# DataBase (COVID) VISUALIZATION PRESENTATION

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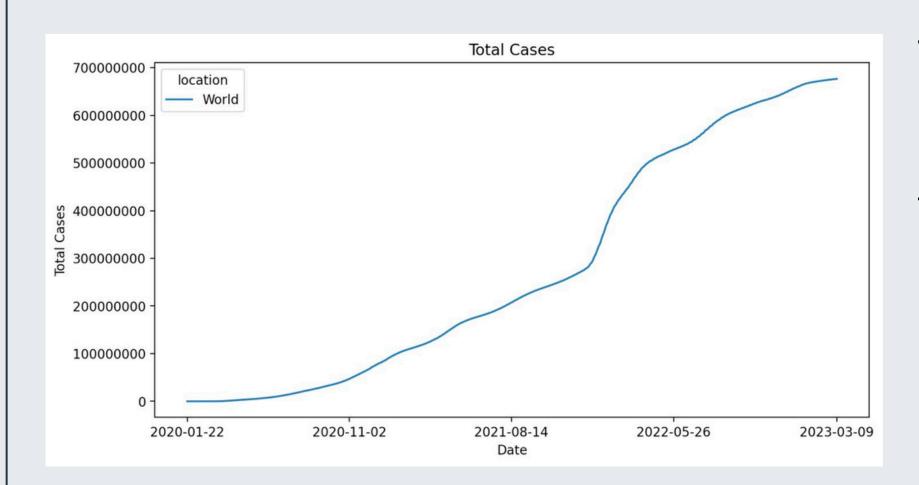
#### Data used





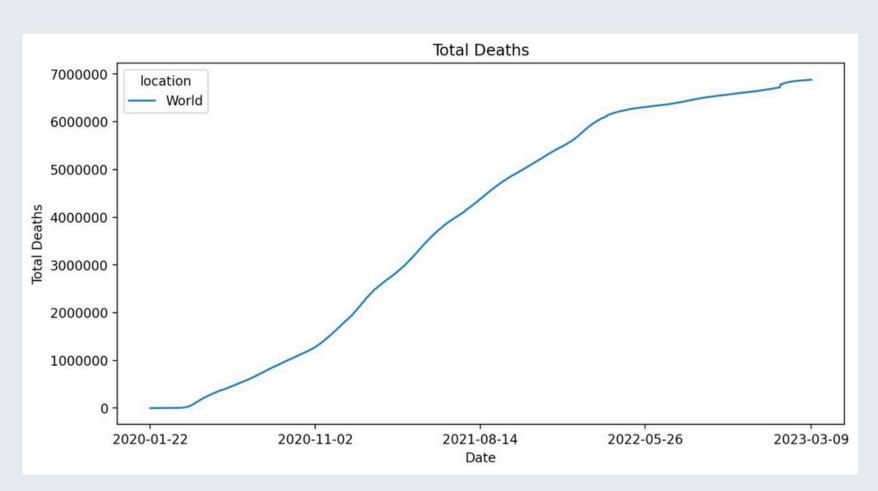
Initially, we used owid-covid-data.csv file, however we found some empty or irrelevant data which would make the visualization inefficient. So we decided to use the full\_data.csv dataset from John Hopkins University and owid-covid-latest.csv from Our World in Data. We used full\_data.csv because we only want the time series analysis for covid related features and owid-covid-latest.csv for the most recent data for all countries.

## VISUALIZATION Total Cases



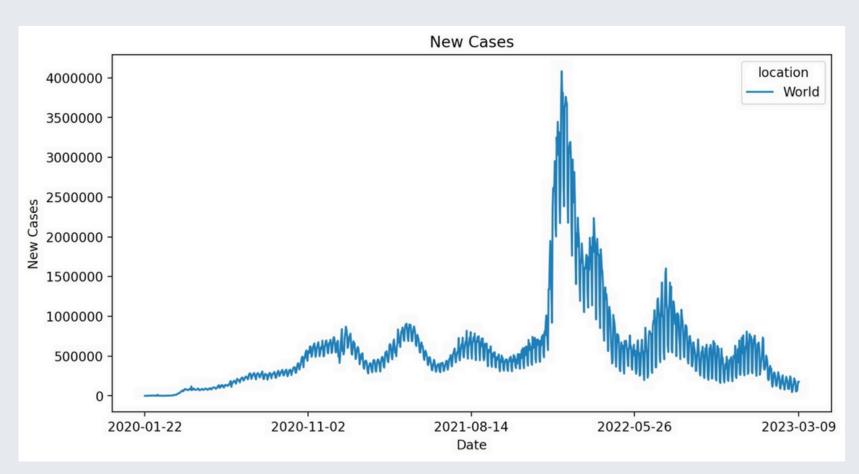
Through this graph we can see the total cases of covid in a certain country since the start of the pandemic. In this case, we decided to observe the total cases of covid in the world. From the graph, we can see that from 2020 to around late 2021 – early 2022, the global rate of covid cases is increasing at a steady rate. After that, the rate of increase experienced a dramatic rise which over time slows down to its original rate.

