JULY 2021

Time to Escalate U.S. Leadership on Covid-19 and Beyond

By The CSIS Commission on Strengthening America's Health Security

Preamble

Nearly 20 months into the Covid-19 pandemic, several profound, urgent developments have altered the world's understanding of the pandemic and the strategic threat it poses. These developments argue strongly in favor of the United States dramatically elevating its leadership on global health security to meet U.S. national interests while promoting global stability and health. The preamble below summarizes how the world has changed—at home and abroad. Following that are detailed recommendations from the CSIS Commission on Strengthening America's Health Security to the Biden administration and Congress.

#1. A dangerous, uncertain, and—if the United States does not act in time—hugely costly phase of the pandemic has arrived that fundamentally changes the calculations made by the United States and others.

Variants: The SARS-CoV-2 virus—and now dangerous, proliferating variants—outstrip the efforts so far to bring the pandemic under control. The Delta variant, which now dominates transmission in the United States, has already shocked much of South Asia, South America, and Africa. It calls into question how much confidence there is in different vaccines and their coverage, as well as what forms of booster shots will be needed, and when. It also raises the specter of additional, ever more dangerous variants emerging from within large populations where there is uncontrolled transmission. This urgent new phase requires a truly global approach, new strategies, and investment at high levels over longer periods, with greater speed and effectiveness, both at home and abroad. It has become clear that variants pose a great risk for which the United States and the world must prepare.

An Embattled World Divided: The world has become bifurcated. A few well-endowed states have made significant progress in controlling the virus through vaccination, though coverage rates still fall short of what is required, and there is widespread nervousness in the face of variants, hesitancy, and refusal. In stark contrast are the low- and middle-income countries (LMICs) and regions battling uncontrolled, destructive surges that are overwhelming medical systems, threatening even those highly competent Asian states that coped quite well early in the pandemic.

CSIS | CENTER FOR STRATEGIC & INTERNATIONAL STUDIES

THE CSIS COMMISSION ON Strengthening America's Health Security

A Stark Geopolitical Fault Line—Vaccine Inequity: The world is now visibly divided into haves and have-nots. Disparities in access to vaccines and other essential tools are widening amid the variant-stoked acceleration of outbreaks in India and Brazil that have seeded outbreaks within nearby states. This trend is generating desperation, unconscionable suffering and death, and deepening anger and resentment toward the most wealthy and powerful states. High-income countries are visibly pitted against LMICs in the scramble for vaccine doses. Even while there were high hopes that COVAX could bridge these inequities, these efforts are presently falling woefully short of credible solutions. The recent commitments made by the G7, while welcome, will be insufficient to bridge the gap in 2021.

Lack of Country Readiness: Manufacturing capacity continues to ramp up, but supply remains constrained, and it is unclear when there will be enough doses for the world's adult population. At the same time, many countries lack the financing, delivery capacity, and operational resources to support large-scale vaccination of their populations. Efforts are underway to address these human and financial capacity issues, but greater and more rapid distribution of aid is needed to ensure that LMICs are ready to deliver vaccine doses when they finally become available. Several risks are on the horizon, including from doses that may go unused or spoil. Countries will face reports of adverse effects, popular hesitancy and refusal to accept vaccines, and widespread disinformation. Some countries could end up stuck with low vaccine coverage for extended periods.

A New Timeline: The battle against Covid-19 will be a long war—against a virus that is becoming endemic. For much of the world, that fight will stretch into 2023, 2024, and likely beyond.

Sticker Shock: There is growing recognition by world leaders that addressing the immediate, multiple crises caused by this pandemic will require enormous investments in the next 18 months. In a May 31 op-ed in the *Washington Post*, the leaders of the World Bank, International Monetary Fund (IMF), World Health Organization (WHO), and World Trade Organization (WTO) argued that the price tag is no less than $50 billion. Other estimates are as high as $75 billion. That is separate from consideration of what sort of international global health security pandemic financing mechanism is required to support LMICs, over many years, in building pandemic preparedness capacities. Depending on the scope of proposals, estimates run from $10–30 billion per year.

Virus Origin Debates and the U.S.-China Collision: The raging controversy surrounding the origin of the SARS-CoV-2 virus continues to fuel the toxic clash between China and the United States. The United States has been joined with many other states outraged by China's obstruction and eager to determine if the virus emerged from a natural zoonotic spillover from animal species to humans or, alternatively, from a lab accident in Wuhan. The controversy has also raised awareness of humankind's increasing power to manipulate pathogens to outstrip those created by nature, research practices (e.g., gain of function research) which have proliferated globally, often unregulated. There is continued pressure to have an independent and effective investigation of the origin, led by the WHO. As the focus on the origin intensifies, there will be increased scrutiny of U.S. and other scientific partnerships with Chinese institutions by the media, Congress, the National Institutes of Health, and others. The risk is that legitimate American scientific research will become politicized, much the same way that masks, tests, and vaccines have become politicized in the United States.

#2. Domestically, the United States has witnessed the accelerated consolidation of gains. That pivot toward greater control and confidence enables more U.S. international engagement, but domestic progress remains fragile. In the meantime, the domestic and international agendas are rapidly fusing.

At home, where more than 608,000 Americans have died of Covid-19, it has been possible in recent months to achieve faster than expected consolidation of gains in getting control of the pandemic, based on exceptionally powerful vaccines, vastly improved civilian-led and military-assisted vaccine distribution, and an expansive ground game at the state and local levels, supported by greatly increased federal resources. Since early 2021, there have been radical declines in daily case counts, deaths, hospitalizations, and the number of patinet sin intensive care units (ICUs), although these numbers are now rising again due to the spread of the highly contagious Delta variant. Overall, 68 percent of adults in the United States have received at least one dose of the vaccine, and 49 percent of the population is fully vaccinated.

