

Summary Report on Global COVID-19 Vaccine Distribution Landscape, Its Effectiveness, and Demand Trends in the Near Future

Overview

As the COVID-19 epidemic spread rapidly around the world from 2020 to early 2021, the vaccine demand increased rapidly. However, inequities in vaccine distribution between developed countries and the rest of the world occurred due to the need for a cold chain network, adequate on-site medical systems for vaccine distribution, and the high cost of vaccines (McKinsey & Company, 2021). To address this inequity, Pfizer announced its commitment to Equitable Access, which will provide two billion doses for low- and middle-income countries in 2021 and 2022 (Pfizer, n.d.). As of September 2021, there was a need for Pfizer to update its global vaccine distribution status, trends, and insights on vaccine effectiveness and identify countries where the company should distribute going forward. This report will focus on the following objectives in this context

1. To understand the dynamics of vaccine distribution.
2. To grasp the basic features of how effective vaccines are in preventing deaths and new cases of infection.
3. To understand how global vaccine distribution may or may not improve over time.
4. To identify countries and regions where demand is expected to increase in the near future.

The analysis utilized a dataset on COVID-19 published by WHO as of September 22, 2021 (World Health Organization, n.d.). Visualization analysis was conducted for Pfizer vaccine-introducing and non-introducing countries, as shown in the Appendix dashboard.

Conclusion

According to the following three results, Pfizer can capture potentially large demands for vaccines in the near future by supplying countries where it has not previously supplied vaccines.

1. The number of vaccinations in countries where Pfizer vaccines have been introduced is on a declining trend, peaking in August 2021. On the other hand, immunization coverage in countries that have not introduced Pfizer vaccines is on an upward trend.
2. Compared to countries where Pfizer vaccines are not distributed, countries where Pfizer vaccines are distributed have lower vaccination coverage in all population bands, including those with more than 30 million people, and the potential market size is expected to be large.
3. Countries vaccinated with Pfizer vaccines peaked out in August 2021. On the other hand, the trend line for countries not vaccinated by Pfizer is a gradual increase.

Recommendations

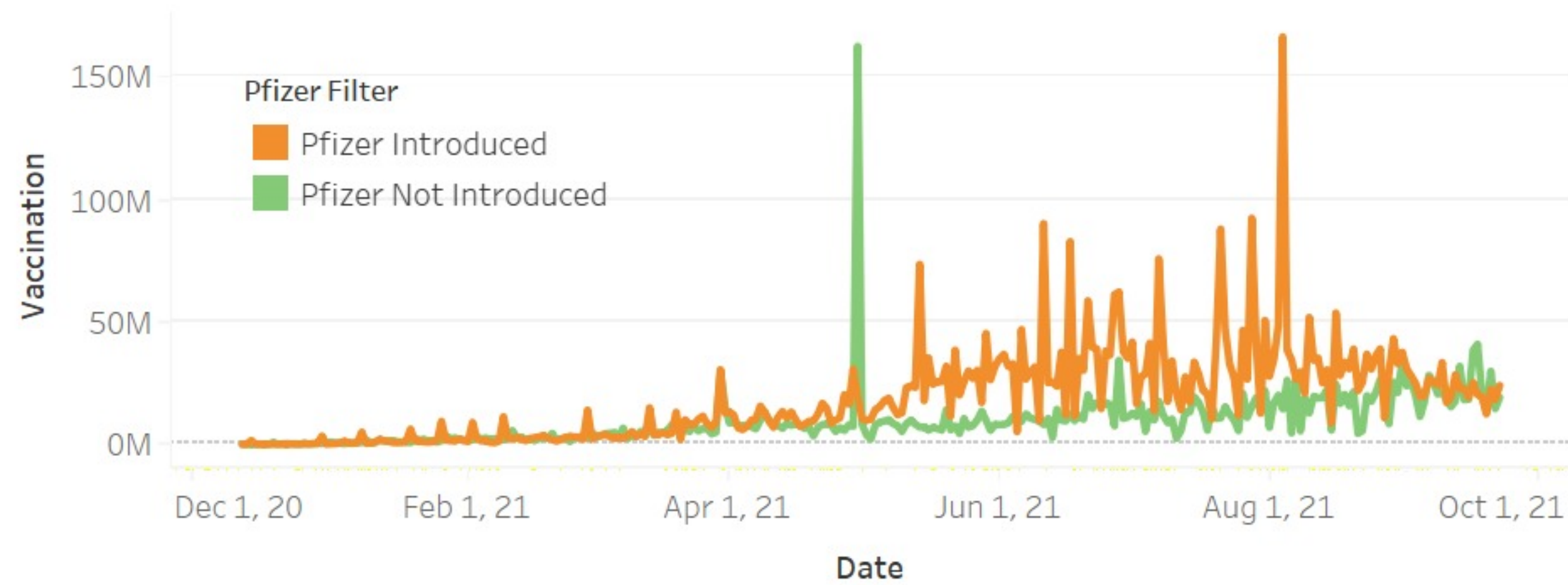
The nine Central and Southern African countries (Nigeria, Algeria, Zimbabwe, Uganda, Namibia, Angola, South Africa, Gambia, and Kenya) are recommended as the next target for Pfizer to expand the vaccine distribution network. These countries have populations greater than 5 million and average death rates (new deaths/new infections) greater than 2% in the most recent month. As Pfizer has done in other countries, the cold chains to these countries will be realized through direct supply contracts with national governments, contracts with transnational organizations such as the COVAX, government donation programs, and humanitarian donations (Pfizer, n.d.).

