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# Public Health

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

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<b>Abstract:</b>	
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1 COVID-19 vaccination campaigns are well underway in many countries, however a number  
2 of governments have committed to vaccinating their entire adult populations before releasing  
3 pre-purchased doses for other countries. With limited doses available in 2021, this strategy  
4 will result in rich low-risk individuals receiving jabs with marginal benefit ahead of front-line  
5 health workers and high-risk populations in low-income countries.  
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8 Researchers at North-eastern University have estimated that international cooperation to  
9 distribute available vaccine doses according to population size and clinical need could cut  
10 global deaths by half, in comparison to the competitive scenario where rich countries  
11 monopolise early doses for their own populations.<sup>1</sup>  
12

13 While we recognise the domestic political imperatives at play, the competitive atmosphere in  
14 which deals are being made by individual governments directly contravenes the spirit that is  
15 needed to achieve a coordinated global recovery, and potentially even harms the self-  
16 interests of individual governments and their populations. As increasing numbers of vaccine  
17 candidates receive approval, many wealthy countries are in the position of having more  
18 doses of effective vaccines on order than are needed to vaccinate their own populations.  
19 The potential hoarding of vaccine orders by some countries creates a number of risks, not  
20 only to countries that are deprived of vaccines, but also to the countries that hold more  
21 orders than they need.  
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24 First, failing to achieve control of COVID-19 in countries of the global south is likely to stymie  
25 any global economic recovery which from previous financial crises is recognised to be  
26 precarious in itself. The World Bank<sup>2</sup> among others has highlighted the need for coordination  
27 in halting circulation of the SARS-CoV-2 virus in all regions of the world or else risk a heavily  
28 subdued recovery. Global markets and supply chains mean few countries can see a strong  
29 rebound alone.  
30

31 Second, virologists and epidemiologists have already highlighted the risk of endemic  
32 circulation particularly with the potential for selective pressures of vaccines and treatments  
33 on further mutations of the virus.<sup>3</sup> Uncontrolled circulation in any region of the world risks re-  
34 introduction of infection and possibly of mutated strains that may affect virulence, vaccine  
35 efficacy or transmissibility.  
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38 Thirdly, adequate human resources for health are vital in responding to pandemics and to  
39 ensuring global health security, as shown by the Ebola epidemic. Although fortunately  
40 mortality in many low income countries has been low in the first wave the pandemic is  
41 exacerbating existing health worker shortages. Countries such as Niger, which has 1 doctor  
42 per 20,000 people, has had relatively few COVID-19 deaths but 19% of detected cases have  
43 been in health workers.  
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46 Finally, there is a clear question also of vaccine equity. Is it morally justifiable to commence  
47 population-wide vaccination drives in rich countries when health workers and vulnerable  
48 populations in low-income countries have not been afforded access? Do lives in one part of  
49 the world intrinsically matter more than in another?  
50

51 There is undeniably an opportunity to rebuild from this pandemic a fairer and more just world  
52 than the one the virus first appeared in. To do so governments should avoid further bilateral and  
53 direct procurement from vaccine manufacturers and instead pool resources to achieve  
54 equitable, global distribution and delivery. This should include relinquishing any excess  
55 advance orders for vaccines that countries no longer need.  
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58 This could include increased pledges to COVAX, the GAVI/WHO platform for COVID-19  
59 vaccines, distribution of existing purchases and stock to populations in-need overseas,  
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1 health system strengthening in low- and middle-income countries to aid vaccine delivery and  
2 even application of WTO trade rules to waive patent protection and allow generic vaccine  
3 production at-cost.

4 No one is safe until everyone is safe – policymakers and those able to influence decisions  
5 surrounding vaccine procurement, manufacturing and distribution need to understand the  
6 implications of our current strategy and see the benefits of one that better prioritises social  
7 justice and health equity.  
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9  
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**Accelerating global vaccination coverage of frontline workers and populations at-risk of severe COVID-19 complications**

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