Vaccines are holding against variants. Vaccinations of 12–16-year-olds are accelerating. With national confidence up, businesses are reopening at a rapid pace, and schools are advancing plans for reopening in the fall.

These momentous gains notwithstanding, progress remains fragile, requiring continued high-level vigilance. Several concerns will continue to command attention while the United States increasingly shifts focus to the global pandemic crisis.

Immunity through vaccination may wane. Current and future variants could give rise to increased immune escape, resulting in "breakthrough" infections. Booster shots may be required for the fully vaccinated, a complex and costly enterprise. Authorities and citizens alike continue to puzzle over the vagaries of reopening and how to frame and communicate effective guidance in this complicated transition period in a still deeply divided America. Public health officials have become targets of popular and political attacks, undermining faith and trust in science and government officials, and ultimately local and national responses.

Covid-19 is on a path to possibly becoming endemic. "Herd immunity" has ceased to make sense as a milestone to national efforts. The politicization of the vaccine, access problems, and significant hesitancy and refusal—a trend among upwards of 30 percent of adults—will impede reaching 80 percent or higher vaccine coverage of the American population. Conspicuous disparities have emerged in vaccine coverage across states and regions. There is rising concern that low-coverage areas will experience dangerous outbreaks throughout the summer, fall, and winter, fueled by the Delta variant. Legitimate fears of the economic burden of many recovery measures and a perceived heightened risk of inflation will persist into the future.

The domestic and international pandemic agendas are becoming fused as the proliferation of variants outside U.S. borders threatens the impressive gains at home. The United States has no choice but to deal with these urgent external threats while at the same time consolidating domestic gains and investing in preparedness, at home and abroad, against future pathogens.

The domestic and international pandemic agendas are becoming fused as the proliferation of variants outside U.S. borders threatens the impressive gains at home.

#3. While the U.S. government has taken several important steps to address the international crisis, the United States lacks a clear and authoritative leadership structure.

It is becoming increasingly evident that addressing the pandemic outside U.S. borders should be a top U.S. foreign policy and national security priority. Throughout the spring, the United States expanded its international

engagement, through incremental, ad hoc, and episodic steps. From June 11 to 13, the U.S. government showed impressive leadership at the G7 meeting in Cornwall.

However, the U.S. international response continues to lack a clear and authoritative leadership structure, agency roles, and consistent collaboration with partner countries and organizations. Though many dedicated and talented senior leaders are driving initiatives forward, they have not been shaped into a coherent leadership team across executive agencies. To its credit, the White House did release the "U.S. Covid Global Response and Recovery Framework" on July 1 (discussed below). However, urgent need remains for a detailed strategy, backed by the president, that lays out concrete targets and resources to address both the immediate global emergency and the long-term challenges of building preparedness. Moreover, there is still no campaign to convince Americans that using U.S. influence and assets to battle the pandemic outside U.S. borders is essential to protecting Americans. Such an effort is exceedingly important to building a true sense of national purpose in U.S. global leadership and avoiding the divisive politicization that has set back the pandemic response at home.

In a May 17 address to the nation, President Biden proclaimed that "as our own vaccine supply grows to meet our needs, we will become an arsenal of vaccines for other countries – just as America was the arsenal of democracy in World War II." He also announced that Jeffrey Zients, the White House coronavirus response coordinator, would oversee the development of a strategy to increase global vaccine supply and access. Zients has a strong record of achievement domestically and strong standing within the vaccine manufacturing community. That step further signals that U.S. international strategy and coordination is to be centered in the White House, with unspecified roles for the Departments of State, Treasury, Health and Human Services, and Defense, along with the NIH, Centers for Disease Control and Prevention (CDC), and U.S. Agency for International Development (USAID).

Significant funding has been committed by the U.S. government, including $2 billion to Gavi in support of the COVAX Advance Market Commitment for the 92 eligible LMICs and $11 billion to support the global Covid-19 response, contained in the $1.9 trillion American Rescue Plan. The budget for FY 2022 proposes $10 billion toward global health, including $1 billion toward global health security, an $800 million increase.

Different initiatives have begun to expand manufacturing capacity outside the United States and target surplus U.S. doses. The Quad—the United States, Japan, India, and Australia—committed in March to expand India's private sector vaccine production by 1 billion doses. A U.S.-South Korea deal announced on May 21 looks to provide U.S. vaccines to 550,000 South Korean military personnel and expand vaccine production in South Korea. The administration has loaned 4 million doses of the AstraZeneca vaccine to Mexico and Canada and pledged to donate 80 million doses internationally. On June 3, the administration released its strategy for the allocation of the first 25 million doses shared globally, the majority of which will be shared through COVAX.

In Cornwall, the G7 countries pledged to donate 1 billion vaccine doses to developing nations over the next year, of which 613 million were new pledges. President Biden announced that the United States will supply 500 million of those newly pledged donated doses, by far the largest donation by any of the G7 countries. These 500 million doses—all Pfizer vaccines—will cost $3.5 billion and will be financed by $2 billion of the $4 billion the U.S. government had pledged to COVAX, plus $1.5 billion in new financing. In addition to announcing the dose donations, the United States committed to ongoing support for vaccine distribution and last-mile vaccination efforts; the provision of personal protective equipment (PPE), oxygen, diagnostics, and therapeutics in support of the emergency response; and increased investments in local production of Covid-19 medical countermeasures to enable the production of at least 1 billion vaccine doses by the end of 2022 (this includes the Quad initiative).

