In the News

Unequal Access to COVID-19 Vaccines Leaves Less-Wealthy Countries More Vulnerable, Poses Threat to Global Immunity

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Although high-income nations already have contracted for more than half of the total doses of COVID-19 vaccine doses, low- and middle-income countries (LMICs) have access to only enough vaccine doses to cover approximately one-third of their populations, according to an analysis from the Kaiser Family Foundation (KFF).

Widespread global access to COVID-19 vaccines is needed not only to prevent cases and deaths; it is also key to achieving global population immunity and controlling the pandemic, the analysis notes. The disparity in access to the vaccines exists despite efforts by COVAX, an international partnership led by the Coalition for Epidemic Preparedness Innovations; Gavi, the Vaccine Alliance; and the World Health Organization (WHO) to address this challenge.

In addition to inadequate vaccine access, another challenge to reaching global population immunity is a lack of “vaccine preparedness” in many LMICs, meaning they are unprepared to begin large-scale efforts to vaccine their populations, according to a new report from the World Bank.

Using data from the Duke Global Health Innovation Center Launch and Scale Speedometer, which tracks purchases of COVID-19 vaccines, the KFF researchers calculated the share of doses purchased by countries and the countries’ potential vaccine coverage rates (proportion of the adult population that could be fully vaccinated).

“Ultimately, we find that without redistribution of doses already purchased by high-income countries (through donations or other means) and/or increased support for manufacturing or production of additional doses, more than four in ten (41%) adults in the world will not be able to be vaccinated, even after allocating all COVAX doses to LMICs,” the KFF authors write.

To date, despite comprising only 19% of the world’s adult population, high-income countries have purchased 54% of global vaccine doses (4.6 billion doses), the analysis found, whereas LMICs comprise 81% of the global adult population and have purchased just 33% of doses. COVAX has purchased the remaining 13% of global vaccine doses.

Lower-middle-income countries have the largest gap between the proportion of doses purchased and population share (comprising 37% of the global population, with only 12% of purchased doses), followed by upper-middle-income countries (37% of the world’s population and only 18% of purchased doses). Low-income countries had a smaller gap (7% of global population and 3% of vaccine doses).

When the researchers analyzed the potential vaccine coverage rates by income level, they found that enough vaccine has been purchased to cover more than 80% of the global adult population. However, high-income countries have ordered enough doses to vaccinate more than twice their adult populations (245%), whereas LMICs can cover only one-third of theirs.

If all vaccine doses promised to COVAX reach LMICs, that would boost coverage for LMICs from 33% to 46%–still far below their 80% share of the world’s adult population.

This substantial disparity between vaccines purchased and country income level “could be addressed in large part through redistribution of doses,” the authors said, which some high-income countries, such as France and Norway, have said they will do.

Last week, the Biden administration said it planned to offer 1.5 million doses of COVID-19 vaccine to Canada and 2.5 million doses to Mexico, from a stockpile of 7 million doses it had contracted to buy from AstraZeneca. This vaccine has been approved for use in Canada, Mexico, and
a number of other countries, but has not yet received emergency use authorization by the US Food and Drug Administration.

The Biden administration previously said it would provide $4 billion in funds to the COVAX facility.

However, the ability of donated vaccines to address these disparities “is in part dependent on the success of some vaccine candidates still in clinical trials or the ability to support the increased manufacturing of or production capacity for already successful vaccine products,” the KFF researchers noted.

Also complicating the effort to achieve global population immunity are disparities in readiness to safely distribute COVID-19 vaccines, the World Bank report found. In its assessment, the World Bank, working with governments, WHO, Gavi, and others, focused on key indicators, including cold chain and logistics, training of health care personnel, and safety surveillance (such as reporting adverse reactions) to assess such readiness in 128 LMICs.

About 85% of these countries have developed national vaccination plans, and 68% have safety measures in place. But only 30% have prepared plans for training the large numbers of vaccinators needed, and only 27% have developed strategies for public engagement to encourage people to get immunized.

“Given worrying vaccine hesitancy, strategies to generate confidence, acceptance and demand for vaccines are urgently needed,” the World Bank noted in a statement. “Countries affected by conflict and fragility (37 out of 128) scored lower than other countries on almost all indicators.”

The agency is providing $12 billion to LMICs to improve health and vaccination systems and to purchase and distribute COVID-19 tests, treatments, and vaccines.

Despite gaps in readiness, the World Bank report notes that most countries are focusing well enough on the most essential aspects of the vaccine delivery chain to at least begin inoculating their populations as soon as they receive vaccines. Nonetheless, cautious the agency’s vice president for human development, Mamta Murthi, DPhil, “there are still important gaps that must urgently be addressed for wide, large scale vaccination rollouts to succeed.”