## VISUALIZATION Total Deaths



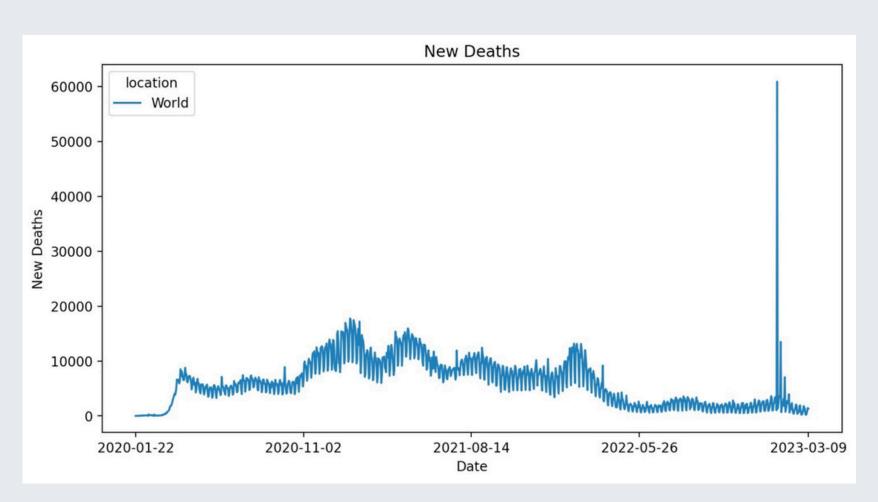
Through this graph we can see the total death of covid in the world, as the total cases for covid increases, so does the total deaths. Fortunately, at around late 2021 – early 2022, the rate of total deaths has slowed down steadily which would indicate an improvement in medication and health care.

## VISUALIZATION New Cases Daily



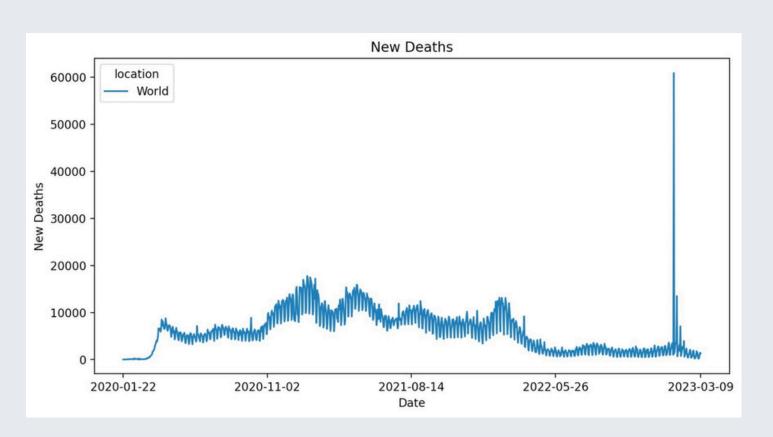
This graph shows us new cases per given time. The graph appears as a wave as cases would increase and decrease over time, but suddenly a huge spike appeared in late 2021 - early 2022. This sudden increase in cases might be caused from the appearance of a new covid variation.

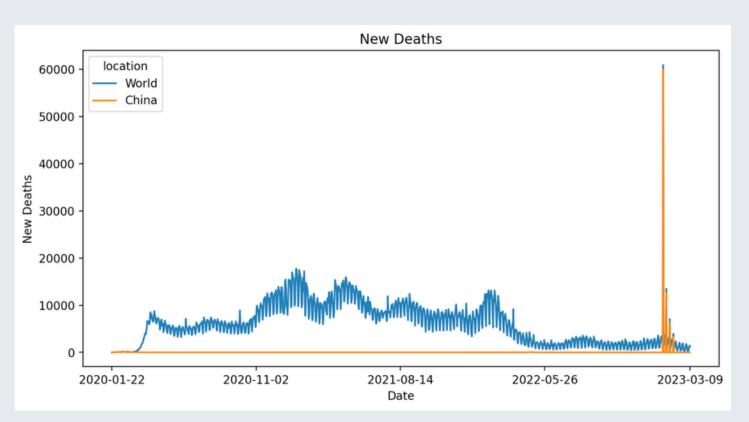
## VISUALIZATION New Deaths Daily



This graph shows new deaths caused by covid daily. Similar to the previous graph, it has a trend of increasing and decreasing over time making it look like a wave. However, there is a sudden spike in a very short time interval due to unknown causes.

