

# **Analysis of COVID-19 Vaccination Data**



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## Objective

The primary objective of this project is to conduct a comprehensive analysis of COVID-19 vaccination data, with a focus on individuals who are fully vaccinated, categorized by year and country. Through data cleaning, interpretation, visualization, and analysis, this project aims to achieve the following goals:

1. Determine the number of individuals who are fully vaccinated against COVID-19.
2. Analyze the total vaccinations administered on a yearly basis and further break down these figures by country.
3. Calculate and visualize the vaccination rate per hundred people for various countries.

By addressing these objectives, this project seeks to provide insights into the global COVID-19 vaccination effort, including trends in vaccination rates, key countries contributing to the effort, and potential recommendations for improving data analysis and data collection in the future.

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## Problem Statement

In this project, we aim to address the following challenges:

1. Determine the number of individuals who are fully vaccinated.
2. Analyze the total vaccinations administered annually, further categorized by country.
3. Calculate and visualize the vaccination rate per hundred people in different countries.



## **Methodologies Used:**

### **Data Cleaning**

In the data cleaning step, we utilized Power BI's 'Transform Data' feature to address missing values and duplicates. Null values were replaced with 0, ensuring data integrity.

### **Data Interpretation**

During data interpretation, we made the following observations:

1. The dataset was nearly complete and clear.
2. Null values were replaced with 0.
3. The dataset consists of 86,512 rows and 15 columns.

### **Visualization**

We used Power BI Desktop to create relevant graphs and charts that aid in visualizing the data.

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## Analysis

**We can analyze the data by using bar graph, pie charts, Tables, maps etc.**

## People fully vaccinated by year.

**Dataset coverage from 2020 to 2021.**

### Total vaccination by country (map visualization).

**Peak total vaccinations in 2021: 724,475,030,489.**

**Maximum daily vaccinations: 13,070,714 in China.**

**Most fully vaccinated individuals in India: 115,744,439,302.**

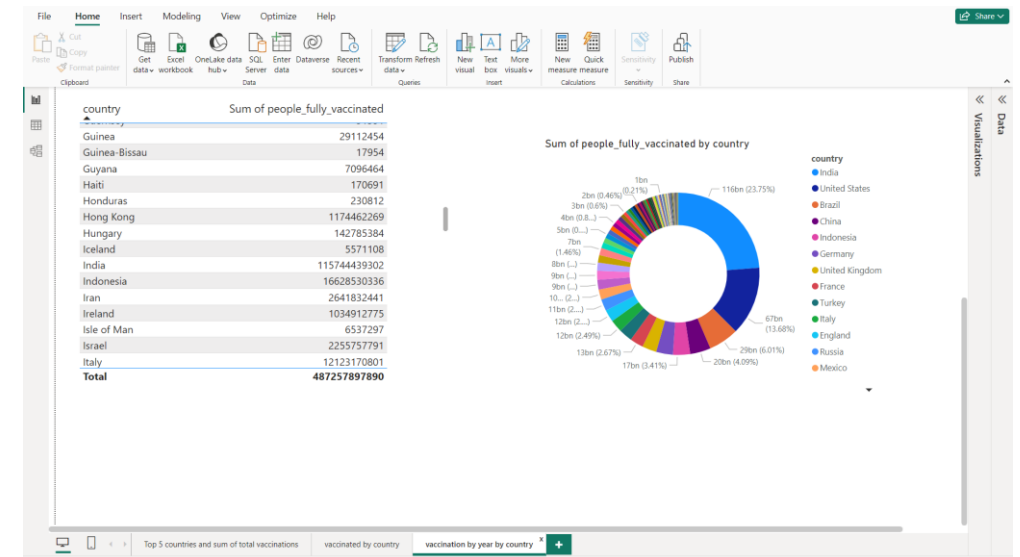
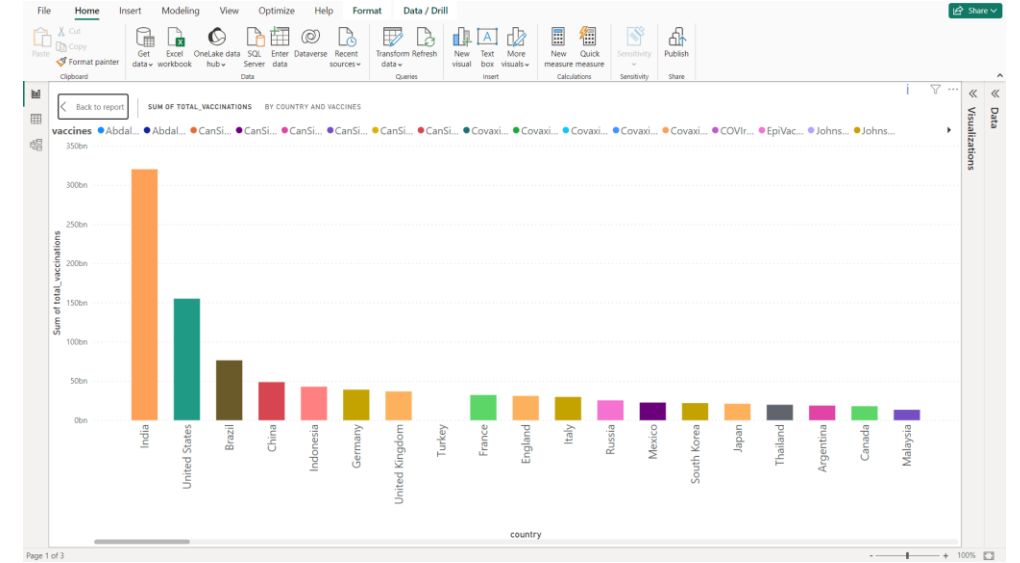
**Ministry of Health as the highest source with 7.48K vaccinations.**

