

# International Cooperation Failures in the Face of the COVID-19 Pandemic

Learning from Past Efforts to  
Address Common Threats



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AMERICAN ACADEMY OF ARTS & SCIENCES



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Cover image: Workers handle boxes of Oxford/AstraZeneca COVID-19 vaccines, part of the COVAX program that aims to ensure equitable access to COVID-19 vaccinations, after they arrived by plane at the Ivato International Airport in Antananarivo, Madagascar, on May 8, 2021. Photo by Mamyrael/AFP via Getty Images.

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# Acknowledgments

The American Academy's project on *Rethinking the Humanitarian Health Response to Violent Conflict* brings together legal and security experts, health professionals, leaders of humanitarian organizations, policy-makers, artists, and representatives of victimized communities to confront the current crisis in humanitarian protection and the provision of health services in areas plagued by armed conflict. The project is based on the premise that new approaches are best derived from a deeper, transdisciplinary understanding of the changing political, military, legal, and health dimensions that are dramatically redefining humanitarian challenges throughout the world. The initiative's overarching goals include helping to define new strategies for the effective provision of humanitarian health responses to populations in need. To ensure the relevance of its work in the face of the COVID-19 pandemic, the project adopted a pragmatic approach to the changing environment and evolving humanitarian needs by examining underlying issues that undermine effective humanitarian responses, such as a lack of global cooperation on pandemic preparedness and response.

This publication, *International Cooperation Failures in the Face of the COVID-19 Pandemic: Learning from Past Efforts to Address Common Threats*, by project cochair Jennifer M. Welsh, reflects on the findings of the project's work on global cooperation on pandemic preparedness and response. It builds on a set of interdisciplinary meetings with experts on responses to a range of common threats to humanity—such as weapons of mass destruction and environmental degradation—and a deeper examination of the international relations literature on intergovernmental cooperation. The paper draws from this research and provides insight on what lessons can be learned from historical or analogous cases of efforts to strengthen state cooperation in situations of intense geopolitical rivalry and existential risk, including through the design of institutions and agreements to incentivize cooperation, the cultivation of trust through confidence-building, and the engagement of major powers.

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# Executive Summary

While COVID-19 presented a “once in a generation” challenge to states and their leaders, the past two years have witnessed the devastating impact of the failure to address the pandemic as a shared global problem.<sup>1</sup> Cooperation broke down across a variety of multilateral settings as states retreated inward with unilateral and competitive strategies. Several reasons for this foundering of international cooperation have been suggested, including weaknesses in institutional design, the intensification of geopolitical rivalry, populist skepticism about scientific advice and guidance, and nationalist pressures to deprioritize the global commons.

As part of the deliberations on what went wrong and what reforms might contribute to more effective pandemic preparedness and response going forward, the American Academy of Arts and Sciences’ Rethinking the Humanitarian Health Response to Violent Conflict project engaged in a process of expert consultation and research to **specify the nature of the cooperation problem** confronting today’s policy-makers, the preconditions for effective cooperation that have been identified in the academic literature, and the ways in which cooperative arrangements could be and have been designed. By convening leading global health experts with scholars working in other policy domains—such as the environment, human rights, and weapons of mass destruction—we examined why cooperative arrangements have succeeded or failed and how barriers to cooperation might be overcome. Our process also generated recommendations for states and other actors as they prepare for the high-level diplomatic discussions on potential changes to our global health architecture to better meet the challenges of infectious disease.

## How Cooperation Failed During COVID-19

The domain of pandemic preparedness and response is best analyzed through a “polycentric” lens, whereby multiple actors participate in global policy-making. Yet, **despite the prevalence of nonstate actors and cooperative partnerships** in global health governance, policy-making in **the early phases of the pandemic seemed to revert to a more traditional, state-centric model**. States engaged in forms of global policy *competition*, racing

1. While the author consulted a range of experts both inside and outside the American Academy of Arts and Sciences for this study, the views expressed here are her own.

after scarce resources and following “beggar-thy-neighbor” strategies. Where state interaction did occur, it largely took the form of ad hoc “policy borrowing,” or emulation of jurisdictions that seemed to be succeeding in addressing the pandemic, rather than a conscious effort to coordinate.

As the pandemic unfolded, forms of coordination did develop—including over the sharing of treatment results and the synchronization of fiscal action to address the economic effects of the crisis. In addition, the transnational scientific community—in collaboration with the private sector—saw spectacular success in its efforts to develop a vaccine to treat COVID-19. However, **more substantive *political cooperation***—which **requires repeated and structured interactions, harmonized policies, and reciprocal commitments to reach a common goal**—remained elusive. Key intergovernmental bodies, such as the United Nations (UN) Security Council, served primarily to showcase deep division within the international community. National action, particularly on the mobilization of financial resources, continued to dwarf efforts in global cooperation, and states exhibited a range of reactions to scientific advice—including, in some cases, defiant rejections of effective countermeasures.

## Understanding Pandemic Preparedness and Response Before COVID-19

The evolving “regime complex” for pandemic preparedness and response has been shaped by two main policy approaches: a **security framework**, which emphasizes the need to contain the threats posed to prosperity and stability from uncontrolled pandemics; and a **solidarity framework**, which stresses the importance of equity in achieving broader global health outcomes. The former approach was manifest in several public-private and institutional partnerships prioritized by the developed world in the 1990s and 2000s; the latter approach was reflected in a series of health initiatives in the 1970s and early 1980s, including the World Health Organization’s (WHO) Global Strategy for Health for All. **But a tension between these two frames has persisted**, constituting a leading challenge for policy-makers in efforts to sustainably address the challenge of infectious diseases with pandemic potential.

The core element of the current architecture for governing pandemics—the WHO’s **International Health Regulations (IHR, 2005)**—is built on the twin imperatives of developing states’ “core capacities” to prevent and respond to pandemics and the duty of states to report “early and often” on disease events. Yet these **regulations suffer from the same weaknesses as many other contemporary international agreements**, including the right of states to either apply national health measures going beyond the

WHO's recommendations (for example, on trade and travel restrictions) or to breach some obligations through invocation of the "necessity principle"; limitations on the WHO's authority and right of independent initiative; and ample space for states to exercise political influence.

Despite reforms designed to improve pandemic preparedness and response, **key deficiencies in the WHO-led system** thus remained, which **hampered the chances for a timely and effective response to COVID-19**. Aside from ongoing compliance problems with the "core capacity" requirements of the IHR (2005), the pandemic highlighted the limits of what the WHO, created and financed by states, can do in the face of a global pandemic. First, while it does have processes and procedures for information gathering, its resources and operational capacity were never designed to be a *comprehensive* system of global surveillance that would extend even to high-income and high-capability countries that might be located in the initial epicenter of an outbreak. Second, although the 2005 reforms to the IHR give the WHO's director-general authority to signal that a member state is not cooperating effectively or to declare a "public health emergency of international concern" (PHEIC) over a state's objections, the *exercise* of that discretionary authority is ultimately dependent upon the individual occupying this role.

Beyond the WHO, additional elements of the "regime complex" for pandemic preparedness and response have developed over recent decades to enhance compliance with the IHR—such as the Global Health Security Agenda. Moreover, **states and other actors have attempted to deliver critical "global public goods,"** such as higher-quality surveillance and timely alerts and the sharing of leading-edge research and development on pathogens. These efforts have nonetheless encountered **difficulties that constrain the supply of all global public goods:** the unwillingness of states to incur the material and political costs to realize the public good; and the need to engage in cooperative action both "at the border" and "behind the border" (i.e., passing and implementing domestic legislation).

Responses to both H5N1 and COVID-19 illustrate that states have not always perceived global health goods to be truly "public" and have thus competed over what they believe to be scarce resources. These underlying political realities are exacerbated by **differences in states' capacities and vulnerabilities,** which **shape their responses to health risks**. There is thus a disjuncture between what high-income countries think is a global public good and thus are willing to pay for (e.g., rapid sharing of information about disease outbreaks from around the world) and what low-income countries most want to improve their provision of health-related public goods domestically (i.e., material resources from high-income countries).

## Addressing Cooperation Problems: Lessons from the Field of International Relations

Academic research points to **several factors that can affect the likelihood and ease of cooperation**, including the number of participants involved in a collective action problem, the scope of a cooperative endeavor, the time horizon for cooperation, the frequency of interactions, and the quality of information actors have about the performance of others. **Cooperation in the field of pandemic preparedness and response is particularly complex because it entails many participants, takes place over a long period of time, and is multifaceted in scope.** The need to base pandemic preparedness and response on a common scientific and epidemiological foundation intensifies this complexity, as well as the severity of key cooperation problems.

Regardless of the issue area, scholars have identified **a set of recurrent cooperation problems** that states face either in isolation or in combination when they attempt to solve common problems or realize joint gains. They have further demonstrated how formal institutions can facilitate cooperation among states by establishing focal points for coordinated action, reducing uncertainty about the behavior of others, and reducing the costs of making and enforcing agreements. **Cooperative arrangements will emerge and succeed, however, only if states understand the *type and structure of the cooperation problem* they are facing, and if such arrangements incorporate the right “design features” to confront these underlying issues.**

Much of the commentary on pandemic preparedness and response has framed the challenge through a “public good” lens and argued that enforcement mechanisms are needed to address problems of “free riding.” Our analysis questions that assumption and draws attention instead to the **distribution problems that have shaped policy-making** in this domain as a result of the differences in state capacities. First, while low-income countries benefit from the same disease outbreak information without expending the same financial resources as high-income countries—technically an instance of free riding—this situation does not deliver the former tangible benefits if they cannot improve their capacity to act on such information. Second, even in the face of a pathogen like COVID-19, high-income countries can take steps to protect themselves, regardless of what low-income countries do in their domestic policy. The mantra “no one is safe until everyone is safe” is a powerful moral imperative, but not all actors accept its validity, either epidemiologically or politically. **Current deliberations on institutional reform must attend to distributional issues and address developing countries’ concerns about creating more obligations without corresponding financial mechanisms** to enable their fulfillment.

Cooperation on pandemic preparedness and response has also been affected by **states' uncertainty over how other states will behave**—most notably whether they will “defect” from negotiated provisions related to **reporting and response**. While the IHR (2005) are partly designed to address this temptation to defect, issues with information sharing around human-to-human transmission during the early months of COVID-19 reveal the persistence of this problem. The potential for defection is made more challenging by the fact that **pandemics are both a *transnational* threat** that requires some level of international cooperation (and thus the minimization of incentives to defect), **as well as a *national* threat** that requires the exercise of extensive sovereign powers—which increases **incentives to defect if compliance is perceived to pose excessive limits on sovereignty**.

## Overcoming Cooperation Problems Through Institutional Design

The ideal institutional arrangements would include norms and systems through which states could share the burdens and benefits of effective pandemic preparedness and response; make space for nongovernmental actors as sources of information and assessment; and establish the right balance between ensuring accountability and responsiveness to member states while at the same time maintaining sufficient insulation from political pressures. As diplomats and policy-makers grapple with what is achievable in a *nonideal* context, the research on international cooperation and institutional design offers a series of lessons.

- While the global distribution of power matters, **power functions in a variety of ways** within institutional arrangements, and strong states do not always get their way. COVID-19's clear demonstration of international interdependence presents opportunities for low-income countries to bargain for the assistance they have long demanded. Past instances in which great-power rivals have jointly addressed a common threat also indicate that the escalating competition between China and the United States does not necessarily foreclose cooperative arrangements in pandemic preparedness and response. However, it does suggest that alternative and more informal mechanisms for dialogue will be critical prior to (or alongside) any broader multilateral process.
- **Universal membership is not always essential**. Since greater numbers and heterogeneity may make compromises and compliance harder to achieve, some schemes might call for a smaller initial membership and a gradual expansion of the boundaries of feasible cooperation.

- **Monitoring by nonstate actors** works best as a **complement to**, rather than substitute for, more formal, treaty-based monitoring systems. Given that information sharing in the realm of infectious disease cannot operate without governments, additional efforts will be required to create space for public health “whistleblowers” to act on their professional ethics and leverage existing transnational networks.
- While the need for **impartial verification and investigation** continues to be highlighted in analyses of COVID-19, experience from other domains demonstrates that expert inspections can never be fully independent if they are connected to intergovernmental organizations and the states that create them.
- **Domestic actors and interest groups** can play a positive role in promoting deeper forms of international cooperation and in enhancing compliance through processes of “naming and shaming.” However, populist dynamics within states are increasingly acting as a break on multilateral cooperation.
- **Inclusive structures and peer-to-peer dialogue** can strengthen the normative power of a cooperative arrangement—thereby generating greater buy-in—as well as elicit more-productive engagement from reluctant states. Universal periodic review processes enable countries to assess capacities *collectively* and support one another as peers, thereby contributing to a common accountability framework.

## Assessing Proposals for Reform of Pandemic Preparedness and Response

Comparative studies of international cooperation and institutional design also raise questions about the viability of some of the key proposals for improvement in pandemic governance.

- *Lack of incentives for strong enforcement.* While recent commentary on global health security calls for stronger sanctions against states that fail to meet formal commitments, comparative research indicates that such punishment provisions exist in only a small minority of situations. In addition, analysts of cooperation on transnational threats such as climate change increasingly view the core challenge as one of addressing distributional conflict rather than achieving more-stringent forms of enforcement. In the case of infectious disease, enforcement has not been a central feature of either law or

state practice. States' reciprocal interests *not* to seek reparations for violating rules on trade and travel measures indicate that they are unlikely to agree to enforcement of infectious disease treaty provisions.

