FOREIGN AFFAIRS Vaccine Nationalism Will Prolong the Pandemic

A Global Problem Calls for Collective Action

By Thomas J. Bollyky and Chad P. Bown, December 29, 2020



The first human clinical trial for a COVID-19 vaccine in Soweto, South Africa, June 2020

For the second time in two decades, an international crisis looms over access to medicines. A small number of wealthy nations, including the United States, have spent billions of dollars locking up early supplies of the most promising novel coronavirus vaccines. If the United States exercises its option to buy 500 million more doses of the Pfizer and BioNTech vaccine, 94 percent of the projected supply of the first immunization authorized for public use will be spoken for through the end of 2021. By one recent <u>estimate</u>, nations representing just one-seventh of the world's population have already reserved more than half of all the promising vaccine supplies. According to leaked <u>internal documents</u>, funding and supply concerns have placed COVAX, the global initiative to share coronavirus vaccines, at "very high" risk of failure.

A fight over coronavirus vaccines would hardly be the first to rise from unequal access to medical treatments. Not too long ago, AIDS ravaged poor nations that were priced out of the market for lifesaving medications. The resolution to that crisis transformed global health, pumping billions of aid dollars into researching and developing treatments for the world's poor and creating new donor-funded institutions to deliver those treatments. That restructuring, however, helped

seed this latest battle over coronavirus vaccines—a collective action problem that aid dollars and public-private partnerships cannot resolve on their own.

A PHILANTHROPIC MODEL

Pharmaceutical treatments saved millions of lives and changed the course of the HIV/AIDS epidemic in wealthy countries during the 1990s. But the companies that made these drugs, concerned about undercutting their markets in high-income countries, adopted internationally consistent prices for them, effectively placing them out of reach for people with HIV/AIDS in sub-Saharan Africa and other poor nations. In 1998, antiretroviral drugs <u>cost more</u> in South Africa, on a per capita GDP-adjusted basis, than in Sweden or in the United States—beyond the means of almost all the millions of South Africans with HIV/AIDS.

The South African government sought cheaper, generic versions of AIDS drugs from abroad—and 39 pharmaceutical companies sued it, citing patent laws and international trade rules, and naming Nelson Mandela, the president of South Africa, as the lead defendant. The Clinton administration and many European governments backed the companies. Protests erupted outside international AIDS conferences and the 1999 World Trade Organization negotiations in Seattle. At the kickoff events for Al Gore's presidential campaign, activists unfurled banners that read: "Gore's Greed Kills: AIDS Drugs for Africa."

The crisis over access to AIDS treatment dominated international news headlines at the end of the Clinton era. The White House withdrew its support for the lawsuit and, in April 2001, so did all 39 pharmaceutical companies. Chastened, the companies began donating their AIDS drugs, charging rockbottom prices for them in poor countries and allowing local firms to make generic versions of those and other infectious disease drugs for which there was little demand in wealthy markets.

The crisis brought about deep and lasting changes. The United States, other wealthy nations, and philanthropies, such as the Bill and Melinda Gates Foundation, spent billions of dollars to research, develop, and distribute treatments to the world's most impoverished people. Global health aid <u>nearly</u> tripled over the next decade, from \$10.8 billion in 2001 to \$28.2 billion in 2010. The nexus of international leadership shifted away from the World Health Organization and toward donor nations, philanthropies, and new institutions, such as Gavi, the Vaccine Alliance and the Global Fund to Fight AIDS, Tuberculosis, and Malaria.

A COLLECTIVE ACTION PROBLEM

The new era in global health has brought antiviral drugs, insecticide-treated mosquito nets, and pediatric vaccines to millions of people in poor nations and has saved many lives. But it has also shifted the focus of global health away from

cooperation among nations, rich and poor alike, on common threats to health and toward aid-driven initiatives and public-private partnerships to solve the problems of *other* people—mostly in low-income countries.

The shortcomings of this approach have long been evident in the failure of global health institutions to mobilize effectively against many of the collective action problems that constitute the world's biggest health threats. Over the last two decades, no more than <u>one percent</u> of annual global health aid has ever been devoted to preparing for pandemic threats like the coronavirus. Even less aid goes to reduce smoking and the other lifestyle factors that have helped make heart disease, cancers, and other chronic diseases the leading killers of people under age 60 worldwide. Pollution and climate change also rate low on the global health agenda, despite daily evidence of their devastating health effects, from the brown skies of Delhi to the record wildfires on the West Coast of the United States to the floods in Dhaka.

