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A New Architecture for Global Health Emergency Preparedness and Response—The Imperative of Equity

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Even before COVID-19 emerged in Wuhan, China, in December 2019, the prevailing global narrative was inequity—in health, income, race, and socioeconomic status. COVID-19 amplified all these inequities. Early in the pandemic, low-income countries were left without key medical resources, such as [diagnostic tests](#), [personal protective equipment](#), and [ventilators](#). By 2021, inequitable vaccine distribution captured global attention and outrage. This year, high-income countries have bought the lion's share of Paxlovid, a highly effective antiviral treatment. Vaccine inequities remain with only 16% of people in low-income countries having received at least 1 vaccine dose vs 80% of people across high-income countries.

The World Health Organization (WHO) and partners responded to COVID-19 by creating new institutions, which by design focused on equity—the [Access to COVID-19 Tools \(ACT\) Accelerator](#) and [COVAX](#) (pillar of ACT to ensure global access to COVID-19 vaccines). Yet COVAX did not reach even half of its goal to distribute [2 billion doses by the end of 2021](#).

Recently, President Biden hosted the [second Global COVID-19 Summit](#), and the WHO convened the [75th World Health Assembly \(WHA\)](#) in May 2022. Although the summit secured [\\$2.5 billion](#) in pledges for the COVID-19 response, this is far below the [\\$15 billion that the WHO says is needed](#) globally. The US has secured [20 million courses of Paxlovid, a vital tool to prevent hospitalizations and deaths, through 2022](#), yet Pfizer's agreement with the United Nations Children's Fund (UNICEF) only would provide up to [4 million courses](#) to 95 low- and middle-income countries, and only [if UNICEF can secure needed funds](#). More recently, the Global Fund and Pfizer agreed that the fund would procure up to [6 million Paxlovid courses](#) in 2022-2023, with up to 130 countries able to access the treatment through this route.

WHO Director-General Tedros Adhanom Ghebreyesus proposed a new global [architecture for health emergency preparedness, response, and resilience at the WHA last month](#).¹ At its core are 2 transformative international instruments: a new pandemic treaty and reforming the [International Health Regulations \(IHR\)](#).

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A Pandemic Treaty

A historic [special WHA session](#) in late 2021 created an [intergovernmental negotiating body](#) to develop a pandemic treaty or other international agreement on health emergency preparedness, response, and resilience. Equitable sharing of lifesaving medical resources should be at the treaty's core. The treaty should establish a global mechanism charged with equitable distribution of such resources, either an improved ACT Accelerator or a new global public-private partnership. COVAX was hobbled by 2 major problems that must be overcome: wealthy nations buying the bulk of global supplies and inadequate funding to support medical resources for lower-income countries. The treaty could prohibit or set strict conditions on bilateral purchases of key medical resources, whereas a robust financing framework would allocate countries' responsibilities to provide a fair share of needed resources. Special provision should be made for refugees and other unprotected people. [COVAX's Humanitarian Buffer](#) provides a model for such a safety net for vulnerable populations, with funding reserved for humanitarian settings, such as people [in conflict zones](#).

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Furthermore, the treaty could require equitable distribution domestically. This would implement the core principle of the [right to health](#)—and human rights overall—of [nondiscrimination](#). And it would follow in the tradition of both the IHR and the [Framework Convention on Tobacco Control](#) in mandating domestic actions as part of a response to global health challenges.

During COVID-19 and previous health emergencies, low- and middle-income countries relied primarily on development assistance, often donations. Yet, this charitable model historically resulted in limited supplies, often late in coming. A new model should build regional capacities for research, development, and manufacturing of medical technologies. The key elements are intellectual property waivers, open data sharing, and technology transfer. The WHO's [COVID-19 Technology Access Pool](#) offers a model, enabling generic manufacturers to produce new technologies, thereby promoting competition to lower prices and facilitating regionally diverse manufacturing. In July 2021, the WHO and African partners created the [mRNA vaccine technology transfer hub](#) at Afrigen Biologics and Vaccines in Cape Town, South Africa.

The United Nations-backed [Medicines Patent Pool](#) licenses essential medicines and pools intellectual property to expand generic manufacturing and develop new formulations. Pfizer [granted a license](#) to the pool to sublicense Paxlovid to companies for the production of generic versions for 95 countries at affordable prices; [36 generic companies](#) plan to manufacture the drug. However, Pfizer excluded most upper- and middle-income countries from access to the sublicense; therefore, these countries will have to procure Paxlovid at market prices.

The [Pandemic Influenza Preparedness Framework](#) offers another model, which was designed to equitably share pathogen samples and the benefits of research on novel influenza technologies. For companies to receive samples of influenza viruses with pandemic potential—and the opportunities for profits that resulting vaccines and antivirals create—they [must agree](#) to donate or provide at affordable prices a portion of needed antivirals or vaccines, thus ensuring at least some availability in low- and middle-income countries. Or, they may choose instead to grant licenses to manufacturers in developing countries or to the WHO for sublicensing to such manufacturers. After the West African Ebola epidemic, a United Nations panel recommended [adopting the framework as a treaty](#), also including all novel pathogens.²

Health Security Preparedness for All

Central to preparedness is developing core public health capacities to detect, report, and respond to health emergencies as the WHO's [IHR](#) (last revised in 2005) require. Yet, many low- and middle-income countries lack the resources to support these core capacities. The WHO's EURO region countries have an average [score](#) of 75 (on a 100-point scale) for the 15 core capacities, whereas AFRO region countries have an average score 49. The WHA [established a working group](#) to consider [US proposals](#) to amend the IHR, including strengthening notification of novel outbreaks to the WHO and timely dissemination of scientific data, including genomic sequencing data. A key amendment would establish a compliance committee charged with monitoring and facilitating IHR compliance, which would have the power to seek additional scientific information. The working group will also consider other suggested amendments and propose reforms for the WHA to consider no later than 2024.

Yet US proposals fall short of ensuring health system capacities, failing to expand international funding and require independent evaluation of such capabilities, such as through the WHO's [Joint External Evaluation tool](#), the [Global Health Security Agenda](#), or the [Global Health Security Index](#). A more effective approach is already contained in article 44 of the IHR, which requires international collaboration but lacks specific state responsibilities for international financing. An IHR amendment could provide this specificity and link to the new World Bank [Financial Intermediary Fund](#)—proposed by the G20 and the WHO's [Independent Panel for Pandemic Preparedness and Response](#). The fund's financing target is [\\$10 billion per year](#). President Biden championed the fund, pledging an [initial \\$250 million](#) at the first Global COVID-19 Summit in 2021. Biden subsequently pledged an additional

\$200 million, and is seeking Congressional appropriations of another \$4.75 billion in the next federal budget. In addition, the European Union, Germany, and Wellcome Trust have collectively committed more than \$500 million.

The COVID-19 pandemic has had profound health, social, and economic effects. But it offers an opportunity to transform a crisis into historic changes in the global health architecture and systems for transnational collaboration. Among all the vital needs, 2 are paramount: equitable access to lifesaving technologies and robust national health systems.

ARTICLE INFORMATION

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