- *Hard versus soft arrangements.* Although binding agreements (such as treaty commitments) are frequently presented as the optimal solution to collective action problems, they often represent the lowest common denominator of agreement. As a result, some policy domains have embraced voluntary targets or “soft law” approaches as alternatives. Given noncompliance with *existing* legal commitments on global health security, the difficult distributional issues that affect cooperation in this policy domain, and the challenging political context that could undermine new treaty negotiations, nonbinding approaches to improve on pandemic preparedness and response are more likely to succeed.
- *The challenge of transparency.* Although the Nuclear Non-Proliferation Treaty and Chemical Weapons Convention offer models for encouraging states to consent to limitations on sovereignty, their relevance to pandemics may be limited both by states' lack of agreement on the nature of the threat and by the intensity of today's geopolitical competition between the United States and China, which makes new multilateral agreements on transparency and inspections unlikely.

## Revisiting the Preconditions for Cooperation

The empirical record on international cooperation illustrates that optimal institutions or arrangements often fail to emerge *even when* there is a crisis or large potential gains to be captured. Three imperatives could help diplomats and policy-makers create the preconditions for more successful cooperation in meeting the challenge of pandemics.

The first main task is to **understand and confront the incentives** shaping state behavior in response to infectious diseases with pandemic potential. All states have an interest in rapid information exchange leading to timely and coherent recommendations to prevent further spread. At the same time, governments concerned that outside scrutiny could compromise their national security or social order have incentives to defect from transparency requirements. In addition, while pandemic preparedness and response is a concern for all states, it is not the primary health priority for all. Nor do all states perceive their vulnerability to pandemics in the same way.

Second, while some assessments emphasize the need to depoliticize cooperation in global health security, the academic literature suggests that such political forces can never be eliminated. Rather than wish politics away, initiatives for change need to **understand and engage with political dynamics** and potentially channel them in more productive ways. Areas of focus should include addressing the interests and “solidarity” concerns of low-income countries and how the United States and China can identify “islands of agreement” that will enable other, broader forms of multilateral negotiation to succeed.

Finally, efforts at strengthening cooperation must **take the long view**. Many prominent regimes that foster collective action took several years to be negotiated and often experienced ratification delays that impacted their entry into force. Cooperation itself takes time and often manifests not in perfectly designed institutions or agreements but in layers of collective action that may overlap to create a complex but evolutionary regime.

## Promising Proposals for Improving Pandemic Preparedness and Response

At the special session of the World Health Assembly in late November 2021, member states reached consensus on moving forward with a new “international instrument” to strengthen pandemic preparedness and response. Given the limitations of a treaty approach and the uncertainty surrounding the outcome of the negotiations, policy-makers should focus in the near term on enhancing compliance with existing state commitments and addressing the distribution challenges that lie at the heart of better pandemic governance. The analysis in this report suggests that the core functions of global pandemic governance include an effective system of surveillance and information sharing, the production and equitable provision of key public health interventions, and effective stewardship of the broader system itself. With these functions in mind, and considering the lessons from research on international cooperation, the following priorities for reform should be actively considered and supported:

- **Targeted efforts to address the economic and political barriers to comply with the IHR (2005)**, including a new investment package for low- and middle-income countries; material rewards for improving domestic-level preparedness; a regularized peer-review process; additional resources for nongovernmental monitoring; and forms of financial compensation to incentivize transparent reporting.



- **Limited reforms of the WHO** that increase the predictability of its funding; strengthen its Health Emergencies Programme; improve its alert system; limit the politicization of staff appointments and reappointments; and mobilize a “Group of Friends” that can provide political support for cooperative solutions.
- **Three new institutional arrangements** that fill critical gaps in pandemic preparedness and response:
  - *A stronger global surveillance network* based on the proposals of the WHO’s Independent Panel for Pandemic Preparedness and Response and the G20’s High-Level Independent Panel;
  - *A new head-of-state council* that mobilizes resources and political will in emergency situations and that maintains a political commitment to pandemic preparedness in “normal times”; and
  - *A permanent platform for equitable access to diagnostics, treatments, and vaccines* that responds to the lessons learned from COVAX and creates a reliable stand-by production capacity.

In pursuing the reform proposals identified above, interested states and nonstate actors must remain cognizant of two realities: that in a multilateral framework, with near-universal membership, they are likely to make only modest progress; and that without movement on underlying incentives or specific efforts to manage the spillover effects of geopolitical competition on global health, material and political investments in cooperative arrangements and institutions such as the WHO are unlikely to yield positive results.



# 1. Introduction

COVID-19 presented a “once in a generation” challenge to all nation-states and their political leaders. The pandemic tested not only their public health infrastructures but also struck at the core of their economic and political systems and the roots of social cohesion. But while the multifaceted threat posed to societies called out for a coordinated response, the past two years have witnessed the devastating impact of a failure to address COVID-19 as a shared challenge and, to date, to design and implement effective forms of international cooperation. At the national level, governments retreated inward, competed for critical medical supplies, and raced unilaterally to secure vaccines. At the global level, power politics between the two major players, the United States and China, also undermined collective action on COVID-19, with “raw realpolitik” subordinating responses to global health threats to geopolitical interests.<sup>2</sup>

This dynamic, in turn, directly affected the capacity for international institutions to facilitate cooperation. The United Nations (UN) Security Council—wracked by geopolitical rivalry—took months just to pass a resolution on COVID-19 and was equally slow in responding to the UN secretary-general’s call for a global ceasefire to enable societies to focus on combatting the pandemic.<sup>3</sup> Tensions also developed within the World Trade Organization (WTO), where high-income countries defied trade liberalization rules by placing export bans on key medical supplies early in the crisis and later defended the intellectual property rights of vaccine producers in ways that frustrated the goals of many middle- and lower-income countries. For its part, the World Health Organization (WHO) not only confronted the effects of member states’ continued lack of compliance with the International Health Regulations (IHR) but also succumbed to political pressures that constrained its capacity to act decisively on a pandemic declaration and to issue clear and timely guidance on pandemic response.

As one of the early task forces on COVID-19 thus observed, the pandemic saw a breakdown of coordination across states in a variety of

2. David P. Fidler, “Global Health’s Reckoning with Realpolitik,” *Think Global Health*, June 23, 2021, <https://www.thinkglobalhealth.org/article/global-healths-reckoning-realpolitik>.

3. Relief Web, “United Nations Security Council Fails to Support Global Ceasefire,” May 19, 2020, <https://reliefweb.int/report/world/un-security-council-fails-support-global-ceasefire-shows-no-response-covid-19>.

“multilateral settings where an effective response both to the disease and its massive economic fall-out could have materialized.”<sup>4</sup> Several reasons for this foundering of international cooperation have already been suggested in the academic and policy literature, including, inter alia, the intensification of geopolitical competition, weaknesses in institutional design, the unwillingness of states to share information in a timely fashion, populist trends that are challenging the authority of expert advice and guidance, and nationalist pressures to look inward rather than outward to the global commons.<sup>5</sup> The member states of the World Health Assembly (WHA) also established an independent panel to provide recommendations on how to prevent and respond better to future pandemics—including through changes to global institutions and mechanisms. The panel’s final report, issued on May 12, 2021, echoes earlier studies of weaknesses in global health architecture and sets out detailed plans for reform.<sup>6</sup> At the meeting of the WHA later that month to consider the report’s recommendations, member states passed a resolution calling upon the director-general of the WHO to convene a special session of the WHA in November 2021 to debate the benefits of developing an international framework convention (under WHO auspices) to strengthen pandemic preparedness and—if supported—to launch an international negotiation process.<sup>7</sup> This was followed by the release of a high-level panel report from the G20 in June 2021 setting out an

4. Council on Foreign Relations, *Improving Pandemic Preparedness: Lessons from COVID-19*, Independent Task Force Report No. 78 (New York: Council on Foreign Relations, October 2020), <https://www.cfr.org/report/pandemic-preparedness-lessons-COVID-19>.

5. Ibid. See also “COVID-19 Online Supplemental Issue,” *International Organization* 74 (S1) (December 2020), <https://www.cambridge.org/core/journals/international-organization/information/io-COVID-19-online-supplemental-issue>; and Sophie Eisentraut, Luca Mieke, Laura Hartmann, and Juliane Kabus, *Poly pandemic: Munich Security Report Special Edition on Development, Fragility, and Conflict in the Era of COVID-19* (Munich: Munich Security Conference, November 2020), [https://securityconference.org/assets/02\\_Dokumente/01\\_Publikationen/201104\\_MSC\\_Poly pandemic\\_EN.pdf](https://securityconference.org/assets/02_Dokumente/01_Publikationen/201104_MSC_Poly pandemic_EN.pdf).

6. Independent Panel on Pandemic Preparedness and Response (IPPPR), *COVID-19: Make It the Last Pandemic* (IPPPR, May 2021), [https://theindependentpanel.org/wp-content/uploads/2021/05/COVID-19-Make-it-the-Last-Pandemic\\_final.pdf](https://theindependentpanel.org/wp-content/uploads/2021/05/COVID-19-Make-it-the-Last-Pandemic_final.pdf).

7. The text of the resolution can be found at [https://apps.who.int/gb/ebwha/pdf\\_files/WHA74/A74\\_ACONF7-en.pdf](https://apps.who.int/gb/ebwha/pdf_files/WHA74/A74_ACONF7-en.pdf). While the framework convention is being referred to as a “pandemic treaty,” member states have not converged on the idea of a legally binding treaty. Instead, they agreed in November 2021 to begin negotiations on a “new instrument” which some are referring to as an “accord.”

ambitious new financing framework to support some of the political and institutional recommendations emerging from the WHA's process.<sup>8</sup>

As part of these ongoing deliberations, the American Academy of Arts and Sciences' *Rethinking the Humanitarian Health Response to Violent Conflict* initiative sought to take stock of the findings from international relations (IR) research about the preconditions for and nature of effective cooperative solutions, as well as from more specialized fields—such as the environment and weapons of mass destruction (WMD)—that deal with common threats to humanity where cooperative mechanisms have been designed even in contexts of deep geopolitical competition. By convening experts from multiple domains,<sup>9</sup> we aimed to spark creative discussion of what kind of cooperative arrangements have been designed before, why they have succeeded or failed, and how barriers to cooperation might be overcome.

The focus of our discussions, which were held in February and March 2021, was primarily on early warning and early action—namely, how to prevent instances of infectious disease from becoming global pandemics. As such, key topics included how to promote transparency and information sharing among sovereign states, how to establish legitimate and effective mechanisms for monitoring and verification, how to integrate scientific expertise into decision-making, whether and how sanctions for noncompliance have been built into cooperative mechanisms, how non-state actors (including the private sector and civil society) can feature in both building and maintaining cooperative solutions, and how to incentivize the commitment of adequate resources to ensure that cooperative solutions are sustainable.

In the first meeting, we concentrated on extracting lessons from other policy domains that entail transnational threats—or what former UN Secretary-General Kofi Annan referred to as “problems without passports.”<sup>10</sup> We asked participants to reflect upon particular agreements or institutions from their area of expertise (such as the Chemical Weapons Convention, the Montreal Protocol, or particular nuclear arms control agreements) but also to consider less formal mechanisms that have

8. G20 High Level Independent Panel on Financing the Global Commons for Pandemic Preparedness and Response, *A Global Deal for Our Pandemic Age* (June 2021), <https://pandemic-financing.org/wp-content/uploads/2021/07/G20-HLIP-Report.pdf>.

9. See Appendix A for a list of participants. While these experts were consulted in the writing of the report, the views expressed—and any errors or omissions—are solely the responsibility of the author.

10. Kofi Annan, “Problems without Passports,” *Foreign Policy* (9) (November 2009), <https://foreignpolicy.com/2009/11/09/problems-without-passports/>.

encouraged information sharing and productive forms of cooperation. The second meeting drew upon these insights to consider specific ideas and proposals for reform of and innovation in the global health architecture (including, but not limited to, reform of the WHO) and assessing how well they address barriers to cooperation against infectious disease. We also discussed how to develop and equitably share effective treatments and vaccines to address pandemics already underway.

This summary report begins by briefly reviewing the breakdown in international cooperation during the COVID-19 pandemic. It then takes a step back to examine the evolving “regime complex” for global health security, discussing earlier efforts to improve pandemic preparedness and response and the broader frameworks that shaped them. The main section of the report reviews the academic literature on the types of cooperation problems that can occur in global politics, analyzes those problems that were most acute in the case of the COVID-19 pandemic, and synthesizes what we learned about attempts in other domains to address common threats. It also builds on this analysis by examining the key reform proposals forwarded to improve pandemic preparedness and response and by identifying some of the preconditions for successful global cooperation. The report concludes with a broad set of recommendations for states and other actors as they engage in high-level diplomatic discussions on potential changes to our global health architecture to better meet the challenges of infectious disease.

