

COVID-19 VACCINATION IN DEVELOPING NATIONS

As COVID-19 spread worldwide in 2020, developing and deploying vaccines became a global imperative. Medical researchers developed vaccines in record time, using ground-breaking technology and decades of cultivated know-how. Manufacturers then produced billions of doses at rapid speed.

Since then, however, a stark disparity has emerged between low- and high-income countries' rates of vaccination. Global health officials still aim to meet the United Nations' goal of having 70% of populations in developing countries vaccinated.¹ The question is how to go about it.



Q: How do COVID-19 vaccination rates vary by country?

Vaccination rates in low-income countries lag far behind those in wealthier nations. While 79% of people in developed, high-income countries have received at least one vaccine dose, only 15% of people in low-income countries can say the same.²

The clearest example of this disparity is Africa, which is the least vaccinated region in the world. As of April 2022, only 21% of the continent's population had received at least one vaccine dose.³

Q: How does global supply impact COVID-19 vaccination rates?

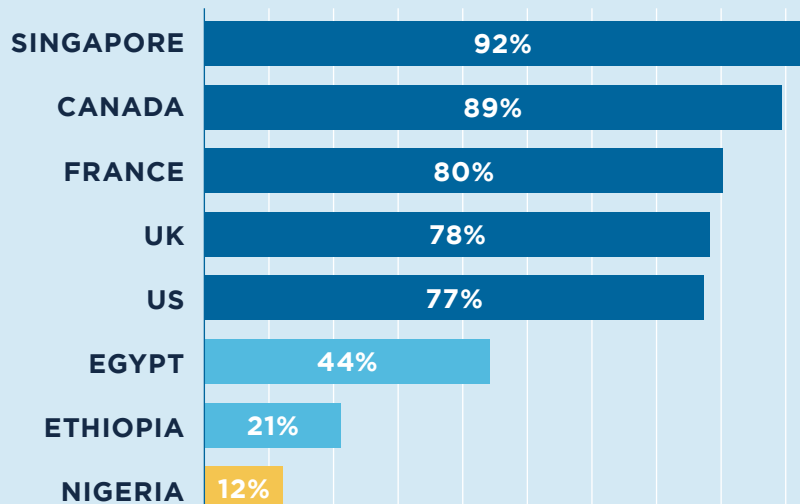
Access was a top concern when COVID-19 vaccines became available. In those first few months, supply was indeed limited.

The global supply of vaccines has since caught up. In fact, supply now exceeds demand. By June 2022 the number of COVID-19 vaccines is expected to top 24 billion, far more than what's needed globally.⁴

Now the limiting factor is not supply but local, on-the-ground logistics. More than 300 million COVID-19 vaccine doses are sitting in storage, waiting to be delivered in many African countries.⁵



VACCINATION RATES BY COUNTRY



High-Income: ■ Lower Middle-Income: ■ Low-Income: ■

Q: What is hindering vaccination in low-income countries?

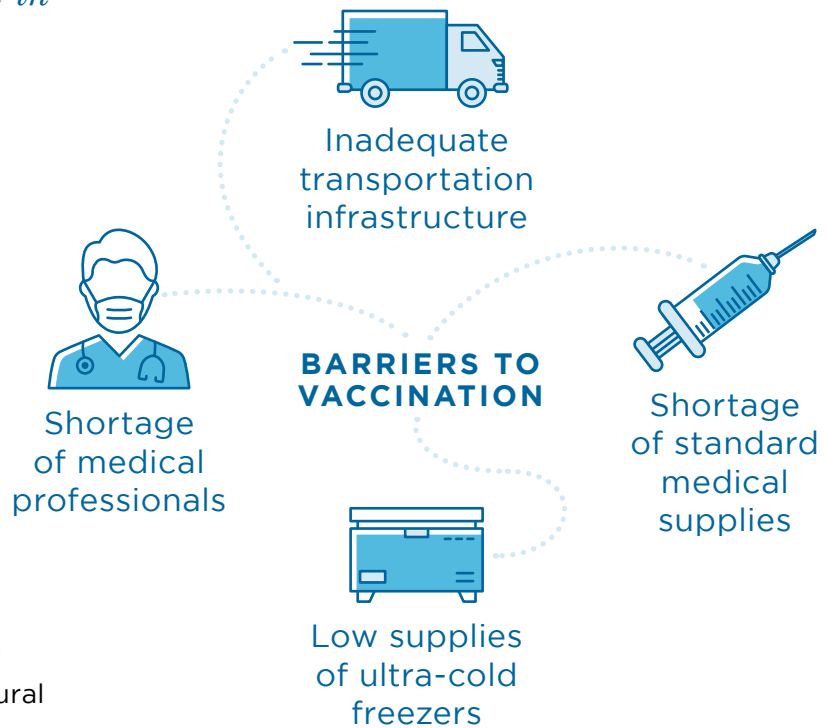
The greatest obstacle is inadequate infrastructure.

