

Monitoring Dashboard with COVID-19 Data in Power BI (Dashboard Report)

Intro:

The COVID-19 pandemic has profoundly affected our lives unexpectedly and globally. Understanding the data, monitoring the spread of the pandemic, and making strategic decisions have been crucial during this challenging period. This report tells the story of turning COVID-19 data into a monitoring dashboard using Power BI.

There was once a calm and peaceful world. However, one day, an outbreak emerged that shook the entire world: COVID-19. People were in shock and concern because it was clear that no one was prepared for this pandemic. Instead of succumbing to despair, we, as a team, took action and utilized Power BI to comprehend this outbreak.

Our first step was to collect COVID-19 datasets. Using reliable data from the World Health Organization (WHO), we began monitoring real-time statistics. The data we collected allowed us to understand the impact of the pandemic in different regions.

Next, we started bringing the data to life with the powerful visualization tools of Power BI.

Section 1: COVID-19 Situation in WHO Regions:

Clustered Column Chart:

This chart, encompassing the totals of confirmed, active, recovered, and death cases in WHO regions, enables us to compare the impact of the pandemic across different regions. Visualization aids viewers in understanding the performance of regions at various stages of the outbreak.

- However, we didn't want to provide just a snapshot of the pandemic. To comprehend the changes over time, we utilized a Line Chart.

Section 2: COVID-19 Situation Over Time:

Line Chart:

This chart illustrates how the totals of daily, monthly, quarterly, and yearly active, confirmed, recovered, and death cases have changed over time. Viewers can better understand the overall impact of the pandemic by tracking the spread rate, peak periods, and waning phases.

- To comprehend the geographical distribution of the outbreak, we utilized a Map.

Section 3: Geographic Distribution:

Map:

The visualization on the map displays the totals of active, confirmed, recovered, and death cases on a WHO region,

country/region, and state/province basis, revealing the geographic distribution of the pandemic. Viewers can observe how different regions are coping with the outbreak and how effective strategies are implemented.

Clustered Column Chart (Country/Region and State/Province):

This chart allows us to compare the totals of active, confirmed, recovered, and death cases on a country/region and state/province basis. Viewers can assess how specific regions responded to the pandemic and evaluate the impact of preventive measures.

- But that's not all. To delve even deeper into the data, we examined cases based on age groups and gender using the Population Pyramid.

Section 4: Population Pyramid:

Population Pyramid:

This visualization allows us to analyze the population based on age groups and gender. Viewers can understand the impact of the pandemic on different age groups and genders.

- Finally, we used a Clustered Column Chart to assess the measures taken in the fight against the pandemic.

Section 5: Lockdown Measures:

Clustered Column Chart:

This visualization compares countries implementing and not implementing lockdown measures based on WHO regions. Viewers can assess the impact of lockdown measures on the pandemic and the prevalence of these measures.

When comparing countries that implemented and did not implement lockdown measures in terms of cases and death numbers in the fight against the COVID-19 pandemic, different outcomes are observed. Countries that implemented lockdowns generally aimed to restrict the movement of the population and reduce social contact by imposing stricter restrictions. These measures aimed to slow the spread of the pandemic and preserve hospital capacity.

In some countries implementing lockdowns, cases and death numbers have remained relatively low. These measures have helped control the outbreak and prevent overwhelming healthcare systems. For example, countries in Europe that implemented restrictions, such as Germany, France, and Italy, have controlled the spread of the pandemic, reducing the number of cases and deaths.

Section 6: Sweden and Paraguay - Countries without Lockdown:

Clustered Column Chart:

The studies we examined emphasize that comparing the data of countries without lockdown with neighboring countries provides a more tangible analysis. Therefore, due to the lack of accurate data from some island countries or neighboring countries within the No Lockdown countries, we selected only Sweden and Paraguay from this list. Using a Clustered Column Chart, we compared averages of active, confirmed, recovered, and death cases on a country/region basis.

In Sweden, the numbers of cases and deaths have been higher than in some neighboring countries, but lower compared to other European countries. This situation indicates the complex results of the strategy adopted by Sweden. On the contrary, the situation in Paraguay shows the opposite, with case and death numbers being lower compared to neighboring countries. This scenario does not allow for a general inference.

There are many factors influencing the course of the pandemic, and decisions taken vary based on each country's conditions, healthcare system, and public health approach. Case and death numbers cannot be solely evaluated based on lockdown policies. Factors such as testing capacity, public compliance, and health infrastructure have also influenced the outcomes.

The Importance of the Used Data:

The data we have used reflects current and accurate COVID-19 statistics. These data assist viewers in understanding the impact of the pandemic, making strategic plans, and effectively directing resources. Additionally, the reliability of the data is of great importance in contributing to scientific research and ensuring that decision-makers make informed decisions based on accurate information.

Conclusion:

The COVID-19 monitoring dashboard created with Power BI combines data with impressive visualizations, offering viewers an informative journey. Users can utilize this panel to comprehend the impact of the pandemic on different regions and time frames, assess the effectiveness of strategies, and make informed decisions based on data.

While countries implementing lockdowns generally have lower case and death numbers, those without lockdown measures often experience higher figures. However, results in some countries, such as Sweden, can be complex, requiring more in-depth analysis. The progression and impact of the pandemic should be

continually assessed, relying on scientific data to make informed decisions.

In conclusion, the Power BI monitoring panel is a powerful tool to better understand the global impact of COVID-19 and to prepare for future pandemics.

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onfirmed+deaths&Interval=Cumulative&Relative
+to+Population=true&Color+by+test+positivity=
false)

These references provide various perspectives and analyses about Sweden's approach to the pandemic without implementing a lockdown, being one of the countries without lockdown measures.