High-Income Countries Have Secured the Bulk of COVID-19 Vaccines

High-income countries have reserved more than half of the world’s coronavirus disease 2019 (COVID-19) vaccine doses despite representing just 14% of the world’s population, according to an analysis of publicly available data on premarket purchase agreements.

The data show that 7.48 billion doses—enough to fully vaccinate about half the world’s population with 2 shots—had been secured as of mid-November 2020. But so far, high-income countries have acquired 51% of the doses, leaving the remainder for low- and middle-income countries where 86% of the global population lives, according to the authors.

For example, the US is home to about 330 million people, or 4% of the world’s population. But it has reserved 800 million doses, enough to vaccinate 400 million people. Although the US had about one-fifth of all cases worldwide at the time of the analysis, other high-income countries with smaller populations and lower COVID-19 case numbers had secured a larger share of reserved vaccines. For example, the authors found that Japan, Canada, and Australia have a combined population of less than 200 million, but they’ve reserved a total of 1 billion doses despite accounting for only 1% of COVID-19 cases worldwide.

The COVAX facility, a global initiative led by the World Health Organization, has agreements with manufacturers to acquire 2 billion doses of COVID-19 vaccines, including 1.3 billion doses earmarked for 92 low- and middle-income countries. That’s enough to vaccinate about 20% of their populations.

“The successful, equitable implementation of COVID-19 vaccination programmes requires unprecedented global coordination and a sustained commitment of resources—financial, logistical, and technical—from high income countries,” Jason Schwartz, PhD, assistant professor of health policy at the Yale School of Public Health, wrote in an editorial accompanying the analysis.

Clinical Trials Overlook Diseases of Low-Income Countries

Conditions like respiratory infections, tuberculosis, and enteric infections that disproportionately affect low-income countries are consistently understudied in clinical trials, according to a recent study.

Using machine learning technology, researchers in the UK and US analyzed 31 million articles in the PubMed database to identify 463,000 randomized clinical trials (RCTs) published between 1990 and mid-2020. Then they examined how the health conditions studied most often in clinical trials compared with conditions that cause the greatest disease burden as measured in disability-adjusted life-years (DALYS).

On average, they found that as DALYS for a particular condition increased, so did RCTs for that condition, but there was a lag: for every 10% increase in DALYS, RCTs increased by 5% in the same year. In addition, trials for conditions that disproportionately affect low-income countries were underrepresented in the analysis. About 7000 fewer trials were conducted for respiratory infections and tuberculosis than what regression models had predicted based on disease burden. For enteric diseases, there were 9700 fewer trials than predicted.

The authors suggested that funding organizations rethink the way they allocate funding and invest more in diseases that impose the greatest burden or disproportionately affect lower-income countries. “Given that the vast majority of trials are being conducted by the wealthiest 20% of countries, targeting national health priorities is not sufficient, and a global approach is needed,” the researchers wrote. Updates of their analysis are available online.

Global Partnership Aims to Improve Infant HIV Care

After stakeholders secured lower prices for a recently approved pediatric HIV medication, an international partnership has urged low- and middle-income countries to procure the drug and make it widely available.

Late last year, the global health agency Unitaid and the Clinton Health Access Initiative joined with ViiV Healthcare to obtain price agreements with 2 companies that manufacture generic dolutegravir for pediatric patients. The drug’s annual price fell from $480 to $120 for the full regimen.

Now available in 10-mg, strawberry-flavored, dispersible tablets, dolutegravir has been a World Health Organization (WHO)—recommended first-line treatment for infants and children since 2018. Previously, children’s treatment options included unpalatable syrups and bitter pills. The generic formulation is indicated for infants and children who are at least 4 weeks old and weigh more than 3 kg.

With suppliers ready to meet demand, the WHO, the United Nations Children’s Fund, the Joint United Nations Programme on HIV/AIDS, and other partners will help national governments to train health care workers, manage drug supplies, and develop new policies as they rapidly shift children to generic dolutegravir.

The international partners noted that about 95,000 children died of AIDS-related illnesses in 2019, in part because early diagnosis and optimal treatment weren’t available. “We must do all in our power to help countries get this new pediatric [formula] to all the children who need it,” the WHO’s Meg Doherty, MD, PhD, MPH, said in the statement. – Bridget M. Kuehn, MSJ

Note: Source references are available through embedded hyperlinks in the article text online.