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June 2023

A New U.S. Foreign Policy for Global Health

COVID-19 and Climate Change Demand a Different Approach

David P. Fidler

COUNCIL *on* FOREIGN RELATIONS

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FOREWORD

We are living at a time when geopolitics tend to dominate what limited attention the American public gives to foreign policy. This is hardly surprising when there is a major war raging in Europe and efforts are increasing to deter one in the Indo-Pacific.

Yet global threats to U.S. interests and world order, including infectious disease and climate change, are no less significant. It is odd that they are often overlooked just as we are coming out of a pandemic that claimed over one million American lives and significantly reduced gross domestic product. And the effects of climate change are increasingly obvious, from warmer weather to droughts to floods to more severe storms. But however difficult that lack of focus may be to justify, it is where we are.

David Fidler, senior fellow for global health and cybersecurity at the Council on Foreign Relations with a background in international legal consulting, has done us all a service by taking a close look at lessons learned from the COVID-19 pandemic. He shows how climate change, including the failure to adequately adapt to the effects already observable, has exacerbated the scale of the challenge. As he notes in the report, climate-related health threats include the emergence of pandemic pathogens, the spread of epidemic and endemic diseases, and the dangers of antimicrobial-resistant pathogens. As a result, Fidler underscores that global health should include climate-conscious policies.

The good news is that he is not content with criticism but offers a detailed agenda for health security, one that addresses the security, capability, and solidarity failures that COVID-19 and climate change exposed. On the security front, Fidler recommends realigning U.S. policy on public and global health to protect vital interests through actions such as strengthening programs and monitoring national

biosecurity, preparing for health-related production and supply complications, and transforming the Global Health Security Agenda into an alliance. Fidler also puts forward numerous strategies to rebuild national and international public health capabilities to better manage future pandemics and climate adaptation. Finally, Fidler recommends efforts that include convening national health security summits, encouraging further cooperation between state and federal climate adaptation measures, and utilizing the capability built from Operation Warp Speed to partner with foreign entities to further global capacity to respond to health emergencies.

The COVID-19 pandemic and climate change are forcing the world to face the consequences of decades of inadequate global health policies. Fidler emphasizes that the United States cannot afford to be complacent or allow partisan politics to interfere with improving existing frameworks. Alas, we will continue to face dire consequences should the United States do just that.

Richard Haass
President
Council on Foreign Relations
June 2023

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David P. Fidler

INTRODUCTION

COVID-19 and climate change confront U.S. foreign policy on global health with a conundrum. Despite decades of warnings about pandemics, the United States was not prepared when COVID-19 became one in 2020. More than one million Americans have died, and more than one hundred million U.S. cases have been recorded. The pandemic and the emergency measures against it caused the biggest economic contraction since the Great Depression. Congress spent trillions on relief, ballooning budget deficits and the national debt. COVID-19 exposed weaknesses in public health capabilities, and the U.S. responses tarnished the country's reputation as a democracy, global health partner, and world leader.

Even worse, record-setting global temperatures and climate-related disasters during COVID-19 provided more evidence that climate change threatens human health worldwide. Experts had long warned that nations would need to adapt to such threats if they did not mitigate greenhouse gas emissions sufficiently. The arrival of the climate adaptation crisis revealed that an opportunity to prevent much human suffering has been lost and that the United States is not ready to address climate-related health threats within or beyond its borders.

The United States has compelling reasons to transform its policies, capabilities, and collective-action strategies on public and global health. COVID-19 and the climate adaptation crisis have prompted calls for renewing U.S. leadership on global health. However, global health leadership before COVID-19 did not protect the United States from a pandemic or climate change—the most dangerous acute and chronic health threats it faces. Claims that such leadership promoted democracy and sustained an international system favorable to U.S. interests proved empty as authoritarian states changed the balance of power and helped

weaken democracy globally. Rarely has global leadership produced so little protection for Americans at home and U.S. interests abroad.

The pandemic and climate change have also marginalized global health in foreign policy by exacerbating domestic political polarization and intensifying global geopolitical competition. U.S. policymakers face formidable conditions in which to transform American public and global health policies.

The harsh light cast by COVID-19 and the climate adaptation crisis reveals that U.S. global health leadership was a foreign policy phasmid—what policymakers thought they saw turned out to be something different. Restoration of what once passed as global health leadership should not be the objective of reform.

The United States should, at long last, treat pandemics and global warming as apex health threats to its national interests—especially the vital interests of security and economic power. It needs to craft a new foreign policy on global health that protects those national interests through pandemic preparedness and climate adaptation strategies. The strategies should learn from global health involvement before and during COVID-19, including the much-celebrated President's Emergency Plan for AIDS Relief (PEPFAR), and navigate domestic and international political constraints on reform. Protecting U.S. national interests also requires rebuilding public health capabilities and reconstructing collective action and solidarity at home and abroad against shared health dangers.

U.S. Foreign Policy and Global Health Before COVID-19

Understanding why the United States' pre–COVID-19 global health leadership failed to protect national interests against pandemics and climate-related health threats requires examining how U.S. global health policy has evolved. Before and during the Cold War, health was not prominent in foreign policy. From the mid-nineteenth century until the creation of the World Health Organization (WHO) in 1948, the cross-border spread of a few infectious diseases dominated health diplomacy.[1] U.S. health improved through domestic reforms (for example, sanitation) and scientific advances (for example, vaccines), not through diplomacy. The WHO was more important for low-income countries than for the United States.

Health received additional attention in the 1970s. President Jimmy Carter's interest in human rights informed his desire to place "higher priority on U.S. involvement with world health."[2] Competition with the Soviet Union informed U.S. approaches to the WHO's smallpox eradication and Health for All campaigns.[3] Both superpowers supported eradication, but smallpox posed no threat to them, and each made the vaccine, meaning neither could gain advantage. The Soviets supported Health for All and its emphasis on universal access to primary health care, but President Ronald Reagan withheld WHO funding over ideological concerns about that initiative.[4] Neither campaign had geopolitical importance. U.S.-Soviet relations worsened for reasons unrelated to health, which helps explain why the U.S. intelligence community analyzed the HIV/AIDS crisis in Africa in the 1980s through the lens of power politics.[5]

In addition, the United States opposed actions that could harm American corporations. For example, it did not support the WHO's

International Code on Marketing Breast-Milk Substitutes, adopted in 1981, because the code interfered with U.S. commercial activities.[6] That stance signaled U.S. willingness to protect commercial interests in global health.

The sea change for foreign policy and global health came after the Cold War. The United States was the dominant power, and democracy spread in the first post–Cold War decade. U.S. foreign policy began to take nontraditional and transnational threats, such as terrorism and infectious diseases, more seriously. Policymakers worried that terrorists would use weapons of mass destruction (WMD), including biological agents.[7] Health and political leaders warned about emerging infectious diseases, including how environmental degradation, such as climate change, facilitated disease emergence and spread.[8] U.S. national security, foreign policy, and health officials began addressing domestic and global challenges that required political commitment, health capabilities, and collective action.