References

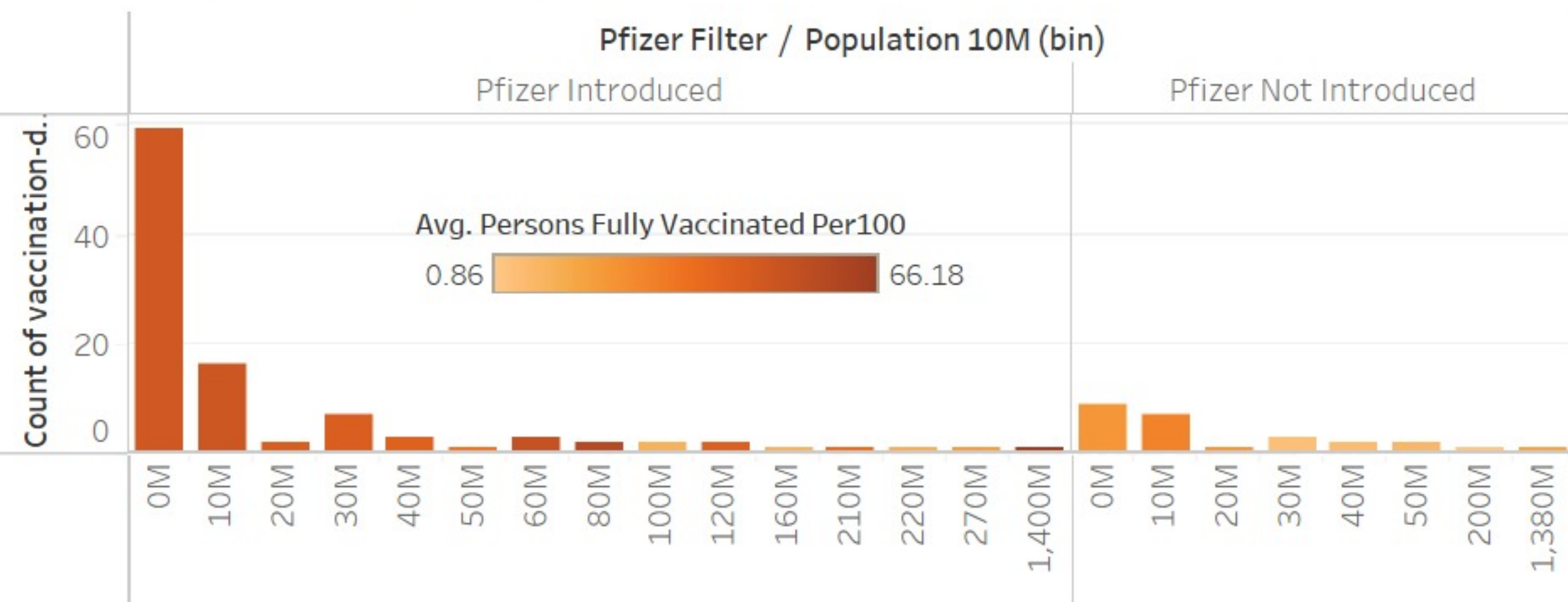
- McKinsey & Company. (2021). The risks and challenges of the global COVID-19 vaccine rollout. https://www.mckinsey.com/jp/~/_media/McKinsey/Locations/Asia/Japan/Our%20Insights/The-risks-and-challenges-of-the-global-COVID-19-vaccine-%20rollout_JP.pdf
- Pfizer. (n.d.). Working to reach everyone, everywhere. <https://www.pfizer.com/science/coronavirus/vaccine/working-to-reach-everyone-everywhere>
- World Health Organization. (n.d.). WHO coronavirus (COVID-19) data information. <https://covid19.who.int/data>