### Top 5 countries with fully vaccinated individuals.

### Top 5 countries with total vaccinations.

## Total vaccinations by country and vaccine.

### Top 5 countries with the highest vaccination rates.



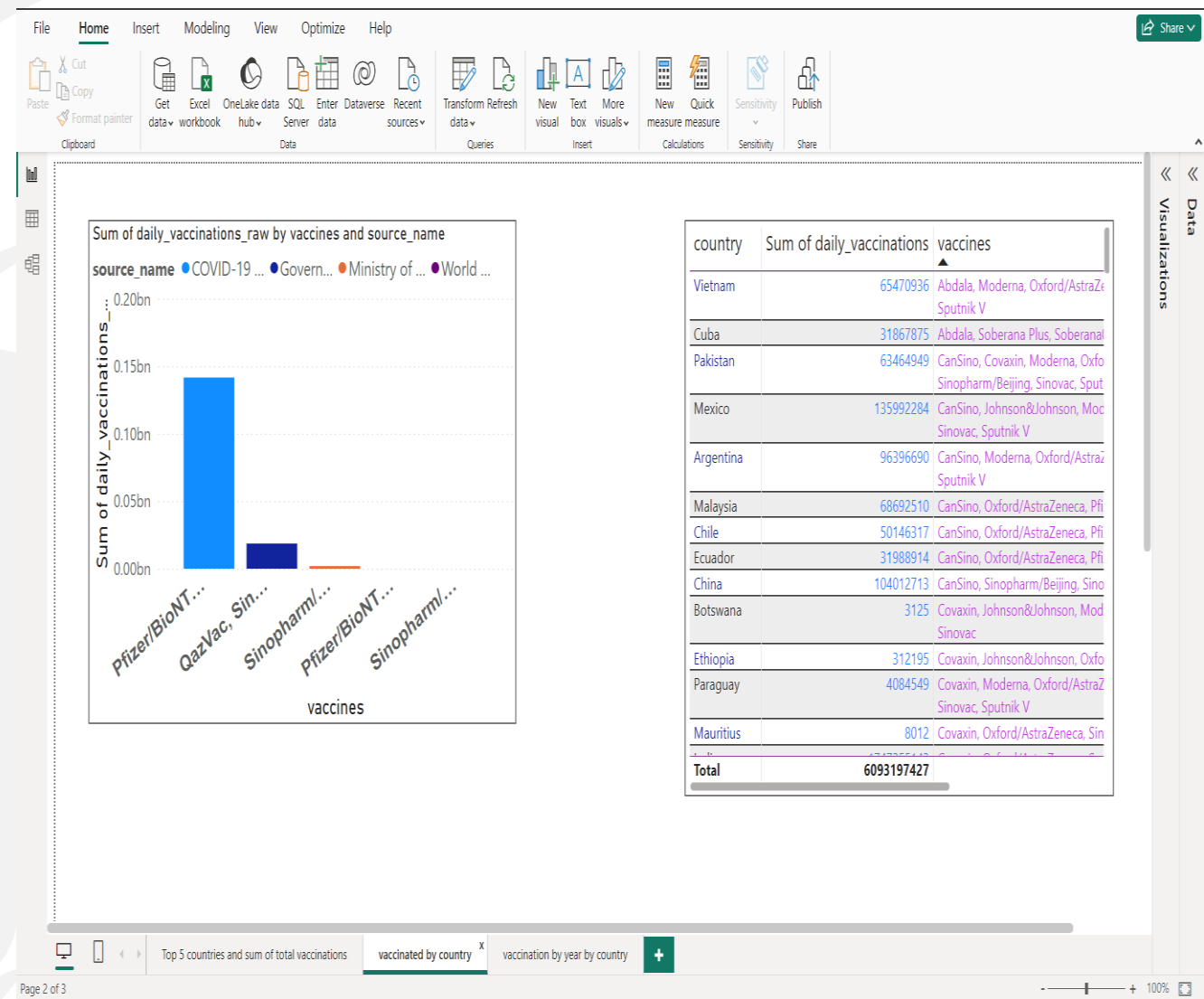
Top 5 countries with total vaccinations.  
Total vaccinations by country and vaccine.

country ▲	Sum of total_vaccinations
Uzbekistan	264815257
Vietnam	5988492603
Wales	1805533917
Zambia	16629011
Zimbabwe	1534183286
<b>Total</b>	<b>9609654074</b>

country ▼	Sum of people_fully_vaccinated
Zimbabwe	642388181
Zambia	5165692
Wales	690965955
Vietnam	1887063697
Uzbekistan	60252928
<b>Total</b>	<b>3285836453</b>

The picture shows that details regarding Sum of daily\_vaccinations\_raw by vaccines and source\_name

The different vaccines used are Pfizer, QazVac, Sinopharm





## Conclusion

In conclusion, this project offers a comprehensive analysis of COVID-19 vaccination data. The top countries in terms of vaccination rates, peak daily vaccination rates, and key vaccine sources are highlighted, with a focus on India and China as prominent contributors.

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Thank You