Policymakers started to connect global health with the full range of national interests served by foreign policy—protecting national security, enhancing economic power, supporting development, and providing humanitarian assistance.[9] A naturally occurring or intentionally caused pandemic involving a lethal, transmissible pathogen constituted the most dangerous threat because it would damage every national interest. Outbreaks that did not endanger the United States directly—such as HIV/AIDS in low- and middle-income countries (LMICs)—could undermine development, produce humanitarian crises, and create instability that adversaries could exploit.[10]

That reframing of global health and foreign policy was not without problems.[11] The national security community focused more on WMD terrorism than pandemics. Public health agencies pursued domestic reforms. The U.S. position on intellectual property (IP) rights frustrated HIV/AIDS activists.[12] Noncommunicable diseases (NCDs) received little attention.[13]

Even so, the new thinking gained traction. In a 2001 Council on Foreign Relations report, health expert Jordan S. Kassalow distilled the approach by arguing that the United States could enhance "national security, increase prosperity at home and abroad, and promote democracy" by "placing health squarely on its foreign policy agenda." Paying attention to global health would protect Americans and the U.S. economy, increase exports, decrease instability in "countries of strategic importance," facilitate the "transition to democratic regimes," and produce healthy democracies "less likely to engage in conflict." Protecting

health abroad reflected narrow and enlightened self-interest and made "strategic and moral sense."[14]

Subsequent events strengthened the case. Fears about bioterrorism increased when anthrax attacks followed the terrorist violence on September 11, 2001.[15] HIV/AIDS and other diseases in LMICs stimulated development and humanitarian efforts, such as PEPFAR and the Global Fund to Fight AIDS, Tuberculosis, and Malaria.[16] The severe acute respiratory syndrome (SARS) outbreak in 2003 reinforced worries about pandemics and produced national and global policy changes.[17] Fears about pandemic influenza prompted U.S. activities at home and abroad.[18] Presidents George W. Bush and Barack Obama considered global health involvement part of democracy promotion efforts.[19]

By the mid-2000s, the United States was the leader in global health. Commitments to improve domestic public health capabilities and show global health leadership had bipartisan support and had no geopolitical motivations because the United States faced no rivals. U.S. involvement catalyzed activities by fellow democracies, other countries, international institutions, and nongovernmental organizations (NGOs).

Such involvement came with controversies. Despite criticism, the United States maintained that IP rights sustained private-sector capabilities to make products that protected Americans and supported global health. Providing antiretrovirals through PEPFAR and the Global Fund tempered the IP debate on HIV/AIDS, but the issue flared elsewhere. In 2007, Indonesia stopped sharing influenza virus samples because companies wanted to use them to make IP-protected products that Indonesia could not afford.[20] That dispute produced the WHO Pandemic Influenza Preparedness Framework, which conditioned getting access to samples on providing benefits to sample-sharing countries.[21] However, the framework did not resolve IP controversies in global health.

Frustration with U.S. policies appeared on other issues. The United States did not join the WHO Framework Convention on Tobacco Control and created problems for other efforts against NCDs.[22] Those diseases multiplied in LMICs, as did efforts to elevate them in foreign policy, but U.S. global health spending on NCDs remained paltry.[23] Despite health warnings about climate change, the United States did not take meaningful mitigation or adaptation actions for most of the 2000s.[24]

In 2009, a novel influenza virus triggered a pandemic and revealed that the United States was unprepared, despite over a decade of heightened attention to public and global health.[25] Pharmaceutical companies

developed vaccines, but the United States and other high-income countries purchased most of the supply, leaving LMICs without access.[26] When the U.S. government did not have enough vaccine for Americans, it reneged on its pledge to share its supplies, doing so only when the crisis was over.[27] The virus proved less lethal than originally feared, which prevented inequitable vaccine access from becoming a global health nightmare.

In the 2010s, the United States sustained commitment to PEPFAR and the Global Fund, responded to the Ebola epidemic in West Africa, and updated pandemic preparedness plans.[28] Obama launched the Global Health Security Agenda in 2014 with over forty countries and international partners to strengthen capabilities against infectious diseases.[29] He signed the Paris Agreement on climate change in 2015 to support more ambitious actions on global warming.[30] However, domestic and international politics changed in that decade, transforming the foreign policy context and reducing interest in global health.

U.S. politics became polarized, populistic, and nationalistic as discontent grew about armed conflicts, domestic economic problems, immigration, and China. The United States faced multiple foreign policy crises. Its war on terrorism continued to go badly, escalating the costs of "forever wars."[31] China and Russia challenged the United States and democracy globally.[32] China's rise, Russia's assertiveness, and democracy's decline ended American hegemony, restarted geopolitical competition, and threatened the U.S.-led international order. The domestic and international political conditions in which U.S. global health leadership emerged were gone.

Donald Trump's election as president in 2016 and his America First foreign policy reflected how much the changes in domestic politics affected global health policy. The Trump administration identified pandemics as a national security concern, as previous administrations had done.[33] However, pandemic preparedness and global health were not priorities. Before COVID-19, the administration

- emphasized immigration, terrorism, and organized crime as transnational threats;
- abolished the National Security Council's Directorate for Global Health Security and Biodefense;
- proposed cuts to foreign aid for global health;

- reduced health cooperation with China;

- failed to address the United States' continued lack of pandemic preparedness; and

- opposed climate change action, withdrew the United States from the Paris Agreement, and pursued policies that would increase U.S. greenhouse gas emissions.[34]

Internationally, China and Russia gained ground without emphasizing global health. China made inroads with LMICs without offering any programs like PEPFAR and receiving more from the Global Fund than it contributed.[35] China's Belt and Road Initiative (BRI) produced strategic advantages despite poor results from its health component.[36] Russia was not a global health leader. It projected military power beyond its borders, interfered with U.S. democracy, and worked with China to reduce U.S. influence and undermine democracies.

The first decade of the twenty-first century witnessed unprecedented U.S. global health involvement, which its proponents argued would help increase U.S. security and prosperity, promote democracy, and sustain an international system favorable to American interests. The second decade saw domestic and international politics change the foreign policy environment and undermine claims about the benefits of global health leadership. As the third decade loomed, the United States remained vulnerable to pandemics and climate change, but global health was receding in foreign policy importance.

Then came a killer pandemic.

A Tale of Two Administrations

COVID-19 triggered different reactions from the Trump and Joe Biden administrations. Trump did not lead the international response, which, according to foreign policy expert Thomas Wright, marked "the first time since the 1930s that the United States chose not to provide leadership during a global crisis."[37] COVID-19 demonstrated how dangerous pandemics are, but Trump's hostility to action against the other great transnational health threat—climate change—did not wane. In contrast, Biden sought to restore U.S. leadership. He wanted to defeat COVID-19, strengthen pandemic preparedness, and confront climate change to show that democracies can manage transnational threats.

Those antithetical approaches exposed how much pre-COVID changes in domestic and international politics damaged policy consensus on U.S. global health involvement. Those changes also revealed that, despite having different responses, the Trump and Biden administrations exhibited similarities important for understanding the new, more challenging context for foreign policy on global health.

THE TRUMP ADMINISTRATION

Public and global health were unimportant in the politics informing Trump's foreign policy, which departed from the bipartisanship associated with U.S. global health leadership.[38] Support for America First arose from domestic anger about unfair trade, elitist globalization, and illegal immigration, and from geopolitical concerns about China's rise against the backdrop of failed U.S. military interventions and ineffective multilateralism. Trump's desire to cut foreign aid, for example, reflected skepticism that such aid benefited Americans or helped

counter China. Trump tapped those domestic and geopolitical sources of his foreign policy when COVID-19 emerged, and he weaponized the pandemic for domestic political and geopolitical gain.

In January 2020, Trump praised Beijing's handling of the Wuhan outbreak to advance his bilateral trade agreement with China.[39] His failure in February to mount domestic responses illustrated how much COVID-19 threatened the economic growth important to his supporters.[40] After the United States began struggling with COVID-19 in March, the president blamed China, criticized—and then withdrew the United States from—the WHO, disrupted diplomatic attempts to coordinate pandemic policies, and did not support efforts on global vaccine availability, including the Access to COVID-19 Tools Accelerator (ACT-A).[41]

Domestically, Trump politicized the pandemic to motivate supporters, mobilize opposition to non-pharmaceutical countermeasures (for example, masking), interfere with public health agencies, and use public health authority to advance his anti-immigration agenda.[42] Those actions did not treat COVID-19 as a national security threat; indeed, they weakened public health capabilities, damaged collective action, and shredded the need for shared responsibilities—or solidarity—to overcome a common peril. The Trump administration's signature contribution was Operation Warp Speed (OWS), which accelerated vaccine development to protect Americans.[43] With China also developing vaccines, OWS became part of a geopolitical vaccine race.[44]

Trump's responses did not obscure a deeper problem predating his administration: the United States was not prepared for COVID-19, even though experts had warned for decades about the dangers of global pandemics.[45] That failure prompted efforts in 2020 to strengthen U.S. public and global health policies, capabilities, and collective-action strategies against pandemics.[46] The November 2020 elections would determine whether and how the United States would undertake reforms.

