The Power BI Report

You can find the combined Power BI dashboards by accessing below link:

https://app.powerbi.com/groups/me/dashboards/2567e680-e609-4566-a6bb-edfd052a7e0b?action=OpenDashboard&pbi_source=ChatInTeams

The Recorded Presentation

The recorded presentation of our group work can be found via below link:

https://academediase-my.sharepoint.com/:v:/g/personal/noel_ramirez_learnet_se/EY77NEBbtcNNoqlrsl5mySUBIEoI9-fIelC9r1Er8dv-kw

Part One by Ronja Larsson - Covid Cases Worldwide
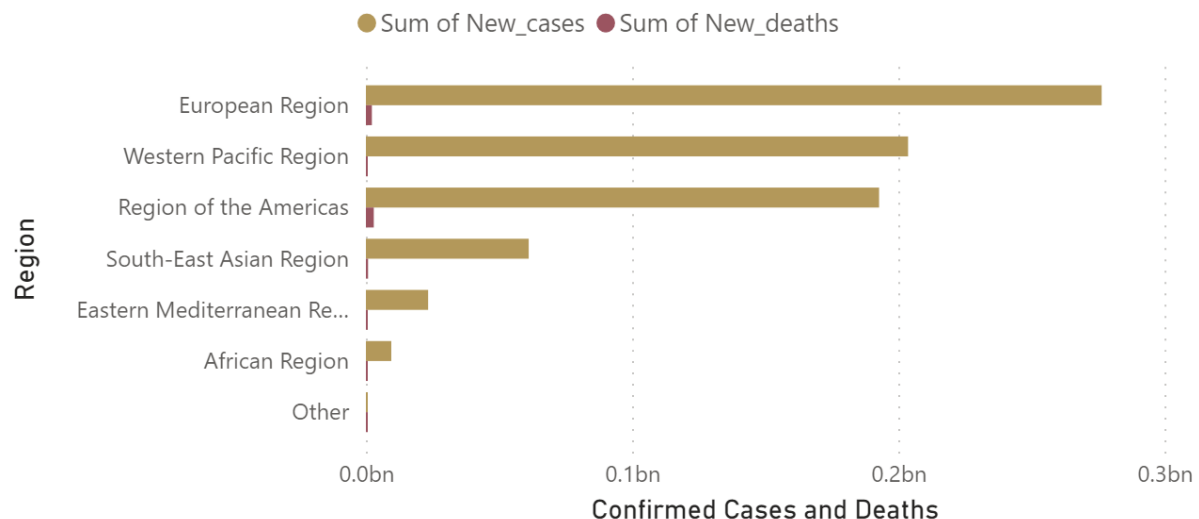
2023-05-29

In the first part of the presentation, an overview of the Covid pandemic development at the global level is given in the following four different visuals. My aim with the visuals is to show how population, confirmed cases and deaths are in relation to one another in each region. The data is taken from WHO's website https://covid19.who.int/data.

Confirm Cases and Death by Region

I aim to compare the relationship between the amounts of death from Covid and amounts of confirmed cases at the global level. The impact from this visual shows that out of all the confirmed cases, the actual deaths cases are not as high as one would have assumed.

I chose to use clustered bar chart because it is a good way to compare two (or a couple of) values across several categories. In this case, I want to give a global overview on how many confirmed cases and deaths cases there are in different regions of the globe. As we will go further down into a few selected countries, an overview is needed to provide a larger picture of the Covid spread across the globe.

Confirmed Cases and Death by Region

● Sum of New_cases ● Sum of New_deaths

European Region
Western Pacific Region
Region of the Americas
South-East Asian Region
Eastern Mediterranean Re...
African Region
Other

Region

0.0bn   0.1bn   0.2bn   0.3bn
Confirmed Cases and Deaths

Confirm Cases and Death by Year

With this visual, I aim to show how the numbers of confirmed cases and deaths cases developed over the time, from the start of Covid outbreak to the time when the data stopped being collected in March 2023. We can see that for the first two years, the confirmed cases continued rising but later started declining from 2022. However, the deaths cases stayed rather flat during the entire duration of pandemic, in comparison to how many confirmed cases there were. The impact shows that even though the cases were increasing a lot, the deaths were not increasing at the same rate. Similar developments for both confirmed cases and deaths can be seen in different regions of the globe.

I chose to use a line chart to explore the developments of both confirmed cases, and deaths cases, because it is a suitable type of graph to show development over time. In the interactive report, you can drill further down to see the developments for each year, quarter, and month. This provides the possibility to see how the development looks like in a shorter time span as well.

