



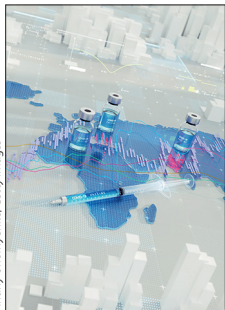
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Vaccine apartheid: global cooperation and equity



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Widening gaps in global vaccine equity have led to a two-track pandemic with booster COVID-19 vaccinations proliferating in high-income countries (HICs) and first doses not yet reaching all populations in low-income countries (LICs). Early in the pandemic, the COVID-19 Vaccines Global Access Facility (COVAX) promised equitable vaccine supplies for all countries. However, with insufficient funds and donations, COVAX has faltered, failing to meet even half of its 2021 target of delivering 2 billion doses.¹ An open letter to G20 leaders in October, 2021 highlighted how 133 doses per 100 people have been given in HICs compared with four doses per 100 people in LICs.² The WHO Director-General has called the divide a “vaccine apartheid”,³ speaking beyond the phrase “vaccine inequity” to emphasise the scope of this moral failure and make explicit comparisons to the South African system of institutionalised racial segregation. Unabated SARS-CoV-2 transmission in LICs offers fertile soil for new variants to emerge, and WHO has argued that deracinating the roots of the pandemic will require us to vaccinate the world.⁴ But how do we achieve global vaccination?

The present challenge is the zero-sum nature of vaccination where, given limited supply, every booster shot HICs purchase is a lost first or second dose for LICs.⁵ Under the institutional duty to rescue, states hold obligations to specific populations, setting defined scope and force (ie, the breadth of cases to which a duty applies and the requisite demands).⁶ The first obligation of all countries is to their own population, so HICs have understandably prioritised booster shots to citizens over vaccine donation to non-citizens. Despite this zero-sum thinking, some vaccine philanthropy has emerged, with the USA pledging to donate 1.2 billion doses, although only 400 million have been delivered as of Feb 18, 2022.⁷ Similarly, the UK pledged to donate 100 million doses

to COVAX but has only donated half of that amount to date.⁸ WHO membership, international treaties, such as the Doha Declaration and Food Assistance Convention, and other diplomatic agreements can extend HICs’ duty to rescue but typically only in a constrained way. Tina Rulli and Joseph Millum have highlighted that “despite the great amount of need in the world, institutions have primary responsibility to address the needs of their own constituents”.⁶ As such, it is perhaps unrealistic that vaccine philanthropy alone will meet the WHO plan to vaccinate 70% of the world by mid-2022.^{9,10}

In *The Fallacy of Philanthropy*,¹¹ Paul Gomberg argues that traditional approaches like “feed the hungry” distract from actionable solutions to address the unique challenges of chronic social problems such as poverty. If the underlying forces that create hunger are not prevented, then addressing only the downstream effects is, Gomberg suggests, “like trying to bail the boat without fixing the leak”.¹¹ HICs donating COVID-19 vaccine doses to LICs is commendable, but represent an inefficient, short-term amelioration rather than a sustainable long-term solution. Addressing the root causes of vaccine inequity will require more systemic changes because alternatives such as philanthropy leave the forces enforcing such inequities intact and deflect attention away from them. Gomberg details how capitalism has sustained hunger and suggests a revolutionary political response to end poverty.¹¹ While anti-capitalism might not be wholly desirable given the impressive investment that produced COVID-19 vaccines, a more structural approach than vaccine philanthropy would help achieve greater global cooperation and equity.

We suggest that an effective and sustainable approach must include passage of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) waiver by the World Trade Organization (WTO) so that mRNA vaccine

production in particular can be intensified in LICs. First proposed in October, 2020, the TRIPS agreement waiver proposal would waive intellectual property protections for COVID-19 prevention, containment, and treatment technologies.¹² The proposal, however, has stalled because of opposition from the EU, the UK, and other HICs, even with a renewed push by India at a January, 2022 WTO ministerial meeting.^{4,13} The common threat of the omicron (B.1.1.529) variant and likely future SARS-CoV-2 variants reaffirm the importance of applying pressure on resistant HICs and negotiating towards an agreement. The public funding for research on COVID-19 vaccines bolsters the case for a temporary patent waiver. And the establishment of an mRNA technology transfer hub in South Africa in July, 2021, with the first six African countries chosen to receive this technology in February, 2022, shows that countries are ready, equipped, and willing to proceed with local vaccine production once intellectual property rights are liberated.^{14,15} Although pharmaceutical companies have claimed a patent waiver would destroy their economic model,¹⁶ the TRIPS waiver applies only internationally and is time-limited. Furthermore, regulatory tools allow HICs to block generic vaccines from entering their markets. The HIV pandemic also provides one template for how markets for HICs and LICs can operate simultaneously to ensure both sufficient pharmaceutical enrichment and greater global equity.¹² Unlike one-directional philanthropy, adoption of the TRIPS waiver would allow for active cooperation to sustainably expand COVID-19 vaccine manufacturing capacity in LICs.

In a time of increasing nationalism in many countries, global cooperation on the scale the pandemic demands might seem unfeasible, but the world can come together to meet the challenge, as previous global agreements demonstrate. The Montreal Protocol saw every country ban the use of chlorofluorocarbons to protect the ozone layer.¹⁷ Similarly, the polio eradication effort demonstrated how global cooperation could successfully tame a deadly infectious disease.¹⁸ These triumphs are rooted in multilateral solidarity, public-private partnerships, and adequate funding, all of which are similarly crucial for global COVID-19 vaccine equity and recovery. Vaccine apartheid is a “catastrophic moral failure”,³ yet we believe the path forward lies not in moral exhortations and inadequate philanthropy but in sustainable cooperation with LICs. The world cannot

abandon LICs; the stakes to global health and our collective futures are too high.

We declare no competing interests.

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