

## **COVID-19 Data Analysis and Dashboard Explanation**

This document provides an explanation of the COVID-19 Dashboard created in Tableau using real-world data from the World Health Organization (WHO) and Our World in Data. The dashboard aims to help users explore COVID-19 trends, vaccination progress, testing rates, and their relationships across countries and regions interactively.

### **1. Data Preparation:**

- Downloaded datasets covering COVID-19 cases and deaths, vaccination coverage, and testing statistics.
- Cleaned the data to handle missing or inconsistent values.
- Merged multiple datasets using common fields like Country, Date, and ISO Code to create a unified dataset.

### **2. Dashboard Overview:**

The Tableau Dashboard consists of the following key interactive visualizations:

- a) Daily COVID-19 Cases Trend
- b) Vaccination Coverage Map
- c) Testing
- d) Hospitalization

### **3. Key Insights:**

- Countries with higher vaccination coverage tend to show a decline in daily new cases.
- Testing rates vary widely across regions, influencing the accuracy of reported cases.
- Peaks in cases often align with periods before mass vaccination rollout. These insights can guide policymakers, researchers, and the public in understanding the COVID-19 situation globally.
- People may be admitted to the hospital, but ICU admission is not always the case.

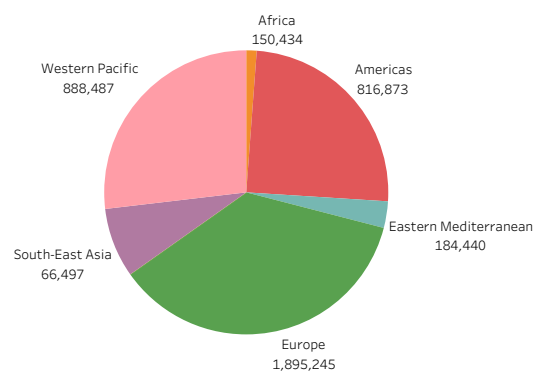
### **4. Conclusion:**

The COVID-19 Dashboard created in Tableau effectively combines multiple datasets and visualizations to provide a comprehensive, interactive tool for analyzing the pandemic's trends and progress. Users can explore the data to derive meaningful insights and support data-driven decisions.

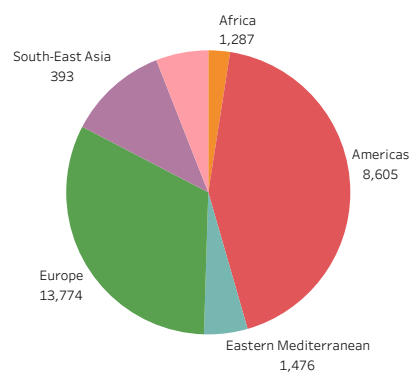
5. Data Sources:

- World Health Organization: <https://data.who.int/dashboards/covid19/data>
- Our World in Data: <https://ourworldindata.org/>

Confirmed COVID-19 cases per region



Confirmed COVID-19 death per region



**WHO Region**

- Africa
- Americas
- Eastern Mediterrane..
- Europe
- Other
- South-East Asia
- Western Pacific