With this visual, I want to give a global overview on how many confirmed cases and deaths cases there are during the whole pandemic. As we will go further down into a few selected countries, an overview is needed to provide a larger picture of how Covid spreads across the time.

Confirmed Cases and Death by Year

● Sum of New_cases   ● Sum of New_deaths
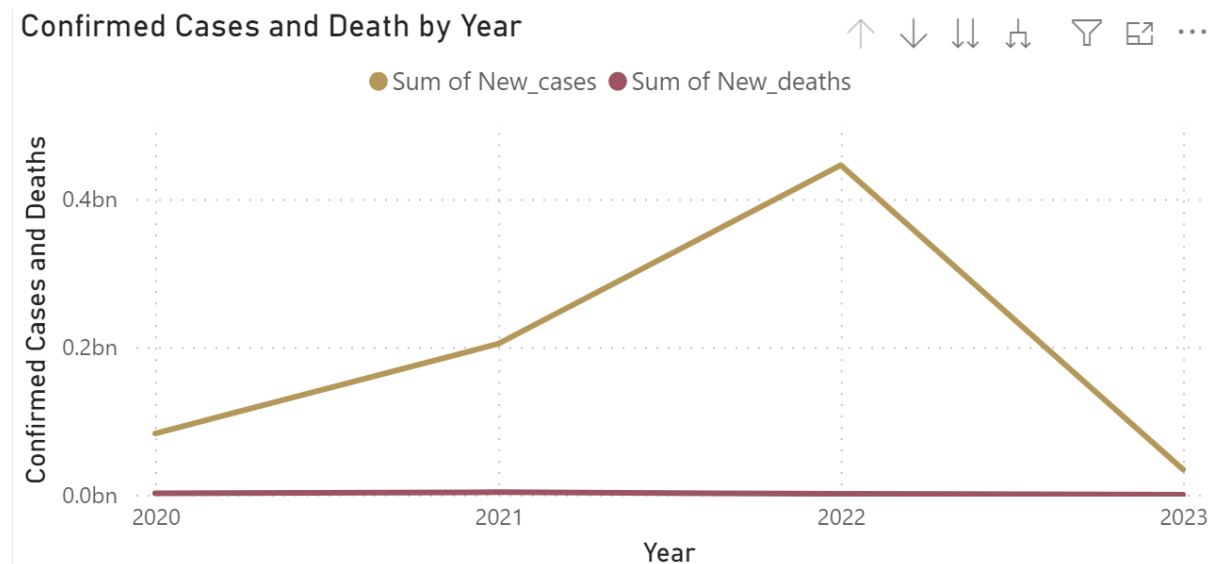
Population by Region

With the next visual, I aim to show the populations by region, which gives an overview on the distribution of population across the global. A bar chart is a clear way to show different values across a couple of categories. Comparing the total population for each region with the total amounts of confirmed cases for each region, we can see that the total confirmed cases are just a fraction of the total amounts of population from each region.

Population by Region
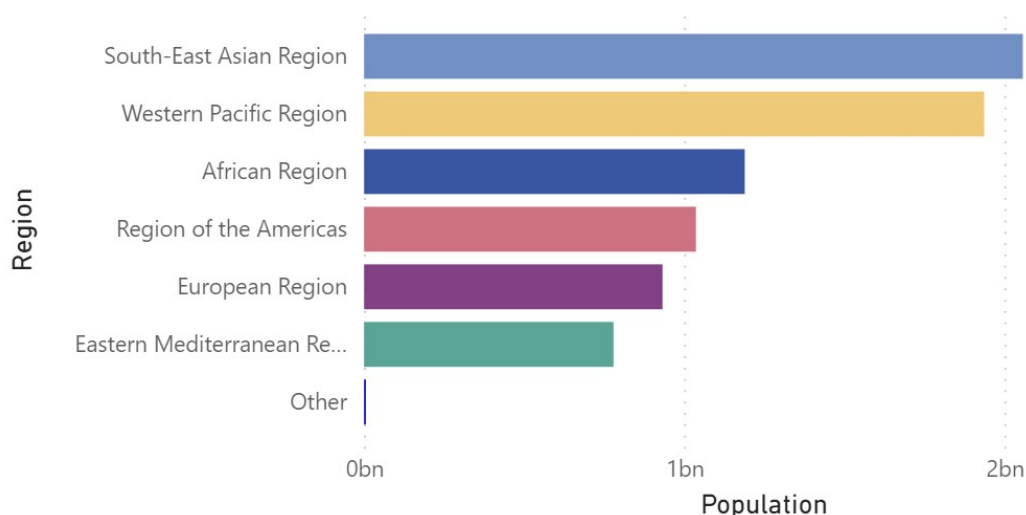
Confirmed Cases by Region

With this map visual, I want to show the amounts of confirmed cases with different bubble sizes across the map. We get an idea of which countries in different regions have more confirmed cases.