Many COVID-19 vaccines require storage at cold temperatures, ranging from extremely low (-70°) during shipping to low (2°C–8°C) before they're administered.⁶ Many low-income and developing countries simply don't have the ultra-cold units needed to distribute these vaccines.

Moreover, the power grid infrastructure in some developing nations, particularly in rural areas, isn't reliable enough to support these units.

A lack of airports, roads and transportation infrastructure presents another challenge. Even private-sector companies have found it difficult to deliver to some remote areas.

Limited transportation also poses challenges for people living outside of urban centers who need to travel to get vaccinated. Because vaccines cannot be transported to a convenient location where they could be stored and administered, rural and vulnerable populations often go unserved.⁷



Q: What else do low-income countries need to improve vaccination rates?

Underserved regions also need a more robust labor force and standard medical supplies, which they often lack.

In developing countries, health care workers are in even greater demand than before the pandemic. Even if health systems in developing nations could receive the vaccines available to them, they would still need more syringes, needles and sterile environments.



With robust supplies, companies are offering vaccines to low-income countries at little to no cost.



Q: Would waiving intellectual property protections improve vaccination rates?

Some countries, such as India and South Africa, have proposed that the World Trade Organization suspend intellectual property protections for COVID-19 vaccines. Doing so would allow for what's known as compulsory licensing, where companies produce vaccine copies even while the vaccines are still under patent by their manufacturers.

As it is, supplies are so robust that companies are already offering vaccines at reduced or no cost to low-income countries. As of March 2022, 1.13 billion doses had been donated.⁸

The logistical challenges of compulsory licensing are also significant. Many lack state-of-the-art laboratory and manufacturing facilities to meet the standards and quality control of leading manufacturers. Meanwhile, the pool of raw materials necessary to produce these vaccines is limited. Having more manufacturers competing for those resources may actually reduce overall capacity.

Most importantly, suspending intellectual property rights would do nothing to address developing countries' real challenges: inadequate infrastructure, supply shortages and insufficient manpower.



Q: How can policymakers reduce disparities between high and low-income countries?

Public-private partnerships will continue to be key to successfully distributing vaccines. While private entities and the governments of developed nations can help to spearhead the process, local governments must take over vaccine management and distribution once supplies arrive.

Policymakers can also learn lessons from and leverage emergency operation centers. These centers are local, field-based offices, and they

generally have the trust of the communities they serve. They can serve as sites for vaccination against COVID-19.

Finally, global leaders should consider supporting developing nations as they work to improve infrastructure. These improvements are critical to allow COVID-19 vaccines and other health care advancements to reach low-income countries and their at-risk populations now and in the years ahead.

CONCLUSIONS

Persistent disparities continue to undermine global vaccination goals.

Policymakers, manufacturers and other stakeholders can partner on thoughtful policy, public-private partnerships and investment in local infrastructure to help reduce those disparities, offering creative solutions and vaccine access for underserved populations across the globe.



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The Global Alliance for Patient Access is an international platform for health care providers and patient advocates to inform policy dialogue about patient-centered care.

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