Appendix: Tableau Dashboard on Global Vaccine Distribution and It's Effects, and Proposals for New Potential Countries for Pfizer

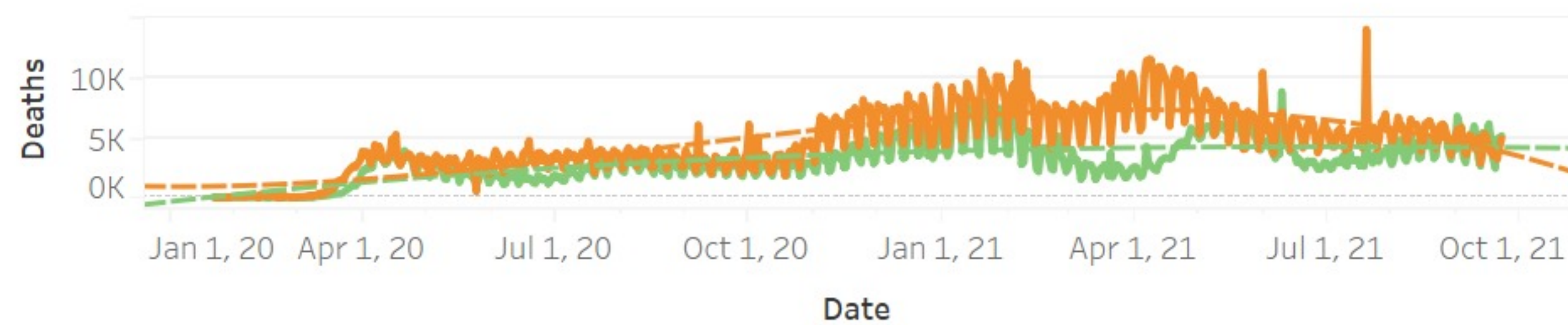
Vaccine Distribution Over Time



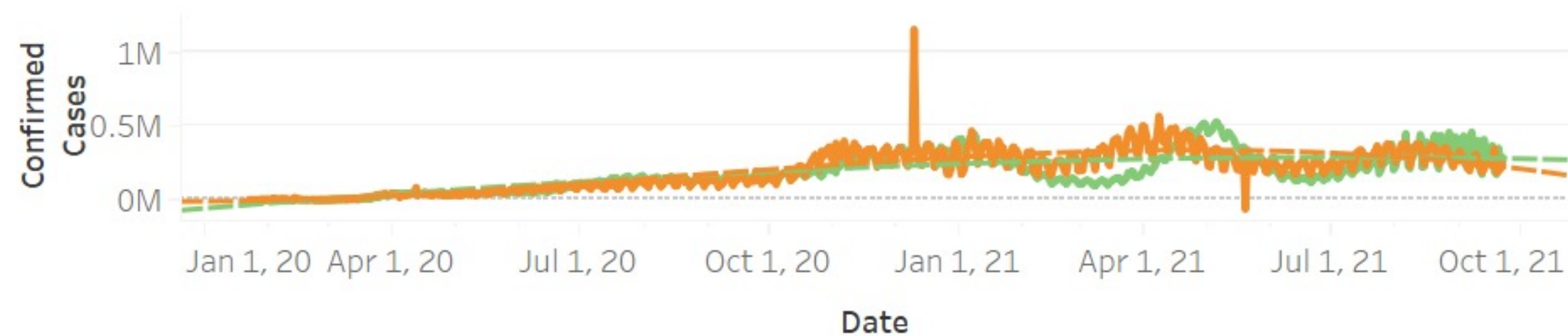
Person Fully Vaccinated per 100 per Basic Features



New Deaths Trend



New Confirmed Cases Trend



Relationship between Death Rate and Population Without Fully Vaccinated