The emerging crisis over access to vaccines against the coronavirus is the latest example of a collective action problem that aid and public-private partnerships are ill equipped to solve on their own. Distributing scarce early vaccine supplies to the settings and populations where they can do the most good is the most efficient way to bring this pandemic under control. Doing so would also speed the global economic recovery and avoid unnecessary geopolitical conflict. Yet with all governments expecting their counterparts to act as nationalists and hoard early supplies of vaccines, no one has had an incentive to buck the trend. In this environment, ensuring equitable access to early doses of vaccines globally has been treated as a charitable matter—a second order issue to political leaders more concerned about potential opposition at home than outrage abroad.

FULL CIRCLE

Manufacturing a vaccine is a more expensive and intricate process than making the antiretroviral drugs used to attack HIV/AIDS. Currently, only around a dozen countries have the capacity to produce the COVID-19 vaccines. Unless that changes, global access to early doses will primarily depend on whether producing and wealthy nations agree to distribute the vials based on public health need, rather than on the size of a country's purse. Current signs are not encouraging.

Wealthy nations have made large advance purchases of multiple vaccines, stockpiling a volume of potential doses that is disproportionate with their coronavirus cases and population. Australia, Canada, and Japan have less than one percent of the world's coronavirus cases, but they have locked up more doses of potential vaccines than all of Latin America and the Caribbean—a region with more than 17 percent of global coronavirus cases. Canada has reserved enough potential doses to vaccinate its population more than four

times over. Australia, the European Union, Japan, the United Kingdom, and the United States likewise purchased more potential vaccine doses than they may need.

No one expects governments with early access to forgo vaccinating vulnerable members of their populations first. These include frontline health-care workers, residents and staff of long-term care facilities, and essential workers. But the current signs suggest that wealthy nations will seek to vaccinate their entire populations, even low-risk individuals, before sharing their vaccine supplies with others.

Nations may be slow to donate surplus doses until more is known about the durability of their protection. Some vaccines, such as the one for measles, provide lifelong protection. But the immunity induced by others, such as the seasonal influenza vaccine, dissipates in a matter months and requires revaccination annually. When nations finally do share their excess doses, there are indications that they may opt to donate vaccine labeled "<u>Team Europe</u>" or the USA equivalent bilaterally to allies and strategic partners rather than pursue a public health driven distribution through the multilateral initiative, COVAX.

Hoarding vaccines is a mistake. No nation is likely to end its epidemic with a vaccine alone. Roughly 70 percent of the population would need to be immunized to achieve herd immunity, an objective that remains unrealistic in the near term. In the past decade, the United States has <u>never managed</u> to vaccinate more than half of adults for seasonal influenza in any single year, and adult vaccination rates in the last pandemic, H1N1, were even lower. Most of the potential coronavirus vaccines have not been tested for authorized use in children under the age of 16, which means approximately <u>75 million</u> American kids are likely to go unvaccinated until late in 2021. Under these circumstances, having the coronavirus spread unabated abroad may be a greater threat to Americans than having low-risk members of the U.S. population wait a bit longer to be vaccinated.

If competition continues to trump cooperation, many nations, including some wealthy ones, will be left waiting months or longer for proven vaccines. In the interim, health-care workers and people at high risk in those countries will go unprotected. Desperate governments may turn to unproven vaccines, putting their citizens at further risk. The legacy of resentment against vaccine-hoarding nations will be intense, imperiling the future international cooperation needed to prevent the next pandemic. A 20-year era in global health, once famously described as "an Age of Miracles," will have come full circle.

A GLOBAL VACCINE EFFORT

The failure of COVAX is by no means certain. The initiative remains committed to its goal of delivering two billion vaccine doses by the end of 2021 and is

working hard to line them up if and when the supplies and funds to purchase them become available. But COVAX needs help. Under the incoming Biden administration, the United States should work with like-minded countries to build the resilient infrastructure needed to scale up global vaccine manufacturing capacity in this and future pandemics—an exigency that all nations share.