## VISUALIZATION New Deaths Daily





After further inspection, the spike was caused by the sudden spike in China.

## VISUALIZATION New Deaths Daily

### China says 60,000 people have died of Covid since early December

By CNN's Beijing Bureau

② 3 minute read · Updated 11:17 PM EST, Sun January 15, 2023

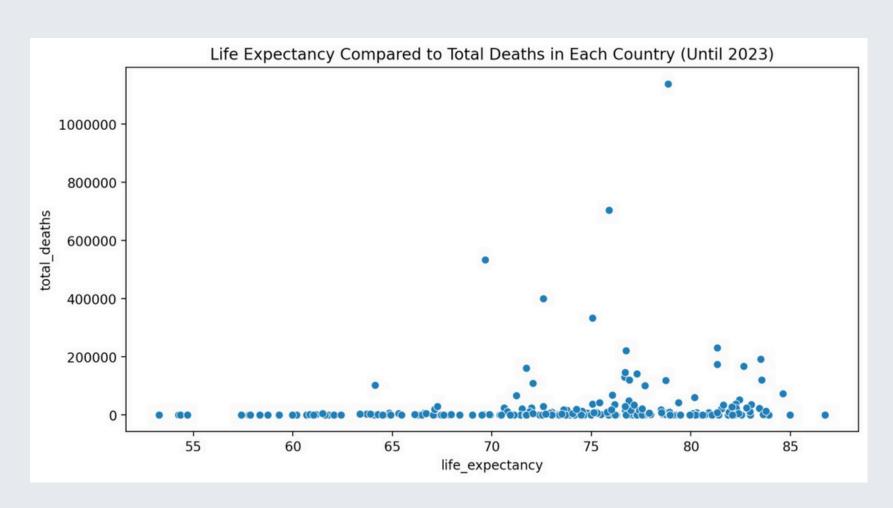




Tracing back to recent news, the cause was due to China abandoning its ZERO-COVID policy. The country may have not been ready to abandon its policy, causing the massive deaths.