The outcomes of those elections indicated that America First was more successful as a political strategy than a public health one. Despite the COVID-related death, illness, economic carnage, social disruption, and political divisiveness, Trump nearly secured reelection, the Republican Party gained fifteen seats in the House of Representatives, and Republicans achieved strong results in state elections.[47] That performance by Trump and the Republican Party during a national catastrophe highlighted how little public and global health mean in contemporary U.S. politics.

THE BIDEN ADMINISTRATION

Biden entered office determined to revive U.S. global health leadership by defeating COVID-19, strengthening pandemic preparedness, and tackling climate change.[48] Thanks to OWS, he had vaccines to achieve his COVID-19 goal. His administration rejoined the WHO, supported ACT-A, used the Group of Seven (G7) and Group of Twenty to battle COVID-19, and supported public and global health reforms. On climate change, Biden pursued domestic legislation, rejoined the Paris Agreement, and made global mitigation and adaptation commitments.

However, Biden's efforts to resuscitate global health leadership in a polarized country and divided international system encountered difficulties. The forces that produced America First created policy challenges not seen in the heyday of U.S. global health involvement. Biden acknowledged that support for America First arose because U.S. foreign policy had failed to address the problems of working-class Americans. He promised a "foreign policy for the middle class."[49] The president also accepted that the United States faced geopolitical threats, especially from China.

Global health activities before COVID-19 provided no guidance about how a politically divided nation should compete geopolitically. Bipartisanship supported development and humanitarian efforts (for example, PEPFAR), but it fell short on pandemic preparedness and never materialized on climate change. Democrats argued that a foreign policy for the middle class should protect Americans from pandemics and climate change.[50] The U.S. government had done neither before COVID-19. The polarizing 2020 elections raised doubts about whether bipartisanship on both issues could emerge.

In foreign policy, the post–World War II period contained no evidence that global health activity generates geopolitical benefits. Global health was not important during the Cold War. After the initial post–Cold War period of American dominance, China and Russia weakened U.S. influence, changed the balance of power, and contributed to democracy's worldwide decline while the United States was the preeminent global health leader. Those geopolitical shifts also made collective action and solidarity on pandemic preparedness and climate change more difficult.

The transformation of domestic and international politics created problems for the Biden administration concerning COVID-19. Partisan politics embroiled it in the controversy over expelling migrants under a public health order issued during the Trump administration.[51]

The Biden administration initially practiced vaccine nationalism—ensuring available supplies were used first for Americans—to navigate the domestic political realities the president faced.[52] But as vaccine supplies increased, the administration began to engage in vaccine diplomacy—sharing supplies for geopolitical reasons—to leverage U.S. vaccines against China and Russia.[53]

Domestic politics and geopolitics similarly converged in policies on China. Biden continued Trump's hard line by, for example, criticizing Beijing's interference with the WHO's efforts to identify COVID-19's origin.[54] The administration prioritized bilateral diplomacy with China on climate change but not on pandemics, underscoring how potent COVID-19 hawkishness on China remained in U.S. politics.

Biden's bid to revive U.S. global health leadership included claims that such leadership was necessary to demonstrate that democracies can handle twenty-first-century threats, including pandemics and climate change.[55] However, after nearly two decades of U.S. global health leadership in the twenty-first century, many democracies proved unprepared for a pandemic, performed badly during COVID-19, and had inadequate climate change policies. That record undercuts the proposition that global health leadership can produce ideological benefits for the free world.

Throughout 2021 and 2022, COVID-19 faded in importance but remained divisive, while climate change became more controversial. At home, the vaccination campaign progressed, and COVID-19 variants caused less illness and death, even if the U.S. mortality rate was among the world's highest.[56] Other problems, such as abortion and inflation, dominated domestic politics. Congress passed Biden's COVID-19 relief plan with no Republican votes.[57] Democrats and Republicans could not agree to authorize a bipartisan effort—modeled on the 9/11 Commission—to investigate the pandemic tragedy.[58] Congress adopted some measures to strengthen pandemic preparedness, but those reforms were not commensurate with the scale of improvements needed.[59] With no Republican votes, Congress passed Biden's landmark climate legislation, aspects of which Republican leaders vowed to repeal.[60] The Biden administration's pursuit of global health leadership had no importance in the 2022 midterm elections.

Abroad, geopolitics marginalized global health in foreign policy. Chinese and Russian vaccine diplomacy wilted when their vaccines proved less effective than American ones. China's zero-COVID strategy failed, quashing claims about the superiority of its pandemic response.[61] The Biden administration's efforts to increase global

vaccine supplies were, critics argued, too little and too late.[62] China's intimidation of Taiwan and Russia's invasion of Ukraine constituted military threats the United States and other countries had to confront as a strategic imperative. The United States and other G7 members crafted a global infrastructure plan to counter China's evolving BRI.[63] The Ukraine war triggered energy security crises that contributed to the political controversies over, and woeful inadequacy of, climate mitigation and adaptation actions.[64]

Five Political Lessons

An examination of U.S. global health policy before and during COVID-19 offers important lessons about the United States' failure to protect vital national interests, develop public and global health capabilities, and maintain domestic and global solidarity against health threats.[65]

U.S. Foreign Policy on Global Health Failed to Protect the Range of National Interests Associated With Global Health Involvement

The purpose of foreign policy is to defend and advance a country's national interests in international relations. After the Cold War, policymakers claimed that global health involvement would help protect national security, enhance economic power, support development, provide humanitarian assistance, and promote democracy. COVID-19 exposed that global health activities did not support all those national interests, especially the vital ones in national security and economic power.

Despite decades of global health leadership, the United States was unprepared for a pandemic—the most dangerous acute health threat to its national interests. That leadership did not break the "crisis and complacency" pattern plaguing U.S. health security.[66] The U.S. government had more success reducing HIV/AIDS mortality in LMICs through PEPFAR than strengthening domestic pandemic preparedness. The United States and other governments increased development assistance for health (DAH) after the Cold War, but less than a cent of every dollar of DAH from 1990 to 2021 was spent on pandemic preparedness.[67]

The contrast between PEPFAR's success in saving lives in LMICs and the pandemic preparedness failure underscores how imbalanced

global health strategy became in serving national interests. The tragedies that COVID-19 unleashed did not arise because the United States was the preeminent global health actor. They happened because the United States did not treat public health as critical in protecting its national security and economic well-being.

Global health leadership also did not help stem democracy's worldwide decline. Many democracies—including Brazil, Canada, India, Japan, South Africa, and European Union members—helped raise global health's profile. Democracies claimed that global health activism promoted democracy by implementing democratic values and governance principles, including civil-society participation, transparency, and accountability.

However, many democratic countries struggled with COVID-19, shattering the belief that they were better prepared.[68] Democracy's decline happened when democracies exercised global health leadership. Many governments exploited COVID-19 to adopt authoritarian policies.[69] LMIC anger about high-income countries' climate policies challenged the credibility of democratic global health leadership. The lack of pandemic preparedness, the climate adaptation crisis, and authoritarianism's rise leave the community of democracies facing global health and ideological crises.[70]

U.S. Foreign Policy on Global Health Failed to Address the Climate Change Threat

Before COVID-19, U.S. global health policy did not prepare the country for climate change by tempering the policy whiplash on mitigation experienced across presidential administrations or by prioritizing adaptation. Echoing DAH on pandemic preparedness, donors have dedicated fewer resources to adaptation than mitigation, with health programs receiving only 0.5 percent of international adaptation financing.[71]

While COVID-19 raged, the climate adaptation crisis became undeniable.[72] In *The Fight for Climate After COVID-19*, Alice C. Hill argued that countries cannot "ignore the climate change impacts already drubbing the planet" or escape the "need to adapt."[73] The Intergovernmental Panel on Climate Change concluded that climate change is causing "adverse impacts on food and water security, human health and on economies and societies."[74] Climate change now constitutes a "severe and urgent crisis," a "clear and present danger," and the "greatest transboundary threat to health in the coming decades."[75]

That threat includes the

- emergence of pandemic pathogens;
- spread of epidemic and endemic diseases (for example, malaria);
- dangers of antimicrobial-resistant pathogens;
- harms from extreme weather (for example, extreme heat in urban areas); and
- damage to health determinants—such as access to water, food, housing, employment, and medical services—from disrupted ecosystems, damaged agricultural production, degraded infrastructure, and displaced populations.[76]

Climate-related health dangers create security, economic, development, and humanitarian risks to U.S. national interests. In a 2021 *Foreign Affairs* article, Thomas Wright argued that the United States needs to manage the "security consequences of accelerated climate change, such as extreme weather events that threaten large numbers of people."[77] The United States faces a domestic climate adaptation crisis.[78] LMICs will expect—and need—the United States to engage in collective action on adaptation. U.S. foreign policy on global health can no longer avoid the climate change threat.