I chose to use a map as the visualization because we can click on single bubbles to see the confirmed cases for that country and which region the country belongs to. This visual gives an overview on a global level, but because that you can narrow down to specific countries, you can also get specific details for a country, which you cannot get from the other visuals on this first part of the presentation.


Confirmed Cases by Region
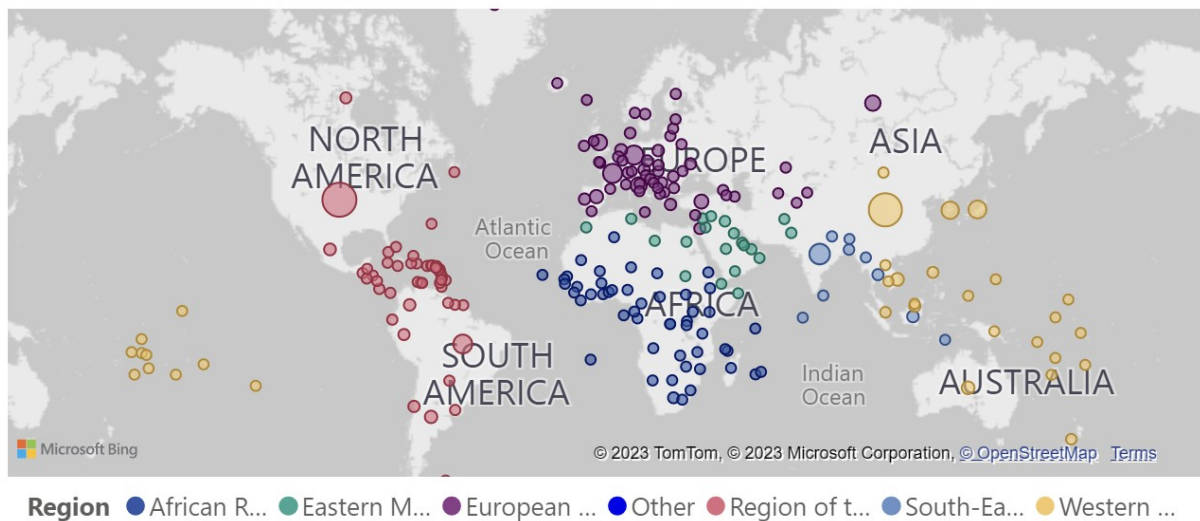
Part Two by Noél Ramírez - A Closer Look at Selected Countries

A Covid Tale of 5 Countries: How death numbers can be misinterpreted

During the Covid pandemic, people were concerned about their family and friends who lived near and afar. For some people, like us three, we have family and friends who live in Sweden and in other countries. Unfortunately, there was a wave of confusing, exaggerated, and simple/complex data visuals regarding the death numbers. Print and online media, and television companies need to make money and one way is by creating catchy graphs and images to grab the attention while sacrificing perspective.

My aim is to demonstrate that Covid related fatalities numbers should be examined critically. I decided to make this a personal story and include data from where we have family and friends: El Salvador, Ireland, Sweden, Taiwan, and the United States.