## 2. The Failure of International Cooperation During the COVID-19 Pandemic

Two broad analytical lenses are useful for understanding the nature of global policy in a domain such as infectious disease. One is a “polycentric” lens, whereby multiple actors participate—to varying degrees—in global policy-making. These include national governments, private-sector actors, and nongovernmental organizations. The other is the more traditional “state-centric” lens, whereby policy develops from the interaction of representatives of politically independent sovereign states.<sup>11</sup> Theoretically, a host of actors—including nonstate actors such as the Program for Monitoring Emerging Diseases (ProMED, a program of the International Society for Infectious Diseases,<sup>12</sup>) the Global Alliance for Vaccines and Immunization (GAVI), and the Coalition for Epidemic Preparedness Innovations (CEPI)—could have shaped policy-making on COVID-19, as they have played a role in the broader governance of global health over the past decades. Yet, despite the prevalence of public-private partnerships and other forms of polycentrism in global health governance, we found ourselves in the early phase of the pandemic operating in a largely state-centric world.

The crisis reasserted the importance and force of sovereign control. Populations became more acutely conscious of their nationality and citizenship and their reliance upon their governments to protect them from the spread of the virus. National governments themselves engaged in emblematic exercises of sovereign power, including the closing of borders and restrictions on air travel both out of and into their countries. At the same time, governments confronted demands to protect their citizens beyond their borders by dispatching planes to bring those citizens home. Finally, the pandemic made painfully clear—if it was not already so—that those who are displaced or “stateless” find themselves in a particularly vulnerable situation during transnational phenomena such as pandemics. So, too, do populations in societies where the state’s capacity to protect

11. Mathias Koenig-Archibugi, “Understanding the Global Dimensions of Policy,” *Global Policy* 1 (1) (2010): 16–28, <https://doi.org/10.1111/j.1758-5899.2009.00009.x>.

12. Its ProMED-mail service is a key resource in disease surveillance.

is underdeveloped or where the political legitimacy of state authorities is contested.

Notwithstanding the retreat inward, various forms of state interaction occurred during the COVID-19 outbreak, ranging along a spectrum according to density and formality.

At the furthest end of the spectrum was *global policy competition*, marked by only a minimal level of interaction among decision-makers in different countries to produce an effect on policy, as well as conscious efforts to privilege the well-being of a state's own population and economy. This included a convergence on "beggar-thy-neighbor" policies, whereby countries competed to access scarce resources—in the form of protective and testing equipment—as well as the early effort by the Trump administration in the United States to gain first-mover advantage by acquiring exclusive access to a vaccine being developed for COVID-19. Despite the calls by global officials such as the UN secretary-general and the director-general of the WHO to collaborate in the sharing of epidemiological and clinical data and materials necessary for research and development, inter-governmental cooperation remained limited and ad hoc.

Another, subtler form of competition among states was more productive or even "virtuous" in its effects. A broad set of countries—though not all—experienced an evolutionary or almost Darwinian process whereby unsuccessful strategies to combat COVID-19 were "selected out" in favor of more stringent forms of social distancing.

In this second form of state interaction—what we might call *global policy diffusion*—the policies of one state did not so much produce negative externalities for others as they proved to be crucial sources of information for other governments in their own response to the pandemic. In other words, policy-makers became enmeshed in ad hoc processes of "policy transfer" or "policy borrowing," whereby information about experiences in other countries was drawn upon to design or revamp policies within their own societies.

Here, the modes of interaction differed widely in intensity, regularity, and degree of formalization. At the most basic level were cases in which national officials learned about others' approaches simply through publicly available sources, without much interaction with policy-makers from the countries where those experiences originated. This appears to have been the case with Western countries' initial monitoring of the development of and response to the virus in South Korea—a country currently held up as a positive model of pandemic management. But "transnational epistemic communities" (networks of scientific professionals with deep expertise in pandemic prevention and response) also provided crucial information to policy-makers or were even directly involved in designing solutions. Examples include ProMED's role in providing information (via ProMED-mail)



about disease outbreaks to the WHO, the transnational collaboration of scientists and pharmaceutical companies to develop a vaccine, and the efforts of GAVI and CEPI to establish the COVAX scheme.

However, despite some conscious attempts to share best practices, the first six months of the pandemic broadly reflected a process of emulation rather than conscious coordination (let alone concerted cooperation) among states.<sup>13</sup> Policy-makers in countries at an earlier point “along the curve” monitored developments in countries at the height of the virus, or those starting to descend to the other side, and put in place mechanisms—tailored to national circumstances—similar to those that were deemed effective. A key question left outstanding is whether this global policy diffusion created productive and sustainable processes of learning that will outlive this crisis and assist in a future pandemic.

A third form of interaction among states is what scholars refer to as *global policy coordination*, which is usually decentralized and may or may not be universal in scope.<sup>14</sup> Here, states agree to take particular actions together—usually through agreement on a common rule or standard—in order to reap the gains from coordinated behavior. This kind of interaction emerged only later in the pandemic and was limited in scope and impact—despite the significant efforts, over three decades, to build an effective system of governance for global health. Prominent examples were the efforts at coordinated research into therapeutic treatments or vaccines for COVID-19 or—later in the pandemic—decisions by countries to commit to joint global targets on vaccine distribution.

This brings us to a final way that states can interact: *global policy cooperation*. This entails not only conscious and sustained technical coordination but also *political* cooperation to facilitate the development of reciprocal commitments and the harmonization of policies across countries.<sup>15</sup> The goal of global policy cooperation has been to realize significant gains from joint action among states, whether financial (as in trade) or the reduction of threats (as in climate change) or to avoid the negative effects of unilateral

13. Thomas Wright (Brookings Institution) has referred to this as “correlation without coordination.” See Thomas Wright, “The COVID Pandemic—A Global Crisis in an Era of Great Power Rivalry,” Think Global Health, June 23, 2021, <https://www.thinkglobalhealth.org/article/covid-pandemic-global-crisis-era-great-power-rivalry>.

14. Robert O. Keohane and David G. Victor, “Cooperation and Discord and Global Climate Policy,” *Nature Climate Change* 6 (2016): 570–575, <https://doi.org/10.1038/nclimate2937>.

15. The distinction between coordination and cooperation is captured by Duncan Snidal in “Coordination vs. Prisoners’ Dilemma: Implications for International Cooperation and Regimes,” *American Political Science Review* 79 (4) (1985): 923–942, <https://doi.org/10.2307/1956241>.

action (as in nuclear proliferation). Such cooperation can take place either in groupings or “clubs” of states or through international institutions with (close to) universal membership.

The COVID-19 pandemic demanded, at a minimum, intergovernmental coordination to facilitate an adequate supply of health care and testing equipment; share treatment results; ensure transparent and dynamic information on the evolution of the virus; and amplify and synchronize fiscal action to address the economic effects of the crisis. On March 25, 2020—two months into the health emergency—a virtual ministerial meeting of the Group of Seven (G7) discussed the evolution of the COVID-19 pandemic and its impact. Yet, rather than providing an impetus for deeper global policy cooperation, the meeting showcased the deep divisions within the international community. Not only did the gathering not issue a final communiqué, but participants reportedly could not even agree on what to call the epidemic—with Trump administration officials demanding that it be called the “Wuhan virus.”<sup>16</sup>

The following week, the Group of Twenty (G20) also met virtually to address both the health and economic impacts of COVID-19. G20 countries represent 80 percent of global economic output and two thirds of the world’s population, and thus form a key piece of the global architecture available to address pressing collective action challenges. For example, the G20 was a lead actor in directing the response to the 2008 financial crisis and had already become part of the governance framework for global health. G20 leaders did issue a final statement on March 30, 2020, pledging their commitment to coordinate public health and financial measures and to support the work of the WHO.<sup>17</sup> The statement refers to increased sharing of information and materials for research and development, financial resources for the new WHO Solidarity Response Fund, and efforts to address blockages and shortages of vital medical supplies—including new incentives to increase their production. G20 leaders also promised to inject, collectively, \$5 trillion<sup>18</sup> into the global economy to cushion the impact of COVID-19 and announced a future meeting of finance and health ministers that would launch a global initiative on pandemic preparation and response.

16. “G-7 Failed to Agree on Statement after U.S. Insisted on Calling Coronavirus Outbreak ‘Wuhan Virus,’” *The Washington Post*, March 25, 2020, [https://www.washingtonpost.com/national-security/g-7-failed-to-agree-on-statement-after-us-insisted-on-calling-coronavirus-outbreak-wuhan-virus/2020/03/25/f2bc7a02-6ed3-11ea-96a0-df4c5d9284af\\_story.html](https://www.washingtonpost.com/national-security/g-7-failed-to-agree-on-statement-after-us-insisted-on-calling-coronavirus-outbreak-wuhan-virus/2020/03/25/f2bc7a02-6ed3-11ea-96a0-df4c5d9284af_story.html).

17. The statement is available at [http://www.g20.utoronto.ca/2020/G20\\_Statement\\_Trade\\_and\\_Investment\\_Ministers\\_Meeting\\_EN\\_300320.pdf](http://www.g20.utoronto.ca/2020/G20_Statement_Trade_and_Investment_Ministers_Meeting_EN_300320.pdf).

18. Unless otherwise noted, all monetary figures are in U.S. dollars.

Two years later, however, *national* action—including the mobilization of financial resources—still dwarfs efforts in global cooperation. Furthermore, despite the pledge to facilitate trade, G20 countries in the crucial early months of the pandemic failed to call for an end to the export bans that many states—including Western democracies such as France and Germany—had placed on drugs and medical supplies. Elsewhere, supply chains backed up as airfreight capacity plummeted and companies faced not only shortages of truck drivers, freight containers, and shipping crews but also quarantines at ports.

The May 2021 Global Health Summit of the G20 in Rome—the first meeting of its kind—offered heads of state what some have called their “San Francisco moment” for setting clear goals and initiating bold collective action on pandemic preparedness and response.<sup>19</sup> A full year of living with the pandemic had passed, and a series of recommendations had already been articulated (including by the WHO’s independent panel) for participating states to build upon. But although the final declaration acknowledged the need for stronger and sustained support for multilateral cooperation, it went only as far as to elaborate a set of sixteen guiding principles to improve collective action on pandemics and other broad global health objectives, emphasizing the “voluntary orientation” of state commitments.<sup>20</sup> No specific targets, actions, or timeframes were set out.

The meeting of G7 leaders that followed in mid-June did see, in addition to calls to improve global surveillance of infectious disease and to support the WHO,<sup>21</sup> ambitious pledges to “vaccinate the world” (through both the donation of vaccines and increased funding for distribution). These commitments marked the first significant departure from the “my country first” approach of 2020 and pointed to particular avenues for improved international cooperation. Nevertheless, they remained vague on the modalities for improving future pandemic preparedness and response. Moreover, even the most immediate priority—getting vaccines to the world, for which member states pledged 870 million doses over the next year—fell far short of the eleven billion doses estimated to be essential to ensuring that 70 percent of the world’s population is vaccinated against COVID-19 by the end of 2022.

19. Kent Buse and Yogan Pillay, “The 2021 Rome Global Health Summit: A Missed Opportunity,” *The BMJ Opinion*, May 25, 2021, <https://blogs.bmj.com/bmj/2021/05/25/the-2021-rome-global-health-summit-a-missed-opportunity/>.

20. The concluding statement of the summit, the Rome Declaration, can be found at [https://global-health-summit.europa.eu/rome-declaration\\_en](https://global-health-summit.europa.eu/rome-declaration_en).

21. See the Carbis Bay G7 Summit communiqué, June 13, 2021, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/13/carbis-bay-g7-summit-communiqué/>.

### 3. Pandemic Preparedness and Response Before COVID-19

Commentary on the COVID-19 pandemic frequently argues that the world *should have been* ready for a “disease event” with pandemic potential. In the first two decades of the twenty-first century, multiple infectious disease outbreaks—including the HIV/AIDS and SARS pandemics and successive influenza crises—led states and organizations to highlight the profound political, economic, and security implications of uncontrolled pandemics that, like other transnational security threats,<sup>22</sup> do not recognize borders and have both widespread and devastating effects. Moreover, these transnational threats are believed to have knock-on effects that make other dangers more likely—such as the breakdown of social order or even civil war. Hence, for example, the U.S. foreign policy interest in HIV/AIDS in sub-Saharan Africa—exemplified by the 2003 President’s Emergency Plan for AIDS Relief—arose in large part from concerns that the disease could destabilize countries in the region, enabling transnational and criminal organizations to use these territories to harm the United States.

The “securitization” of infectious disease has generated its share of critics, including those who question the empirical data suggesting links between disease and conflict. Others have noted with concern that a security framing enables financial resources to be deployed in favor of a narrow range of interventions and actors, including military ones, while also marginalizing serious public health problems that generate high mortality but are not necessarily captured by the notion of global health security.<sup>23</sup> The process of securitization also has institutional effects, as it can result in the transfer of authority and resources from civilian to security agencies in ways that privilege immediate threat containment and elimination and

22. Post-Cold War policy discourse on transnational threats has focused not only on infectious disease but also on climate change, terrorism, and transnational crime.