Global Health Leadership Did Not Help the United States Protect the Liberal International Order

After World War II, the United States and like-minded democracies built a liberal international order and expanded it following the Cold War. That expansion included increased global health activities to support an international system favorable to leading democracies' interests. However, threats to the liberal international order emerged as the United States pursued global health leadership.

Before COVID-19, the hostility of the America First policy toward liberal internationalism undermined U.S. leadership of the liberal world order.[79] The policy's approach to COVID-19 and climate change damaged that order concerning global health. By contrast, Biden aligned his foreign policy, pandemic strategies, and climate actions to buttress the liberal order, but evidence is scarce

that his approach has reduced the threat from populism, nationalism, and polarization.

Internationally, China and Russia were not global health leaders but shifted the balance of power against American interests. U.S. global health efforts in Africa have not aligned with African countries' security and economic priorities, helping create opportunities across the continent for China and Russia.[80] Recipients of U.S. health assistance have featured in democracy's decline, maintained good relations with Russia, and joined China's BRI.[81]

Geopolitics also had adverse consequences for the liberal international order concerning COVID-19 and climate change. The pandemic threatened national security and economic power, which incentivized nationalism and unilateralism over collective action and solidarity. COVID-19 sparked ideological claims about authoritarian and democratic governance.[82] Geopolitics shaped arguments for and against climate action, exacerbating policy failures of high-income democracies and making climate change more dangerous for the liberal international order.[83]

Those outcomes highlight that global health leadership provided no advantages for defenders of the liberal international order. Claims that such leadership would produce soft power for the United States and help sustain an international system favorable to U.S. interests look quaint given the dangers posed by domestic political polarization and the return of geopolitical competition.

Investments in Biotechnology and the Pharmaceutical Industry Helped Protect Vital Interests

Assessments of the COVID-19 pandemic have analyzed the inadequacy of national and global health capabilities on pandemic preparedness and response.[84] For example, the COVID Crisis Group asserted that the United States responded to a "twenty-first-century challenge with a system designed for nineteenth-century threats" in ways that exposed the eroded "capabilities in much of American civilian governance"—despite decades of global health leadership and pandemic warnings.[85]

The development of vaccines, drugs, and diagnostics is one capability bright spot for the United States in the COVID-19 disaster. The U.S. biotechnology and pharmaceutical industries again delivered countermeasures against a dangerous pathogen. Those contributions harnessed prepandemic investments and advanced through OWS.

Genetic virus sequencing and vaccines emerged with unprecedented speed and scale, raising hopes for faster and larger-scale development of better technologies against future outbreaks.[86]

COVID-19 has reinforced the U.S. position that biotechnology and pharmaceutical capabilities constitute vital national assets. Biotechnology's potential to support climate mitigation and adaptation reinforces that position.[87] Pandemics and climate-related health threats provide incentives for doubling down on strategies—such as protecting IP rights—that stimulate biotech innovation. Those incentives bolster geopolitical motivations to make biotechnology a strategic capability.

Problems with the domestic vaccination campaign and global vaccine access do not weaken U.S. interests in enhancing the capabilities that delivered when the country faced the worst health crisis in its history. A "building even better" approach to the biotechnology and pharmaceutical industries will serve vital interests, but it will not resolve controversies about protecting IP rights and providing equitable access to health technologies.

COVID-19 and the Climate Adaptation Crisis Highlight the Need to Change U.S. Foreign Policy on Global Health, but the Political Obstacles to Transformation Are Formidable

The United States was unprepared for a pandemic and is not ready for climate change—despite global health involvement, warnings about both threats, and no competition from authoritarian countries for global health leadership. Those failures imperil existing programs, including PEPFAR.

The United States needs policy reform, but the obstacles to change are unprecedented. Bipartisanship on global health sunk no roots where populism, nationalism, and polarization have undermined domestic collective action and solidarity. Republican Party leaders are attacking public health and climate policies, and, since 2020, thirty state legislatures have adopted laws limiting public health authority.[88] That "disrupt and divide" dynamic is more dangerous than the crisis-and-complacency pattern.

COVID-19, climate change, and geopolitics have also damaged global collective action and solidarity on health. Solidarity suffered during COVID-19, with, for example, the WHO's director general calling vaccine nationalism "vaccine apartheid."[89] The pandemic

stoked LMIC interest in health sovereignty and regional autonomy.[90] Collective-action failures on climate change by high-income countries leave LMICs vulnerable.[91] Geopolitical competition prompts claims that global health activities deliver balance-of-power and ideological benefits, which makes collective action and solidarity on pandemics and climate adaptation more difficult.[92]

RECOMMENDATIONS

A new strategy for U.S. foreign policy on global health is needed to address the security, capability, and solidarity failures that COVID-19 and climate change have exposed. The strategy should realign global health policy to serve the full range of national interests and make protecting vital interests the top priority. Achieving that objective means rebuilding national and international public health capabilities.[93] Such rebuilding requires political solidarity to sustain collective action against pandemics and climate-related health threats. However, this strategy does not posit that U.S. global health policy will—amid geopolitical competition—meaningfully support an international system favorable to American strategic, ideological, and other political interests.

Security: Realign U.S. Policy on Public and Global Health to Protect Vital Interests

Framing public health as a security issue is not novel.[94] The past five presidential administrations have asserted that pandemics are national security threats.[95] Experts have long argued that climate change is a national security problem.[96] However, rarely has so much rhetoric about security produced so little action on security. The United States has manifestly failed to treat pandemics and climate change as threats to its vital interests.

COVID-19 and climate change have provoked reassessments of public and global health in U.S. interests that provide potential common ground in a polarized polity. For example, in January 2020, CFR Senior Fellow and former U.S. Ambassador Robert Blackwill defined vital

interests as those "conditions that are strictly necessary to safeguard and enhance Americans' survival and well-being in a free and secure nation."[97] Such conditions include ensuring "the viability and stability of major global systems (trade, financial markets, energy supplies, the environment, and freedom of the seas)."[98] Blackwill identified the climate as an environmental system important to vital interests.

In February 2021—a year into COVID-19—Blackwill and former U.S. diplomat and 9/11 Commission Director Philip Zelikow identified public health as a major global system whose viability and stability constitute a vital U.S. interest.[99] The pandemic demonstrated that failing to treat public health as a vital interest endangers American lives and well-being. Climate-related health threats compound that failure because public health systems are unprepared for them. U.S. public health has lacked the political center of gravity that vital interests provide. Having such a center would not ensure success, but it would attract high-level attention and funding—without which public health has suffered.[100]

The death, economic disruption, development setbacks, and humanitarian damage caused by COVID-19 and threatened by climate change should convince policymakers that public health is a global system whose effective operation protects Americans.[101] An effective global health system need not produce balance-of-power or ideological benefits to be a vital interest of the United States. However, past attempts to connect public health with vital interests did not stick. The "shock and awe" of COVID-19 will not sustain policy transformation. The United States needs strategies that make public health—as a global system—viable and stable enough to enhance American life and well-being and safeguard them against transnational threats.