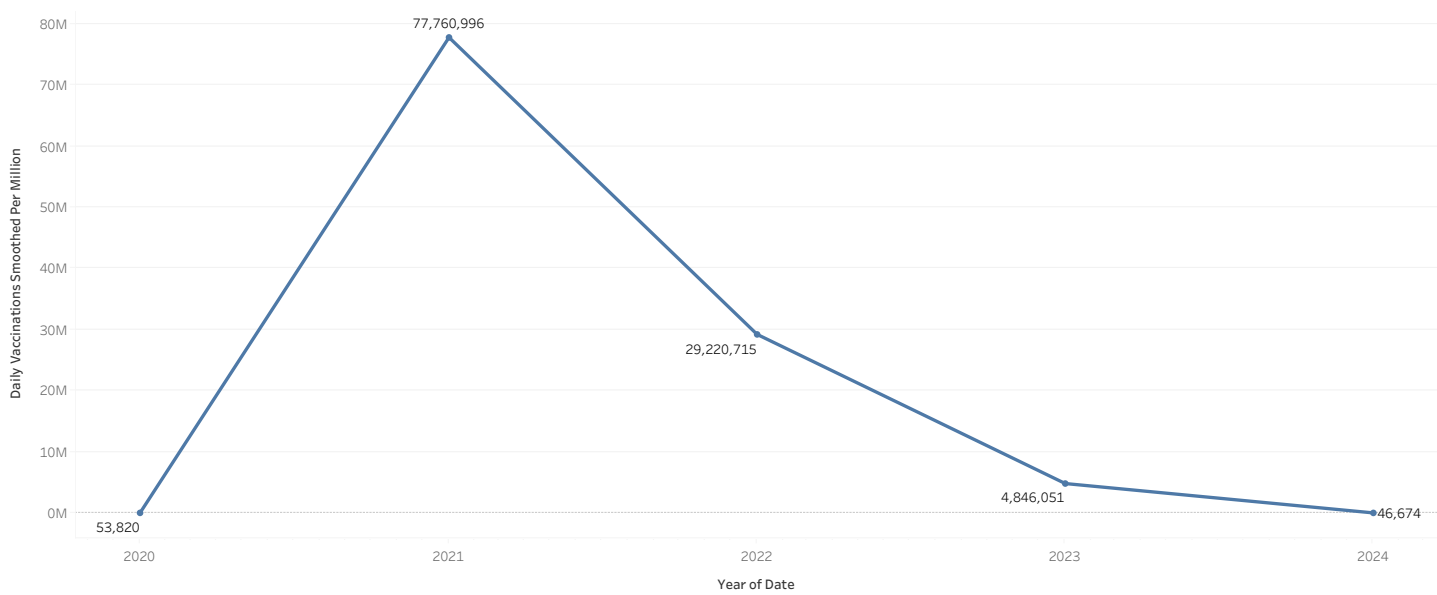
**Cases - cumulative total**

776,739,995

**Deaths - cumulative total**

7,092,649

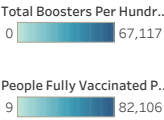
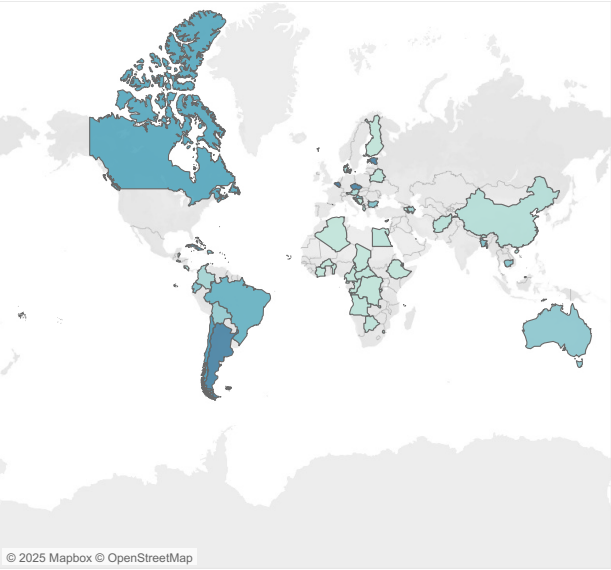
Daily COVID-19 vaccine doses administered per million people



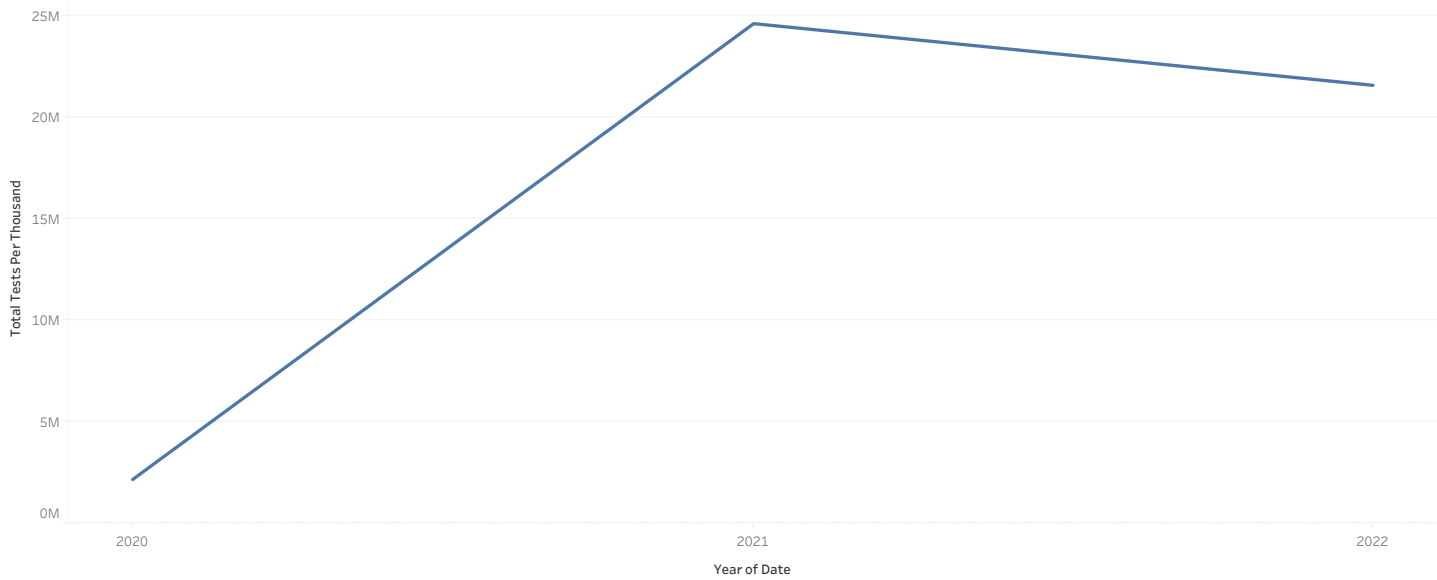
Total COVID-19 vaccine booster administered per hundred