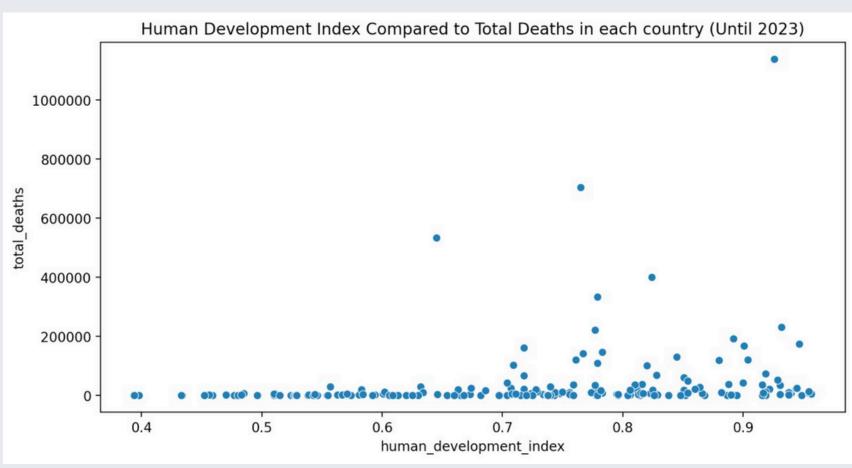
Source: CNN

## VISUALIZATION Total Deaths vs Life Expectancy



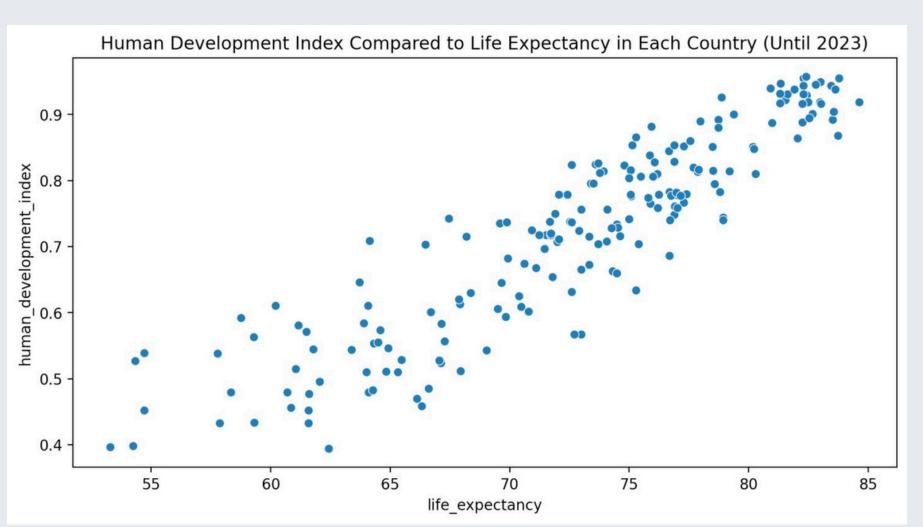
We can see that there is no clear pattern from the graph, which means that the total covid death of a country does not correlate to their life expectancy. However, we can see that there some outliers in the graph which may be caused by other factors.

### Total Deaths vs Human Development Index



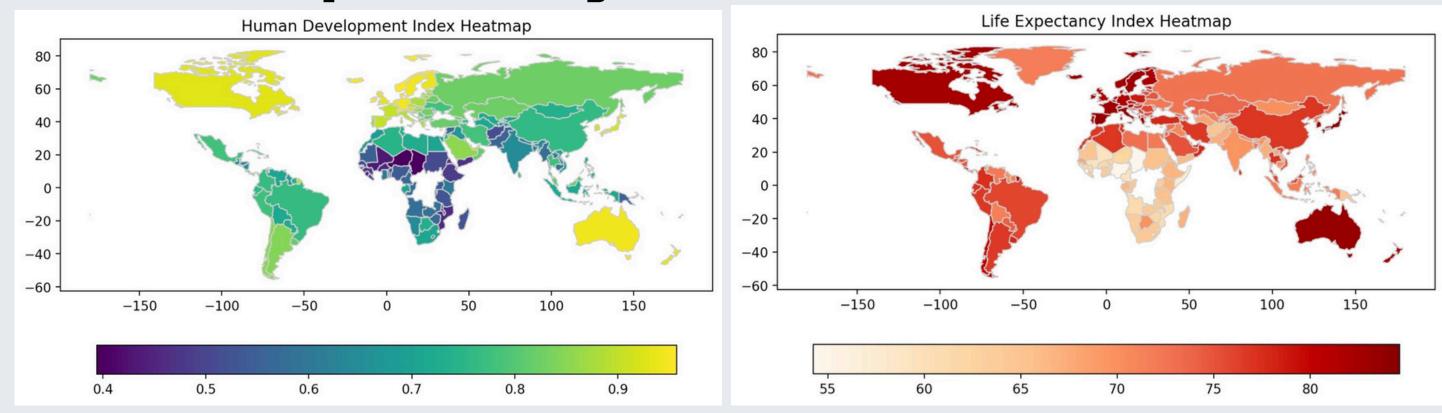
Similar to the last graph, this one shows that the Human Development Index does not affect the total deaths in a country and there are more outliers on the right side of the graph.

## Human Development Index vs Life Expectancy



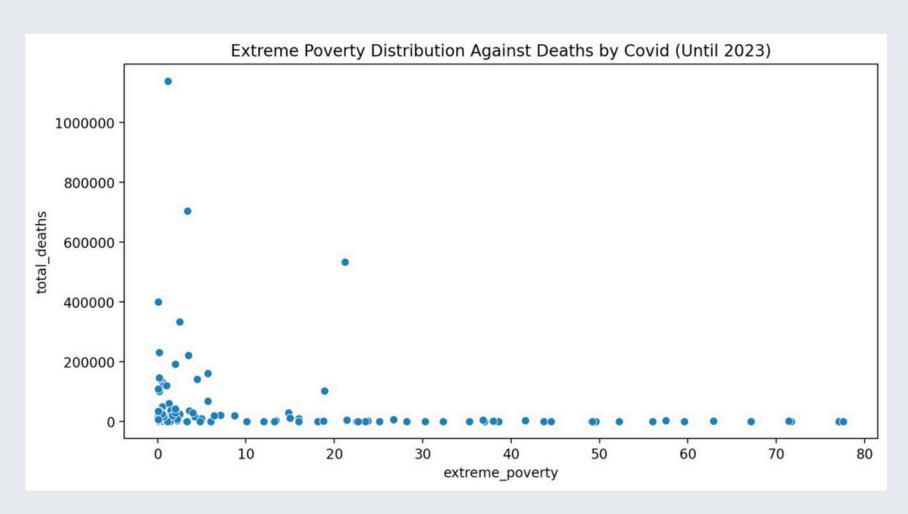
From observing the graph, we can see that the human development index of country does correlate to their life expectancy. As a country's human development index increases, so does their life expectancy.