Well-functioning global systems require domestic as well as foreign policy attention. U.S. foreign policy experts increasingly stress the need to improve national strategies, infrastructure, and institutions.[102] Realigning global health policy with vital interests also calls for domestic reforms.

To empower U.S. policy on public health to protect vital interests, the U.S. government should undertake the following reforms.

- **Strengthen the federal government's command-and-control system for national biosecurity.** COVID-19 overwhelmed the U.S. government—creating, according to retired U.S. Public Health Service Rear Admiral and former Assistant Surgeon General Kenneth Bernard, an "urgent need to rethink how the government organizes itself

for biosecurity threats."[103] In 2022, Congress restructured global health roles at the State Department and established a permanent White House Office of Pandemic Preparedness and Response Policy.[104] However, the scale of the government's failure calls for more than a proliferation of reforms.[105] Past reforms lacked the stability, commitment, and effectiveness to protect vital interests, and questions and criticism about the recent changes underscore that more work remains.[106] As Bernard proposed, the federal government should strengthen its biosecurity command-and-control structure through legislation as ambitious as the Goldwater-Nichols Department of Defense Reorganization Act of 1986.[107] That act unified the chain of command by breaking down silos among the military services. It forged joint planning, training, and staffing that made the services work together more effectively, as seen during Operation Desert Storm in 1991 and the implementation of counterinsurgency strategies in the 2000s.[108] U.S. biosecurity requires such unity of command and joint operational capabilities.

- **Implement and enhance national biosecurity, biotechnology, and climate change adaptation strategies.** The Biden administration has developed biosecurity, biotechnology, and climate adaptation strategies.[109] Congress has instructed the president to craft a global health security and diplomacy strategy.[110] The interest in strategies reflects the scale of changes required to prevent another pandemic disaster, harness biotechnology, and address climate-related health threats. The administration's plans are a starting point for protecting vital interests. However, merely adopting strategies does not produce success, as the lack of pandemic preparedness before COVID-19 illustrates. The U.S. government should implement, review, and improve the administration's biosecurity, biotechnology, global health security, and climate adaptation strategies with funding, transparency, monitoring, and accountability.

- **Adopt a health security production and supply act.** In responding to COVID-19, the U.S. government used the Defense Production Act of 1950 to increase the domestic supply of needed products.[111] That experience creates the opportunity to protect vital interests by adopting a Health Security Production and Supply Act focused on the specific challenges that health threats present. The act should authorize the executive branch to mandate the production of critical products during health emergencies, improve how the government supplies the National Strategic Stockpile, enhance manufacturing capacity, and

strengthen supply chains important to generating products needed in such emergencies.[112]

- **Create a commission to monitor progress on biosecurity and climate adaptation and propose reforms to strengthen policies.** The crisis-and-complacency pattern demonstrates that outside monitoring is needed to ensure that reforms deliver sustainable results. The government should establish a forward-looking commission modeled on the Cyberspace Solarium Commission, which has contributed to protecting U.S. interests in cyberspace.[113] Congress could establish and oversee an equivalent commission that would assess progress and propose reforms for biosecurity and climate adaptation to help protect vital interests against health threats.[114]

- **Turn the Global Health Security Agenda into a Global Health Security Alliance.** Protecting vital interests requires the highest levels of the U.S. government to treat public health as a global system. The United States should strengthen cooperation on pandemics, climate adaptation, and other health threats by transforming the Global Health Security Agenda into an alliance of committed countries, regional organizations, and nonstate actors.[115] As Colin Kahl and Thomas Wright argued in *Aftershocks: Pandemic Politics and the End of the Old International Order*, a geopolitically fragmented world needs a global health coalition of "likeminded states, regularly convening at the head-of-state level, working alongside nongovernmental and philanthropic organizations and private-sector actors."[116] Rather than forming a new group, the Global Health Security Agenda—with seventy member countries supported by international institutions, NGOs, and private-sector partners—provides a foundation for a more ambitious coalition.[117] Creating that alliance would signal the importance of collective action, support new capabilities within and among alliance members, and help reconstruct solidarity in global health.

Capability: Rebuild National and International Public Health Capabilities

Framing public health as a major global system important to protecting U.S. vital interests requires attention to the system's capabilities. COVID-19 and climate change have exposed that governments lack the means to manage pandemics and climate-related health threats.

COVID-19 has provoked proposals for strengthening pandemic preparedness.[118] The need for climate adaptation capacities has become urgent.[119] Realigning U.S. foreign policy on global health to protect vital interests requires strengthening domestic and international capabilities concerning pandemics and climate adaptation. This objective is important even though improving such capabilities is unlikely to create geopolitical advantages for the United States.

Pandemics and climate-related health threats also endanger development and humanitarian interests. Investments in capabilities to manage pandemics and climate adaptation will support the range of national interests associated with global health activities. However, not all development and humanitarian assistance for health helps protect vital interests.[120] That reality challenges arguments that funding for pandemic preparedness and climate adaptation should be new money rather than a combination of new funds and the reallocation of existing global health spending.[121]

Improving capabilities for pandemic preparedness and climate adaptation will consume significant resources. The price tag creates the need for triage as between domestic spending and foreign assistance, which will trigger more intense scrutiny of foreign aid, and as between different global health investments—all amid escalating controversies and crises over government spending.[122] The difficulty of trade-offs motivates the search for dual-use capabilities that protect against multiple threats and serve several national interests.

Such synergies are more plausible concerning pandemic preparedness than climate adaptation. PEPFAR and the Global Fund support capabilities (for example, laboratories) that can help pandemic responses.[123] However, surveillance, treatment, and immunization capabilities for infectious diseases are not designed for many climate adaptation needs created by extreme heat, drought, flooding, ecosystem degradation, infrastructure damage, and population displacement. Similarly, adaptation assistance for LMICs will not, in many cases, help the United States address climate-related health risks within its borders, which will increase opposition to such assistance.

To rebuild capabilities, the U.S. government should implement the following strategies.

- **Authorize funding for public health capabilities needed to protect vital interests through the National Defense Authorization Act (NDAA).** Biosecurity is national defense. The climate adaptation crisis underscores that strategic attention and funding for public health

capabilities are required to protect vital interests. The U.S. government should build and maintain such capabilities through the annual National Defense Authorization Act. The NDAA is one of the most important tools for defending the United States. COVID-19 motivated Congress to use the NDAA to strengthen health security.[124] Anchoring biosecurity and climate adaptation in the NDAA can prioritize and fund public health capabilities that protect vital interests.

- **Create state-level health security fusion centers to strengthen federalism on biosecurity, climate adaptation, and other public health threats.** The U.S. Constitution allocates significant public health authority to state governments.[125] COVID-19 produced concerns about weak capabilities at the state level and polarized politics on public health in many states.[126] Addressing those problems requires strengthening state capabilities and improving federal-state cooperation.[127] The U.S. government should authorize and fund health security fusion centers to enhance state-level capabilities and deepen federal-state cooperation on biosecurity, climate adaptation, and other health threats.[128] Such centers should develop "all hazard" capabilities, especially for managing the consequences of health events.[129] Coordinated, multifunctional capabilities can support responses to pandemics, other outbreaks, and climate-related health challenges.

- **Turn Operation Warp Speed into a standing capability to provide countermeasures in response to public health emergencies.** OWS was the most important capability the United States created and used during the pandemic. The U.S. government should translate the lessons learned from OWS into a standing capability to deliver countermeasures, such as diagnostics, vaccines, and antivirals, that support responses to pandemics, other pathogenic threats, and other health emergencies.[130]

- **Apply biotechnology innovations to U.S. public and global health activities that support pandemic preparedness and climate adaptation.** The government should harness the potential for a revolution in biotechnologies to strengthen U.S. public and global health activities, especially pandemic preparedness and climate adaptation. It should capture and disseminate the benefits from biotech innovation, including technologies that the Advanced Research Projects Agency for Health develops.[131] Geopolitical competition heightens interest in biotech, increasing biotech innovation's potential to support

U.S. public and global health efforts.[132] Harnessing the next generation of biotechnologies also provides incentives to develop new strategies on IP rights and technology transfer through, for example, the Global Health Security Alliance.

