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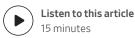
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THE SATURDAY ESSAY

Will We Be Ready for the Next Pandemic?

The world must move urgently in 2021 to develop strategies and systems for fighting diseases that could be even deadlier than Covid-19

> *By Tom Frieden* Feb. 12, 2021 11:01 am ET



Fast forward to 2023. The Covid-19 pandemic is largely behind us. Most of the world has been vaccinated, though we have to tamp down occasional flare-ups and people sometimes still wear masks. While we mourn the millions who died, we have entered a post-pandemic world in which most things are more or less as they were before Covid-19. Travel and trade are unrestricted; everything from dinner parties and big weddings to stadium concerts and megachurch services are being held again; and economies are booming to keep pace with pent-up demand.

Then, just as suddenly as Covid-19 emerged, disease detectives discover a fresh cluster of a new, pneumonia-like illness. Testing quickly confirms that it isn't a variant of Covid-19 but a new influenza virus that jumped—somehow, somewhere—from birds to humans. The new virus is as infectious as the one that caused Covid-19 but four times as deadly. And unlike Covid-19, but like the devastating 1918 influenza pandemic, the new virus is particularly deadly to young adults—and, in this case, also to children.

A horrifying influenza pandemic isn't the only nightmare scenario that could be worse than Covid-19. Think of the hundreds of thousands of cases of tick-borne Lyme disease in the U.S. each year. In other parts of the world, some ticks spread Ebola-like illnesses, and if these infections spread to the U.S., tick-bites could also lead to a disease with the terrifying lethality of Ebola. Or a highly drug-resistant bacterium could spread rapidly. Or a laboratory could develop an untreatable, vaccinedefying strain of a virus or bacterium and—intentionally or by accident —release it into the world. The world wasn't ready for Covid-19. Will we be ready for the next, inevitable pandemic?

To prepare, we must start by understanding that the lessons from battling Covid-19 aren't just about Covid-19. We will fail if we learn nothing more than how to fight the last war better. Now is the time to get ready and to realize that the costs of preparedness will be dwarfed by the price of disaster. Here are six urgent steps the world must take to become far more pandemic-proof.

1. Set a new goal for early warning and response: 7-1-7.

We will have to respond rapidly to any potentially major new health threat. I suggest a goal of "7-1-7": Every country should be able to identify any new suspected outbreak within seven days of emergence, start to investigate the event within one day and report it then, and mount an effective response—defined by clear, specific benchmarks for different pathogens—within seven days.

These goals will help governments focus attention and resources. Part of the reluctance to fund health preparedness has been a lack of simple measurements of progress. One reason for the broad bipartisan support for the global battles against HIV and malaria has been the appeal, to American politicians and voters alike, of clear metrics: the numbers of people treated, bed-nets distributed, lives saved. For HIV, the goal has been what the U.N. calls <u>"90-90-90"</u>—ensuring that 90% of people infected with HIV know their status, getting sustained treatment to 90% of those diagnosed and suppressing the viral load of 90% of the people on treatment. This strategy has turned concrete, lifesaving outcomes into targets for global action. Meeting the 7-1-7 goal, or something like it, is essential to a safer planet, but it won't be easy. It will require several other steps.

2. Bolster the capacity of countries to prepare and respond.

The Centers for Disease Control and Prevention (CDC) have learned a crucial lesson over the past two decades: The best emergency responses use everyday systems that are robust enough to scale up in an emergency. Yet efforts to strengthen such systems are often unfocused. Enhancing countries' capacities will require substantial resources, robust technical assistance and an insistence on accountability.

As noted in <u>a recent study</u> by the Institute for Health Metrics and Evaluation, a global-health research group at the University of Washington School of Medicine, annual funding for global health in 2019 was an estimated \$41 billion (less than 20% of which came from the U.S.). Of that total, the group estimated that less than 1% was for pandemic preparedness—some \$374 million.

<u>Credible estimates</u> of the amount needed to boost preparedness (beyond current investments) in low- and middle-income countries start at \$5 to 10 billion a year for the next two or three years, continuing for at least a decade. This would come in addition to funding for better research, primary healthcare and other steps essential for progress. This is serious money, but it is dwarfed by the costs of an out-of-control pandemic, as we have all painfully learned.



