number of cases (**18768**) as of 16th September followed by **FCT** with **5504** cases and then **Oyo** with **3226** confirmed cases. Although Lagos and FCT are leading with the reported cases, they did not record a high fatality rate due to the pandemic.





CONCLUSION

Has the curve flattened in top reporting countries?



By checking how some countries like USA, United Kingdom, Brazil, India, Russia, Nigeria, Colombia, South Africa, Peru and the origin, China have been responding to the pandemic, an analysis of these countries indicates that none has flattened its curve and are still getting more new cases monthly. **China**

(origin of the global pandemic), that reported almost **100,000** confirmed cases in January when the pandemic started did not record so many new cases from April to September and has begun to flatten its curve recently in September. So, has the curve been flattened?