I decided to begin with a clustered bar chart that shows the population compared to the number of deaths. I used a logarithmic scale there to heighten the intensity of the numbers for the casual viewer. The relationship is purposely misleading; the logarithmic scale compacts the graph. This gives the presenter and viewer something meaningful to discuss.
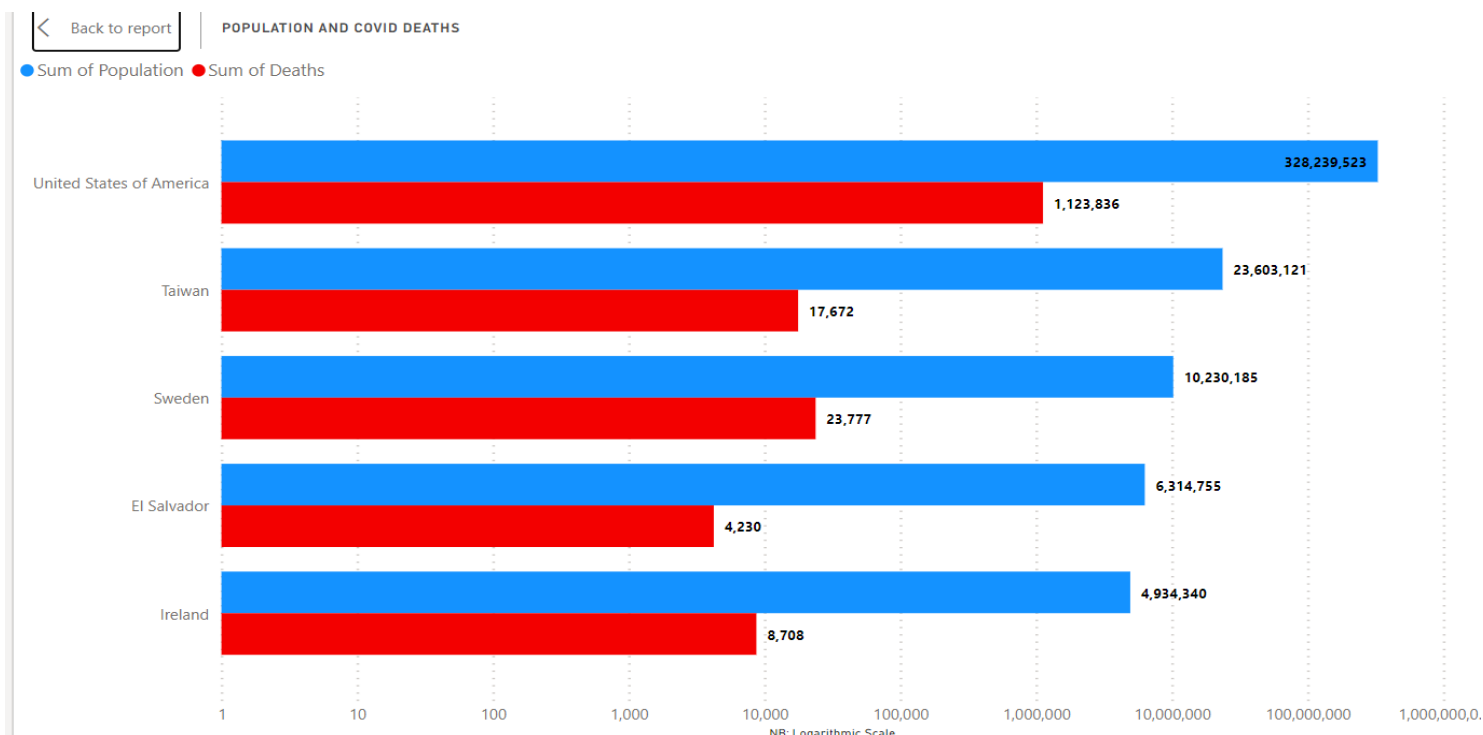

The pie chart next to it is important because it reminds the viewer that one way to interpret data is to examine it per capita, in this case, per 100,000. A caveat though: examining data like Covid is not best examined solely in per capita terms. A critical mind would realize that there are different factors for why people got infected and died from Covid. Everything from the size of a country, type of health care/access to care, general health of the public, demographics, etc…

