

Global Public Goods and COVID-19

After over a year of COVID-19 disruptions, many are concerned with how the Omicron variant might prolong this trend. The variant, originally discovered in South Africa, appears to be more contagious but less deadly than the earlier Delta variant ('Early Data on Omicron', 2021). Still, South Africa and other African nations consistently lag behind OECD countries in vaccine doses per capita and vaccination rate (Collins & Holder, 2021). However, relative to a year ago, there are certainly reasons for cautious optimism: the G7 in June of 2021 promised to donate 1 billion doses which will be funneled through the COVID-19 Vaccines Global Access (COVAX), the WHO-sponsored organization in charge of distributing vaccines to less-wealthy nations (Cohen, 2021).

These developments are encouraging, yet there are still questions about why governments and international organizations have moved so slowly to cooperate on the pandemic. Basrur and Kliem (2021) note that although COVID-19 is a global challenge, responses by state actors have been "predominantly competitive and self-centered." Namely, Basrur and Kliem conclude that because the world lacks an "effective international authority," nation-states choose their interests over the collective. But why do these vaccines require an outside authority? Because of their status as Global Public Goods (GPG).

Before delving into why vaccines are a GPG, it is important to properly define what GPGs are and how they differ from ordinary public goods. Like ordinary public goods, GPGs are both non-rivalrous (one person's consumption does not diminish another's ability to benefit) and non-excludable (no one can be excluded from benefiting from this good). Hence, they suffer from free-rider problems, but according to Brown and Susskind (2020), GPGs and ordinary public goods exhibit the two qualities to different degrees. For example, a country can hoard

vaccines and prevent others from using them, but a country cannot exclude other countries from the benefits of higher vaccination rates (lower disease transmission, herd immunity, etc.).

Moreover, unlike ordinary public goods, GPGs are not constrained by national boundaries and therefore cannot be provided at a socially-optimal level through the actions of a single government. Rather, providing GPGs requires international cooperation, which is often difficult to achieve when goods have some degree of non-rivalry and non-exclusivity.

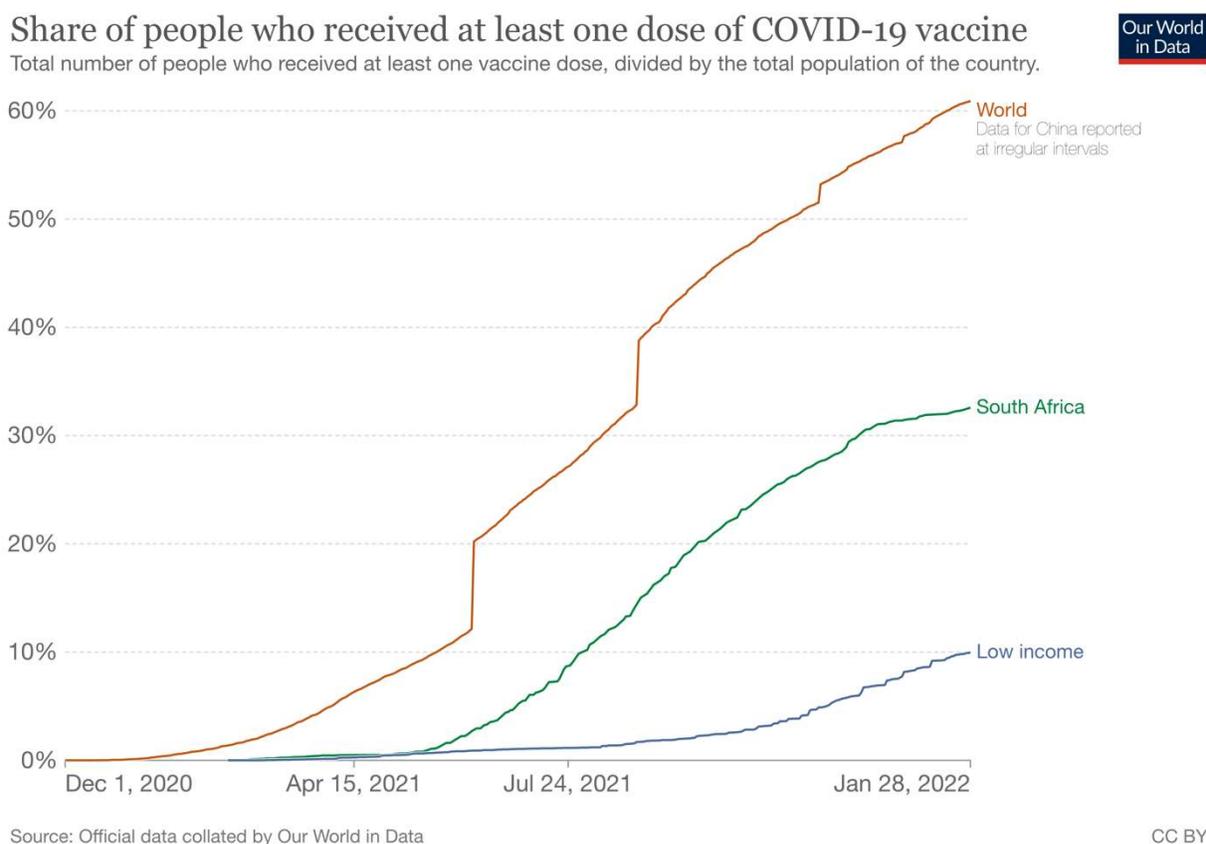
With these concepts in mind, vaccines used to fight a global pandemic are good examples of GPGs. While a specific dose might be rivalrous and excludable, the larger strategy of using vaccines to fight a pandemic is not. One country using this strategy does not exclude another country from using it. On top of this, using this strategy relies on other countries cooperating - something that has occurred only recently.