23. For further discussion of the effects of securitization, see Clare Wenham, “The Over-securitization of Global Health: Changing the Terms of the Debate,” *International Affairs* 95 (5) (2019): 1093–1110, <https://doi.org/10.1093/ia/iiz170>.

downplay longer-term risks that undermine health infrastructure and create breeding grounds for future pandemics.<sup>24</sup>

In 2004, a landmark high-level panel report commissioned by then UN Secretary-General Annan to inform the global summit marking the sixtieth anniversary of the United Nations emphasized the deterioration of the global health system, its vulnerability to new and more deadly pandemics, and both the promise and peril of developments in biotechnology.<sup>25</sup> The report called for a concerted effort to rebuild global health infrastructures, starting with a stronger local and national public health capacity throughout the developing world.<sup>26</sup> The underlying message of the panel was that developed countries seemed to tune in to global health challenges only when those challenges directly affected them as security threats. What was needed, according to those advising Annan, was a truly *global* health initiative that not only would yield direct benefits for the prevention and treatment of disease throughout the developing world but would provide the basis for an effective global defense against natural outbreaks of deadly infectious disease and potential incidents of bioterrorism.

Annan's 2004 report captured a long-standing tension in global health between a narrower security frame (preferred by high-income states) and a broader health solidarity and equity emphasis (desired by low-income countries). The latter approach, focused on realizing the universal right to life, had been reflected in a series of health initiatives in the 1970s and 1980s—most notably the WHO's Global Strategy for Health for All by the Year 2000—that sought the transfer of financial resources and technology to meet the most pressing health challenges of the developing world. The former approach, which treated serious disease events as transnational security threats, was particularly dominant in policy-making in the early post-Cold War period and contributed to several public-private partnerships and institutional reforms that addressed the priorities of the

24. Gian Luca Burci, "Health and Infectious Disease," in *The Oxford Handbook of the United Nations*, 2nd ed., ed. Thomas G. Weiss and Sam Daws (Oxford: Oxford University Press, 2018), <https://doi.org/10.1093/oxfordhb/9780198803164.013.37>.

25. In 2001, following the 9/11 attacks, an international partnership of eight countries (Canada, France, Germany, Italy, Japan, Mexico, the United Kingdom, and the United States), the WHO, and the European Union created the Global Health Security Initiative to exchange information and strategies on risks of biological, chemical, and nuclear terrorism. The risk of pandemic influenza was added a year later.

26. Secretary-General's High-Level Panel on Threats, Challenges and Change, *A More Secure World: Our Shared Responsibility*, UN doc. A/59/565 (New York: UN Department of Public Information, December 2004), [https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/documents/hlp\\_more\\_secure\\_world.pdf](https://www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/documents/hlp_more_secure_world.pdf).

developed world.<sup>27</sup> This tension between security and solidarity has persisted and is likely to remain one of the biggest collective action dilemmas for global health. While key actors in pandemic preparedness and response continue to speak and act in terms of a security logic, there is growing recognition of the structural requirements involved in addressing a full spectrum of epidemics (not just the diseases prioritized by high-income countries). The WHO, for example, addresses the challenge of combatting infectious diseases within the broader framework of the UN's Sustainable Development Goals—particularly Goal 3, which seeks to realize universal, affordable health care across all countries. According to this solidarity logic, the prevention of and response to disease depends upon stronger public health systems and improvements in the institutional, social, and political determinants of health.

#### 3.1 The Regime Complex for Global Health Security

Prior to COVID-19, pandemic preparedness and response fell under the rubric of “global health security,” which—because of controversies attached to this concept—was defined to include a narrower “security lens” and a broader “global public good lens.” A variety of actors, including states, international institutions, and nongovernmental organizations (especially private foundations), contributed to the development of what the academic literature refers to as a “regime complex”<sup>28</sup> for global health security. This complex encompassed both binding agreements (such as the Biological Weapons Convention and arrangements agreed to by the WHO) and non-binding declarations and frameworks (such as the WTO Doha Declaration on Public Health, the Global Health Security Initiative, and the Pandemic Influenza Preparedness Framework) that sought to address infectious diseases with pandemic potential. While some have lamented the high degree of fragmentation in the governance of global health,<sup>29</sup> the overall effect of the various arrangements and initiatives on pandemics has been a set of overlapping and mutually reinforcing actions that sustain coordinated action on infectious disease challenges.

27. Celia Almeida, “Health Security and the COVID-19 Pandemic: Health and Security for Whom?” *Think Global Health*, August 19, 2021, <https://www.thinkglobalhealth.org/article/health-security-and-COVID-19-pandemic-health-and-security-whom>.

28. Joshua K. Leon, *The Rise of Global Health* (Albany: SUNY Press, 2015), chap. 1.

29. See Garrett Wallace Brown and David Held, “Health: New Leadership for Devastating Challenges,” in *Beyond Gridlock*, ed. Thomas Hale and David Held et al. (Cambridge: Polity Press, 2017), 162–183.

### 3.1.1 Pandemic Preparedness and Response as a Security Threat

The WHO has been a core institutional element of the regime complex to address the challenge of pandemics. When it was created in 1948, the WHO marked a new and more coordinated approach to tackling infectious disease, replacing some of the more fragmented measures adopted in the early twentieth century. The WHO was mandated to develop international law on public health through legal *conventions* or treaties that set standards to promote public health (Article 19); legally binding *regulations*<sup>30</sup> that set out specific actions that must be undertaken by member states in the event of infectious disease (Article 21); and *recommendations* or nonbinding guidelines for state policy (Article 23).<sup>31</sup>

In practice, the WHO has done much more by way of regulations than it has by treaty law. Furthermore, its role remains primarily directive rather than operational—even after waves of reform that responded to episodes of infectious disease over the past five decades. According to its Article 2 mandate, the WHO is the “directing and co-ordinating authority on international health work” and fulfills this role through normative guidelines, policy frameworks, and technical assistance. As the wording of Article 2 suggests, the organization was designed primarily for “expert coordination” rather than deeper political cooperation.<sup>32</sup> The underlying assumption was that improving global health and fighting infectious disease were goals to which all states were equally committed. The primary task was therefore to identify common standards and priorities that they already had incentives to follow—even in the absence of robust monitoring or enforcement. In its expert-coordination role, the WHO has coordinated and catalyzed campaigns to eradicate and control several infectious diseases, with some successes—such as smallpox in the 1970s and SARS in 2003—and some notable failures—namely, HIV/AIDS in the 1980s and 1990s and the more recent Ebola crisis in West Africa.

30. Technically, the process for states is to “opt out” rather than to “opt in” to the WHO’s regulations. National sovereignty is still respected under this process, but the approach is designed to put pressure on a state to opt out, which is deemed to be more demanding than the decision not to opt in. At the time, this solution was considered an innovative approach to the institutional design of this aspect of the WHO constitution.

31. Lawrence O. Gostin and Benjamin Mason Meier, “Introducing Global Health Law,” *Journal of Law, Medicine and Ethics* 47 (4) (2019): 788–793, <https://doi.org/10.1177/1073110519897794>.

32. Eyal Benvenisti, “The WHO—Destined to Fail? Political Cooperation and the COVID-19 Pandemic,” *American Journal of International Law* 114 (4) (2020): 588–597, <https://doi.org/10.1017/ajil.2020.66>.

One of the WHO's main policy instruments for advancing global health security has been the IHR, which were last revised in 2005 and serve as both an early warning tool and a framework for coordinating responses to infectious disease. The core task of these regulations is to balance measures to facilitate global health security against the need to maintain international trade and travel and to safeguard individual human rights.

The IHR (2005) resulted from conscious efforts both to address barriers that had constrained effective cooperation in the past—including states' concerns about infringements on sovereignty—and to incorporate institutional and legal approaches from other policy domains (particularly the Biological Weapons Convention, international trade and environmental law, and international human rights law). For example, Articles 5 and 6 of the IHR (2005) reflect the precautionary principle: states must assess all unusual health events occurring on their territory and notify the WHO of any that may constitute a “public health emergency of international concern” (PHEIC). Pandemic prevention will be enhanced—according to the logic of the IHR—by the duty to report “early and often,” before disease events morph into emergencies. Under the revised regulations, the WHO's director-general has the authority to declare a PHEIC—and has done so at various times since 2005—and to issue temporary recommendations for its management and control. The director-general also has the power to act on information gathered from nongovernmental sources—a provision designed to address potential state reluctance to share sensitive data.<sup>33</sup> For their part, states have several obligations under the IHR in the areas of surveillance, verification, cooperation, and information sharing. Crucially, they are also obliged to strengthen and maintain their domestic capacities to detect, assess, and respond to events (defined in the IHR as “core capacities”).

In theory, these twin ideas—the development of states' core capacities and the duty of states to report on disease events—constitute promising building blocks for effective pandemic preparedness and response. The powers granted to the WHO in the IHR (2005) are unprecedented in the field of global health security and reflect the more benign geopolitical environment that marked what has been called the “golden age” of global public health governance.<sup>34</sup> Yet, the regulations have suffered from the same

33. The IHR stipulate that if the information gathered through nonstate sources is validated, the WHO can request correction of any reports received from the “source” state experiencing a disease event within twenty-four hours.

34. David P. Fidler, “After the Revolution: Global Health Politics in a Time of Economic Crisis and Threatening Future Trends,” *Global Health Governance* 2 (1) (2009): 1–21, [http://www.ghgj.org/Fidler\\_After%20the%20Revolution.pdf](http://www.ghgj.org/Fidler_After%20the%20Revolution.pdf).



weaknesses as many other contemporary international agreements.<sup>35</sup> The obligations in the IHR are counterbalanced by the rights of states either to apply national health measures going beyond the WHO's recommendations in the realm of trade and travel restrictions<sup>36</sup> or to breach some of their obligations through invocation of the "necessity principle." Moreover, the IHR constrain the WHO's ability to act on independent information, stipulating that such data can be shared only after the so-called source state refuses to collaborate and only when justified by the magnitude of the public health risk.<sup>37</sup> Global health lawyers also note that the WHO has a duty to reveal to the source state any independent sources of information, thereby creating a "chilling effect on the potential contribution of whistleblowers."<sup>38</sup> Finally, while the director-general of the WHO can declare a PHEIC, they must consult with the WHO's Emergency Committee before doing so. Given the current structure of the committee, this provision enables political and economic interests to influence expert decision-making.

These and similar caveats reflect a stubborn reality of global politics and policy-making: states' reluctance to transfer substantial authority to an international body when sensitive issues of sovereign control are implicated. This reality helps to explain why, when during the SARS outbreak the WHO managed to act relatively swiftly and effectively—including by obtaining and acting on independent information and "shaming" resistant governments—it was condemned for exceeding its powers and showing insufficient "deference to the sovereignty of affected states."<sup>39</sup>

The WHO has also been heavily criticized in other cases of disease surveillance and response. In the initial stages of the 2009 H1N1 pandemic, for example, it followed the precautionary principle built into the IHR but was accused of overestimating the severity of the disease, thereby raising confusion and fear, and was also criticized for a lack of transparency and conflicts of interest benefiting the pharmaceutical industry. On the other hand, during the later Ebola virus outbreak, it was condemned for its delay in declaring a

35. See the discussion by José E. Alvarez, "The WHO in the Age of the Coronavirus," *American Journal of International Law* 114 (4) (2020): 578–587, <https://doi.org/10.1017/ajil.2020.70>.

36. For this aspect of the IHR, the WHO closely studied the WTO, especially its agreement on sanitary and phytosanitary measures.

37. See IHR (2005), Article 10.

38. Benvenisti, "The WHO," 596. Benvenisti argues that, through these requirements to consult the source state, the revised IHR served to restrict the WHO's basic coordinating function.

39. David P. Fidler, *SARS, Governance and the Globalization of Disease* (London: Palgrave Macmillan, 2004), 142.

pandemic and for its initial failure to lead and coordinate the international response. WHO officials have also proven hesitant or slow in consulting the nonstate sources of information that the IHR empower them to use.<sup>40</sup>

Concern over the response to disease events like H5N1 and H1N1 was one of the issues that led the Obama administration and the WHO to co-launch the Global Health Security Agenda in early 2014. This multilateral initiative was aimed at accelerating implementation of the IHR, particularly in lower-income countries, so as to achieve a more standardized capacity to combat infectious disease.<sup>41</sup> The ensuing Ebola crisis not only exposed the limitations of the architecture for pandemic preparedness and response but also drew the UN Security Council directly into health security, through its determination that the epidemic represented a threat to international peace and security and its creation of the UN Mission for Ebola Emergency Response in West Africa—the first time a UN health mission had ever been undertaken.<sup>42</sup> Following the decisions taken by the Security Council, the United States deployed approximately four thousand engineers and military personnel to address the impact and spread of the disease. At a subsequent G7 meeting in 2015, German Chancellor Angela Merkel and UK Prime Minister David Cameron joined President Barack Obama in underlining that the Ebola epidemic had been a “wake-up” call for the global community and its governing institutions, which had proven slow and poorly prepared to fight the outbreak.

Multiple reviews of the Ebola crisis<sup>43</sup> identified a series of weaknesses in the global response to pandemics, including those directly related to the WHO’s performance. The organization responded to the widespread criticism with a historical shift, from playing primarily a normative and supportive role to building a stronger operational capacity for health emergency response.<sup>44</sup> It did so by creating a dedicated WHO Health Emergency Programme that cut across the regional structure of the organization

40. *Ibid.*, 582.

41. The GHSA was initially launched by forty-four countries and the WHO for a five-year period. In 2017, the parties agreed to extend the GHSA through 2021 and to add other states, NGOs, and private companies.

