Power BI - Project Report

Covid-19 Vaccination Analysis

By

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Project Insight:

1. Aim.
2. Introduction.
3. Problem statement.
4. Methodology.
5. Analysis.
6. Insights.
7. Recommendations.
8. Conclusions.

Aim:

To analyse Covid-19 vaccination data of peoples in all the country & to provide a better solution in improvising the prevention.

Introduction:

The COVID-19 outbreak has brought significant attention to the healthcare sector in recent times, and it has changed the concept of safety in every aspect of our lives.

Social distancing is an effective method for reducing the spread of coronavirus. Safety measures such as wearing masks, washing hands regularly, and staying careful regarding intimacy are currently very important.

However, these can only reduce the spread of coronavirus, not eradicate it completely. Here, vaccination came into light as the only solution that could fight most effectively against coronavirus and probably eradicate it.

Rigorous tests were conducted with the first mRNA vaccines to be introduced; more than 40,000 people participated in a Pfizer vaccine trial and 30,000 in a Moderna vaccine trial. The average efficacy rate of the vaccines in both trials was approximately 94%, and there were no deaths in either of them.

Problem Statement:

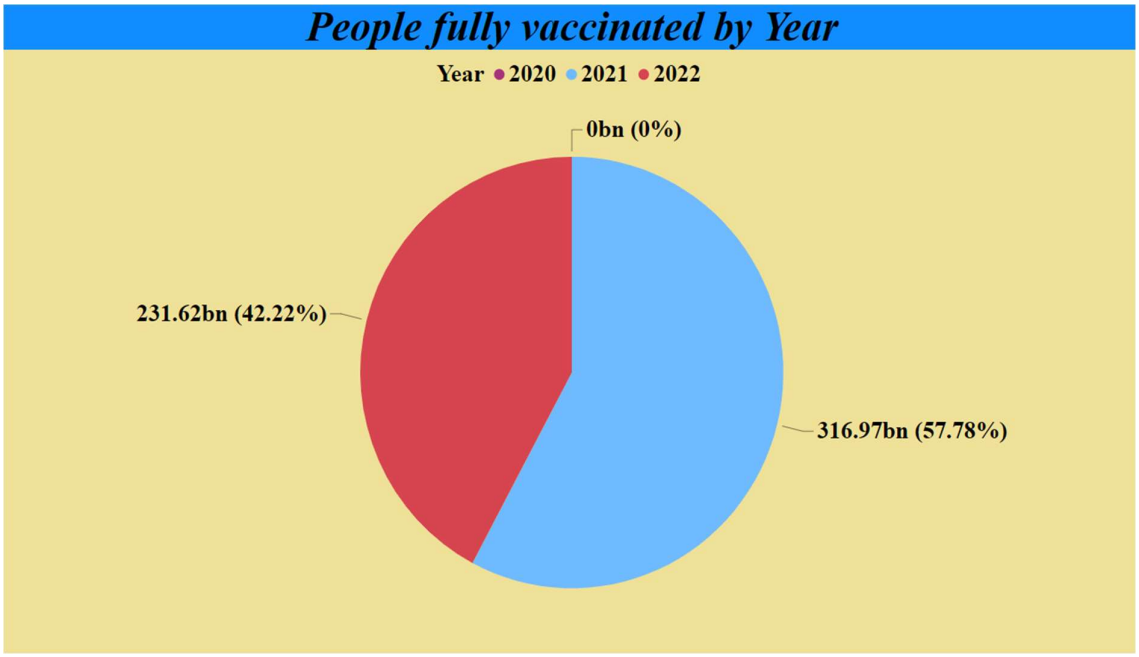
- To find how many peoples are vaccinated and fully vaccinated.
- Top 15 countries with full vaccination.
- Least 20 countries which are vaccinated to be strictly monitored.

