

POLICY BRIEF

What are the key features of an equitable pandemic global vaccine strategy?

Key Messages

- For our *Reimagining Multilateralism* project, we conducted in-depth interviews with 20 experts worldwide to understand why multilateralism fell short during the COVID-19 pandemic and how global vaccine equity could be achieved in the next pandemic
- A confluence of vaccine nationalism, vaccine supply constraints, and the market power of high-income countries created a “perfect storm” for the rich world to hoard vaccine doses
- The global vaccine sharing mechanism COVAX lacked incentives for high-income and upper middle-income country participation and left out important constituents from the decision-making process
- Creating an equitable vaccine strategy for the next pandemic must begin now—it cannot be deferred—with promotion of regional vaccine research and development, manufacturing, regulatory approval, financing, and procurement at its core
- Renewed multilateralism will also be critical, especially technology transfer agreements between companies in the Global North and Global South, South-South partnerships, and public funding of vaccine research and development tied to conditionalities supporting global access

Background: The Deadly Costs of Pandemic Vaccine Inequity

The COVID-19 pandemic claimed an estimated [15 million lives](#) during its first two years alone and [\\$13.8 trillion](#) in projected economic losses from 2020-2024. While there were examples of global cooperation, such as the rapid sharing of viral sequences by Chinese and South African scientists, multilateralism fell short, especially when it came to global vaccine distribution. By March 2022, about 80% of people in high-income countries (HICs) had received at least one vaccine dose but only 14% in low-income countries (LICs).

The World Health Organization (WHO), CEPI, Gavi, the Vaccine Alliance and UNICEF established a global vaccine sharing mechanism, COVAX, that aimed to accelerate vaccine development and equitably distribute vaccines through two approaches:

- *Self-financing countries*, defined as HICs and upper middle-income countries (MICs), would pay for their own participation, including with upfront payments and paying their own procurement costs, to access the COVAX portfolio of vaccines. They could [request](#) “enough doses to vaccinate 10-50% of their populations.” If their bilateral deals with vaccine companies failed, they would have a “fall back” if they bought into COVAX.
- *Funded countries*, defined as the 92 LICs and lower MICs, would receive enough doses to vaccinate up to 20% of their populations, funded by aid (official development assistance).

While COVAX achieved significant successes, it did not meet its 2021 target of delivering two billion doses by the end of 2021, enough to vaccinate 20% of the population of each nation; it delivered only 950 million doses by that target date. One [study](#) estimates that an additional 45% of COVID-19 deaths in LICs could have been averted if the 2021 COVAX target had been met.

With HICs and upper MICs hoarding the supply, the resulting uncontrolled viral transmission in many parts of the world prolonged the pandemic, contributed to the emergence of new SARS-CoV-2 variants, and led to deaths that could have been prevented. Such vaccine nationalism also caused massive economic losses worldwide, with rich nations bearing [half](#) the cost—due to factors such as reduced exports and supply chain disruptions.

The Reimagining Multilateralism Project

The COVID-19 pandemic showed some of the key weaknesses of health multilateralism. These have not yet been addressed. Despite the overwhelming health and economic benefits of global vaccine equity, there's a risk that in the next pandemic, HICs will again look after their own narrow interests, scramble against one another to meet their own short-sighted needs, and lock up the vaccine supply. The *Reimagining Multilateralism* project, funded by the Carnegie Foundation, explored ways to improve equitable distribution of pandemic vaccines in future pandemics. The project included a qualitative study, [published](#) in the journal *Vaccine*, in which we conducted in-depth interviews with 20 experts worldwide to understand why multilateralism fell short during the COVID-19 pandemic and how global vaccine equity could be achieved in the next pandemic. The experts included representatives of academia, multilateral health and development agencies, civil society organizations, non-governmental organizations, think tanks, and the pharmaceutical industry.

What Went Wrong in the COVID-19 Pandemic

Experts identified a confluence of factors that created a “perfect storm” for the rich world to hoard vaccine doses: vaccine nationalism, vaccine supply constraints, and the market power of HICs:

- **Vaccine nationalism.** Prioritization of national interests was a barrier to multilateral provision of vaccines, but key informants (KIs) argued it was to be expected and even rational—one KI compared it to putting on your own oxygen mask before you help others. Prioritization was not unique to HICs; MICs that manufactured vaccines, such as India, also instituted export bans when they were in the midst of a COVID-19 wave (e.g., the delta wave in spring 2021).
- **Supply constraints.** The concentration of vaccine manufacturing in HICs combined with trade restrictions instituted by some vaccine-producing nations contributed to the lack of supply in MICs and LICs.
- **The market power of HICs.** KIs pointed to unequal market power, noting that HICs benefited from having established long-term relationships with pharmaceutical companies. Heads of states of the US and Europe were even engaging in direct, high-profile state relationships with company CEOs to secure vaccine doses. COVAX did not have the funding, status, or market power to compete with these bigger players in the market.