42. UN Security Council Resolution 2177, UN doc. S/Res/2177, September 18, 2014.

43. For just one of many examples, see the panel report presented to the UN General Assembly in 2016: High-Level Panel on the Global Response to Health Crises, *Protecting Humanity from Future Health Crises*, UN doc. A/70/723 (New York: United Nations, February 2016), <https://digitallibrary.un.org/record/822489?ln=en>.

44. The WHO had deployed some personnel into zones experiencing pandemics prior to 2014, but the depth and scale of its organizational capacity were significantly increased after the 2014 Ebola outbreak.

(seen as a barrier to a more centralized approach) and a Contingency Fund for Emergencies. In the years running up to the COVID-19 pandemic, however, the fund had amassed only about a third of the required amount, and member states were still refusing to fund the program through assessed contributions.

### ***3.1.2 Pandemic Preparedness and Response as a Global Public Good***

An alternative framework for meeting the policy challenge of infectious disease conceives of pandemic preparedness and response as a “global public good.” Such an approach could provide significant benefits, including higher-quality surveillance, timely alerts, coordinated responses, and leading-edge research and development. Rather than positioning cooperation on infectious disease as a form of aid or development assistance—targeted at countries with weaker capacities—the global public goods perspective positions pandemic preparedness and response as an investment that meets the *mutual* interests of all: the benefits would be available to every country (i.e., they are nonexcludable), and each country would benefit without preventing others from doing so (i.e., they are nonrivalrous).<sup>45</sup>

However, global public goods are rarely supplied, because they require not only cooperative action “at the border” but also policy convergence “behind the border” in the form of domestic legislation and implementation. In addition, global public goods—like all public goods—suffer from incentives to free ride; that is, to benefit from an effective system of goods provision without “paying” for one’s fair share or undertaking required costly actions.<sup>46</sup> This helps to explain why global public goods are often provided when a single dominant country (or small group of countries) takes the lead<sup>47</sup> or when a global governing authority already exists that can incentivize cooperative behavior through rewards and punishments.

45. These are the defining features of all public goods. *Global* public goods are those that not only have strong qualities of “publicness” (i.e., they are nonrivalrous and nonexcludable) but also have benefits that are quasi-universal in scope, reaching across borders, population groups, and generations. See Inge Kaule, “Conceptualizing Global Public Policy,” in *The Oxford Handbook of Global Policy and Transnational Administration*, ed. Diane Stone and Kim Mahoney (Oxford: Oxford University Press, 2019), chap. 15, <https://doi.org/10.1093/oxfordhb/9780198758648.013.10>.

46. Richard D. Smith, Robert Beaglehole, David Woodward, and Nick Drager, eds., *Global Public Goods for Health: A Health Economic and Public Health Perspective* (Oxford: Oxford University Press, 2003).

47. See Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups*, rev. ed. (Cambridge, Mass.: Harvard University Press, 1971).

In the realm of infectious disease, the public goods framework operates at two levels. First, global public goods, such as disease surveillance or research and development, require both international *and* domestic capacities—although the full benefits of these may not be realized by all countries.<sup>48</sup> Second, stronger national capacities to halt the spread of infectious disease “at home” can have positive externalities for other states around the globe. At both levels, resources need to be mobilized to ensure that public goods and positive externalities are realized; for lower-income countries, this often entails external financial support.

Moreover, the costs of public good provision are not only material (i.e., the costs entailed in building the infrastructure required to monitor and manage disease events) but also political (i.e., the potential costs incurred through meeting the requirements of transparency and information sharing). Information sharing itself can generate both economic costs, by leading to trade and travel restrictions on countries reporting a disease event, and domestic political costs related to inducing panic or uncertainty. In such cases, the incentive to contribute to the global public good is significantly weakened: so-called source states may have incentives to underreport disease outbreaks, and other states may have incentives to close borders preemptively. This latter dilemma led the World Bank, following the Ebola outbreak in 2014, to design a Pandemic Emergency Financing Facility to help provide countries with a form of financial compensation to manage the costs of declaring a disease event.<sup>49</sup>

Other pieces of the regime complex for global health also reflect a global public goods perspective. In the 1990s, the WHO began consulting nongovernmental sources for evidence of disease outbreaks, and in 2000 it formally established the Global Outbreak Alert and Response Network. A more recent attempt to provide the public good of disease surveillance is the Global Preparedness Monitoring Board, an independent monitoring and advocacy body co-convened by the WHO and the World Bank in 2018 to prepare for and mitigate the effects of global health emergencies.<sup>50</sup>

In addition, the decade prior to COVID-19 saw multiple schemes for sharing biological samples and genetic sequences of pathogens and for scientific cooperation on key aspects of the response to disease outbreaks (including treatments and vaccines). One mechanism for “multilateral

48. G20 High Level Independent Panel, *A Global Deal for Our Pandemic Age*, 25.

49. Felix Stein and Devi Sridhar, “Health as a ‘Global Public Good’: Creating a Market for Pandemic Risk,” *British Medical Journal* 358 (2017), <https://doi.org/10.1136/bmj.j3397>.

50. The board built on the work of the Global Health Crisis Task Force created by former UN Secretary-General Ban Ki-moon in the wake of the Ebola pandemic.

virus-sharing,” the Global Influenza Surveillance and Response System,<sup>51</sup> was challenged in 2007 by Indonesia’s refusal to share its human samples of H5N1 influenza, on the grounds that developing countries were freely sharing their viral specimens while being excluded from the benefits and facing high market prices for vaccines. Its declaration of “viral sovereignty,” which appealed to the UN Convention on Biological Diversity and was supported by other developing countries, was a key impetus in 2011 for the WHO’s adoption of the Pandemic Influenza Preparedness Framework, which sought both to regulate the entire cycle of pandemic influenza surveillance and response and to address the tendency of developed countries to hoard vaccines.

The development of the WHO framework speaks to the uncomfortable fact that, in the domain of infectious disease policy, the core problem has been less about free riding and more about the fact that states have not always *perceived* goods to be truly “public” (i.e., as nonrivalrous and non-excludable). Instead, as the H5N1 incident illustrated, states have competed over what they believe to be scarce resources (pathogen samples, drug treatments, vaccines, information, and financial resources) that are rivalrous and/or excludable. Some have also used their sovereign control over these scarce resources to strike beneficial bargains (for example, trading samples for vaccine access).

These underlying political realities are exacerbated by the fact that a state’s response to health risks will be shaped by its unique set of capacities and vulnerabilities.<sup>52</sup> Consequently, what high-income countries think is a global public good and thus are willing to pay for (such as the rapid sharing of information about disease outbreaks from around the world) has not always aligned with what low-income countries have most wanted; namely, to improve their provision of health-related public goods domestically (by obtaining scarce material resources from high-income countries). This variation in levels of state capacity and vulnerability creates a *particular kind* of cooperation problem for pandemic preparedness and response (for more on this, see Section 5). It also suggests that, while the mantra “no one is safe until everyone is safe” is a powerful moral imperative, not all actors will accept its political—or even epidemiological—validity.

51. This system relied on a voluntary network of laboratories focusing on influenza viruses in cooperation with the WHO.

52. Benvenisti, “The WHO,” 590.

## 4. The Challenges Revealed by COVID-19

Given that the current pandemic was not—as anticipated—a strain of influenza but rather COVID-19, the WHO’s Pandemic Influenza Preparedness Framework proved inapplicable. Scientific communities nonetheless moved quickly to share data and genetic sequences, and pharmaceutical companies began to develop vaccines, thereby illustrating the power of transnational collaboration *below* the state level.<sup>53</sup> The speed and range (involving multiple nationalities) of those working to develop vaccines were both impressive and unprecedented. Much of this effort took place *without* formal state-to-state coordination, either bilaterally or in international organizations.

Many states in the early phase of the pandemic rushed unilaterally to secure scarce resources—including personal protective equipment and key ingredients for virus testing. Much of their behavior challenged the view that global health security is a public good—particularly the premise of equal vulnerability to pandemics. Instead, some states behaved in ways that suggest health security is seen as a private good—through their efforts to seal borders and keep the virus “out” and secure vaccines for their own populations. One lesson that seemed to be emerging from COVID-19 was that this nationalistic strategy could work if executed quickly and comprehensively—though at high economic cost and of uncertain duration.<sup>54</sup> For other countries, the prime lesson drawn as the pandemic wore on was the need to invest in national vaccine manufacturing capacity—or to devise reliable contracts with world-class producers—and to make supply chains for essential medical and health products less vulnerable to external dynamics.

In sum, state behavior fell far short of what the academic literature identifies as core requirements for effective action on transnational threats such as infectious disease: far-sighted collaboration that aims for long-term solutions to shared threats, a degree of deference to experts with specialized knowledge, and multilateral cooperation through international

53. This “below the state” cooperation was of various kinds, including collaboration among scientists (through CEPI), among different pharmaceutical companies (Pfizer working alongside BioNTech), and between scientific communities and private companies (AstraZeneca collaborating with the University of Oxford).

54. Thanks to Mara Pillinger for sharing this perspective.

institutions.<sup>55</sup> Instead, we saw the prioritization of short-term, narrow interests and a range of reactions to scientific advice—including, at the furthest end of the spectrum, defiant rejection of effective countermeasures. At the WHO, we saw not only the consequences of patchy compliance with the IHR (2005) but also vocal critique—in some cases verging on scapegoating—of the organization’s response to the COVID-19 crisis.

#### 4.1 The Governance of Pandemic Preparedness and Response

Despite the reforms that had been made to improve pandemic preparedness and response in previous decades, some key deficiencies in the WHO-led regime complex for global health security remained, and these hampered the chances for a timely and effective response to COVID-19.

To begin, it was already well known that far too few countries had the “core capacities” identified under the IHR (2005) and that sufficient political and financial commitment was lacking to fully implement the IHR provisions. However, lack of compliance with the IHR’s core capacities was not necessarily the primary factor in the Wuhan disease outbreak transforming into a pandemic. What was more striking was that many of the first and most high-profile countries to be affected by COVID-19 were so-called high-capability states (including China, South Korea, Taiwan, Italy, the United Kingdom, and the United States), only some of which responded effectively in the early phases. This suggests that the metrics used to assess pandemic preparedness, as well as the existing system of national self-assessment and reporting, were presenting a distorted picture.

COVID-19 also highlighted the limits of what the WHO, created and financed by states, can do when confronted with a global pandemic. While it does have processes and procedures for information gathering, its resources and operational capacity were never designed for a *comprehensive* system of global surveillance that would extend to the high-income and high-capability countries that were part of the initial epicenter of the outbreak. Still—and contrary to some criticisms of the organization<sup>56</sup>—the WHO did act rapidly after it first received information (from a nongovernmental source) about the Wuhan outbreak. But rapid action in the face of an emerging pandemic is not always effective action. In the case of the

55. For a summary of these requirements and how states failed to meet them during the current pandemic, see Tana Johnson, “Ordinary Patterns in an Extraordinary Crisis: How International Relations Makes Sense of the COVID-19 Pandemic,” *International Organization* 74 (S1) (2020): E148–E168, <https://doi.org/10.1017/S0020818320000430>.

56. IPPPR, *COVID-19*, 25.

WHO, its initial guidance on travel measures and masks turned out to be incorrect advice for the COVID-19 pathogen. The WHO exercised the authority it had to issue temporary recommendations but did so in ways that later required it to reverse its advice—thus damaging its credibility.

A more consequential limitation of the WHO underscored by this pandemic concerns its intergovernmental character: it is susceptible to political pressures from states that are wary of facing external scrutiny and potential stigmatization, which can in turn affect how the WHO executes its powers. Academic research on international institutions has long been preoccupied with the challenge of making such institutions accountable to the member states that create them, while simultaneously insulating them from parochial political attempts to steer or reverse their activities.<sup>57</sup> COVID-19 demonstrated that, although the 2005 reforms to the IHR gave the director-general authority to signal that a member state was not cooperating effectively, or to declare a PHEIC over a state's objections, the *exercise* of that discretionary authority ultimately depends upon the individual occupying this role.

From December 2020 to March 2021, the WHA's independent panel identified specific aspects of the WHO's performance that relate, in part, to these long-standing issues. Panel members criticized the WHO's delay in convening its Emergency Committee, declaring a PHEIC, and issuing warnings about human-to-human transmission of the virus.<sup>58</sup> The latter problem stemmed in large part from China's delay in releasing the data it had about human-to-human transmission—which occurred in the same period that key WHO officials were publicly commending China's efforts.<sup>59</sup>

57. See Tana Johnson, *Organizational Progeny: Why Governments Are Losing Control over the Proliferating Structures of Global Governance* (Oxford: Oxford University Press, 2014), <https://doi.org/10.1093/acprof:oso/9780198717799.001.0001>; and Barbara Koremenos, Charles Lipson, and Duncan Snidal, "The Rational Design of International Institutions," *International Organization* 55 (4) (2001): 761–799, <https://doi.org/10.1162/002081801317193592>.

58. IPPPR, *COVID-19*, 25.

59. Investigative reporting suggests that WHO staff were privately concerned about China's willingness to share information about human-to-human transmission but that the organization's strategy was to publicly applaud China's efforts in order to encourage its government to share further data. See Associated Press, "China Delayed Releasing Coronavirus Info, Frustrating WHO," *AP News*, June 2, 2020, <https://apnews.com/article/united-nations-health-ap-top-news-virus-outbreak-public-health-3c061794970661042b18d5aeaed9fae>. Some argue that this early period of the pandemic stands as evidence that the WHO had become overly deferential to some governments and that its assessments were providing states with "political cover" to continue to act without full transparency. See Alvarez, "The WHO in the Age of the Coronavirus," 579–580.