- **Develop "challenge accords" under the Global Health Security Alliance to strengthen public health capabilities against infectious diseases and climate change.** The Global Health Security Agenda supports project-based action among its members.[133] Turning the agenda into a Global Health Security Alliance should involve expanding the scope and ambition of member-driven cooperation through accords in which members cooperatively develop capabilities for shared health challenges. Alliance members should also pursue challenge accords with regional organizations to exploit interest in regional action against pandemics and climate change.[134] Such accords could also involve the WHO. Funds for pandemic preparedness and climate adaptation from PEPFAR, the Global Fund, the World Bank, development banks, voluntary contributions to the WHO, and philanthropic entities should finance challenge accords.

- **Create a Foreign Health Service to strengthen U.S. diplomatic capabilities.** Transforming U.S. foreign policy on global health requires upgrading diplomatic capabilities on health. The Biden administration and Congress acknowledged that need by reforming the State Department to improve U.S. health diplomacy.[135] However, strengthening health diplomacy should involve more than changes at the State Department. The Department of Health and Human Services provides most of the personnel for U.S. global health activities and struggles to staff them. As U.S. health diplomat Matthew Brown proposed, the U.S. government should create a Foreign Health Service—a cadre of health diplomats akin to the specialized diplomatic corps created for agriculture, commerce, development, and public relations.[136]

Solidarity: Reconstruct Solidarity in U.S. Policy on Public and Global Health

Effective public and global health activities require solidarity—the exercise of shared political and ethical responsibilities. The need for solidarity arises from the political imperative for collective action to counter transnational health threats and from health's ethical importance in

human well-being. The initial post–Cold War period experienced favorable conditions for solidarity in global health fostered by U.S. dominance, democracy's spread, expanded cooperation, and increased resource transfers from high- to low-income countries.

Those conditions are gone. Balance-of-power and ideological competition have returned to international relations, and the global health solidarity achieved in that earlier period has not mitigated the harshness of this development. The United States confronts geopolitical threats, democracies have struggled, authoritarianism has advanced, and high-income countries face expensive domestic needs concerning pandemic preparedness and climate adaptation.[137]

U.S. politics also do not reflect solidarity. Public health has never been the source and target of such divisive domestic politics.[138] U.S. politics on climate change remain partisan.[139] The 2022 midterm elections revealed little, if any, national appetite to address the pandemic disaster or confront climate change.

Internationally, geopolitical competition creates a difficult environment for reconstructing solidarity. Realpolitik machinations subordinate global health in foreign policy. Claims that global health efforts seek solidarity are suspect, especially where rival powers maneuver for influence (for example, in Africa).[140] Those geopolitical dynamics marginalize the ethical purpose of solidarity in foreign policy on global health.[141]

The damage that policy failures on COVID-19 and climate change have caused to the political and ethical aspects of solidarity require U.S. policymakers to reconstruct solidarity in public and global health. That endeavor will fail unless the U.S. government protects the nation's vital interests. COVID-19 demonstrated what happens to domestic and global solidarity when the United States is unprepared for health emergencies. The political imperative for collective action is stronger when vital interests are at stake, and more robust collective action increases the chances that ethical values, such as equity, can influence policy. Strengthening the exercise of shared political and ethical responsibilities in global health can help the United States protect its vital interests, even if that solidarity lacks geopolitical importance.

To reconstruct solidarity in public and global health, the U.S. government should undertake the following strategies.

- **Convene national health security summits to assess challenges to U.S. public health.** COVID-19 and climate change highlight the challenges that the constitutional allocation of public health powers

creates for protecting vital interests and maintaining domestic solidarity. Making federalism work more effectively requires more strategic interaction between the federal and state governments. The federal government should convene a national health security summit of federal and state leaders every two years—initially over one decade—to assess progress on, and design solutions for, strengthening public health. Those summits should develop action plans to guide the Health Security Fusion Centers.

- **Build on the climate change resilience efforts funded by climate change legislation through strategic cooperation between state and federal governments.** In 2021 and 2022, Congress appropriated billions of dollars to make communities and infrastructure more resilient to climate change.[142] That investment provides a foundation for strengthening climate adaptation in state policies and in federal-state cooperation.[143] Those plans should inform the work of the Health Security Fusion Centers.

- **Ensure funding for the G7 Global Infrastructure and Investment Partnership's health and climate change priorities to avoid more broken promises by democracies.** To counter the geopolitical threat posed by China's BRI, the G7 launched a Global Infrastructure and Investment Partnership to address infrastructure needs in LMICs. The partnership has identified the climate crisis and health security as areas of work.[144] High-income countries' past funding promises on global health and climate adaptation have not been fulfilled. Delivering on G7 funding commitments will be imperative for rebuilding solidarity in global health.

- **Design the U.S. capability built from Operation Warp Speed to partner with foreign entities that are producing or seeking to make countermeasures to enhance global capacity to respond to health emergencies.** Inequitable global access to COVID-19 vaccines sparked efforts to increase national, regional, and global capacities to produce countermeasures for health emergencies.[145] The U.S. government has pledged funds to build vaccine-manufacturing capability in Africa.[146] Such assistance should connect those foreign efforts with the U.S. capability built from OWS. That approach would support collective action and shared responsibilities on expanding global countermeasure production capacity.

- **Use the Global Health Security Alliance as a catalyst for making public health operate as a viable and more equitable global system.** Ensuring public health's viability and stability as a global system requires a center of gravity. Geopolitics undermine multilateralism's prospects. Bilateralism and regionalism are too narrow given the challenges global health diplomacy faces. Using democracy as the organizing principle lacks credibility, as experts seeking foreign policy transformation in other areas have argued.[147] The Global Health Security Alliance should be the diplomatic engine for reconstituting the exercise of shared political and ethical responsibilities in global health.

CONCLUSION

A devastating pandemic and the climate adaptation crisis are forcing the United States to face a painful reckoning on public and global health. A new moment of transformation for U.S. foreign policy on global health has arrived. The U.S. government should, at long last, treat pandemics and climate change as threats to every national interest—but especially the vital interests neglected in global health activity before COVID-19.

Unfortunately, the imperative of transformation arrives as U.S. foreign policy on global health faces the worst domestic and international political conditions it has ever encountered. Domestic politics are polarized over the pandemic and climate change. The lack of common cause at home threatens the credibility, financing, and sustainability of U.S. foreign policy on global health. Geopolitics now drive U.S. foreign policy, and global health leadership means little, if anything, in the struggle among the great powers.

However, the dangers that pathogens and climate change create will not abate because domestic and international politics are hostile to transforming U.S. foreign policy on global health. Crises are coming fast and hot. There will be no time for complacency, no progress in partisan politics, and no benefits from geopolitical machinations.

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95. For the latest such statement, see White House, *National Security Strategy* (October 2022), http://whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf, p. 28.

96. See, e.g., CNA Corporation, *National Security and the Threat of Climate Change* (Alexandria: CNA Corporation, 2007), http://cna.org/archive/CNA_Files/pdf/national%20security%20and%20the%20threat%20of%20climate%20change.pdf; U.S. Department of Defense, *Quadrennial Defense Review Report* (February 2010), http://dod.defense.gov/Portals/1/features/defenseReviews/QDR/QDR_as_of_29JAN10_1600.pdf, p. 84.

97. Robert D. Blackwill, *Implementing Grand Strategy Toward China* (New York: Council on Foreign Relations, 2020), http://cfr.org/report/implementing-grand-strategy-toward-china, p. 11.

98. Blackwill, *Implementing Grand Strategy Toward China*, p. 11.

99. Robert D. Blackwill and Philip Zelikow, *The United States, China, and Taiwan: A Strategy to Prevent War* (New York: Council on Foreign Relations, 2021), http://cfr.org/report/united-states-china-and-taiwan-strategy-prevent-war, p. 4.