The World Health Organization's Geneva headquarters, April 24, 2020. PHOTO: FABRICE COFFRINI/AFP/GETTY IMAGES

Many countries will need technical assistance, which can be provided in part by the World Health Organization and its networks, as well as by the U.S. CDC. Such efforts could be complemented by additional regional public-health organizations. For instance, during the Covid-19 crisis, the newly created Africa Centres for Disease Control and Prevention (a public-health agency of the African Union officially launched in 2017) has supported stronger disease-tracking and response systems, as well as a rapid expansion of sorely needed laboratory services on the continent. The European Union announced late last year a 20-fold <u>increase in funding</u> for the European Centre for Disease Prevention and Control (founded in 2004), and discussions are under way about creating similar regional disease-control centers in Southeast Asia and the Middle East.

Stronger bilateral programs from the U.S., the U.K. and other wealthy countries can also help. China would be likely to follow suit and increase its own global public-health engagement. Structured well, this could be an area for U.S.-Chinese collaboration.

As recent <u>studies in the Lancet</u> and other medical journals have noted, the Covid-19 pandemic has underscored the central importance of primary care. New infectious diseases will be able to spread widely until patients can afford to go to health centers as soon as they feel ill, clinicians are trained to diagnose and report patients with unusual conditions, and health centers can provide accessible treatments and vaccinations. Most countries haven't invested remotely enough in primary care—including the U.S., which <u>performs abysmally</u> on core measures of primary-care quality. This is a major reason for the rocky U.S. rollout of Covid-19 vaccinations.

But even with more money and better technical assistance, the world won't be able to meet the 7-1-7 goal unless it is organized for success.

3. Let global institutions focus on what they do best.

As the lead U.N. agency for global public health, the WHO remains the indispensable anchor of such efforts. The organization has <u>obvious</u> <u>limitations</u>: It has often been underfunded, <u>underpowered</u> and reluctant to criticize governments. But it performs several indispensable roles: providing evidence-based public-health guidance, facilitating international collaboration, openly tracking data and helping countries to strengthen their public-health efforts.

The WHO needs real reforms to meet its mission. It must be much better insulated from political and geographic considerations in the hiring and promotion of staff, as well as in its assessments of countries and recommendations to them. A stronger WHO could provide robust technical support to governments world-wide, especially through its proposed Global Strategic Preparedness Network.

As the world faces 21st-century pandemics, its international publichealth structures still come largely from post-World War II agreements, with newer entities often grafted awkwardly onto them. The WHO was central to global health during the Cold War era, with a prominent role for the U.S. CDC too, but new entities—including new national and regional CDCs based on the U.S. model—have reshaped the landscape of global health.



Community health workers supported by the Global Fund and other groups gather outside a local health facility, Homa Bay County, Kenya, May 2020.

PHOTO: AMREF HEALTH AFRICA/KENNEDY MUSYOKA

The two largest new public-health groups—the Global Fund to Fight AIDS, Tuberculosis and Malaria and Gavi, the Vaccine Alliance—have a combined budget that is about twice that of the WHO. Some new philanthropies, particularly the Bill & Melinda Gates Foundation and the Wellcome Trust, are also large and influential.

The Global Fund is a major financier of programs to combat the three diseases in its title, while Gavi helps to negotiate and finance vaccines for lower-income countries. Both are international organizations that aren't part of the U.N. and aren't under WHO control. They receive their substantial resources from country governments, which have steadily increased their investments in the Global Fund and Gavi because of their efficiency, accountability and impressive results. But both entities were created without strong technical components (in large part to avoid alienating the WHO), and the WHO hasn't been able to provide sufficient specialized expertise to ensure that Global Fund and Gavi programs reach their potential.



A nurse midwife prepares a vaccine shot in an immunization program supported by Gavi, the Vaccine Alliance, in the village of Purani Panapur, India, 2013. PHOTO: GAVI/2013/MANPREET ROMANA These new entities have brought far more resources, energy and accountability into global health, but they haven't substantially strengthened laboratory capacity, disease monitoring, primary care and other capacities essential to beating Covid-19 and future pandemics.

4. Get buy-in from wealthier countries and major philanthropies.

By working together to strengthen early-warning systems, share data, improve rapid-response capacities and strengthen health-protection systems world-wide, we can save millions of lives and trillions of dollars. This will cost billions a year, spent by countries large and small, but that pales in comparison to the International Monetary Fund's <u>October 2020 estimate</u> that Covid-19 has cost the world some \$20 trillion. The next pandemic could be even deadlier—and costlier.