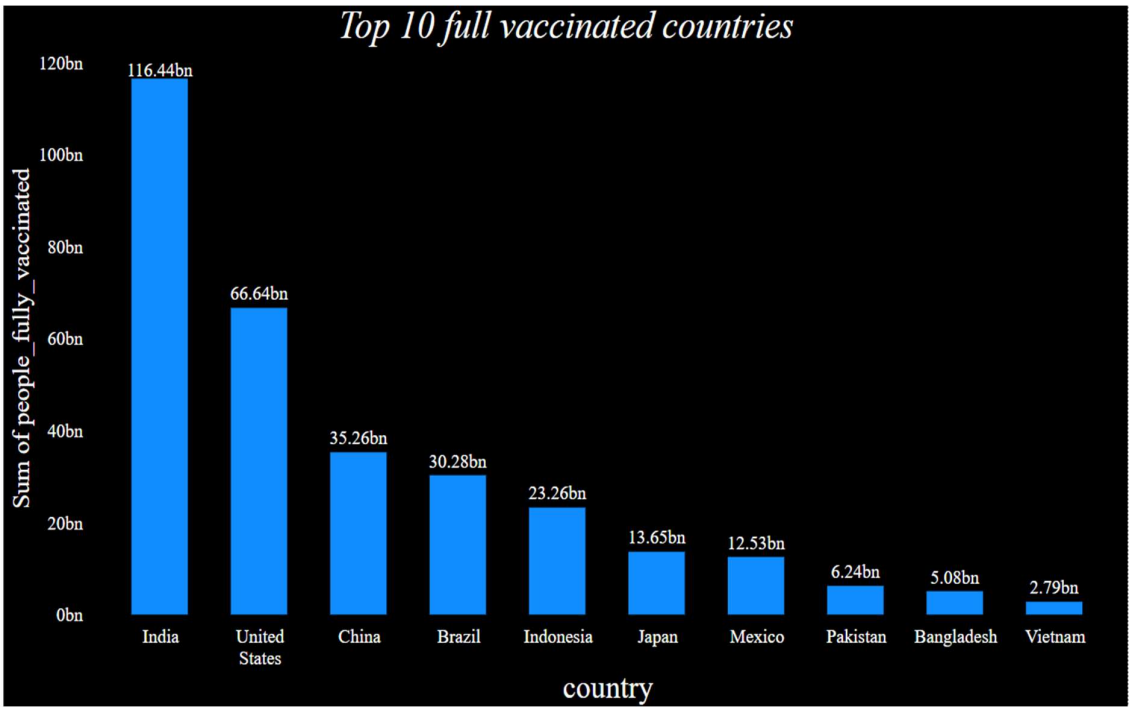
Methodology:

- **Data Pre-processing / Cleaning:**

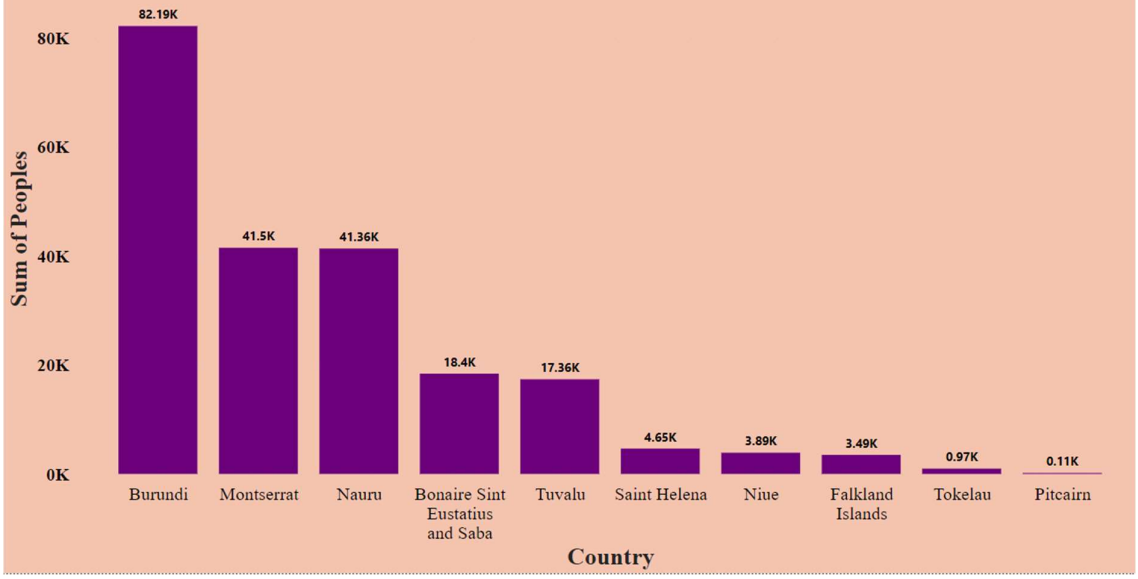
The given dataset consists of null values which is replaced by 0.