In a press conference on June 13, President Biden acknowledged that the effort to close the vaccine gap might take years and indicated that the United States would remain a leader in this space: "I think there's a possibility, over 2022 going into 2023, that we would be able to be in a position to provide another billion." Through these announcements and the president's remarks, the United States made clear its commitment to lead the global Covid-19 response and efforts to advance global health security into the future.

On July 1, the White House released the "U.S. Covid-19 Global Response and Recovery Framework," which describes in very general terms the U.S. government objectives and efforts in the global sphere. The framework outlines five broad objectives to end the pandemic, mitigate its broader impacts, and accelerate a rapid recovery: (1) accelerate the delivery of Covid-19 vaccines; (2) reduce Covid-19 morbidity and mortality and strengthen health systems; (3) address acute needs and household shocks caused by Covid-19; (4) bolster economies and other critical systems to enable recovery; and (5) strengthen the international health security architecture. The framework is intended to support the goal of vaccinating 70 percent of the world by the end of 2022 and reiterates the U.S. government commitment to multilateralism, diversity, equity, inclusion, evidence-based decisionmaking, transparency, and accountability.

A concrete, detailed strategy is now essential, along with a structure at the White House or at the State Department with the essential authority and gravitas to lead international engagement effectively. A coherent leadership team has not yet taken shape, spanning the executive branch, that can bring together diplomatic approaches, industrial partnerships, communications, accelerated research and development, financing and long-term budgeting, and the emergency humanitarian and developmental dimensions. Internally within the administration, the situation remains fraught, beset by personal and institutional rivalries, including active resistance from some quarters of the domestic response team.

#4. High-level diplomacy, largely paralyzed in 2020, is re-emerging, with the United States making a major contribution. A continued, strong, concerted push by the United States, led by President Biden, will be the single most important element that can drive progress forward.

A number of positive efforts have recently happened in rapid succession, including the release of the Independent Panel on Pandemic Preparedness and Response report (IPPPR, May 20), the EU/G-20 Health Summit and the Rome Declaration (May 21), the World Health Assembly (May 24–31), the G7 Summit (June 11–13), and the release of the report of the G20 High Level Independent Panel on Financing the Global Commons for Pandemic Preparedness and Response.

In combination, these have raised the understanding of what has transpired thus far, stirred consciousness of the worsening storm, fueled by variants, and deepened understanding of the scale and complexity of the vaccine gap and the urgent need for a scaled emergency response.

At the same time, there is a growing convergence of opinion around a reform agenda that looks beyond the immediate crisis. Attention is centered around financing long-term preparedness capacities, including rebuilding the health workforce; improvements in digital data and integrated detection and surveillance; and research and development of new vaccines, boosters, and therapeutics, including geographically distributed manufacturing.

These promising developments notwithstanding, conspicuous gaps and uncertainties persist. Resources remain scarce, nationalism is still a predominant force, Western states themselves remain divided in fundamental respects, and a geopolitical fragmentation divides the West, China, India, and Russia. High-level diplomacy has stepped up, somewhat, but not yet coalesced into a sustained effort.

CSIS Commission Recommendations

The CSIS Commission on Strengthening America's Health Security is advocating to the Biden administration and Congress that U.S. international leadership be strengthened considerably in five areas.

Summary of Recommendations to Congress and the Biden Administration

1. White House Leadership: The White House should establish a leadership structure that has the authority, gravitas, and mandate to bring together a coherent leadership team that spans the executive agencies.

2. The Global Covid-19 Vaccine Crisis: The United States should, building upon the July 1 framework, accelerate the development of a detailed strategy, with concrete milestones, to work with other countries and industry to achieve 70 percent vaccine coverage of low- and lower-middle-income countries by mid-2022. See the "U.S. Covid Global Response and Recovery Framework."

3. Finance for Pandemic Preparedness: The United States should work assiduously with partners to establish an international financing mechanism that relies on existing institutions and that has a target of $10 billion in financing per year over the next 5 to 10 years to underwrite the basic elements of pandemic preparedness in low- and middle-income countries (LMICs).

4. The Economic Crisis: The United States should systematically address the acute economic distress of LMICs, including by providing additional support for concessional instruments—such as the Poverty Reduction and Growth Trust (PRGT) and the Catastrophe Containment and Relief Trust (CCRT) at the IMF—and an accelerated timeline for replenishing the International Development Association, the World Bank's fund for the poorest economies.

i. Support an allocation of Special Drawing Rights (SDRs)—an international reserve asset created by the IMF—to IMF members and link its support to greater transparency on the use of SDRs and the borrowing and lending activities of IMF member countries.

ii. Support the expansion of the Common Framework for Debt Treatments beyond the Debt Service Suspension Initiative to include middle-income countries.

5. Build Long-Term Capacity: The United States should invest in basic global health security and epidemic preparedness capacities, with special focus on:

i. **Primary Healthcare and Immunization:** Building a Resilient Workforce: Fund programs that integrate primary healthcare, global health security, and immunization services, with a priority emphasis upon workforce and digital data, and strengthen U.S.-supported immunization programs to serve people across the life course.

ii. **R&D: Vaccines, Therapeutics, and Manufacturing Capacity:** Build capacity to accelerate the development of vaccines, therapeutics, and diagnostics, including the expansion of the U.S. partnership with the Coalition for Epidemic Preparedness Innovations (CEPI).

iii. **Strengthen the World Health Organization:** Provide technical and political support to a WHO-led investigation of the origin of the SARS-CoV-2 virus, provide greater flexibility in funds from different U.S. appropriations to the WHO, and support the WHO's role in modernizing and globally integrating surveillance data, including genomic sequencing of variants.

iv. **A Fresh Look at Biosafety and Biosecurity:** Initiate a domestic review of U.S. biosafety and biosecurity practices and call on other partner countries to do the same. Form an international coalition focused on how to improve the global response investigation capacity for handling future biosecurity incidents.