## Human Development Index and Life Expectancy of the world



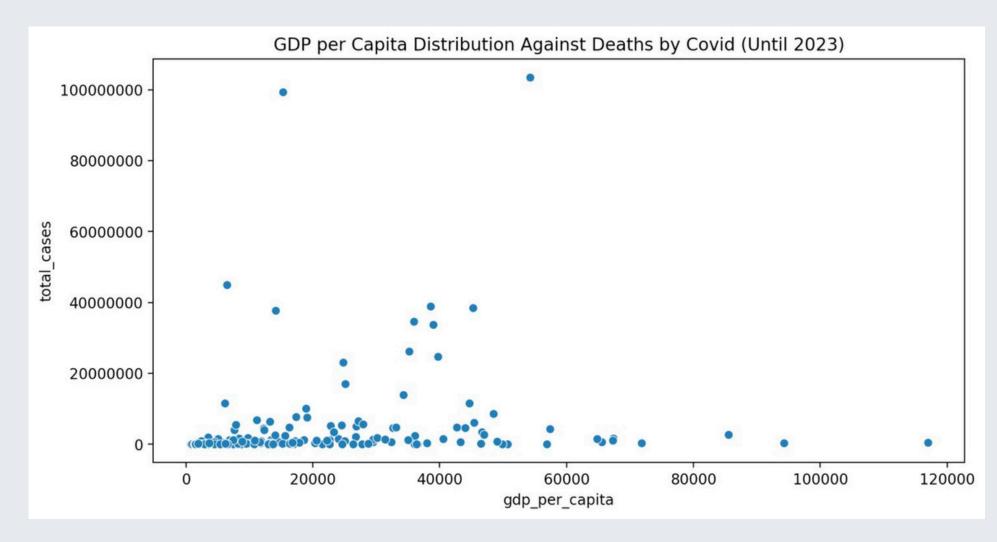
These heatmaps shows the human development index and life expectancy of all countries respectively. It suggested the linearity of the life expectancy and the level of development measured by the human development index.

#### **Total Deaths vs Extreme Poverty**



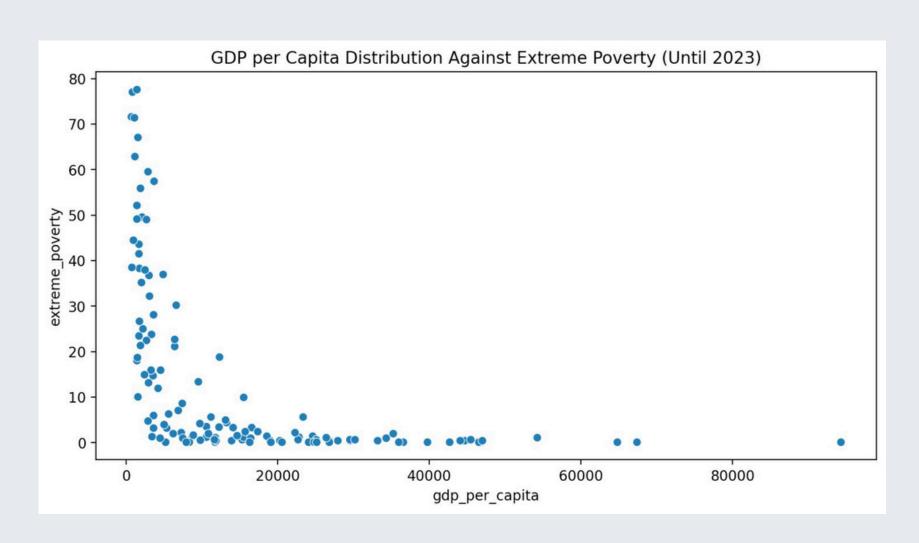
Surprisingly, the graph shows that countries with extreme poverty have less deaths compared to countries with low poverty.

### Total Cases vs GDP per Capita



Countries with lower GDP per Capita have more cases than countries with higher GDP per Capita.

### Extreme Poverty vs GDP per Capita



There are some points that could be taken. Some countries even though having low level of poverty would still have a low GDP per capita. This would suggest that there are some other factors that would correlates to these two data.

## COMPLETE DASHBOARD

#### Made by Streamlit



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Link: <a href="https://bit.ly/DatabaseVisualization">https://bit.ly/DatabaseVisualization</a>

## Thank You