Analysis:

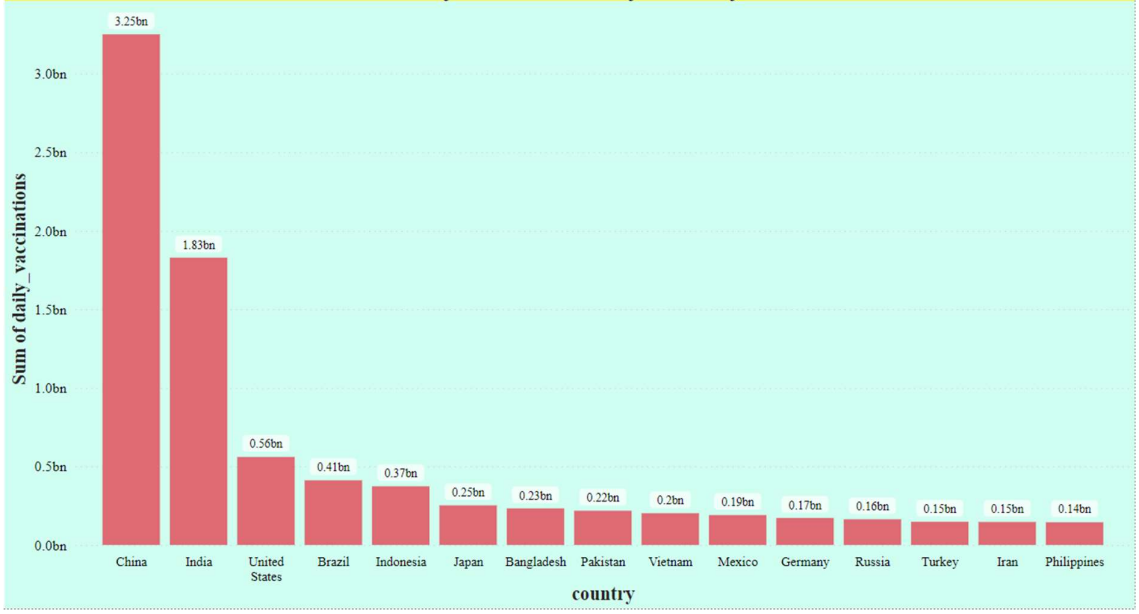

People fully vaccinated by Year
Year 2020 2021 2022
0bn (0%)
231.62bn (42.22%)
316.97bn (57.78%)


Top 10 full vaccinated countries
Sum of people_fully_vaccinated
120bn
100bn
80bn
60bn
40bn
20bn
0bn
116.44bn
66.64bn
35.26bn
30.28bn
23.26bn
13.65bn
12.53bn
6.24bn
5.08bn
2.79bn
India
United States
China
Brazil
Indonesia
Japan
Mexico
Pakistan
Bangladesh
Vietnam
country