In light of its assessment, the independent panel set out a series of recommendations designed to stabilize the organization's funding, enhance its power and independence, and improve the quality, timing, and clarity of its technical advice. A critical part of any discussion of how to reform the WHO's approach to pandemic preparedness and response, however, is to distinguish those weaknesses that are actually inherent to the IHR from those that stem from the particular choices of individuals or the specific reactions to political pressures.

The key changes advocated by the independent panel include a dramatic increase in member states' assessed contributions to the WHO's budget; a single, seven-year term for the WHO director-general (to provide a longer mandate but to avoid the political dynamics of reelection); greater professionalization of recruitment processes for senior-level WHO staff (with the aim of depoliticizing hiring); strengthened governance capacity in the WHO's executive board, including through a Standing Committee for Emergencies; and—perhaps most controversial for member states—powers of independent investigation.<sup>60</sup> While the report of the panel underlined the need for the WHO to remain central to global health governance as the lead coordinating organization—a conclusion echoed by the expert panel advising the G20<sup>61</sup>—it also insisted that the organization could not fulfill all of the functions needed to avert another pandemic.

The convening of the WHA in May 2021 fell short of reaching agreement on the reforms to global health security governance advocated by the panel. Most notably, it did not take steps to strengthen the WHO's authority; instead, member states established a working group to discuss various aspects of WHO reform. The WHA also did not agree to changes in the organization's funding base—member states approved the WHO's budget for 2022–2023 but did not agree to increase assessed or mandatory state contributions, with all increases in the budget to be funded by voluntary contributions. Hopes that the Biden administration's more positive engagement with the WHO would lead to meaningful institutional reforms were also dashed, as the United States (with Russia) put the brakes on European calls for the WHA to authorize immediate negotiations on a pandemic treaty. Key U.S. officials have advocated for particular amendments to the IHR that have been discussed over the years—such as a system of graded health alerts prior to the determination of a PHEIC, reforms to the composition of the WHO's Emergency Committee to improve upon its guidance, and an IHR compliance committee or review conference to convene

60. IPPPR, *COVID-19*, 48–49.

61. See the governance reforms outlined in G20 High Level Independent Panel, *A Global Deal for Our Pandemic Age*, 42–55.

member states on pressing issues.<sup>62</sup> But they have thus far refrained from publicly supporting either an enhancement of the powers of the WHO or an increase in assessed contributions.<sup>63</sup> In addition, geopolitical rivalry overshadowed discussions in and around the WHA in May 2021, as the U.S. president tasked his intelligence community to investigate the origins of the COVID-19 virus and then asked the WHO to conduct its own “science-based” study—a request that China quickly rebuffed.

### 4.2 Vaccine Review, Access, and Distribution

One area where collective action did emerge was in vaccine development, review, and distribution. Several regulatory authorities—including the European Union (EU) European Medicines Agency, the U.S. Food and Drug Administration, and Health Canada—actively collaborated by sharing data and information during their reviews of COVID-19 vaccines. This form of cooperation helped to speed up the regulatory process, including the WHO’s Emergency Use Listing, while ensuring that standards for the safety and efficacy of health products were met.

The second example of active collaboration was the launch, in April 2020, of the Access to COVID-19 Tools (ACT) Accelerator. Hosted by the WHO, this mechanism convened scientists, governments, businesses, civil society, philanthropists, and global health organizations to accelerate the development of tests, treatments, and vaccines and to ensure their equal distribution. The vaccine pillar of the ACT Accelerator, COVAX,<sup>64</sup> was designed to function as a central procurement mechanism for all countries, wherein wealthier countries would buy into the scheme and their funding would finance COVID-19 vaccines for low-income countries. COVAX was thus intended to operationalize the idea of global solidarity by ensuring that all countries, including low- and middle-income ones, would receive a share in the vaccines that the scheme purchased. In addition, the COVAX strategy was meant to advance purchase commitments in ways that would assist pharmaceutical companies in developing and producing effective vaccines.

62. Anthony J. Blinken and Xavier Becerra, “Strengthening Global Health Security and Reforming the International Health Regulations: Making the World Safer from Future Pandemics,” *JAMA* 326 (13) (October 2021): 1255–1256, <https://doi.org/10.1001/jama.2021.15611>.

63. David P. Fidler, “A New Era in U.S. Global Health Leadership? What the World Health Assembly Meeting Revealed,” *Think Global Health*, June 3, 2021, <https://www.thinkglobalhealth.org/article/new-era-us-global-health-leadership>.

64. COVAX operates under the leadership of GAVI, the Coalition for Epidemic Preparedness, and the WHO.

Despite the promise of this initiative, as of early December 2021, COVAX has distributed only 617 million doses of COVID-19 vaccines to 144 participating countries—less than half of its stated goal of 1.4 billion doses by the end of 2021.<sup>65</sup> In addition, by the end of 2021, when 70.4 percent of residents in high-income countries and 72.5 percent of residents in upper-middle-income countries had completed the initial COVID-19 vaccination protocol, just 3.99 percent of those in low-income countries were fully vaccinated.<sup>66</sup> Of the doses that were sent to low-income countries, there have been continued challenges in administering the available vaccines, with thousands of doses remaining undelivered and at risk of spoilage. Despite high-level gatherings of state officials—including at the Global Health Summit of the G20 and the WHA—the stubborn problem of inequitable vaccine access, which featured in earlier pandemics, remains undressed. Furthermore, and notwithstanding the calls to share the financial burden of fighting the pandemic, only half of the needed resources for the ACT Accelerator have been pledged.<sup>67</sup>

The prospect of a continuing shortfall prompted the G20, through its own expert panel report, to call on the world’s international financial institutions to include the financing of global public goods, such as global

65. COVID-19 Vaccine Market Dashboard, UNICEF Supply Division, <https://www.unicef.org/supply/covid-19-vaccine-market-dashboard>.

66. COVID-19 Data Explorer, “Share of People Who Completed the Initial COVID-19 Vaccination Protocol,” Our World in Data, <https://ourworldindata.org/explorers/coronavirus-data-explorer?zoomToSelection=true&facet=none&pickerSort=asc&pickerMetric=location&Interval=Cumulative&Relative+to+Population=true&Color+by+test+positivity=false&country=Low+income~L~High+income~Lower+middle+income~Upper+middle+income&Metric=People+fully+vaccinated>, accessed April 14, 2022. In addition, counting all vaccine doses individually, 168.7 doses per 100 people were administered in high-income countries and 168.6 doses per 100 people were administered in upper-middle-income countries, compared with just 11.2 doses administered per 100 people in low-income countries, as of the end of December 2021. See COVID-19 Data Explorer, “COVID-19 Vaccine Doses Administered per 100 People,” <https://ourworldindata.org/explorers/coronavirus-data-explorer?zoomToSelection=true&facet=none&pickerSort=asc&pickerMetric=location&Interval=Cumulative&Relative+to+Population=true&Color+by+test+positivity=false&country=Low+income~High+income~L~Lower+middle+income~Upper+middle+income&Metric=Vaccine+doses>, accessed April 14, 2022.

67. As of late October 2021, governments, private-sector organizations, philanthropists, and multilateral contributors had pledged \$18.9 billion, against the projected needs of \$38.1 billion. These pledges, considering retrospective costs adjustments, bring the 2020–2021 budget’s funding gap to \$14.3 billion. See the funding tracker at “Access to COVID-19 Tools Funding Commitment Tracker,” World Health Organization, <https://www.who.int/publications/m/item/access-to-covid-19-tools-tracker>, last updated January 7, 2022.

health security, as part of their core mandates.<sup>68</sup> This would include an additional U.S.\$15 billion per year, over the next five years, for pandemic preparedness and response, based on predetermined contributions distributed between the WHO and a new Global Health Threats Fund. The International Monetary Fund has already developed an ambitious and detailed \$50 billion plan to “vaccinate the world” and accelerate economic recovery—objectives it insists go hand in hand.<sup>69</sup> The Global COVID-19 Summit, convened by U.S. President Joe Biden in September 2021, attempted to galvanize support for these objectives by encouraging purchases or donations of additional vaccine doses (including through COVAX); committing to expedite the delivery of the two billion doses already promised; and calling for additional funding to ensure that low- and middle-income countries have the capacity to administer doses over the coming months.<sup>70</sup>

A broader phenomenon of “vaccine nationalism,” however, underlies the remaining gap between the aspirations of schemes like COVAX and what has actually been achieved. From the earliest months of the pandemic, states with the resources to produce or buy successful vaccines secured privileged access and/or manufacturing capacity.<sup>71</sup> This included leading democracies such as the United States, United Kingdom, and EU countries, as well as countries that drew upon the doses within COVAX well before most developing countries had even begun their vaccination programs.

Finally, geopolitical competition, rather than a global public goods perspective, also continued to shape access to vaccines as the pandemic unfolded. China adroitly stepped into the global vaccine access crisis by both selling and donating vaccines in ways that advanced its foreign policy

68. See G20 High Level Independent Panel, *A Global Deal for Our Pandemic Age*, 8–9.

69. The International Monetary Fund’s strategy includes bold targets for vaccination (60 percent of the world’s population vaccinated by early 2022) and a ramp-up of vaccine deployment; a boost to test-and-trace capacity, as well as to therapeutic and public health measures; and insurance against the risks of new variants (through the sharing of technology and know-how and investment in vaccine production). See Ruchir Agarwal and Gita Gopinath, *A Proposal to End the COVID-19 Pandemic*, Staff Discussion Notes No. 2021/004 (Washington, D.C.: International Monetary Fund, May 2021), <https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2021/05/19/A-Proposal-to-End-the-COVID-19-Pandemic-460263>.

70. For a summary of the targets set at the summit, see “Fact Sheet: Targets for Global COVID-19 Summit,” The White House, September 22, 2021, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/22/fact-sheet-targets-for-global-COVID-19-summit/>.

71. Thomas J. Bollyky and Chad P. Brown, “The Tragedy of Vaccine Nationalism: Only Cooperation Can End the Pandemic,” *Foreign Affairs* (September/October 2020), <https://www.foreignaffairs.com/articles/united-states/2020-07-27/vaccine-nationalism-pandemic>.

interests, with doses going primarily to states participating in its Belt and Road Initiative. But China has also taken pains to demonstrate its concern for vaccine equity, with President Xi Jinping reiterating at the latest meeting of the UN General Assembly his country's promise to make two billion doses available globally by the end of 2021.

Notwithstanding the lingering questions about the safety and efficacy of China's vaccine, which have limited the impact of its "vaccine diplomacy," the perception that Beijing might be gaining a strategic advantage has motivated responses from other states with interests in the region, such as India and Russia, which have donated doses to Asian countries.<sup>72</sup> Worries about China and Russia gaining a "first mover" advantage in assisting strategically important countries also led the United States to engage in its own form of vaccine diplomacy—through the vaccine initiative launched by the Quadrilateral Security Dialogue in March 2021 and the decisions reached on vaccine sharing at the June 2021 G7. At the COVID-19 summit he convened in the autumn of 2021, President Biden coupled his pledge for an additional 500 million Pfizer doses with the claim that the United States was now the world's "arsenal of vaccines," thereby invoking his country's vocation in World War II and revealing the political motives underpinning its global health policy.

But while Washington's narrative stresses how the United States is leading the charge to address inequities in treatments and vaccines, global health advocates maintain that the pledges of the United States and other high-income democracies remain inadequate.<sup>73</sup> Overall, the pattern of states' vaccine donations, which do not map onto countries with the greatest COVID-19 case burden or largest populations, suggests that geopolitical dynamics are a prime driver of continuing inequities in vaccine access.<sup>74</sup>

72. Samantha Kiernan, Serena Tohme, Kailey Shanks, and Basia Rosenbaum, "The Politics of Vaccine Donation and Diplomacy: Is a Friend in Need a Friend Indeed?" Think Global Health, June 4, 2021, <https://www.thinkglobalhealth.org/article/politics-vaccine-donation-and-diplomacy>. In addition to illustrating how China's "vaccine diplomacy" reinforces the Belt and Road Initiative, these authors demonstrate that China's donations have mapped onto its objectives for securing support for its policies in Hong Kong, Taiwan, and Xinjiang.

73. David P. Fidler, "President Biden's Global COVID-19 Summit and the Shift in Pandemic Geopolitics," Think Global Health, September 25, 2021, <https://www.thinkglobalhealth.org/article/president-bidens-COVID-19-summit-and-shift-pandemic-geopolitics>.

74. David P. Fidler, "Geopolitics Drives Vaccine Access in Asia," *East Asia Forum*, April 13, 2021, <https://www.eastasiaforum.org/2021/04/13/geopolitics-drives-vaccine-access-in-asia/>.

# 5. Addressing Collective Action Problems: Lessons from the Field of International Relations

State responses to COVID-19 illustrate that the main challenge has not been coordination among scientists but a lack of meaningful *political cooperation* among governments. What lessons from the field of international relations (IR) about how to design and foster multilateral cooperation can be applied to current discussions about how pandemic response and preparedness can be improved, including through reform of the WHO or the proposed “pandemic treaty”?

