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Correspondence

SARS-CoV-2 vaccination in pregnancy: a unique opportunity for equity

We read the Comment by Bollyky and colleagues¹ with great interest and wanted to echo the sentiment from the maternal health-care perspective. Pregnant women and their babies in under-resourced settings bear the greatest burden of mortality and morbidity related to pregnancy complications, so it is unsurprising that this is also true of COVID-19.² Maternal mortality due to COVID-19 is 149 per 10 000 infections in Mexico, compared with 15 per 10 000 symptomatic infections in the USA.³⁴

However, although solutions to the leading causes of maternal mortality (hypertension, haemorrhage, and sepsis) are complex and involve improving weaker health systems, the solution to COVID-19-related mortality is not. Vaccines are highly effective at reducing severe COVID-19 and death, with the number needed to vaccinate to avoid one maternal death being substantially lower in low-income and middle-income countries (LMICs) than in highincome countries. For example, assuming that vaccination is at least 95% effective in preventing maternal mortality, one maternal death could be prevented by approximately 70 immunisations in Mexico or at least 700 immunisations in the USA.3,4 Because vaccine hesitancy is lower among women in LMICs than in high-income countries,5 there is a huge potential for public good if the poor availability of the vaccine can be rectified, particularly in Africa; this is shown in the proportion of people who have received at least one dose of the COVID-19 vaccine in different regions of the world (appendix).

Unless pregnant women receive protection through immunisation or shielding strategies, the absolute increase in maternal morbidity and mortality will be staggering in LMICs given their high baseline morbidity and mortality rates, the greater proportional effect of the pandemic, and the already strained healthcare resources. We call for urgent action to ensure equitable access to immunisation for pregnant women in LMICs who are particularly willing to be vaccinated, are at an increased risk of death from COVID-19, and live where fewer vaccines are needed to save each life compared with highincome countries. The COVID-19 vaccine is a unique opportunity for the global health community to provide health-care equity.

AK is an unpaid member of the COVAX Maternal Immunisation Committee. PO'B is the co-Chair of the Royal College of Obstetricians and Gynaecologists COVID-19 Vaccination Committee. All other authors declare no competing interests.

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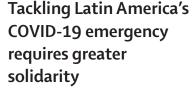
- Bollyky TJ, Murray CJL, Reiner RC Jr.
 Epidemiology, not geopolitics, should guide
 COVID-19 vaccine donations. Lancet 2021;
 398: 97–99.
- Chmielewska B, Barratt I, Townsend R, et al. Effects of the COVID-19 pandemic on maternal and perinatal outcomes: a systematic review and meta-analysis. Lancet Glob Health 2021; 9: e759-72.
- 3 Zambrano LD, Ellington S, Strid P, et al. Update: characteristics of symptomatic women of reproductive age with laboratory-confirmed SARS-CoV-2 infection by pregnancy status -United States, January 22–October 3, 2020. MMWR Morb Mortal Wkly Rep 2020; 69: 1641-47.
- 4 Martinez-Portilla RJ, Sotiriadis A, Chatzakis C, et al. Pregnant women with SARS-CoV-2 infection are at higher risk of death and pneumonia: propensity score matched analysis of a nationwide prospective cohort (COV19Mx). Ultrasound Obstet Gynecol 2021; 57: 224–31.

Skjefte M, Ngirbabul M, Akeju O, et al. COVID-19 vaccine acceptance among pregnant women and mothers of young children: results of a survey in 16 countries. Eur | Epidemiol 2021; 36: 197–211.



Published Online August 11, 2021 https://doi.org/10.1016/ S0140-6736(21)01756-6





The Editors¹ highlight the devastating effect of COVID-19 in Latin America and the Caribbean, recognising that pervasive inequality, weak health systems, an over-reliance on foreign manufacturing, and fractured coordination has affected the pandemic response in this region.

The pandemic unfolds as this region faces extraordinary political divisions, both within and across countries. The Pan American Health Organization (PAHO) has worked closely with governments in Latin America and the Caribbean, providing technical expertise, strengthening health systems, and expanding COVID-19 surveillance.²

Decades of underinvestment in health, however, have limited the capacity of this region to control outbreaks. Greater solidarity, backed by increased health spending and stronger public health systems, is urgently needed.³

There is no way to overcome COVID-19 without vaccines. PAHO is focused on ensuring the region is immunised as quickly as supplies become available. Our revolving fund provides a backbone for vaccine procurement, channelling doses to countries ready to deliver them.

Notwithstanding, this region has not been afforded priority in accessing vaccines despite the disproportionate burden of the pandemic there. This situation must change.

Latin America and the Caribbean has the expertise and capacity to develop and produce vaccines.⁴ PAHO will continue to support countries and



Published Online August 12, 2021 https://doi.org/10.1016/ S0140-6736(21)01757-8

See Online for appendix

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