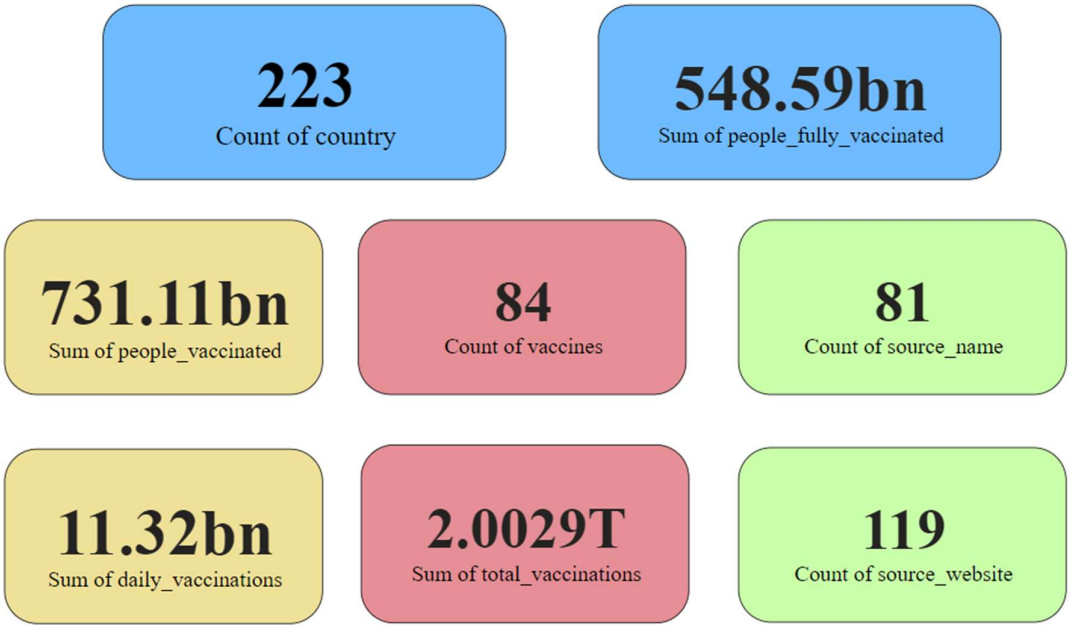
Least 10 fully vaccinated country



Daily vaccination by country



Overall Analysis



Insights:

- In 2020 – 0 billion, 2021 – 316.97 billion and 2022 – 231.62 billion people were vaccinated.
- India, US, China, Brazil, Indonesia, Japan, Mexico, Pakistan, Bangladesh, Vietnam were top 10 countries got fully vaccinated.
- Burundi, Montserrat, Nauru, Bonaire Sint Eustatius and Saba, Tuvalu, Saint Helena, Niue, Falkland Islands, Tokelau, Pitcairn were least vaccinated countries.
- China, India, US, Brazil, Indonesia, Japan, Bangladesh, Pakistan, Vietnam, Mexico, Germany, Russia, Turkey, Iran, Philippines were the countries with good daily vaccination rate.

Recommendations:

- The least vaccinated countries should be more preventive & to increase the vaccination rating on daily basis to prevent the spread of virus.
- Average vaccinated countries should take a step high to get into safer region by spreading the news of how a vaccine can protect people & shouldn't get back to the least vaccinated countries.
- The countries with higher vaccinated peoples should be aware that the virus should not spread again in their country.
- Precautions like maintain social distancing, wearing mask, wash hands using sanitizer or antibacterial washes, etc.

Conclusion:

Many people have decided to vaccinate themselves, and a large number are still confused; many are frightened and many refuse to be vaccinated. This research will help health researchers obtain proper knowledge of the issues regarding the vaccination process.

Companies who produce vaccines, governments, health ministries of different countries, or policymakers in the health sector, such as WHO, can have a proper idea about whether their vaccines are effective or not and the percentage of their effectiveness.

It's the responsibility of the Governments to create an awareness among peoples getting vaccinated & also to invent quality vaccines which boost the immunity for humans.