Experts pointed to two other key weaknesses of COVAX, related to incentives and participation:

- **Lack of incentives or compulsory mechanisms for HICs and upper MICs to participate.** Wealthy self-financing countries signed on to COVAX as a backup plan while still entering multiple bilateral agreements with pharmaceutical companies for large quantities of vaccine doses. This kind of “double dipping,” argued the KIs, undermined COVAX's ability to negotiate since there was no incentive for these wealthy countries to take into consideration the collective global interest. As a result, COVAX was left struggling to get enough doses to distribute to the LICs and lower MICs that had no choice but to rely on the COVAX platform for vaccines.
- **COVAX left out important constituents from the decision-making process.** While COVAX brought together several multilateral organizations, foundations, donor governments, and industry, some KIs were disappointed that key groups were left out, such as civil society organizations and governments of LICs and MICs, which they argued hindered implementation and delivery.

The Five Key Approaches to Achieving Vaccine Equity in the Future

Experts laid out five key approaches to achieving pandemic vaccine equity in the next pandemic:

- ❶ **Promote regional self-sufficiency.** Regions like Africa and South East Asia, said the KIs, realize they cannot rely on HICs and must develop capacity to conduct their own vaccine R&D, manufacturing, regulatory approval, financing, and procurement. Some KIs pointed to the European Union (EU) as a potential model for the regional approach, citing how the EU countries collaborated during the COVID-19 pandemic.
- ❷ **Act now, not when a pandemic hits.** As one KI said, *“What it will require is expanding production capacity, not when the outbreak happens, but now.”* Such production facilities will need to be “kept warm” through the manufacturing of non-pandemic tools (medicines, vaccines, diagnostics) between pandemics. Regional networks should be urgently established, allowing sharing of information and development of connected outbreak surveillance systems.
- ❸ **Attach conditionalities to public funding for vaccine R&D.** Most KIs identified opportunities to improve access to pandemic innovations in public funding agreements for R&D and in procurement deals. Some of the solutions that KIs proposed were directed at HICs that provide most of the public funding for R&D and that have the buying power to negotiate procurement deals with pharmaceutical companies. KIs suggested that public officials in HICs could include conditionalities such as intellectual property (IP) sharing and tech transfer in grant or procurement contracts.
- ❹ **Explore new types of IP.** KIs argued that new approaches will be needed to IP sharing and technology transfer. Many experts acknowledged that a proposed pandemic IP waiver—in which IP would be waived on future pandemic vaccines when the WHO declares a Public Health Emergency of International Concern—was unlikely to be adopted in the WHO Pandemic Agreement. Instead, the focus should be on making binding legal agreements about sharing technology, something that

states can actually control. Licensing agreements may be an important complement to regional manufacturing hubs and could help improve production volumes and drive economies of scale.

5 Do not give up on multilateralism. Despite the shortcomings of the global COVID-19 response and the recent move towards regional self-sufficiency, there are still critical roles for international cooperation in pandemic preparedness and response, especially technology transfer agreements between companies in the Global North and Global South and South-South partnerships. A future global collaboration mechanism would require wealthier countries to forgo the right to double dip, better representation of LICs and MICs, and an improved governance mechanism to regulate the role of pharmaceutical companies. KIs also noted that you could see new kinds of global partnerships being formed; as one KI said, *“You you can build very successful partnerships if you have a mix of countries with manufacturing capacity, who are good at science, and have technical capacities and resources. You can see, for example, Indonesia, India, Africa, and Latin American coming together. Why should they not?”*

Next Steps for This Project

We presented this study at a policy dialogue on global pandemic surveillance, preparedness, and response that took place at the Duke in DC office on February 18, 2026, co-hosted by Duke’s Center for Policy Impact in Global Health (CPIGH) and the Duke Margolis Institute for Health Policy. Attendees included members of the U.S. State Department, the U.S. House of Representatives, the Pan American Health Organization, the Center for Strategic and International Studies, the Center for Global Development, the American Enterprise Institute, KFF, and the American Society of Tropical Medicine and Hygiene, along with academics and leaders of the US pharmaceutical industry. We have published a [brief](#) that summarizes this dialogue.

Two national studies in our *Reimagining Multilateralism* project have been completed—led by the Public Health Foundation of India and the University of Ghana —and the study reports have been submitted for publication in peer-reviewed journals. These qualitative studies in India and Ghana explored the specific sub-national, national, and regional challenges to vaccine equity during the COVID-19 pandemic and the opportunities to ensure equity in the next pandemic.

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