Quickly scaling up vaccine manufacturing during a pandemic requires policy support, as the American experience has shown. The U.S. Department of Health and Human Services, together with the Department of Defense, helped fund and coordinate the manufacturing of potential vaccines by working with pharmaceutical companies in an initiative called Operation Warp Speed. The project pulled in contract manufacturers from the United States and Europe, and it required creating complex, international <u>supply chains</u> to import crucial raw materials and equipment. A single missing piece could bring the entire edifice crashing down. Logistics experts from the U.S. Army collaborated with the companies to ensure that production ran safely and smoothly and that supplies of vials, syringes, and other ancillary materials remained adequate. Yet even this all-out approach has run into hiccups: in November, temporary <u>shortfalls</u> in raw materials forced Pfizer to halve 2020 production targets for its vaccine.

A similar policy effort is needed in emerging economies. Despite billions of dollars and high-level prioritization in the United States and Europe, rich countries alone are unlikely to swiftly meet global needs for the vaccines. Some pharmaceutical companies, such as AstraZeneca and Novovax, have already engaged global contract manufacturers, such as the Serum Institute of India, in emerging economies. But emerging economies have <u>more production capacity</u> to tap, and scaling up vaccine manufacturing in this and future pandemics will require its use.

At the same time, policymakers should prod pharmaceutical companies globally to reallocate critical materials among themselves. With so many coronavirus vaccine candidates in development, some are destined to <u>fail</u>. Companies must be convinced to allow sponsors of the successful vaccines to use the manufacturing capacity, glass vials, and other ancillary materials that had originally been reserved for projects that did not pan out. Likewise, national governments that are likely to have excess vaccine doses must immediately begin setting up the regulatory and distribution infrastructure that will help them to reallocate those doses to the nations where they can do the most good.

The United States is well placed to take on a leadership role in establishing this global vaccination infrastructure. It could bring the positive lessons from Operation Warp Speed to other members of the Group of 20 and work with vaccine manufacturers in those countries to ramp up global supplies. The Ottawa Group recently <u>proposed</u> voluntarily licensing technology and know-how

to emerging economies in order to increase the manufacture of COVID-19 vaccines. A new U.S. administration could build upon this Trade and Health Initiative and develop it further. These efforts should promote flexible manufacturing, so that if one vaccine candidate fails or a more effective option supersedes it, regional producers and supply chains can reconfigure and quickly shift to producing the preferred vaccine. A flexible, geographically distributed vaccine manufacturing capacity and a diversity of suppliers can also respond more quickly to future pandemic threats.

Efficient production and distribution of vaccines requires trust, transparency, and extraordinary access to information—not only among policymakers but also among vaccine manufacturers and their suppliers. A decade ago, a combination of high fuel and fertilizer costs, as well as extreme weather events, caused food prices to spike. Governments misread the seriousness of the shortages, panicked, and made matters worse by hoarding foodstuffs with export bans. In response, the G-20 created the Agricultural Market Information System (AMIS) to improve food market transparency and coordinate policy in the event of sudden scarcity. That system generated information and trust that arguably helped calm markets during the early days of the COVID-19 pandemic, when concerns over potential food shortages led some countries to temporarily ban agricultural exports. Many of those policies were reversed once it became and remained clear that there was no shortage.

A similar effort is needed at the G-20 on essential medical provisions, including vaccines and ancillary supplies. During the first four months of the current pandemic, more than 70 countries plus the European Union imposed export bans or limits on personal protective equipment, ventilators, and medicines. Without more transparency into the availability of quality vaccine-related materials, as well as into where and when vaccines are to be delivered globally, such disruptions are likely to recur. Even the U.S. Food and Drug Administration, considered by many to be the gold standard for international drug regulation, reports being unable to ascertain how much of the active pharmaceutical ingredient is available and through what supply chain.

Aid-driven institutions and partnerships have done enormous good in delivering food, cash, and AIDS drugs to the world's poor. These charitable initiatives are well worth preserving, but they are not the answer to all the unsolved collective action problems that plague global health. One of these problems is vaccine nationalism. Only international cooperation on the basis of shared interests can mobilize the global manufacturing, trade, and delivery response that will end this public health crisis and help build a more resilient system for the future.