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## Public Health

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## Letter to the Editor

## Accelerating global vaccination coverage of frontline workers and populations at risk of severe COVID-19 complications



COVID-19 vaccination campaigns are well underway in many countries; however, a number of governments have committed to vaccinating their entire adult populations before releasing pre-purchased doses for other countries. With limited doses available in 2021, this strategy will result in rich low-risk individuals receiving jabs with marginal benefit ahead of frontline health workers and high-risk populations in low-income countries.

Researchers at Northeastern University have estimated that international cooperation to distribute available vaccine doses based on population size and clinical need could cut global deaths by half, in comparison with the competitive scenario wherein rich countries monopolise early doses for their own populations.<sup>1</sup>

While we recognise the domestic political imperatives at play, the competitive atmosphere in which deals are being made by individual governments directly contravenes the spirit that is needed to achieve a coordinated global recovery and potentially even harms the self-interests of individual governments and their populations. As increasing numbers of vaccine candidates receive approval, many wealthy countries are in the position of having more doses of effective vaccines on order than are needed to vaccinate their own populations. The potential hoarding of vaccine orders by some countries creates a number of risks, not only to countries that are deprived of vaccines but also to countries that hold more orders than they need.

First, failing to achieve control of COVID-19 in countries of the Global South is likely to stymie any global economic recovery, which from previous financial crises is recognised to be precarious in itself. The World Bank<sup>2</sup> among others has highlighted the need for coordination in halting circulation of severe acute respiratory syndrome coronavirus 2 in all regions of the world or else risk a heavily subdued recovery. Global markets and supply chains mean few countries can see a strong rebound alone.

Second, virologists and epidemiologists have already highlighted the risk of endemic circulation particularly with the potential for selective pressures of vaccines and treatments on further mutations of the virus.<sup>3</sup> Uncontrolled circulation in any region of the world risks reintroduction of infection and possibly of mutated strains that may affect virulence, vaccine efficacy or transmissibility.

Third, adequate human resources for health are vital in responding to pandemics and in ensuring global health security, as shown by the Ebola epidemic. Although fortunately mortality in many

low-income countries has been low in the first wave, the pandemic is exacerbating existing health worker shortages. Countries such as Niger, which has 1 doctor per 20,000 people, has had relatively few COVID-19 deaths, but 19% of detected cases have been in health workers.<sup>4</sup>

Finally, there is a clear question also of vaccine equity. Is it morally justifiable to commence population-wide vaccination drives in rich countries when health workers and vulnerable populations in low-income countries have not been afforded access? Do lives in one part of the world intrinsically matter more than in another?

There is undeniably an opportunity to rebuild from this pandemic a fairer and more just world than the one the virus first appeared in. To do so, governments should avoid further bilateral and direct procurement from vaccine manufacturers and instead pool resources to achieve equitable, global distribution and delivery. This should include relinquishing any excess advance orders for vaccines that countries no longer need.

This could include increased pledges to COVAX, the GAVI/WHO platform for COVID-19 vaccines, distribution of existing purchases and stock to in-need populations overseas, health system strengthening in low- and middle-income countries to aid vaccine delivery and even application of World Trade Organisation (WTO) trade rules to waive patent protection and allow generic vaccine production at cost.

No one is safe until everyone is safe – policymakers and those able to influence decisions surrounding vaccine procurement, manufacturing and distribution need to understand the implications of our current strategy and see the benefits of one that better prioritises social justice and health equity.

## References

1. Chinazzi M, Davis JT, Dean NE, Mu K, Pastore, Piontti A, Xiong X. Estimating the effect of cooperative versus uncooperative strategies of COVID-19 vaccine allocation: a modeling study. *MOBS Lab* 2020 Sep 14. [www.mobs-lab.org/uploads/6/7/8/7/6787877/global\\_vax.pdf](http://www.mobs-lab.org/uploads/6/7/8/7/6787877/global_vax.pdf).
2. World Bank. *Global economic prospects, January 2021*. Washington, DC: World Bank; 2021. © World Bank, <https://openknowledge.worldbank.org/handle/10986/34710> License: CC BY 3.0 IGO.
3. BMJ. News briefing. COVID-10: new coronavirus variant is identified in the UK. *BMJ* 2020;**371**:m4857.
4. Dyer Owen. Covid-19: No large hidden outbreak in Africa but health worker shortage worsens. *BMJ* 2020;**370**:m2685.

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