1. WHITE HOUSE LEADERSHIP

President Biden should be commended for the leadership he showed at the G7 summit, including his closing press conference and his commitment that the United States remain in a leadership position globally during the next few years on the full range of emergency response and long-term preparedness requirements. The president communicated to the American people and the world that the Biden administration is beginning to match the extraordinary global demands of the pandemic with extraordinary international measures. The White House took such measures, successfully, in confronting the pandemic at home and learned a great deal. The United States is now signaling that it is taking those vital lessons learned at home and adapting them to meet the external threats that could undermine gains at home and leave the world utterly disrupted, at huge costs.

President Biden should also be commended for the commitment of 580 million doses, for appointing Jeff Zients to coordinate the international vaccine response, and for restoring the Senior Directorate for Global Health Security and Biodefense on the National Security Council, now headed by Beth Cameron. The CSIS commission advocated for the reestablishment of that directorate in its November 2019 report, *Ending the Cycle of Crisis and Complacency*.

To meet these welcome expanded U.S. commitments, however, requires that the president be supported by a stronger leadership structure that aligns with the unprecedented, colossal demands that lie in front of the United States. It is incumbent upon the president to decide on the best course to establish such capacity.

The United States has never faced a global pandemic crisis of such scale, complexity, cost, and duration, with such substantial national security implications. This exceptional, historic moment requires U.S. international leadership capacity and mobilization for a long war—stretching out over several years. This must mobilize all of the U.S. government assets in a coherent and impactful way and needs to encompass both the immediate emergency requirements and policies and programs to build health security preparedness for the long term.

A leadership structure is needed that has the gravitas, authority, and mandate to bring together a coherent leadership team that spans the executive agencies. Whoever is mandated to lead should be backed by a full expert team, capable of executing a strategy, set clear priorities, build budgets against them, and hold agencies and departments to account. There is an urgent need to oversee the integration of the manifold diplomatic actions required to advance the U.S. agenda, build international partnerships, and leverage others. There is a need for greater interagency coordination and input into decisionmaking and policy-setting, utilizing all possible U.S. government assets and capacities to get shots into arms. That includes overseeing the budget and finance mobilization strategies, addressing intelligence requirements, and integrating the special contributions the U.S. Department of Defense is capable of making to support civilian-led response to global health security threats, a subject area which the CSIS commission has completed considerable work on recently. The leadership structure should also streamline operational and strategic coordination with international partners on Covid-19 response through both bilateral and multilateral channels.

This exceptional, historic moment requires U.S. international leadership capacity and mobilization for a long war—stretching out over several years.

Whoever leads this effort will also oversee the complex operational priorities essential to gain control over the pandemic and restore stability, including a U.S. international industrial policy that shapes the global vaccine marketplace; U.S. actions to mitigate the rising risk of economic instability and worsening humanitarian demands in LMICs; research and accelerated development of new vaccines, therapies, and diagnostics; the advance of globally integrated regulatory approaches and data surveillance, including genomic sequencing essential to track variants; and effective ongoing communication to the American people and the outside world.

The CSIS commission sees two organizational options, both of which have advantages, and neither of which is perfect.

The president could appoint a very prominent high-level envoy for the next two to three years, based at the Department of State, who would report to the secretary of state and have ready access to the president and the leadership of the Covid-19 Response Group. The president might enlist support from Congress in passing authorizing legislation that provides the envoy with ambassadorial rank, ensures control over relevant budgets, consolidates existing State Department health security personnel under the envoy, and expedites the creation of additional expert staff positions to fill critical gaps. The obvious advantage is that the international pandemic response is by definition a diplomacy-dominated function.

The experience of the Office of the Global AIDS Coordinator and Health Diplomacy, based at the State Department's since 2003, provides a valuable point of reference. Over almost two decades, the coordinator has used that office's authority to integrate the contributions of the CDC, USAID, and other executive agencies while calling upon the chiefs of mission to play key lead roles in-country. However, implementing executive agencies might resist operating under State Department authority, and turning to Congress might invite delay and further complicate matters, including opening the question of how the envoy's role and authorities relate to long-term U.S. policy and approaches in global health security.

A second option would be to create a deputy national security advisor position for global health security and biodefense, in effect elevating the senior directorship to a level with far greater sway over the interagency and more immediate access to the president, the national security advisor, the White House Covid-19 Response Group, and the secretary of state, among other senior officials. One obvious advantage is that under this approach, centered within the White House, the leadership would operate in close proximity to the domestic response, led by the White House Covid-19 Response Group. One major potential downside: the National Security Council is not built to manage international operational programs.

There should also be serious consideration given to creating a new funding mechanism for programs essential to public health defense, modeled after the Overseas Contingency Operations designation created for the Department of Defense after Congress passed large supplemental appropriations in response to the 9/11 attacks. Such a mechanism, a Health Defense Operations (HDO) budget designation, would exempt specific congressionally designated health security funding from the annual 302(a) spending allocations and any future sequestration. That step would move funding from emergency supplementals to sustainable, sufficient public health preparedness, a change essential to escape the cycle of crisis and neglect that has been chronically problematic for the field of health security. It would be accompanied by rigorous safeguards and accountability to ensure strong oversight by congressional appropriators, including designating funding for specific budget lines rather than whole agencies. HDO designated programs should be required to submit a bypass professional judgment budget to Congress annually so that Congress has an unvarnished view of what is really needed to protect Americans.

2. THE GLOBAL COVID-19 VACCINE CRISIS

The global vaccine crisis is a matter of the highest urgency, as the president emphasized at the G7 summit. While the G7 member states struggle with their own epidemics, they still command vast wealth, share a legacy of impactful leadership during the HIV crisis two decades ago, and have strong partnerships with the world's leading private sector pharmaceutical firms headquartered in G7 countries.