Coordination and cooperation are related yet different activities. The former requires states and key nonstate actors to agree on a particular rule or metric that can guide their behavior; the latter hinges on repeated interactions and the incentives and structures for different parties to make contributions to a collective goal.<sup>75</sup> Academic research points to a number of factors that can affect the likelihood of cooperation, including the number of participants involved in a collective action problem, the time horizon for cooperation, the frequency of interactions, and the quality of information actors have about the performance of others.<sup>76</sup> Successful cooperation can also depend upon the scope of a cooperative endeavor: single-issue cooperation involves a specific shared challenge (e.g., the management of a particular scarce resource), whereas multi-issue cooperation (e.g., mitigating climate change) touches on several aspects of human activity and thus generates greater complexity.<sup>77</sup>

Scholarship in IR further demonstrates how formal institutions play a crucial role in facilitating cooperation among states by establishing focal points for coordinated action, reducing uncertainty about the behavior of

75. Snidal, “Coordination vs. Prisoners’ Dilemma.”

76. For a review of these factors, see Benvenisti, “The WHO,” 591–592.

77. Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge: Cambridge University Press, 1990), <https://doi.org/10.1017/CBO9780511807763>.

other actors, and reducing the costs of making and enforcing agreements.<sup>78</sup> If properly constituted, these institutions can also help government officials and interest groups that are in favor of cooperation to exert more leverage *within states* by influencing particular practices and discourses.<sup>79</sup> Nevertheless, the modalities of international cooperation have differed significantly across issue areas, with some policy domains involving a prominent role for brick-and-mortar organizations (like those associated with the UN system) and others revolving around less formal arrangements and agreements.<sup>80</sup>

## 5.1 Understanding Global Cooperation Problems

Scholars have identified a set of distinct and recurrent cooperation problems<sup>81</sup> that states face (regardless of the substantive issue over which they are cooperating) either in isolation or, more typically, in various combinations when they attempt to work together to solve problems and/or realize joint gains.

- *Enforcement problems* are common in situations featuring public goods or problems of the “commons” and arise when some actors have individual incentives to defect from agreements to cooperate while others cooperate. While all states benefit from clean air and water, for instance, each state would prefer not to incur the costs required to achieve this good and instead free ride off others’ contributions.
- *Commitment problems* are a product of changing incentives over time, such that an actor’s agreement to behave in a particular way in some future period may not be perceived as optimal when that future period arrives. Bilateral investment treaties, for example, are characterized by problems of commitment: circumstances in a country may evolve to the point that nationalizing a foreign investment provides lucrative and irresistible short-term gains, thereby creating incentives to renege on a previous agreement.

78. The classic statement is found in Robert O. Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton, N.J.: Princeton University Press, 1984).

79. Keohane and Victor, “Cooperation and Discord and Global Climate Policy,” 572.

80. See Koremenos, Lipson, and Snidal, “The Rational Design of International Institutions.”

81. For an elaboration of this range of cooperation problems, see Barbara Koremenos, *The Continent of International Law: Explaining Agreement Design* (Cambridge: Cambridge University Press, 2016), 31–40, <https://doi.org/10.1017/CBO9781316415832>.

- *Distribution/bargaining problems* feature in situations where actors have divergent preferences over the substantive terms of an agreement, which in turn affect the distribution of costs and benefits of a potential cooperative arrangement. In trade negotiations, for example, states often disagree over which tariffs to lower, by how much, and over what time period, as a result of the different distributional effects of a trade agreement.
- *Coordination problems* arise when actors must coordinate on one precise outcome to reap the gains from cooperation. The more damaging it is to “miss” this specific solution, the more severe the coordination problem. Agreements that govern airline traffic are an example of a cooperative endeavor characterized by significant coordination problems.
- *Problems of uncertainty* are of two main kinds. In the first case—uncertainty about *behavior*—actors are uncertain or lack information about how other actors will behave, thereby complicating efforts to detect whether an actor is in conformity with or “cheating” on the agreed terms of cooperation. In the domain of chemical weapons, for example, any cooperative agreement must take into account the ease of hiding the production of chemical weapons in an otherwise nonthreatening pharmaceutical plant. In the second case—uncertainty about the *state of the world*—actors are uncertain about the consequences of cooperation, given the potential for intervening developments (scientific or technological) or particular shocks to alter the benefits and costs of cooperation. For example, a cooperative arrangement over disputed territory could be affected by uncertainty over the future value of oil or mineral deposits located there.
- *Norm exportation problems* arise when a state (or group of states) seeks to diffuse particular norms or standards to other states through a cooperative arrangement, but where such exportation is either contested or difficult to achieve. With some human rights treaties, for example, participating liberal democratic states have been less concerned with their own capacity to comply with the standards in the treaty and more concerned with changing the behavior of other states over time.



The academic research on cooperation problems has generated two principal insights. First, cooperative arrangements are more likely to be reached if states fully understand the *type* and *structure* of the cooperation problem(s) they face. Second, these arrangements are more likely to be successful if they incorporate the right “design features,” including, in some cases, procedural provisions, to confront the underlying cooperation problem(s). These institutional features succeed in enabling cooperation when they are “incentive compatible,” such that actors adhere to them because doing so is in their reciprocal interest.<sup>82</sup>

For example, cooperative efforts in nuclear arms control, chemical weapons, and human rights have frequently been characterized by uncertainty about behavior. When states cannot easily observe the cooperation or noncooperation of their partners, they will seek to incorporate effective *monitoring* and *verification* provisions. This was the case in arms control treaties between the superpowers during the Cold War. The United States and the Soviet Union would have preferred not to cooperate at all than to cooperate without verification of the other’s activities. The monitoring provisions within their agreements thus made superpower cooperation a stable outcome to which each state had an incentive to adhere. Alternatively, in fields such as trade and the environment, cooperative arrangements have often entailed overcoming distribution problems, particularly for developing countries. They have therefore featured *compensation* mechanisms (frequently in a financial form) or “differential duties” to help those who incur disproportionate costs through their agreement to participate. Finally, to address uncertainties about the future, international treaty law anticipates future problems by containing a rule that allows a state party to a treaty to claim “unforeseen circumstances” as a reason for not complying with a treaty rule.

## 5.2 Core Cooperation Problems in Pandemic Preparedness and Response

Cooperation in the field of pandemic preparedness and response is particularly complex because it entails a large number of participants, takes place over a long period of time, and is multifaceted in its scope.<sup>83</sup> Moreover, the need to base pandemic preparedness and response on a common scientific and epidemiological foundation intensifies this complexity, as well as the severity of key cooperation problems.

82. *Ibid.*, 232–237.

83. Benvenisti, “The WHO,” 592.

### *5.2.1 Rethinking the Problem of Free Riding*

Inequities in state capacity and vulnerability shape states' priorities for cooperation on global health security. Low-income countries, for example, have experienced the benefit of a surveillance system differently, given their lower capacity to prepare and react to pandemics. This suggests that global information on disease outbreaks is of far less importance as a public good when states lack the means to respond effectively. These states also define the essential public goods in global health security as extending well beyond effective early warning, which has long been the main priority of developed countries. Prior to COVID-19, low-income countries had therefore grown increasingly frustrated with a regime geared toward ensuring the free flow of information to richer countries but that did not transfer to low-income countries resources to enable them to act on that surveillance, to participate meaningfully in policy coordination, or to gain access to essential vaccines and drugs.

In this context, the global public goods problem of free riding fades in significance. Low-income countries might be benefiting from the same disease outbreak information without expending the same financial resources as high-income countries—technically an instance of free riding—but this situation does not deliver the former the kinds of benefits they really seek. Nor does it directly threaten the interests of high-income countries in the same way that such behavior might in other policy domains, such as climate change. There, for example, increasing greenhouse gas emissions from low-income countries can effectively negate emissions reductions by high-income countries, since CO<sub>2</sub> has the same effect whether it is produced in a low-income country or a high-income country. Low-income countries can therefore free ride on the sacrifices of high-income countries and undermine the latter's mitigation efforts, with every country being worse off as aggregate CO<sub>2</sub> levels are not reduced.

In the realm of infectious disease, the dynamics are different, and the search for cooperative solutions requires us to acknowledge, understand, and respond to them. Weaknesses in the health systems of low-income countries do not necessarily present the same kinds of challenges to high-income countries, for at least three reasons. First, as COVID-19 reveals, serious outbreaks can occur anywhere—including in high-income and high-capability countries. This suggests that surveillance and alert systems must be global and focused on all states. Second, many disease outbreaks in low-income countries will involve pathogens, such as Ebola, that will not generate the equivalent kind of crisis in high-income countries. Third, armed with a regular and timely flow of good surveillance information, high-income countries can and will take steps to protect themselves—including

through practices such as “vaccine nationalism”—regardless of what low-income countries do, or can do, in their domestic policy.<sup>84</sup>

### 5.2.2 *Managing Issues of Distribution, Commitment, and Uncertainty*

Rather than focusing on the collective action problem of free riding, the analysis here identifies three main cooperation problems in the realm of pandemic preparedness: *distribution*, *commitment*, and *uncertainty about behavior*.

The first and most important problem is a distributive one, which arises from differences in the capacities and vulnerabilities of states. These inequalities shape government responses to health risks in ways that do not always incentivize cooperative behavior and create negative “externalities” for other states.<sup>85</sup> When in 2005 the IHR expanded its scope to include obligations on states to develop national core surveillance and response capacities—on top of complying with all the other obligations in the revised regime—it was recognized that these requirements imposed significant demands on developing countries. Yet the IHR included no accompanying compensation mechanism to assist with compliance.<sup>86</sup> Instead, assistance has come from outside the WHO framework through more ad hoc and voluntary initiatives (such as the Global Health Security Agenda) and has fallen well short of what is required. Consequently, current deliberations surrounding the pandemic treaty are encountering pushback from developing-country representatives worried about creating more obligations without corresponding financial mechanisms to enable their fulfillment.

Second, earlier versions of the IHR suffered from a lack of commitment as states routinely violated the core provisions (rather than taking the conscious step of withdrawing from the treaty) and failed to revise the cooperative regime to address mounting global health problems. What paved the way for state agreement on the revised IHR (2005) was a set of global health crises, including HIV/AIDS and SARS. Even so, noncompliance with the “core capacity” requirement of the 2005 IHR has continued to undermine the effectiveness of cooperative efforts to improve pandemic preparedness and response—in large part because of distribution issues. Less clear is whether the key issue during the early phases of the COVID-19 pandemic, particularly in China, was a lack of commitment to key provisions of the

84. Thanks to David Fidler for discussing this comparison between infectious disease and climate change.

85. Benvenuti, “The WHO,” 592.

86. The IHR did, however, give low-income countries a five-year grace period to bring themselves into compliance.

IHR. China did comply with the IHR by responding to the WHO's request to verify the Wuhan outbreak and continued to attend to its ongoing obligations by sharing information with the WHO as the disease progressed.<sup>87</sup> The WHO's early assessment of China's actions, which were predominantly positive, suggests the core problems lay elsewhere—notably, in the timing of China's sharing of data about human-to-human transmission. On other problematic issues, such as the sharing of genetic sequencing data, China had no IHR obligations.

Finally, cooperation on pandemic preparedness and response has been affected, albeit to a lesser extent, by states' uncertainty over how other states will behave, especially whether they will "defect" from negotiated provisions related to reporting and response. For example, states may under-report disease events to avoid others' trade and travel sanctions. The IHR are partly designed, through the strengthened powers given to the WHO director-general, to address this temptation to defect. In other words, the IHR seek to overcome the "certainty" of defection with provisions to convince member states that, to further their own best interests, they should cooperate early and often with the WHO. Nevertheless, issues with information sharing around human-to-human transmission during the early months of COVID-19 reveal the persistence of this particular cooperation problem. Ultimately, addressing the potential for defection is made more challenging by the fact that pandemics operate at two levels: they are a *transnational* threat that requires some level of international cooperation (and thus the minimization of incentives to defect); and they are a *national* threat that requires the exercise of extensive sovereign powers, and this increases incentives to defect if compliance is perceived to pose excessive limits on sovereignty.<sup>88</sup>

Beyond these core cooperation problems of distribution, commitment, and uncertainty are additional issues related to coordination and norm exportation. To effectively coordinate their infectious disease responses, key state and nonstate actors need reliable scientific information about health risks and the most effective ways to address them. This requires a high degree of standardization in the way data and advice are presented. Furthermore, prior agreement is required on rules for triggering travel or

87. The various diagnostics of the period from late 2020 to early 2021 indicate that the WHO first learned about the outbreak in Wuhan from press reports and from ProMED, a U.S.-based open-source platform for early intelligence about infectious disease outbreaks. In late January, China began to share information and biological samples with the WHO and other governments.

88. Treaties often build in exceptions for emergency contexts and in many cases permit states to withdraw from an agreement or organization. The U.S. government's decision in 2020 to withdraw from the WHO was therefore permissible under international law.

trade restrictions to minimize ambiguity and uncertainty. While some reforms might still be required, the revised IHR (through Article 43) and the broader regime for global health security have generally been effective in assisting states in managing these kinds of coordination challenges. In the case of COVID-19, the problem was less about coordination around a particular rule on triggering travel restrictions and more about the content of the WHO's initial advice, which subsequently proved problematic.

