

Vaccine equity: a stress test for planetary health



The COVID-19 pandemic has shown the importance of a holistic approach to health and effective preparedness for pandemics, which is intertwined with protection of the natural world. The SARS-CoV-2 virus first identified in China became a global issue in just a matter of weeks. Yet, more than 1 year later, shortsighted solutions to the pandemic prevail. Vaccine inequity typifies the counterproductive and dangerous approaches most often employed to solve global challenges. Such inequities have considerable negative consequences for mainstreaming planetary health, especially in low-income countries.

The summer of 2021 in Europe has been unusual, with wetter and colder weather than most citizens would have hoped for after months of lockdown. Germany had some of the worst flooding in decades, which caused more than 100 deaths.¹ Despite the grief and economic downturn caused by the COVID-19 pandemic, in July, 2021, individuals in Europe were able to gather in public spaces as spectators of the Union of European Football Association tournament. Italy, the first European country to implement lockdown, won the championship to the delight of its people. Meanwhile, in many low-income countries, stadiums continue to be used as improvised field hospitals.

The pandemic is reversing decades of progress in global development.² At the current pace, many low-income and middle-income countries (LMICs) would only achieve widespread vaccination coverage by 2024–25, prolonging the pandemic and potentially costing the global economy around US\$10 trillion.³ With no end to the COVID-19 pandemic in sight in low-income countries, the risk of new variants is high, putting the whole world at increased risk and delaying work that advances the notion of planetary health as a central development framework for the 21st century.

Planetary health is not possible without strong commitment from high-income countries towards pandemic recovery in LMICs. However, their commitment so far has been inadequate. As of July 27, 2021, only around 2% of the African population had been fully vaccinated.⁴ In Africa, only about two doses of vaccine have been administered per 100 people, compared with an average of 68 doses per 100 people in high-income countries.⁵ The biggest challenges with regard to COVID-19 vaccine

access in Africa have been the financing of vaccines and the logistics of vaccinating at scale.⁶ The ultracold chain requirements of mRNA COVID-19 vaccines have become a considerable obstacle in areas of LMICs outside large cities. Moreover, ineffective public health, behavioural health measures, and vaccine inequity were among the causes of the rise in COVID-19 cases in Africa, as stated by the WHO Director-General, Tedros Adhanom Ghebreyesus.⁷ Experts have reported that, thus far, only enough doses for 250 million people have been purchased by COVAX, whereas the USA, which is not part of COVAX, has already agreed to purchase enough doses for 230% of the US population.⁸ COVAX is a global effort to accelerate discovery and production of the COVID vaccine organised by Coalition for Epidemic Preparedness Innovations, the Global Alliance for Vaccine Innovation, and WHO. Despite being a laudable initiative, COVAX is not helping low-income countries at the speed that is needed. High-income countries have purchased more vaccines than needed and low-income countries are thus left waiting to receive vaccines since manufacturing slots for 2021 are already reserved. Vaccine nationalism is not new. A similar situation occurred during the 2009 pandemic influenza A H1N1 epidemic. High-income countries procured the vaccine for the illness at surplus rates while low-income countries were left behind.⁹

It is concerning that government measures in response to COVID-19 and the broader global financial situation have led to increasing fiscal imbalances between high-income countries and LMICs. Such imbalances are counterproductive for planetary health policies. As a global community, we should urge multinational agencies, financial institutions, and wealthier countries to consider measures that could provide relief for indebted LMICs.

These statistics highlight the deep rooted social determinants of health that have shaped disease patterns for decades.¹⁰ Historical and structural barriers to change accentuate inequalities and put the world's population at greater risk. As a result of neocolonial undercurrents in global health, the strong presence of economic interests, and nationalism, low-income countries are not treated as equal partners, despite much of the rhetoric such as that presented at the G7 summit.

Trust is needed to leverage real solidarity and advance planetary health as a developmental framework for a healthy and fair post-pandemic world. Vaccine equity is the best place to start.

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- 1 The Guardian. Death toll exceeds 180 as Germany and Belgium hit by devastating floods. July 18, 2021. <https://www.theguardian.com/world/2021/jul/16/western-germany-floods-angela-merkel-horror-catastrophe-deaths-missing-search-flooding-belgium> (accessed Oct 27, 2021).
- 2 UN Development Programme. Support to vaccine equity—beyond recovery: towards 2030. June 17, 2021. <https://www.undp.org/publications/support-vaccine-equity-beyond-recovery-towards-2030> (accessed July 19, 2021).
- 3 International Chamber of Commerce. Study shows vaccine nationalism could cost rich countries US\$4.5 trillion. Jan 25, 2021. <https://iccwbo.org/media-wall/news-speeches/study-shows-vaccine-nationalism-could-cost-rich-countries-us4-5-trillion/> (accessed July 23, 2021).
- 4 Africa Centres for Disease Control and Prevention. COVID-19 vaccination. <https://africacdc.org/covid-19-vaccination/> (accessed Oct 27, 2021).
- 5 WHO. Gender, climate change and health. <https://www.who.int/globalchange/GenderClimateChangeHealthfinal.pdf> (accessed Oct 26, 2021).
- 6 Choi EM. COVID-19 vaccines for low- and middle-income countries. *Trans R Soc* 2021; **115**: 447–56.
- 7 WHO. WHO Director-General’s opening remarks at the media briefing on COVID-19 –18 June 2021. June 18, 2021. <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19-18-june-2021> (accessed Oct 25, 2021).
- 8 Duke Global Health Institute. Will low-income countries be left behind when COVID-19 vaccines arrive? Nov 9, 2020. <https://globalhealth.duke.edu/news/will-low-income-countries-be-left-behind-when-covid-19-vaccines-arrive> (accessed Oct 26, 2021).
- 9 Alaran AJ, Adebisi YA, Badmos A, et al. Uneven power dynamics must be levelled in COVID-19 vaccines access and distribution. *Public Health Pract* 2021; **2**: 100096.
- 10 Paremoer L, Nandi S, Serag H, Baum F. Covid-19 pandemic and the social determinants of health. *BMJ* 2021; **372**: n129.