The CSIS commission commends the administration and the other G7 member states for the additional commitments to donate 870 million doses over the next 12 months (613 million newly committed at the G7 summit, the balance coming in the immediate prior weeks). However, a significant gap remains, with hundreds of millions of doses still needed to vaccinate 70 percent of the world's population.

The commission calls upon the administration to develop a clear strategy, with concrete milestones, to work with others to achieve 70 percent vaccine coverage of the global population by the end of 2022. It is an ambitious goal that is within reach, a goal that should create the conditions to address variants and meet new health threats. It will require sufficient high-level political will and commitment by the United States and others. If this goal is successfully reached, it will shorten the acute phase of the pandemic by at least six months.

Supply will remain critically important. Success will require additional U.S. donations of surplus doses—estimated by the president at another billion over the next two years—and continued active use of U.S. diplomatic influence to persuade other G7 members states to increase their contributions to, at a minimum, match U.S. actions. Ultimately, success will also rest on a vision that enables LMICs to manufacture vaccines on their own, including by transferring technology to make necessary doses. This is not by definition a strictly long-term prospect. With mRNA technology, which by comparison with other vaccines is faster, less expensive, and allows for higher volumes of production, new production lines could be up and running in less than a year.

Success also requires far greater attention to two other critically important dimensions which did not receive much attention at the G7 summit: strengthening readiness (i.e., the vaccine distribution and delivery capabilities of LMICs, including their ability to address vaccine hesitancy) and expanding financing. The effort to achieve equitable, global vaccination coverage will be expensive. Several studies released in the days before the G7 meeting estimated that the global vaccine distribution effort would cost between $50–75 billion over the coming 18 months. Some portion will be covered by existing, underutilized resources, but a large share will have to be mobilized on an emergency basis. The scale and severity of the crisis demand this level of investment, and the United States should be prepared to lead on this effort.

The United States possesses considerable assets that can be deployed to strengthen the delivery capacities of LMICs and strengthen the last-mile delivery and administration of vaccines, namely through USAID and the CDC, including the President's Emergency Plan for AIDS Relief (PEPFAR). Other multilateral and institutional partners can also do more in this domain, with U.S. urging and support, including the World Bank, IMF, Global Fund, UNICEF, and GAVI. NGOs and civil society will also play a key role in these last-mile efforts.

3. FINANCE FOR PANDEMIC PREPAREDNESS

The need for greater investment in pandemic preparedness capacities in LMICs has been painfully confirmed (yet again) through the enormous health and economic costs of the Covid-19 pandemic. The IMF reports that countries spent $16 trillion in fiscal actions between April 2020 and 2021 to enable health systems to respond and provide support to households and firms. It also projects the pandemic will

cost the global economy at least $22 trillion over the next five years. Recent estimates of the global cost of preparedness for LMICs vary widely but nevertheless are a small fraction of the response costs. Annual aggregate costs to improve global preparedness range from $10–35 billion per year over the next decade.

The United States has a clear opportunity to exert strong global leadership to elevate long-term pandemic financing in 2021 and help lead an international coalition that can stand behind a new global funding platform, still to be defined, that can bring about sustainable, long-term financing for pandemic preparedness, a goal which thus far has been elusive. It is not a call for a new "brick and mortar" institution but rather a new fund or financing mechanism.

Fortunately, there is strong, bipartisan support within Congress and the Biden administration to incentivize and significantly increase both global and partner-country financing for pandemic preparedness. On his second day in office, President Biden issued National Security Memorandum 1, which includes the goal of establishing an enduring, catalytic, multilateral financing mechanism to bolster global health security and pandemic preparedness. That would potentially build on the CSIS commission's earlier proposal for a Global Health Security Challenge Fund. In June, the House of Representatives passed the Global Health Security Act, and the Senate Foreign Relations Committee introduced the International Pandemic Preparedness and COVID-19 Response Act, both of which authorize the establishment of a similar multilateral fund for global health security.

In the spring of 2021, the Biden administration initiated a dialogue with permanent representatives at the United Nations in an effort to build international consensus and explore options for such a financing mechanism. Vice President Harris led the U.S. delegation, a powerful signal of the seriousness of U.S. intentions. The Biden administration has since included $250 million in seed funding for a new financing mechanism as part of its request for a $1 billion increase in global health security investments contained in the FY 2022 budget request to Congress. Placing pandemic preparedness financing security into the budget in this way, with the indication that there will be a budget line for a new fund for at least the next five years, is a significant advance.

What form an international pandemic preparedness financing mechanism will take is still to be defined. Many of the G20 member states and advocates favor the creation of an entirely new global health security financing facility dedicated to preparedness for epidemics and pandemics. The final report of the Independent Panel for Pandemic Preparedness and Response (IPPPR) recommended the establishment of a new International Pandemic Financing Facility funded at $5–10 billion annually based on an ability-to-pay formula. The United States and other powerful donor countries strongly favor a pragmatic, incremental approach of channeling new funding through existing global financing institutions, such as the World Bank, the IMF, regional banks, and the Global Fund. For that option to work successfully, it will be essential for all parties to agree that these resources will be new, additional funding for country preparedness and not displace or divert existing funding. This approach could be combined with a coordinating structure, common principles of governance, and conditioning co-financing by partner countries.

To explore which financing options make the most sense, in January 2021 the G20 member states authorized the establishment of the G20 High Level Independent Panel on Financing the Global Commons for Pandemic Preparedness. That panel's report was released on July 9 and called on the G20 to establish a new global fund that could provide at least $10 billion annually to international institutions and to LMIC governments to bolster the world's capacity to prevent, detect, and rapidly respond to pandemics.