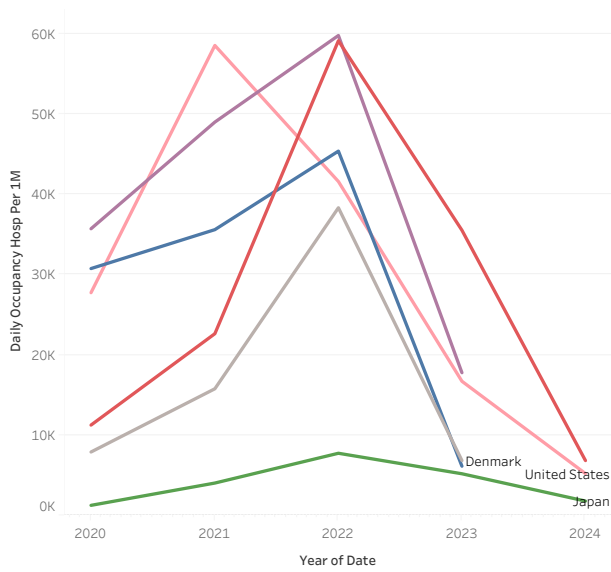
Total people who fully completed the vaccine per hundred



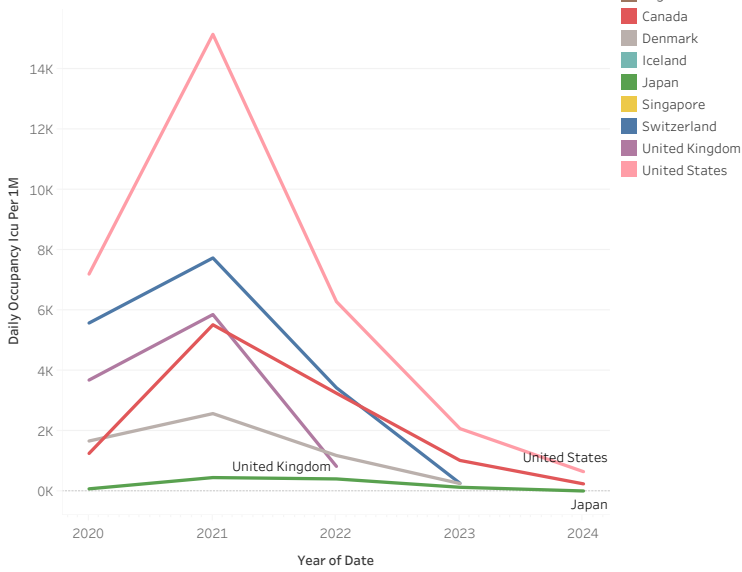
Total covid 19 test done per thousand



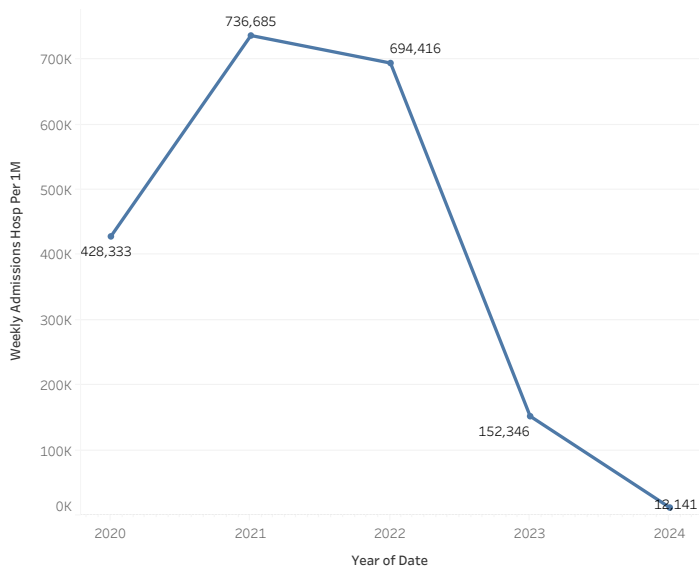
Daily hospital occupancy per million due to COVID 19



Daily hospital occupancy in ICU per million due to COVID 19



Weekly hospital admission per million



Weekly hospital ICU admission per million

