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Global COVID-19 Vaccine Distribution

Background

The Coronavirus Disease 2019 (COVID-19) pandemic has led to severe health and economic consequences across the globe, as governments work to contain the spread of the virus and its variants. In late 2020, researchers started identifying several COVID-19 variants, now driving surges in related cases and deaths across Africa and south Asia. The United States, India, and Brazil have the highest number of confirmed COVID-19 cases, many caused by the Delta variant. Vaccines and other countermeasures play a growing role in COVID-19 control. However, insufficient access to vaccines in many low- and middle-income countries (LMICs) raises questions about how inequities may hinder pandemic control worldwide.

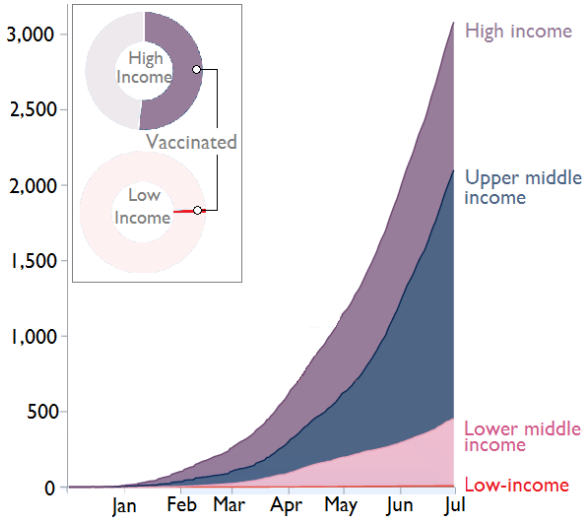
Congress appropriated approximately $15 billion for a range of COVID-19-related responses through supplemental appropriations (P.L. 116-123, P.L. 116-136, P.L. 116-260, and P.L. 117-2), including $4 billion for multilateral COVID-19 vaccine efforts. The Biden Administration has announced that the United States will provide over 500 million vaccine doses worldwide through direct donations and contributions via COVAX—a multilateral effort comprising nearly 200 countries, co-led by the World Health Organization (WHO), the Coalition for Epidemic Preparedness and Innovation (CEPI), and Gavi, the Vaccine Alliance. On May 31, 2021, the International Monetary Fund (IMF), the World Bank Group, WHO, and the World Trade Organization (WTO) established the Task Force on COVID-19 Vaccines, Therapeutics and Diagnostics for Developing Countries (the Task Force). The Task Force is seeking an additional $50 billion in support of COVAX and the Access to COVID-19 Tools Accelerator (ACT-A), so that at least 40% of all people worldwide could be vaccinated by the end of 2021.

Global COVID-19 Vaccine Distribution

In April 2020, WHO and partners launched ACT-A to advance the development, production, and distribution of COVID-19 diagnostics, therapeutics, and vaccines. Within less than a year, multiple safe and effective COVID-19 vaccines had been developed. To date, several countries and WHO have approved eight COVID-19 vaccines for emergency use, including those made in China. WHO has not authorized emergency use for vaccines produced in Russia, though some countries that do not have sufficient access to authorized vaccines have used them. More than 200 other COVID-19 vaccine candidates are in clinical trials. Numerous therapeutics are also in development.

Although manufacturers expect to produce about 11 billion COVID-19 vaccine doses by the end of 2021, many experts assert that at current vaccine distribution rates, COVID-19 vaccines will not be widely available in LMICs until at least 2022. The vast majority of manufactured COVID-19 vaccine doses have been distributed in high-income countries (**Figure 1**).

Figure 1. Global Distribution of COVID-19 Vaccines
(millions of doses, as of July 28, 2021)



Source: Adapted by CRS from United Nations Development Program (UNDP), *Global Dashboard for Vaccine Equity*, accessed on August 2, 2021.

Advances. By the end of July, donors had pledged $15 billion for COVAX, which had shipped more than 153 million COVID-19 vaccine doses to 137 countries worldwide. On June 11, the Group of 7 (G7) nations, at its 2021 annual meeting, committed to donate 870 million additional vaccine doses to COVAX by the end of 2022. G20 governments have also pledged $22 billion toward COVAX and ACT-A. As of June 23, 2021, the United States was the largest donor to COVAX, having pledged $3.5 billion. Other key donors include Germany ($1 billion), the United Kingdom ($1.05 billion), Japan ($376 million), Canada ($360 million), Saudi Arabia, ($300 million), and the Gates Foundation ($246 million).

Challenges. WHO and partners have decried the sluggish delivery of pledged vaccines and estimated that by July 31, 2021, less than 5% of vaccines that were pre-purchased by or for LMICs had been delivered. Many LMICs are expecting large donations via COVAX during the second half of 2022, but questions remain about their ability to rapidly distribute the vaccines, particularly in remote settings. The World Bank estimates an additional $35 billion in grants is needed to fund the Task Force on COVID-19 Vaccines, Therapeutics and Diagnostics for Developing Countries, and to rapidly scale up vaccine production and delivery in LMICs by 2022.