While the Biden administration has made clear its commitment to this issue, there is more that can be done. The commission commends the inclusion of $250 million in the president's FY 2022 budget request. As an initial down payment, it is an important signal of the seriousness of U.S. intentions and commitment to this agenda; however, a much larger U.S. contribution will be necessary to mobilize the amount of resources required to meet the estimated needs and close critical health security gaps before the next pandemic strikes.

The commission supports the creation of an international financing mechanism that relies on existing institutions and that has a target of $10 billion in financing per year over the next 5 to 10 years to underwrite the basic elements of preparedness in LMICs: a skilled workforce, surveillance, laboratories, and quick response capabilities. Funding allocations should be based on careful prior assessments against widely agreed-upon international benchmarks, such as the Joint External Evaluations and the Global Health Security Index, and ensure that countries have the capacity to make best use of the financing. This step would require strong oversight, transparency and accountability measures, and ongoing monitoring to ensure that the new financing is truly additive and does not divert funding from current programs.

The CSIS commission favors a sustained high-level U.S. diplomatic approach that may include a high-level summit in the fall, with active White House backing, to secure pledges to a financing mechanism from leaders of the G20, international financial institutions, private sector, and philanthropy. It will be important to mobilize political support and financing behind this effort before the Covid-19 pandemic fades from view. Action by the 117th Congress before the end of the year to authorize and appropriate the U.S. contribution for a new financing mechanism will be critical, as will regular, close consultation with Congress to sustain a strong bipartisan base of congressional support for this critically important, long-term initiative.

In the commission's view, the U.S. share in this effort should rise to $1 billion in FY 2023, when the mechanism is expected to be launched, and grow to $2 billion per year in FY 2024. The U.S. approach should work through existing credible and reliable institutions, be based on careful prior assessments and planning to assure that countries have the capacity to make best use of the financing, and include careful oversight and monitoring.

4. THE ECONOMIC CRISIS

The response to the Covid-19 pandemic entailed shutting down large portions of the global economy to limit the disease's spread, a necessary but unprecedented action that has entailed enormous economic costs. The global economy contracted by nearly 3.5 percent in 2020, with many LMICs among the hardest hit. The World Bank estimates the pandemic has pushed about 120 million people into extreme poverty, marking the first *increase* in extreme poverty since 1998, with much of that coming in middle-income countries. Moreover, while the developed world is experiencing rapid economic recovery thanks to the widespread distribution and administration of vaccines, the pace of recovery in many LMICs is hampered by an ongoing health crisis, lack of vaccine access, and a lack of fiscal policy space to support the recovery through targeted spending, including on health. Public debt burdens have soared during the crisis, increasing the risk of debt distress and imperiling countries' ability to attract new financial resources to support recovery. Unless the United States takes quick action, it risks a worsening crisis in which inequality within and between nations rises, cases of fiscal insolvency proliferate, and future potential growth falls below pre-pandemic levels, putting a global recovery at risk.

Notwithstanding these challenges, the United States can lead in a global response that prioritizes immediate action while shaping the international economic agenda for years to come.

First, the United States should provide additional support for concessional instruments—such as the Poverty Reduction and Growth Trust (PRGT) and the Catastrophe Containment and Relief Trust (CCRT) at the IMF—and an accelerated timeline for replenishing the International Development Association (IDA), the World Bank's fund for the poorest economies. A significant increase in the U.S. commitment is appropriate, given the magnitude of the threat. The United States committed in the last IDA cycle to $3 billion; it is advisable to get as close as possible to the previous high-water mark of $3.9 billion. Such an increase would compel commensurate donor support.

Second, the United States should support an allocation of Special Drawing Rights (SDRs)—an international reserve asset created by the IMF—to IMF members and link its support to greater transparency on the use of SDRs and the borrowing and lending activities of IMF member countries. Such an allocation would provide more than $200 billion in liquidity support to LMICs (excluding China). Further, the United States can lead by example in authorizing the reallocation of a portion of its SDRs to support targeted assistance to LMICs through international financial institutions, including in interventions directly related to Covid-19.

Third, the United States should support the expansion of the Common Framework for Debt Treatments beyond the Debt Service Suspension Initiative to include middle-income countries. These efforts should be partnered with longer-term reforms aimed at boosting transparency and harmonizing debt instruments aimed at future crisis prevention and resolution.

5. BUILD LONG-TERM CAPACITY

Primary Healthcare and Immunization: Building a Resilient Workforce

The value of strong primary healthcare and immunization systems to global health security has been dramatically exposed over the course of the Covid-19 pandemic. At the base of both is the question of how to use U.S. leadership to strengthen the public health workforce—the first line of response to health emergencies—which in so many countries remains disempowered and underfinanced, with fragmented influence and authorities and severely depleted ranks due to the pandemic. An essential part of the process of rebooting workforces is also the question of how U.S. leadership can be focused on advancing digital data in the provision of local services, including how to create health identifiers, connected data systems, and transparent reporting. These dimensions need to move front and center within the U.S. global health security strategy.

Following the WHO's declaration of a pandemic in 2020, when healthcare personnel were diverted from their routine duties to outbreak response and patients were afraid to go to clinics because they were concerned about being infected with SARS-CoV-2, people missed diagnostic tests, prescription refills, therapeutic procedures, and follow-up appointments, critical opportunities for health promotion and monitoring. In places where health systems were weak, scaling up new Covid-19 testing and treatment activities proved to be especially challenging and met with mixed success. But in locales such as Vietnam, Thailand, Costa Rica, and Ghana, where primary healthcare services were strong even before the pandemic, it became clear that strong community-level healthcare assets could be a significant factor in quickly identifying cases, mitigating disease transmission, and linking those infected with available treatment while ensuring continuity of care for preventive services and pre-existing conditions.