100. See Council on Foreign Relations, *Confronting Reality in Cyberspace: Foreign Policy for a Fragmented Internet* (New York: Council on Foreign Relations, 2022), http://cfr.org/report/confronting-reality-in-cyberspace. Even though cyberspace has been a U.S. national security and foreign policy priority, U.S. policies have not been effective.

101. Other proposals to strengthen U.S. policies on pandemics and climate change also use security concepts to frame recommended improvements. See, e.g., Willetts and Haines, *Managing the Risks of Climate Change* and COVID Crisis Group, *Lessons From the COVID War*.

102. Richard Haass, "The Dangerous Decade," *Foreign Affairs* (September/October 2022), http://foreignaffairs.com/united-states/dangerous-decade-foreign-policy-world-crisis-richard-haass, p. 38. Haass writes that the "biggest risk to U.S. security in the decade to come is to be found in the United States" because a "country divided against itself cannot stand; nor can it be effective in the world" because it "will not be viewed as a reliable or predictable partner or leader." See also the Council on Foreign Relations' Renewing America initiative, http://cfr.org/programs/renewing-america.

103. Kenneth Bernard, "Biodefense Leadership and National Security: Lessons from the Goldwater-Nichols Reforms," Think Global Health, April 4, 2022, http://thinkglobalhealth.org/article/biodefense-leadership-and-national-security-lessons-goldwater-nichols-reforms.

104. James M. Inhofe National Defense Authorization Act for Fiscal Year 2023, Public Law No. 117–263 (adopting the Global Health Security and International Pandemic

Prevention, Preparedness, and Response Act of 2022), Title LV—Foreign Affairs Matters, Subtitle D—International Pandemic Preparedness, Section 5562(b) and (c); Consolidated Appropriations Act of 2023, Public Law No. 117–328 (adopting the Prepare for and Respond to Existing Viruses, Emerging New Threats, and Pandemics Act [PREVENT Pandemics Act]), Section 2104.

105. In addition to those congressionally enacted changes, reforms have been made and proposed within the Department of Health and Human Services, including the need to overhaul the Centers for Disease Control and Prevention. See J. Stephen Morrison and Tom Inglesby, *Building the CDC the Country Needs* (Washington, DC: Center for Strategic and International Studies, 2023), http://csis.org/analysis/building-cdc-country-needs. The COVID Crisis Group also recommended establishing a "national health security enterprise." COVID Crisis Group, *Lessons From the COVID War*.

106. In 2013, Kenneth Bernard observed that "President Clinton established a health and security office at the White House; it was abolished by President Bush in 2001, and then reestablished and expanded after the 2001 anthrax attacks. . . . The incoming Obama administration reorganized the NSC [National Security Council] and . . . abolished the Health and Security Directorate." In 2014, the Obama administration then created a Global Health Security and Biodefense Directorate, which the Trump administration eliminated. That history led Bernard to ask, "How can we avoid the need to create a new leadership structure every time we are confronted with a new biologic threat?" Bernard, "Health and National Security." See also Kenneth Bernard, "A Future Pandemic Is Inevitable. To Fight It Effectively, Treat It Like War," *Newsweek*, August 18, 2021, http://newsweek.com/2021/08/27/future-pandemic-inevitable-fight-it-effectively-treat-it-like-war-opinion-1620408.html; Rachel Cohrs, "Pandemic Response Gets a Permanent New Home at the White House," STAT, December 22, 2022, http://statnews.com/2022/12/22/pandemic-response-gets-a-permanent-home-at-the-white-house; Emily Bass, "PEPFAR's Twentieth Anniversary Might Be Its Last," Think Global Health, January 24, 2023, http://thinkglobalhealth.org/article/pepfars-twentieth-anniversary-might-be-its-last.

107. Bernard, "Biodefense Leadership and National Security"; Bernard, "A Future Pandemic Is Inevitable." See also Goldwater-Nichols Department of Defense Reorganization Act of 1986, Public Law No. 99–433, http://congress.gov/bill/99th-congress/house-bill/3622/text.

108. For more on the Goldwater-Nichols Act, see John Hamre, "Reflections: Looking Back at the Need for Goldwater-Nichols," Center for Strategic and International Studies, January 27, 2016, http://csis.org/analysis/reflections-looking-back-need-goldwater-nichols.

109. White House, *National Biodefense Strategy and Implementation Plan*, October 2022, http://whitehouse.gov/wp-content/uploads/2022/10/National-Biodefense-Strategy-and-Implementation-Plan-Final.pdf; President Joe Biden, Executive Order 14081, *Advancing Biotechnology and Biomanufacturing Innovation for a Sustainable, Safe, and Secure American Bioeconomy*, September 12, 2022, http://whitehouse.gov/briefing-room/presidential-actions/2022/09/12/executive-order-on-advancing-biotechnology-and-biomanufacturing-innovation-for-a-sustainable-safe-and-secure-american-bioeconomy. On climate change, see White House, *President's Emergency Plan for Adaptation and Resilience (PREPARE) Action Plan*, September 2022, http://whitehouse.gov/wp-content/uploads/2022/09/PREPARE-Action-Plan.pdf; U.S. Agency for

International Development (USAID), *Climate Strategy 2022–2030*, April 21, 2022, http://usaid.gov/policy/climate-strategy; and President Joe Biden, Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*, January 27, 2021, http://whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad.

110. National Defense Authorization Act for Fiscal Year 2023, Section 5562(1).

111. Defense Production Act of 1950, Public Law No. 81–774, http://uscode.house.gov/view.xhtml?path=/prelim@title50/chapter55&edition=prelim. On the act and how it was used during COVID-19, see Anshu Siripurapu, *What Is the Defense Production Act?* (Council on Foreign Relations In Brief, December 22, 2021), http://cfr.org/in-brief/what-defense-production-act.

112. Subtitle D (Modernizing and Strengthening the Supply Chain for Vital Medical Products) of the PREVENT Pandemic Acts included provisions on those objectives on which the proposed Health Security Production and Supply Act could build.

113. Congress established the U.S. Cyberspace Solarium Commission through the National Defense Authorization Act for Fiscal Year 2019, and it reauthorized the commission in the National Defense Authorization Act for Fiscal Year 2021. See U.S. Cyberspace Solarium Commission, http://solarium.gov. The commission has continued after its congressional mandate expired. See Cyberspace Solarium Commission 2.0 Project, http://cybersolarium.org; U.S. Cyberspace Solarium Commission, *2021 Annual Report on Implementation*, http://solarium.gov/public-communications/2021-annual-report-on-implementation.

114. As established by Congress, the Cyberspace Solarium Commission had fourteen commissioners, with two members from each chamber of Congress representing both political parties, four executive branch officials, and six from outside the legislative and executive branches of government selected by congressional leadership. A national commission on biosecurity and climate adaptation could have a similar composition of members.

115. Global Health Security Agenda, http://cdc.gov/globalhealth/security/what-is-ghsa.htm.

116. Kahl and Wright, *Aftershocks*, p. 337.

117. Centers for Disease Control and Prevention, *Key Achievements of GHSA*, May 19, 2022, http://cdc.gov/globalhealth/resources/factsheets/5-years-of-ghsa.html.

118. See, e.g., Council on Foreign Relations, *Improving Pandemic Preparedness: Lessons From COVID-19*; Independent Panel for Pandemic Preparedness and Response, *COVID-19: Make It the Last Pandemic*; and COVID Crisis Group, *Lessons From the COVID War*. COVID-19 has also stimulated initiatives that seek to bolster U.S. public health capabilities. See, e.g., AmeriCorps, Public Health AmeriCorps, http://americorps.gov/about/what-we-do/public-health-americorps.

119. Hill, *The Fight for Climate After COVID-19*, pp. 11–19.

120. The incentives that COVID-19 has created to reform U.S. global health strategy have raised concerns that such reforms could damage successful programs such as PEPFAR. See Bass, "PEPFAR's Twentieth Anniversary Might Be Its Last."