COVID DEATHS PER 100,000
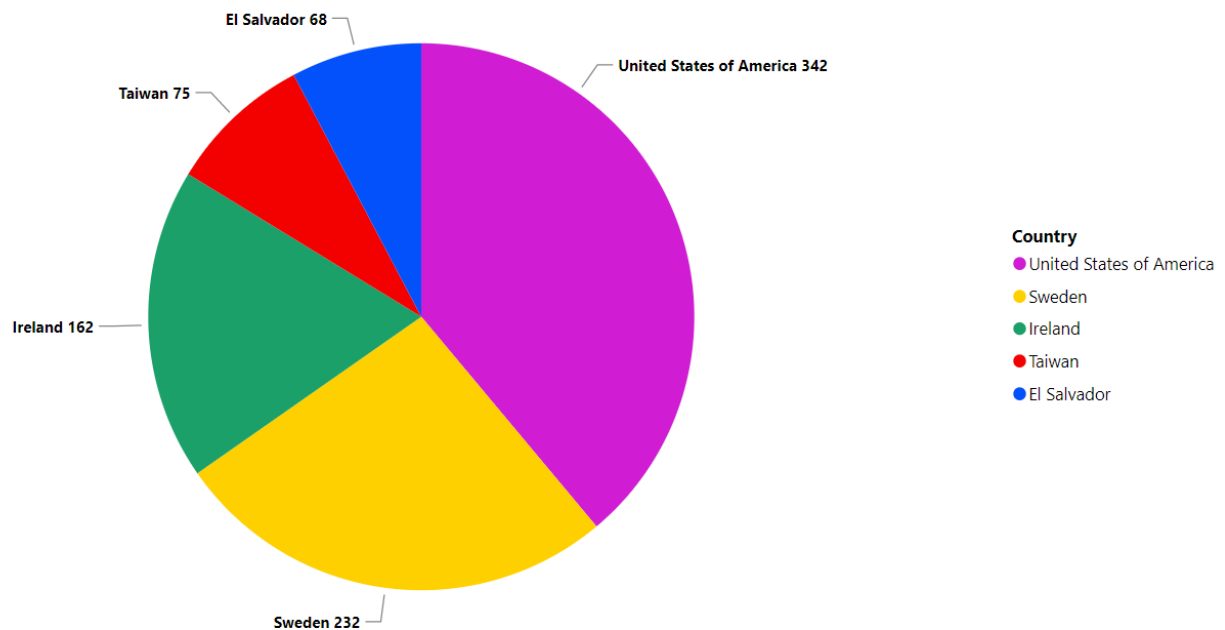
Yet, the critical mind can still understand something by examining these numbers per capita. Which leads to the next graph with the percent of the population that died from Covid. While the large number of Covid deaths are tragic, looking at this graph sets perspective into the percent who died from Covid. Examining these numbers by micro analyzing the data would reveal a lot but the fact remains that of the five countries, less than 0.5% died from Covid, something the media rarely mentioned.
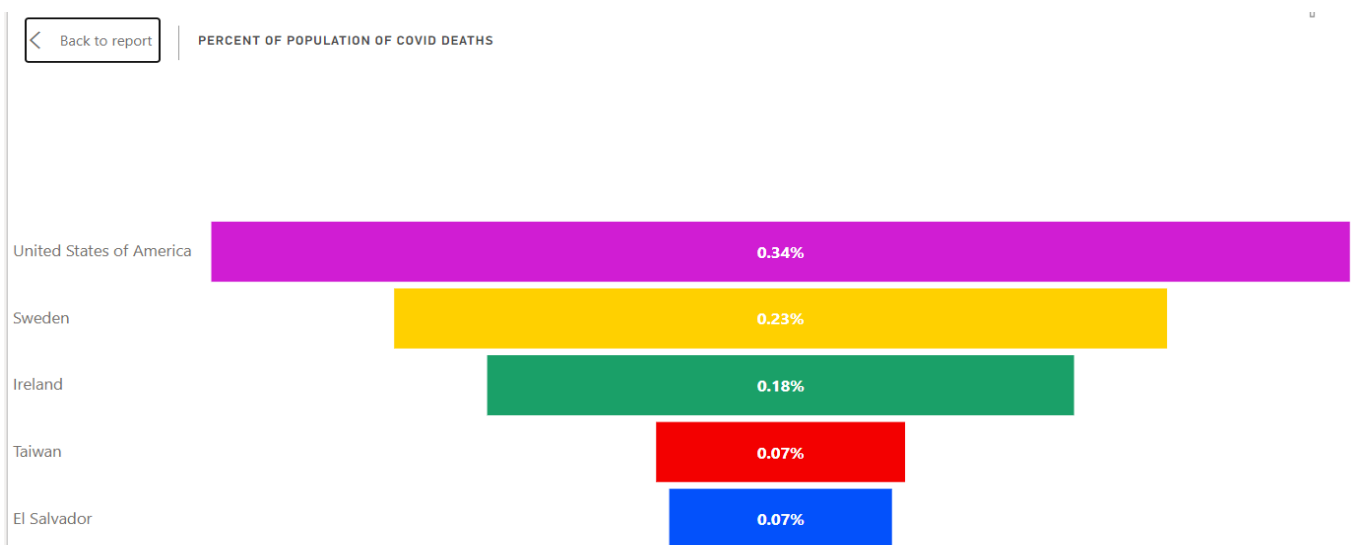