Surveys over the spring and summer of 2020 suggested that routine immunization services were also disrupted during the early phase of the pandemic, although now, in some locales, coverage numbers are stabilizing, facilitated in large part by strengthened coordination with community-based primary healthcare providers, in whom families often have a great deal of trust.

Indeed, lessons learned in the current distribution of Covid-19 vaccines also suggest important linkages between primary healthcare and immunization, in that primary healthcare providers are trusted providers of vaccines and because the delivery of Covid-19 vaccines to adults, including healthy adults who may be less accustomed to visiting health facilities, offers an opportunity to reach people with a broader suite of primary healthcare services. Community healthcare and outreach play a critical role in this interplay, helping to build trust with local communities beyond the health facility.

Investing in primary healthcare services and ensuring access to immunizations across the life course are critical to global health security, but an initiative that enhances countries' responsiveness to the daily needs of their populations while improving pandemic preparedness in the longer term will require significant funding, technical assistance, and sustained prioritization. The United States, through USAID and the CDC, supports countries' efforts to strengthen health and immunization systems, but more should be done to reinforce existing capacities and build a high level of responsiveness in the event of future outbreaks. Such steps should include:

1. **Direct and sustained funding for bilateral programs that integrates primary healthcare, global health security, and immunization services, with a priority emphasis on the workforce and digital data.** Until now, health systems strengthening work has been largely ad hoc, with funds for such activities frequently carved out of those designated for other, disease-specific programs. At USAID, where the majority of health systems strengthening work is carried out, funding should be increased, and a much higher priority should be placed on integrating activities focused on primary healthcare and immunization with global health security initiatives. In Washington, D.C., this could mean expanding the office of health systems, strengthening and elevating its position within the Global Health Bureau. It could also mean creating incentives at the USAID country mission level for better integration of bilateral support for global health security, immunization, and primary healthcare programs. For missions that meet a set of clearly defined criteria for integrating services and agree to pool funds from the three areas, USAID headquarters could match the funds to support pilot projects over a five-year period. This would require the addition of specialized staff to provide technical assistance and oversight, as well as matching funds or transfers to district planning offices. **Estimated cost: $53 million per year (five countries at $10 million per year, plus 10 to 12 technical staff to provide assistance to missions, as well as oversight).**

2. **Strengthened ability of U.S.-supported immunization programs to serve people across the life course, from infancy to old age.** Most immunization programs are focused on the delivery of vaccines to children under the age of five through pediatric clinics. Reaching adolescents with the HPV vaccine and reaching adults with recommended influenza vaccines or the pneumococcal conjugate vaccine, for example, is considerably more complicated and requires working through existing health services, such as those for non-communicable diseases, HIV/AIDS, or other disease-specific programs, as well as schools, workplaces, or markets, for effective delivery. The Covid-19 pandemic has shed light on the challenge of reaching adults with immunization services and underscores the importance of building this capacity as an element of preparedness for future outbreaks.

In addition to supporting projects that incentivize integration of primary healthcare, immunization, and global health security programs, as outlined above, the United States can work through its engagement with Gavi, the Vaccine Alliance, to advocate for greater attention to adult immunization programs within the support provided to countries for immunization system strengthening.

Beyond funding and support to Gavi, the United States can also bolster bilateral funding to provide countries with technical support to enable programs delivering other kinds of adult care, such as HIV services or

care for non-communicable diseases, to deliver immunizations as well. The United States can also support analysis to help priority countries identify gaps in adult immunization coverage, pinpoint the non-clinical sites where healthy adults unaccustomed to visiting care providers may be willing to get vaccines and discern which communications strategies and messaging approaches about getting vaccinated will best resonate with adult populations.

R&D: Vaccines, Therapeutics, and Manufacturing Capacity

The administration should prioritize accelerating the development of manufacturing capacity distributed across the globe, particularly through public-private partnerships using voluntary licensing agreements. It should work to ensure that companies participate fully in transferring technologies to regional manufacturing hubs so that effective vaccines, including mRNA vaccines, are rapidly scaled, and the expertise and knowledge are acquired to manage production in these distributed sites. This is going to require U.S. political leadership, expanded financing through the U.S. Development Finance Corporation and multilateral banks, and technical prowess to resolve the many inevitable, complex operational challenges.

The administration should also prioritize enhancing the capacity to accelerate the development of vaccines, therapies, and diagnostics. This effort should be accompanied by an equally robust focus on expanding access to these medical countermeasures to be successful.

On the global side of the equation for both priorities, the United States should expand its partnership with the Coalition for Epidemic Preparedness Innovations (CEPI) as it heads into its second five-year phase—CEPI 2.0. It is building upon its proven success in accelerating the development of vaccines, enlarging its scope of technologies to include therapies and diagnostics, and prioritizing vaccine manufacturing innovations. It is in the U.S. national interest to be a major investment partner in that effort, shaping CEPI's strategies and impacts as CEPI expands its writ.

The stark inequities in global vaccine manufacturing and distribution capacity put the United States at risk in the near and long term. In the short term, large global gaps in vaccination provide opportunities for the emergence of new variants that could overcome or undermine immunity, jeopardizing both the remarkable progress the United States has made in vaccinating its own population and the global recovery. In the long term, concentrating vaccine research and manufacturing capacity in a few powerful countries guarantees that the world will be dependent on those countries in a crisis, leading to more suffering, death, and inequity.

The United States should move forward in formalizing its financial and technical partnership with CEPI to address both near- and long-term threats while at the same time consolidating CEPI's capacity to accelerate innovations in vaccines, therapies, and diagnostics.