121. Group of 20 High Level Independent Panel on Financing the Global Commons for Pandemic Preparedness and Response, *A Global Deal for Our Pandemic Age*

(June 2021), http://pandemic-financing.org/report/foreword. This panel argued that resources to improve pandemic preparedness should be new money to prevent reallocation of funds from existing global health programs.

122. Noah Berman, *What Happens When the U.S. Hits the Debt Ceiling?* (New York: Council on Foreign Relations, 2023), http://cfr.org/backgrounder/what-happens-when-us-hits-its-debt-ceiling.

123. Mark P. Lagon, "Why the Global Fund Is Important to U.S. Foreign Policy," Think Global Health, August 17, 2022, http://thinkglobalhealth.org/article/why-global-fund-important-us-foreign-policy.

124. Congress adopted the Global Health Security and International Pandemic Prevention, Preparedness, and Response Act of 2022 as part of the National Defense Authorization Act for Fiscal Year 2023 (Title LV—Foreign Affairs Matters, Subtitle D—International Pandemic Preparedness).

125. U.S. Constitution, Tenth Amendment, http://constitution.congress.gov/constitution/amendment-10.

126. COVID Crisis Group, *Lessons From the COVID War*.

127. See, e.g., PREVENT Pandemics Act, Section 2111 (Improving State and Local Public Health Security) and Section 2211 (Modernizing State, Local, and Tribal Biosurveillance Capabilities and Infectious Disease Data).

128. The fusion centers created after the September 11 terrorist attacks are the model for this recommendation. Those centers "are state-owned and operated centers that serve as focal points in states and major urban areas for the receipt, analysis, gathering and sharing of threat-related information between State, Local, Tribal and Territorial (SLTT), federal and private sector partners." U.S. Department of Homeland Security, "Fusion Centers," http://dhs.gov/fusion-centers. The COVID Crisis Group noted that one of the "heroic improvisations" undertaken during COVID-19 involved local and state efforts among governors, mayors, and citizens to develop "fusion cells" that "linked health departments, healthcare providers, emergency managers, business and community leaders." COVID Crisis Group, *Lessons From the COVID War*.

129. Kayyem, *The Devil Never Sleeps.*

130. See Adam Cancryn and Erin Banco, "Biden's Operation Warp Speed Revival Stumbles Out of the Gate," *Politico*, October 5, 2022, http://politico.com/news/2022/10/05/white-house-warp-speed-covid-vaccine-research-funding-00060448. Interest in translating Operation Warp Speed into a sustained capability has encountered difficulties. The PREVENT Pandemics Act included provisions to improve "domestic manufacturing surge capacity and capabilities." See PREVENT Pandemics Act, Section 2401.

131. PREVENT Pandemics Act, Section 2331 (establishing an Advanced Research Projects Agency—Health).

132. Ryan Morhard, "Programmable Biology Puts Biotech on the Geopolitical Agenda," *Lawfare*, November 21, 2022, http://lawfareblog.com/programmable-biology-puts-biotech-geopolitical-agenda.

133. White House, *Strengthening Health Security Across the Globe: Progress and Impact of U.S. Government Investments in Global Health Security—2021 Annual Report*, http://

whitehouse.gov/wp-content/uploads/2023/01/GHSA_ProgressImpact_2022_v5_FINAL_WEB_SINGLE_508v3.pdf.

134. John Nkengasong, "A New Public Health Order for Africa," *International Monetary Fund Finance & Development*, December 2021, http://imf.org/en/Publications/fandd/issues/2021/12/Public-Health-Order-Africa-Nkengasong; Evaborhene Aghogho Nelson, Sheila Mburu, and Cynthia Waliaula, "Building a New Public Health Order for Africa," Think Global Health, February 23, 2023, https://www.thinkglobalhealth.org/article/building-new-public-health-order-africa.

135. Secretary of State Antony J. Blinken, *Plans for a Bureau of Global Health Security and Diplomacy*, December 13, 2022, http://state.gov/plans-for-a-bureau-of-global-health-security-and-diplomacy; NDAA for Fiscal Year 2023, Section 5562(b) and (c).

136. Matthew Brown, "The United States Needs a Foreign Health Service," Think Global Health, November 7, 2022, http://thinkglobalhealth.org/article/united-states-needs-foreign-health-service.

137. The reasons given to explain democracy's travails usually focus on problems unassociated with global health. For example, Samantha Power, the director of the U.S. Agency of International Development, argued that "a host of interrelated factors contribute to democracy's struggles: polarization, significant inequality and widespread economic dissatisfaction, the explosion of disinformation in the public sphere, political gridlock, the rise of China as a strategic competition of the United States, and the spread of digital authoritarianism aimed at repressing free expression and expanding government power." Samantha Power, "How Democracy Can Win," *Foreign Affairs*, February 16, 2023, http://foreignaffairs.com/united-states/samantha-power-how-democracy-can-win-counter-autocracy. Similarly, the strategic priorities of Biden's Presidential Initiative for Democratic Renewal do not include global health. See White House, *Fact Sheet: Announcing the Presidential Initiative for Democratic Renewal*, December 9, 2021, http://whitehouse.gov/briefing-room/statements-releases/2021/12/09/fact-sheet-announcing-the-presidential-initiative-for-democratic-renewal.

138. See, e.g., James G. Hodge, "COVID-19's Repercussions on Public Health Law and Policy in the United States," Think Global Health, May 3, 2022, http://thinkglobalhealth.org/article/covid-19s-repercussions-public-health-policy-and-law-united-states.

139. Siegel and Tamborrino, "GOP's Debt-Limit Plan Would Gut Biden's Climate Law."

140. "The New Scramble for Africa," *The Economist*, March 7, 2019, http://economist.com/leaders/2019/03/07/the-new-scramble-for-africa.

141. The travails of domestic and international solidarity witnessed during COVID-19 have generated interest in exploring the role of trust in public and global health and how to improve trust in divided countries and a fragmented world. See, e.g., Thomas J. Bollyky, Ilona Kickbusch, and Michael Bang Petersen, "How to Fight Pandemics in a Divided Country," *Foreign Affairs*, January 30, 2023, http://foreignaffairs.com/united-states/trust-gap-fight-pandemic-divided-country; Jack Leslie, "The Crisis of Trust in Public Health," Think Global Health, February 14, 2023, http://thinkglobalhealth.org/article/crisis-trust-public-health.

142. Infrastructure Investment and Jobs Act of 2021, Public Law No. 117-58, http://congress.gov/bill/117th-congress/house-bill/3684/text.

143. Coral Davenport and Christopher Flavelle, "Infrastructure Bill Makes First Major U.S. Investment in Climate Resilience," *New York Times*, November 6, 2021, http://nytimes.com/2021/11/06/climate/infrastructure-bill-climate.html.

144. White House, *Fact Sheet: President Biden and G7 Leaders Formally Launch the Partnership for Global Infrastructure and Investment*.

145. See, e.g., Lisa Schnirring, "WHO: Africa mRNA Vaccine Hub Expands to 6 Nations," CIDRAP, February 18, 2022, http://cidrap.umn.edu/who-africa-mrna-vaccine-hub-expands-6-nations; Stephanie Nolen, "Can Africa Get Close to Vaccine Independence? Here's What It Will Take," *New York Times*, April 25, 2023, http://nytimes.com/2023/04/25/health/africa-vaccine-independence.html.

146. White House, *Fact Sheet: U.S.-Africa Partnership in Health Cooperation*, December 13, 2022, http://whitehouse.gov/briefing-room/statements-releases/2022/12/13/fact-sheet-u-s-africa-partnership-in-health-cooperation.

147. See, e.g., Council on Foreign Relations, *Confronting Reality in Cyberspace: Foreign Policy for a Fragmented Internet*.

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A New U.S. Foreign Policy for Global Health: COVID-19 and Climate Change Demand a Different Approach

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Cover photo: Medical staff members wearing protective outfits wait to test arriving passengers for COVID-19 at the harbor in Palermo in Sicily, Italy, on December 15, 2020.
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