The last graph is to demonstrate and compare the number of deaths of the five countries throughout the pandemic. Again, a critical eye would realize that the US population is significantly larger, which is why the deaths skyrocket. Examining the other four countries makes for interesting speculations as to why the number of deaths were high/low, dipped, etc...I decided to use the zoom slider to make the graph more interactive for the viewer.
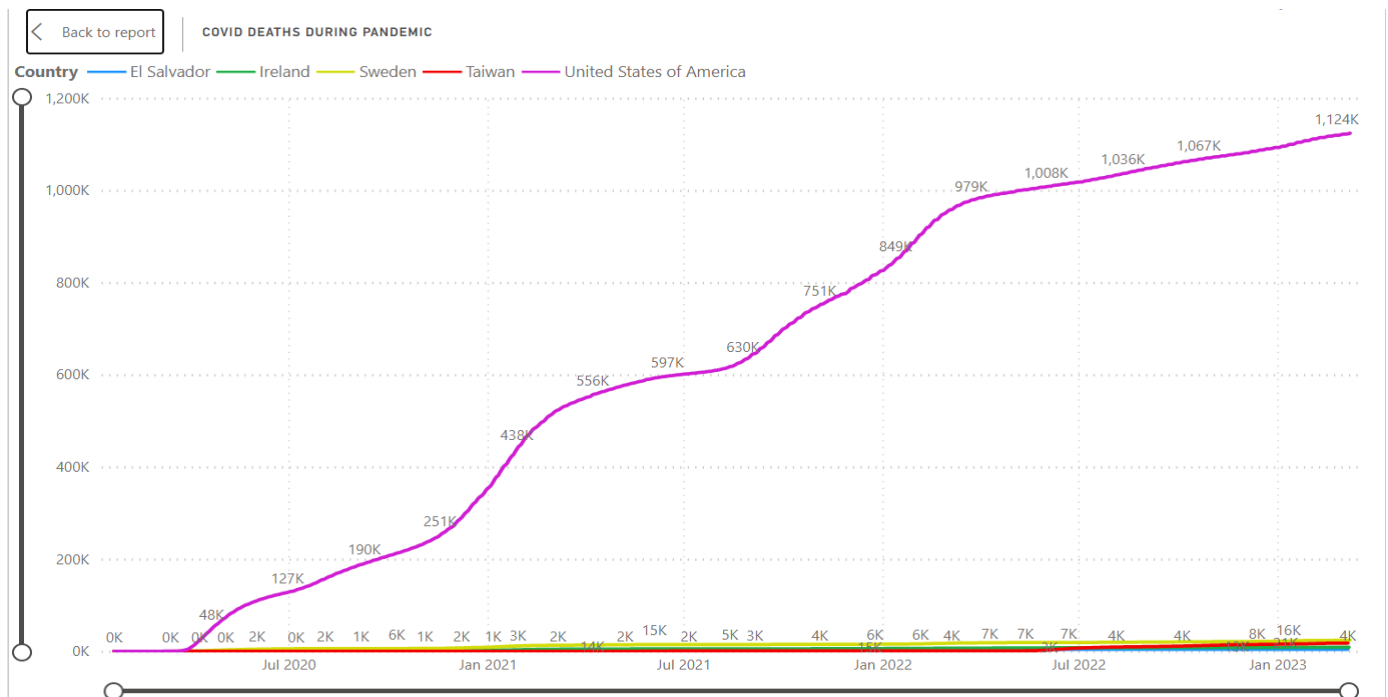
In conclusion, these graphs should lead to a critical discussion on the impact Covid had on the number of deaths. The data and graphs should inspire conversations such as:

➢ did the Covid deaths warrant lockdowns?
➢ If so, at what level? At what cost for society?
➢ How can health care and access to it be improved?
➢ How can the quality of life improve for wealthy and especially poor citizens/countries?

Part Three by Mark Peters - Covid Vaccinations Worldwide

Report Aims

Concluding the arc of our examination of the global response to the Covid pandemic with visualisations of the different vaccination programs made narrative and logical sense to us. The story of when vaccinating began and the pace at which it was carried out is an interesting story in and of itself, but I decided to import WHO data about the 'Development Status' of the worlds nations and use that as a legend for most of the visuals in my report.

For a comprehensive definition of the reasoning behind this classification you can read this article from the UN – Country Classification.

The main aim of my visuals was to show the different rates and efficacy of vaccination programs throughout the world, and how the UN's development status shows how unequal these rates were, not only when programs were initiated but how effective they were in reaching the populations afterwards.

People Vaccinated by Year and Month
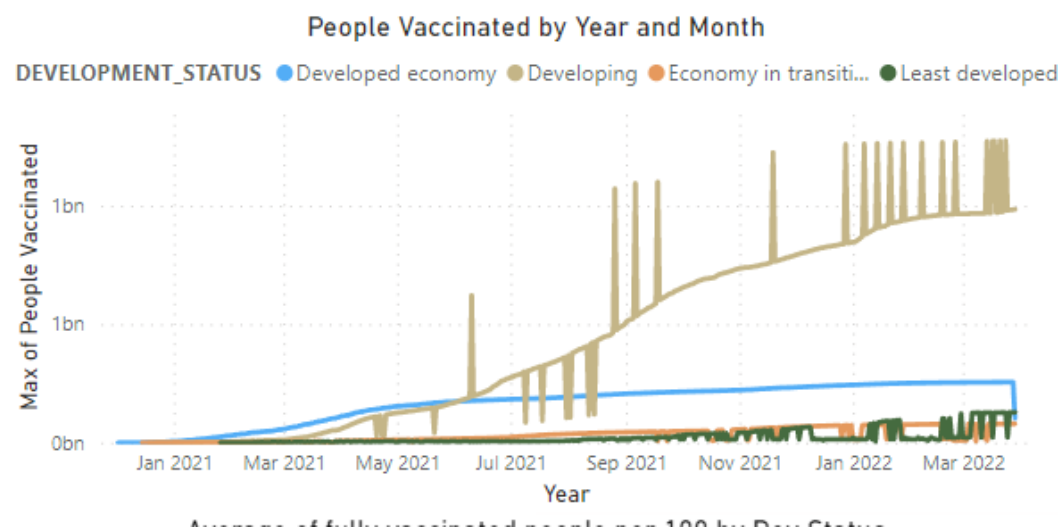
The line graph is the clearest and most effective way of visualizing the huge numbers of people vaccinated throughout the world. By using the Date Hierarchy and drilling down into different time spans we can change from a comprehensive view to one which is more localised and focused.

Total Vaccinations – World Map
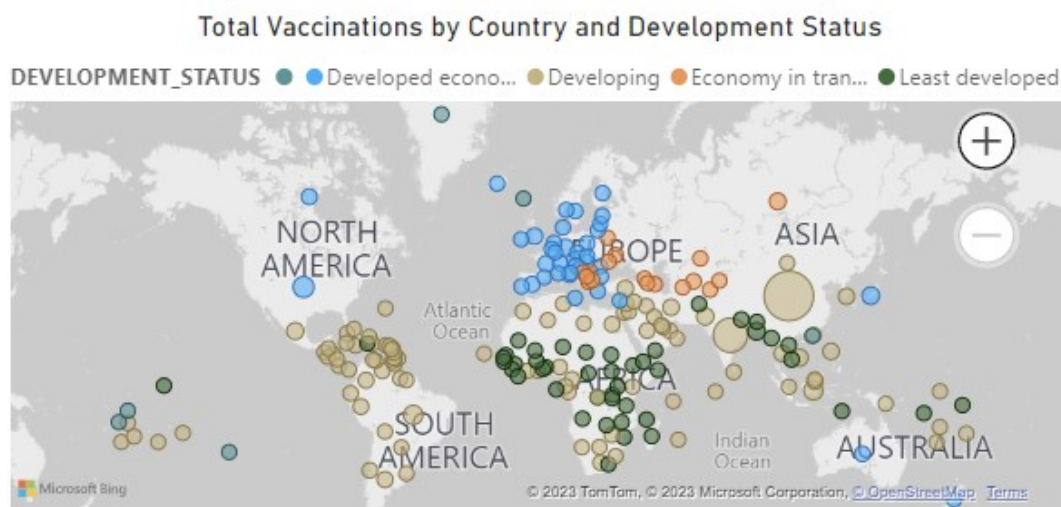
The world map illustrates the dispersal of countries of the different developmental statuses around the globe. While there may be some confusion about what 'Economies in transition' means and questions about why China is in the 'Developing' group even though it's the world's financial juggernaut, for the most part there are no surprises as to how the wealth of the world is distributed.