In the near term, the United States should invest in CEPI some share of the $905 million contained in the American Rescue Plan intended to be "made available to the United States Agency for International Development for global health activities to prevent, prepare for, and respond to coronavirus, which shall include a contribution to a multilateral vaccine development partnership to support epidemic preparedness." This funding will be critical to support CEPI's manufacturing innovation efforts and its ongoing work to develop a broadly protective Covid-19 vaccine that can counter the growing variant threats. Even more important is the United States committing to an ongoing, long-term financial and technical partnership. To that end, the U.S. government should give very serious consideration to funding CEPI at $200 million per year for the next five years.

The World Health Organization

In line with the recommendations contained in the IPPPR report, the CSIS commission advocates that the administration prioritize three steps to strengthen the WHO. First, the United States should continue to provide technical and political support to a WHO-led investigation of the origin of the SARS-CoV-2 virus, while taking active steps to create an enhanced, sustained, and rapid WHO investigative capacity of outbreaks over the long term. Second, the United States should provide greater flexibility in funds from different U.S. appropriations to the WHO, including by increasing assessed contributions and increasing the oversight of funds allocated by different U.S. departments and agencies to the WHO. And lastly, the United States should actively support the WHO's role in modernizing and globally integrating surveillance data, including genomic sequencing of variants.

A Fresh Look at Biosafety and Biosecurity

The international debate over the origins of SARS-CoV-2 has intensified recently, with many scientific experts and political leaders at odds over the strength of the laboratory leak theory versus the natural spillover theory. At time of writing, many experts believe that both theories are plausible. Research to enhance pathogens has become increasingly common in both public and private laboratories around the world, creating more urgency for addressing the accidental or deliberate release of dangerous pathogens from laboratories.

This creates an opportunity to reexamine the institutions, frameworks, and regulations that are currently in place to prevent the natural, accidental, and deliberate emergence of new pathogens with pandemic potential. Despite the intense geopolitical sensitivities that permeate this debate, there are concrete actions that the United States can take to achieve greater rigor and transparency in both domestic and global biosafety and biosecurity efforts.

The United States should initiate a domestic review of its biosafety and biosecurity practices. This should include an assessment of how the U.S. government funds and regulates the research of potential pandemic pathogens and what information is used to understand and weigh the relative risks and benefits of such research. This assessment should also include the review and publication of biosafety records at U.S. government-funded laboratories. This domestic review should conclude with recommendations for how the U.S. government can strengthen its own biosafety and biosecurity practices and regulations. Such an initiative would model the transparency that the United States expects other WHO-member states to practice in order to mitigate the risk of the accidental or deliberate release of potential pandemic pathogens from laboratory or research settings. The United States should also use international fora to encourage other countries to conduct similar self-assessments and contribute to an extended international dialogue around best practices and data sharing. This should include an increased effort to build and expand biosafety workforce capacity in the United States and internationally, given the extreme demands that were placed on the biosafety workforce over the course of the pandemic. The 2021 Biological Weapons Review Conference provides one opportunity to initiate such a dialogue.

There are currently no clear established norms, protocols, guidelines, or designated institutional frameworks for the investigation of biological incidents, including infectious disease outbreaks with pandemic potential, accidental releases, and bioweapons. As seen in Wuhan, expert investigations of incidents can quickly encounter stark political barriers, and tensions surrounding the investigation can escalate steeply, casting scientific experts to the sidelines. The United States should make it a priority to form an international coalition—potentially comprised of countries, industry, international organizations, and academic institutions—to initiate a renewed dialogue over how to improve the global response investigation capacity

for handling future biosecurity incidents, including how to create a neutral, protected space in which trusted international expert scientists are able to lead investigations, free of interference. The Nuclear Threat Initiative has begun exploring this issue in collaboration with key international partners and could be a valuable resource.

Closing Thoughts

U.S. leadership has recently turned its attention seriously to the world stage to battle the pandemic in partnership with others. That dramatic shift has been met, at home and abroad, with praise, hope, and blunt questions of how serious, far-ranging, and sustained U.S. commitments will be. The urgency to act, and the stakes, could not be higher, as an ever more pernicious virus tears through most of the world. The United States will not achieve security, nor will the rest of the world, until far more has been done to vaccinate everyone, put in place the basic elements of health security preparedness, and close the dangerous disparities and inequities that are the world's collective, greatest vulnerabilities. In this document, the CSIS Commission on Strengthening America's Health Security has outlined its best thoughts on the changes needed in U.S. leadership for the United States to have a strategic impact at this moment of such complex peril.

AUTHORS

Julie Gerberding *is executive vice president and chief patient officer at Merck and previously served as director of the U.S. CDC from 2002 to 2009.*

Susan Brooks *is an accomplished former congresswoman and former U.S. attorney who has driven key legislation to reform emergency response, healthcare, manufacturing, technology innovation, higher education, and public safety.*

J. Stephen Morrison *is senior vice president at CSIS and is director of its Global Health Policy Center, and previously served in the Clinton administration, as committee staff in the U.S. House of Representatives.*

Anna McCaffrey *is a fellow with the CSIS Global Health Policy Center.*

Katherine E. Bliss *is a senior fellow with the CSIS Global Health Policy Center, leading its work on vaccine confidence, immunizations, and primary health care in the health security context.*

The authors would like to thank the members of the Commission and its Expert Advisory Group for their thoughtful and generous contributions to this white paper: Rocco Casagrande, Margaret "Peggy" Hamburg, Ambassador Jimmy Kolker, David Relman, Carolyn Reynolds, and Stephanie Segal.

This white paper is a product of the CSIS Commission on Strengthening America's Health Security, generously supported by the Bill & Melinda Gates Foundation.