Global Vaccine Access

Insufficient vaccine supply, coupled with uneven capacity to pay for and disseminate the vaccines, has led to global

vaccine-access gaps. Whereas some countries have purchased enough doses to vaccinate their populations several times over, others lack enough supply to vaccinate even their most vulnerable populations. Roughly 60% of the world's vaccine supply, according to WHO, has been purchased by rich countries whose populations account for less than 20% of all people in the world.

Each Task Force member is leveraging its resources to generate additional support for closing the equity gap. On July 26, 2021, the Task Force announced a new financing mechanism that allows certain COVAX countries to use World Bank and multilateral development bank financing to purchase advance vaccine doses in addition to their existing vaccine allotment. The IMF is also preparing a Special Drawing Rights allocation to boost the reserves and liquidity of member states toward reaching these goals. Public health experts hope that ongoing WTO discussions over a potential waiver of certain WTO Agreements on Trade-Related Aspects of Intellectual Property Rights (TRIPS) obligations for COVID-19 vaccines and other trade policy responses to the pandemic might facilitate knowledge and technology transfers that might accelerate COVID-19 vaccine production worldwide.

U.S. Government Role

Bilateral efforts. The U.S. Agency for International Development (USAID), the Department of State, and the U.S. Centers for Disease Control and Prevention (CDC) are leveraging long-standing infectious disease control programs for the global COVID-19 response. Since March 2020, USAID and the State Department have committed more than $1.6 billion in health, humanitarian, economic, and development assistance for global COVID-19 control. CDC has committed $800 million for related efforts. These agencies are also supporting countries' efforts to implement National Deployment and Vaccination Plans, required by WHO for countries receiving vaccines through COVAX.

Multilateral efforts. In March 2021, the Biden Administration announced the United States would donate over 500 million vaccines to COVAX and other countries in need. Related pledges include

- jointly manufacturing and delivering 1 billion COVID-19 vaccines to Southeast Asia by the end of 2022 through "the Quad," the coalition of Australia, India, Japan and the United States;
- donating 84 million vaccine doses, 75% of which will be provided through COVAX in LMICs;
- purchasing 500 million Pfizer-BioNTech COVID-19 vaccine doses for donation to COVAX; 200 million are to be delivered by the end of 2021, with the remaining 300 million to be delivered by the end of 2022.

Outlook and Issues for Congress

Many Members of Congress have demonstrated strong interest in bolstering global vaccine manufacturing and distribution capacity to support COVID-19 control. While deliberating how to balance international and domestic vaccine demand, Members may consider a variety of issues, including the following:

Vaccine manufacturing capacity in LMICs. WHO and other groups have decried the limits of current vaccine manufacturing capacity and pointed out that existing capacity cannot meet global demand for COVID-19 vaccine doses. A variety of efforts are underway, including through the U.S. International Development Finance Corporation and its partners, to scale up vaccine manufacturing capacity in LMICs. Some advocates note these efforts are vital but will likely take several years to fully operationalize and increase COVID-19 vaccine supply. In light of this discussion, Members may consider whether existing efforts are sufficient, or if efforts should be scaled up—including providing additional support for bolstering vaccine manufacturing capacity in LMICs, specifically for mRNA vaccines.

Getting shots in arms. The average cost of COVID-19 vaccines ($2-$40 per dose, depending on the type of vaccine, number of shots required, and other factors) is equivalent to the average annual per capita health spending on all health issues in many low-income countries ($41). Additional distribution costs ($3.70 per person for two doses) place further challenges on LMICs and limit the ability of their governments to reach needy populations, particularly outside major cities. The United Nations Development Program (UNDP) estimates that low-income countries would need to increase per capita health expenditure by 57% to vaccinate 70% their populations. Three COVAX donors (Canada, Germany, and the United States) have given explicit permission to use funds for vaccine delivery, and USAID has allocated $500 million to support COVID-19 vaccine delivery in 88 countries. Congress may consider arguments for and against using donor funds for vaccine delivery. Some argue that the limited funds should be used exclusively for vaccine purchase; others advocate using a portion of donor resources on vaccine delivery to protect the integrity of the donated commodities.

COVID-19 "vaccine passports." In January 2021, President Biden issued Executive Order 13998 to study whether the U.S. government should issue "vaccine passports" to indicate whether one has been vaccinated or recovered from COVID-19. Many health experts have endorsed the idea, citing precedents for using immunization records for various official purposes, including international travel. No federal policy has been announced, though four U.S. states have active vaccine certification apps, and 19 states have banned such systems. In July 2021, the European Union launched the EU Digital COVID Certificate Regulation to verify that a person has been vaccinated or received a negative test.

Members of Congress have not introduced legislation in support of or opposition to vaccine passports, though some bills cite key concerns. H.R. 906, for example, would prohibit the Secretary of Transportation from requiring an individual to test negative for COVID-19 to travel by air. Similarly, S. 82 calls for a joint task force, comprising the Secretaries of Transportation, Homeland Security, and Health and Human Services, to make recommendations for addressing privacy and civil liberty issues that may arise from such monitoring of air travelers' health.

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