Understanding vaccines and their associated use through the lens of GPGs carries important consequences for how the world manages public health crises like COVID-19. First, it acknowledges that there is a fundamental economic allocation problem that is causing a systemic under-provision of important goods. As depicted in Figure 1, as of January 2022, while the global percentage of people who have received at least one dose of a COVID-19 vaccine is 60.92%, the number stands at only 32.6% in South Africa and at around 10% in low-income countries (Ritchie et al., 2022). In January 2021, when South Africa had less than 1% of the population vaccinated, WHO Director-General Tedros Adhanom Ghebreyesus stated “the world is on the brink of a catastrophic moral failure” when it comes to inequitable vaccine distribution. There must be a moral imperative to help the world’s poorest countries, but the vaccine issue has less to do with morals than with markets. The WHO, the leading institution for global public health, is “wholly under-resourced for the many tasks that its members have asked it to

discharge” (Brown & Susskind, 2020). Likewise, COVAX as of January 2022 has a cash shortage so severe that it cannot accept new vaccine donations (Mancini, 2022).

Figure 1

Share of people who received at least one dose of a COVID-19 vaccine across different country groups: World, South Africa, and Low-Income Countries (Ritchie et al., 2022)



Thankfully, GPGs also provide a roadmap for how to address these issues. Researchers and policymakers must recognize that GPGs are underprovided because of unprepared institutions and create better rules that will govern international cooperation. For example, Brown and Susskind (2020) argue that changing funding rules to make financing the WHO

compulsory would help remedy this allocative issue. Likewise, as new variants like Omicron evolve, we can be better prepared for how these might shock existing vaccine stocks if nations are cooperating.

Misunderstanding GPGs has grave consequences; as of January 2022, more than 5.6 million people have died from COVID-19, with 881,000 deaths in the United States alone (Allen et. al, 2022). Policymakers must make changes to our system to take full advantage of GPGs or risk continuing the mistakes of the past.

Works Cited

- Allen, J., Almukhtar, S., Aufrechtig, A., Barnard, A., Bloch, M., Cahalan, S., Cai, W., Calderone, J., Collins, K., Conlen, M., Cook, L., Gianordoli, G., Harmon, A., Harris, R., Hassan, A., Huang, J., Issawi, D., Ivory, D., Rebecca Lai, K.K., ... Yoon, J. (2022, January 28). Coronavirus World Map: Tracking the Global Outbreak. *The New York Times*.
<https://www.nytimes.com/interactive/2021/world/covid-cases.html>
- Basrur, R., & Kliem, F. (2021). Covid-19 and international cooperation: IR paradigms at odds. *SN Social Sciences*, 1(1), 7. <https://doi.org/10.1007/s43545-020-00006-4>
- Brown, G., & Susskind, D. (2020). International cooperation during the COVID-19 pandemic. *Oxford Review of Economic Policy*, 36(Supplement_1), S64–S76.
<https://doi.org/10.1093/oxrep/graa025>
- Buchholz, W., & Sandler, T. (2021). Global Public Goods: A Survey. *Journal of Economic Literature*, 59(2), 488–545. <https://doi.org/10.1257/jel.20191546>
- Cohen, J. (2020). ‘It’s a tipping point’: Flood of COVID-19 vaccine donations buoys mood at WHO. Retrieved December 17, 2021, from <https://www.science.org/content/article/it-s-tipping-point-flood-covid-19-vaccine-donations-buoys-mood-who>
- Collins, K., & Holder, J. (2021, December 9). What Data Shows About Vaccine Supply and Demand in the Most Vulnerable Places. *The New York Times*.
<https://www.nytimes.com/interactive/2021/12/09/world/vaccine-inequity-supply.html>
- Early data on Omicron show surging cases but milder symptoms. (2021, December 11). *The Economist*. https://www.economist.com/graphic-detail/2021/12/11/early-data-on-omicron-show-surging-cases-but-milder-symptoms?itm_source=parsely-api

- Ghebreyesus, T. A. (2021). *WHO Director-General's opening remarks at 148th session of the Executive Board* [Speech transcript]. World Health Organization. <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-148th-session-of-the-executive-board>
- Ritchie, H., Mathieu, E., Rod s-Guirao, L., Appel, C., Giattino, C., Ortiz-Ospina, E., Hasell, J., Macdonald, B., Beltekian, D., & Roser, M. (2022). Coronavirus Pandemic (COVID-19). *OurWorldInData.org*. <https://ourworldindata.org/coronavirus>
- Liao, K. (2021). What Is Vaccine Equity and Why Is It So Important?. *Global Citizen*. Retrieved December 17, 2021, from <https://www.globalcitizen.org/en/content/what-is-vaccine-equity-covid-19/>
- Mancini, D. P. (2022, January 25). Cash shortages mean Covax cannot accept new doses, says executive. *Financial Times*. <https://www.ft.com/content/d8506581-81a3-4cd2-bf3c-073eca9a0ae4>
- Why the Omicron variant is not a punishment for vaccine inequity. (2021, November 30). *The Economist*. <https://www.economist.com/international/2021/11/30/why-the-omicron-variant-is-not-a-punishment-for-vaccine-inequity>