## Number of Vaccines administered by Company
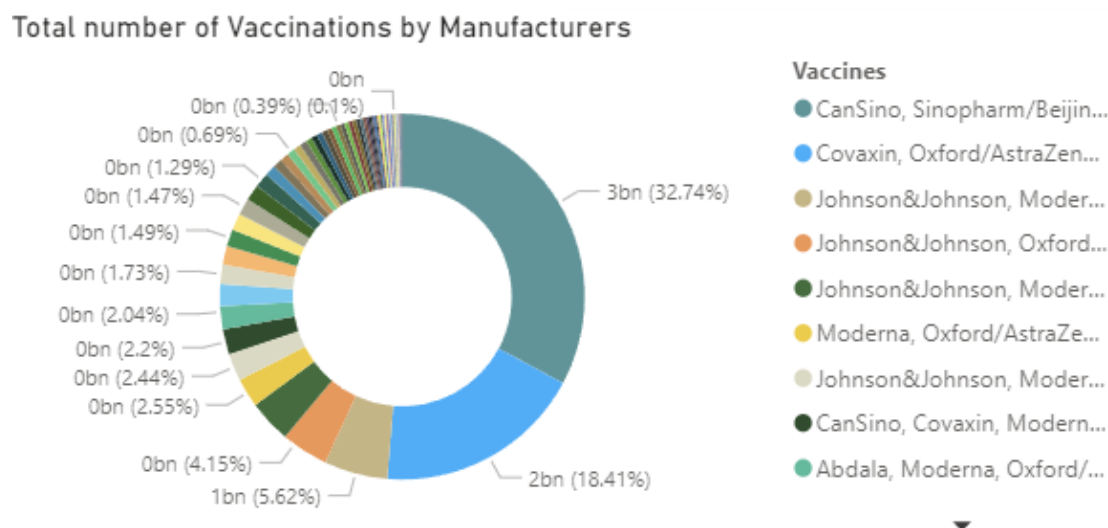
This may be the least impactful visual on my page, but I felt it was important to get an idea of how the medical world responded to the crisis, and to see the number of companies that were involved in the production and dissemination of vaccines.

The confusion lies in that many of the legend headings are made up of a mix of different vaccines, as they were what was administered in that region and on that day. It would have taken too much work to tease it apart, so I left the data much as it was. It does, however,

distinctly show the massive volume of vaccines produced by China's 'CanSino' and 'Sinopharm' medical laboratories.

Average of Vaccinations per 100 people by Dev Status

Average of fully vaccinated people per 100 by Dev Status
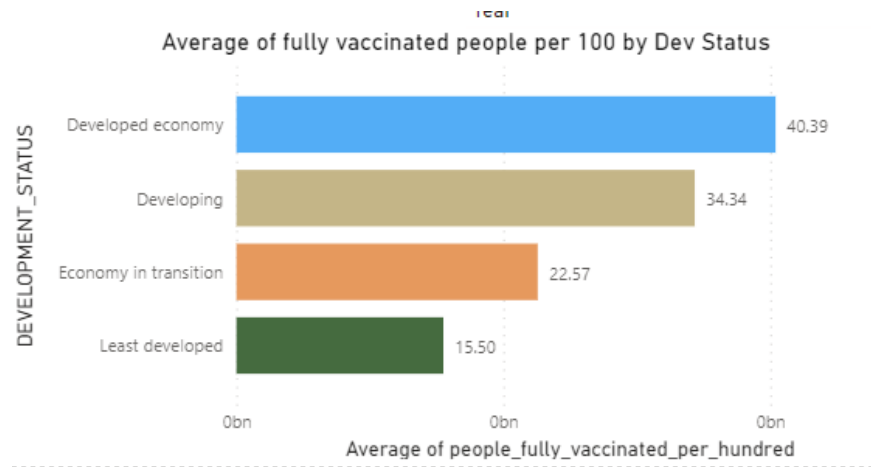
Here I wanted to show the inequality of vaccinations throughout the world. There are so many factors involved in why vaccines reached certain groups and not others, that I will not try to give any glib evaluation of what the data represents. But I will say that it ought to lead special interest groups to investigate the efficacy of national response programs in more detail so that such delays and deficiencies do not occur in any future pandemics (heaven forbid).

Impact of Visuals

We can argue about what each group means and why certain countries are contained within one and not within another, but the overall message of the visuals is clear; that the poorest countries of the world were the last to begin to be vaccinated and were the least likely to have access to vaccinations when they did become available.

It's a story as old as civilisation itself though one we should be not fatalistic about. The ability to be able to treat huge amounts of data in a short time can be a spur and *casus belli* to change the way governments respond to and manage such global catastrophes. Without such insights we are surely doomed to repeat the same mistakes, until we day comes when we won't be given any further opportunities to improve.

(Wow! That got very dark there at the end!)