The world needs new financial mechanisms for readiness that can administer funds efficiently, offering accountability and boosting confidence for government investments. The World Bank, the African Development Bank, the Asian Development Bank and other entities can play important roles. Most important, the Global Fund could both generate and disburse funds for national preparedness. It could offer not just money but specific benchmarks toward the 7-1-7 goal and a new, pandemic-specific structure for ownership and oversight in recipient countries, involving ministries of finance, health, agriculture and more, as well as the private sector and civil-society groups.

5. Persuade the world to respond globally and address dangerous gaps.

"An eye for an eye leaves the whole world blind," as the old saying goes. Today, failures of global cooperation worsen the spread of infectious diseases by leaving the world blind to emerging threats. But by working together—by sharing data, knowledge and resources—we can increase our shared safety and security.

One neglected issue is improving laboratory safety. Some lab errors are inevitable, but we have insufficient global standards—and no global oversight—to reduce the risk of unintentional release of deadly pathogens, as may have occurred with influenza from an <u>accidental laboratory release</u> in the former Soviet Union in the late 1970s and is documented to have occurred with <u>smallpox in the U.K.</u> in 1978 and with <u>SARS in China</u> in 2004.

Release of a biological agent could be as deadly as a nuclear war, and we

need similarly vigorous systems of standards and inspections to reduce that horrifying risk. Advances in biological science have made it increasingly easy to create dangerous pathogens. A global compact to limit the number of laboratories, personnel and experiments and to more safely manage them could substantially reduce the risk. Even reaching this modest goal would be difficult: It would be expensive, require global agreement, face resistance by researchers, demand inspections and still fail to eliminate the risk of bad actors. But we urgently need it nonetheless.

We must also reduce the risk of diseases spreading from animal populations to humanity. Most dangerous new pathogens emerge from human contact with animals, often because of our encroachment into traditional habitats. A global, enforceable compact, <u>as proposed</u> by Vanda Felbab-Brown of the Brookings Institution and others, would help to end the commercial sale of wild animals for food. In parts of Africa and Asia where bush meat is important to nutrition, we will also need economic measures that make it easier to substitute other locally available sources of protein, and much stronger programs are needed to reduce the risk of influenza spreading from birds and swine to people.

SHARE YOUR THOUGHTS

What's the biggest lesson you think public officials should draw from the pandemic? Join the conversation below. Finally, the world must increase its manufacturing capacity for diagnostics, treatments and vaccines. Pathogens spread, so we cannot leave millions without access to the top-quality

diagnosis, treatment and vaccines we want for ourselves. The Rand Corp. has warned of the dangers of <u>"vaccine nationalism,"</u> in which "countries push to get first access to a supply of vaccines, potentially hoarding key components for vaccine production."

Such short-sighted behavior is both ethically indefensible and politically inevitable. One solution would be to increase manufacturing by countries with relatively small populations, which would be able to vaccinate their own populations without having much impact on the overall supply. The world could also work to boost manufacturing capacity through companies that accept global financing in exchange for their agreement to produce reasonably priced products that meet stringent standards and to distribute them in underserved regions.

Exciting new technologies such as mRNA—which made possible the first two Covid-19 vaccines licensed in the U.S.—raise the promise of platforms that can be rapidly repurposed to tackle new threats.

Globally supported mRNA production facilities could help end the current pandemic and, potentially, produce lifesaving vaccines and medicines that would create a sustainable business model, with sales to public and private purchasers between pandemics.

But more than all this, we need a new global attitude.

6. Don't wait.

We must act now: 2021 is the now-or-never moment to improve global resilience in facing future pandemics. We can't know the character or the timing of the threats ahead, but they are inevitable. There is no time to lose in making preparations.

Public-health decisions are unavoidably political. Failing to act, in the face of Covid-19's proof that the world is dangerously vulnerable, would also be a decision. This year, when the urgency of such work is so clear, we must make significant investments to protect and expand global health—or we and our children will face the dire consequences.

—Dr. Frieden was the director of the Centers for Disease Control and Prevention from 2009 to 2017. He is the president and CEO of Resolve to Save Lives, an initiative of the public-health organization Vital Strategies, and a senior fellow at the Council on Foreign Relations.

Appeared in the February 13, 2021, print edition as 'The Next Pandemic Is Coming. Will We Be Ready? Preparing The World to Face New Pandemics.'

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