Generally speaking, norm exportation has *not* been a prominent feature in most efforts to enhance cooperation on pandemic preparedness and response. This is so for two reasons. First, the IHR's embrace of the concept of "global health security" has been expansive enough to cope with interpretations of health risks that might lead individual countries to take different courses of action. Second, the successful functioning of the IHR does not depend on states accepting or spreading specific norms. The IHR make no explicit mention, for example, of the "right to health," and any human rights provisions that are invoked are based on obligations that states have under existing human rights treaties. Some of the prescriptions that do feature in the 2005 IHR, such as the need to balance trade and travel interests with health interests, are long-standing ones in international cooperative efforts on global health and have not given rise to significant backlash. Provisions that might appear to be more contentious or to "smuggle in" particular normative agendas—such as allowing the WHO to use nongovernmental sources of information in global surveillance—have not been a frequent source of serious collective action problems. While this provision has normative content, in that it empowers an international organization vis-à-vis its sovereign state members, it is primarily designed to incentivize states to operate within the IHR framework. Where norm exportation *does* have the potential to affect the prospects for multilateral cooperation is with respect to more contested values such as "transparency" and "health equity." If one set of states is seen to be using cooperative frameworks to bring about greater openness in closed societies or to advance particular redistributive goals, this could affect the willingness of other states to accept binding provisions that might improve pandemic preparedness and response. Similarly, in current discussions about the design of a "pandemic treaty," the proposal to articulate a set of human rights norms that states should respect in the design of their pandemic strategies<sup>89</sup> could generate significant pushback.

89. For a discussion of some of the ways in which norms are featuring in proposals for the pandemic treaty, see Logan Nesson and Dana McLaughlin, "Q and A: After the World Health Assembly Special Session, How Likely Is a Pandemic Treaty?" *United Nations Foundation Blog*, December 6, 2021, <https://unfoundation.org/blog/post/qa-after-the-world-health-assembly-special-session-how-likely-is-a-pandemic-treaty/>.

Similarly, uncertainty about the future “state of the world”—in this case, about the nature of future pathogens—has not been a particularly salient barrier to cooperation on pandemics. The scope of cooperation within international health organizations, such as the WHO, has been sufficiently broad to allow member states to adjust to new health challenges that might arise in different contexts. Particularly with the revision of the IHR in 2005, states dramatically expanded the reach of the cooperative regime to capture any disease event that might have the potential to constitute a public health emergency of international concern—including both existing diseases and pathogens not yet known. The need to prepare for future unknown pathogens was an incentive, not an impediment, to revising the existing arrangements. At the same time, the new approach in the revised IHR was already based on a sophisticated epidemiological understanding of the types of pathogens most likely to cause serious international disease outbreaks—i.e., influenza and coronaviruses. As a result, even though the IHR do not specifically identify strains of influenza or coronavirus that might emerge, its cooperative framework was already primed to respond to these “known unknowns.”<sup>90</sup>

### 5.3 Overcoming Cooperation Problems Through Institutional Design

Given the cooperation problems defined above, the ideal cooperative arrangements to meet the challenge of infectious disease would include norms and systems through which states could share the burdens and benefits of effective pandemic preparedness and response.<sup>91</sup> They would also make more space for actors beyond governments by incorporating both impartial and independent regulators with full access to various sources of information that could be freely shared, as well as expert bodies with the authority to assess states’ interpretations of their obligations under the IHR and their approaches to managing competing obligations across regimes related to health, trade, and human rights.<sup>92</sup> Finally, the international institutions at the core of pandemic governance would ideally strike the right balance between ensuring accountability and responsiveness to the member states that created them and maintaining enough insulation from political pressures to act impartially and effectively to deliver

90. Thanks to David Fidler for sharing this perspective on the IHR.

91. Benvenisti, “The WHO,” 592.

92. Alvarez, “The WHO in the Age of the Coronavirus.”

on public goods.<sup>93</sup> But reality falls short of these ideals. As diplomats and global health experts debate what reforms are desirable and achievable, what lessons can they draw from efforts to craft solutions to cooperation problems in other policy domains? The comparative research on institutional design points to several considerations.

### 5.3.1 *The Distribution of Power*

While the global distribution of power matters for cooperation, *power functions in a variety of ways within institutional arrangements*. Evidence from different cooperative regimes suggests that strong states do not always get their way. In institutional settings that require broad adherence to the rules for the benefits of cooperation to be realized, defection by even the smallest states can undermine the goals of the agreement, thereby amplifying their power. The international accords on the ozone layer, for example, would not have had much effect without the participation of major developing states. They leveraged this position to call for a special fund—created by the United States and other large industrial states that were most concerned with protecting the ozone layer—to reimburse them the full cost of compliance.<sup>94</sup>

That said, power asymmetries can and do shape cooperative arrangements by producing outcomes more amenable to powerful countries. This is particularly so where more informal practices, which are not specified in the text of an agreement, allow powerful states to influence how an agreement is applied.<sup>95</sup> A prime example is the way in which such states have managed alleged violations of the Nuclear Non-Proliferation Treaty (NPT). Powerful countries have also played a pivotal role in either inducing or preventing cooperation. For instance, the United States and the Soviet Union negotiated a Bilateral Destruction Agreement in 1990 that then provided momentum for the creation of the multilateral Chemical Weapons Convention two years later. This example also underscores how it is often easier

93. For a further discussion of the challenges of making institutions sufficiently insulated from states, see Tana Johnson, “Guilty by Association: The Link between States’ Influence and the Legitimacy of Intergovernmental Organizations,” *Review of International Organizations* 6 (1) (2011): 57–84, <https://doi.org/10.1007/s11558-010-9088-z>; and Ranjit Lall, “Beyond Institutional Design: Explaining the Performance of International Organizations,” *International Organization* 71 (2) (2017): 245–280, <https://doi.org/10.1017/S0020818317000066>.

94. Emily Hafner-Burton, David G. Victor, and Yonatan Lupu, “Political Science Research on International Law: The State of the Field,” *American Journal of International Law* 106 (1) (2012): 83, <https://doi.org/10.5305/amerjintelaw.106.1.0047>.

95. Koremenos, *The Continent of International Law*, 238–241.

to engage in cooperative endeavors when they are codifying agreements that powerful actors are already incentivized to accept.

The different ways in which power configurations can affect cooperative arrangements have clear implications for improving pandemic preparedness and response. First, COVID-19's clear demonstration of deep interdependence among countries presents opportunities for low-income countries—who might be considered “weak”—to elevate a solidarity logic in negotiations for global health reform and bargain for the kind of assistance they have long been demanding from high-income countries. This could take the form of efforts to link progress on sharing data on disease outbreaks with a permanent platform to ensure equitable access to vital countermeasures.

Second, past instances where great-power rivals have jointly addressed a common threat indicate that the escalating competition between China and the United States does not necessarily foreclose cooperative arrangements in pandemic preparedness and response. However, it does suggest that finding alternative and perhaps more informal mechanisms for dialogue will be critical prior to (or alongside) any broader multilateral process. It also suggests that the current infusion of global health and pandemic management by a U.S.-China rivalry—as evidenced, for example, in the U.S.-led effort to conduct another investigation of the origins of COVID-19—will make ongoing efforts at *global* cooperation (as opposed to collaboration within smaller groupings of states) more difficult.

### 5.3.2 Membership and “Variable Geometry”

The comparative research on international institutions suggests that *universal membership is not essential for successful international institutions or cooperative arrangements*. Instead, membership should be considered as a “strategic choice” in the design of such arrangements. A more restrictive membership (at least initially) may prove more effective, because a larger, more heterogeneous group of participants can make compromises harder to achieve and strong compliance less likely.<sup>96</sup> As the benefits from cooperation and the capability of international institutions grow, membership can then be expanded to other states. In their work on climate change, for example, Robert Keohane and David Victor advocate for states to engage in deep forms of cooperation where they can, often in small groupings; to coordinate on issues where cooperation is harder or where universal

96. *Ibid.*, 240.



participation is important; and to “probe experimentally” when seeking to expand the boundaries of feasible cooperation.<sup>97</sup>

The limited-membership model of cooperation found in settings such as the G7 and G20 has proven highly effective when responding to pressing challenges or crises such as the 2008 financial crisis. But this approach has also gained in prominence in discussions of other challenges, such as cyber security and vaccine production and distribution, where scholars foresee states with common interests forming “global clubs”<sup>98</sup> to share the burdens and costs of a variety of goods, especially in a context of growing rivalry between democratic and authoritarian states.

In the domain of pandemic preparedness and response, it is tempting to lead with the argument that only universal membership in a cooperative arrangement can address a threat that—theoretically—can affect all states. But several examples suggest that smaller groupings of states can assume leadership in addressing certain health risks or developing particular funding solutions. In the current context, a strong case can be made that a set of advanced liberal democratic states (whether through the G7, the G20, or the EU) could and should take the lead in creating and financing a more effective platform for ensuring equitable access to key “goods” such as treatments and vaccines. This case rests not only on their economic capacity but on the fact that their reputations have been damaged by protectionist practices and “vaccine nationalism.”

### 5.3.3 *Monitoring and Verification*

The institutional design literature suggests that international agreements are more likely to include *formal monitoring provisions for the implementation of obligations when the number of states involved in a cooperative endeavor is large*.<sup>99</sup> Moreover, when an issue area is complex or when the extent of damage from a threat is uncertain, monitoring by technical experts—whose judgments are perceived as apolitical and confidential—has proven vital to effective cooperation. This has been the case in the field of chemical weapons, where member states have relied heavily on the Technical Secretariat of the Office for the Prohibition of Chemical Weapons to design and implement the verification mechanism for the Chemical

97. Keohane and Victor, “Cooperation and Discord and Global Climate Policy,” 574. See also Hafner-Burton, Victor, and Lupu, “Political Science Research on International Law,” 78.

98. Oona Hathaway and Scott J. Shapiro, “Welcome to the Post-Leader World,” *Foreign Policy* (July 4, 2020), <https://foreignpolicy.com/2020/07/04/after-hegemony/>.

99. Koremenos, *The Continent of International Law*, 271–272.

Weapons Convention—including the conduct of inspections—and to foster international cooperation in chemistry for peaceful purposes.

However, the monitoring of state commitments can take many forms and does not necessarily need to rely on international third-party actors. Among agreements that have formally delegated monitoring provisions, researchers have found that more than 70 percent are also informally monitored by NGOs, who are less constrained in the timing and scope of their activities. For example, Greenpeace is free to engage in monitoring activity outside the international agreement on whaling, whereas the activities of the International Whaling Commission must align with the provisions of the treaty.<sup>100</sup> At the same time, when formal delegated monitoring is absent from a cooperative arrangement, the incidence of informal NGO monitoring also decreases substantially.<sup>101</sup> This suggests that informal information gathering and verification work best as a complement to, rather than a substitute for, a treaty or institutional arrangement.

In some policy domains, actors *below* the state level, working across borders, have also created monitoring arrangements to prevent or mitigate crisis. After the Three Mile Island incident in the United States, for example, organizations in the nuclear industry recognized that they were all “hostages of each other,”<sup>102</sup> and thus they created a voluntary and confidential system of peer evaluation—the Institute of Nuclear Power Operations—to “sniff out” bad performance, elevate safety standards, and thus maintain the viability of the industry as a whole. The World Association of Nuclear Operators now operates on a similar kind of model, below the formal intergovernmental level, through site visits, mutual support, the exchange of information, and the emulation of best practices.

In the realm of infectious disease, monitoring and information sharing cannot operate without governments, given their central role and power in instituting public health measures. Furthermore, monitoring is in many respects already “layered” and conducted at multiple levels by both state and nonstate actors. For example, the joint external evaluations of the IHR’s “core capacity” requirements involve both governments and NGOs. Where potential progress could still be made is in creating a more comprehensive web of surveillance that links medical facilities and frontline medical personnel around the world in order to detect disease events earlier and more often. Although this proposal does not address the challenge of authoritarian governments, which are unlikely to grant formal permission

100. *Ibid.*, 284.

101. *Ibid.*, 289.

102. Joseph V. Rees, *Hostages of Each Other: The Transformation of Nuclear Safety since Three Mile Island* (Chicago: University of Chicago Press, 1994).

for their facilities to share data directly with such a web, it does leave space for public health “whistleblowers” to act on their professional ethics and incentives and to leverage existing transnational networks.<sup>103</sup>

The importance of impartial inspections continues to be highlighted in several task force reports on pandemic preparedness and response—including the most recent report from the WHO’s independent panel. However, a key takeaway from other policy domains is that schemes for expert inspection can be more or less insulated from political pressure—depending on how they are designed—but can never be fully independent if they are connected to intergovernmental organizations and the states that create them. In the case of the WHO investigation of COVID-19, expectations were created that ultimately could not be met: the investigation was labeled “independent” but was conducted under the auspices of the WHO and thus could not in practice be fully independent of the organization’s member states.<sup>104</sup>

### 5.3.4 Domestic Actors and Factors

The IR literature has long argued for the importance of domestic or micro-level factors in explaining international outcomes.<sup>105</sup> Academic research illustrates that, in almost every policy area, domestic interest groups have been instrumental in creating a virtuous dynamic that leads from more limited forms of coordination to stronger forms of international cooperation. As shown in the field of international trade, for example, such groups not only create internal political forces that help to promote deeper forms of cooperation, but they also gain leverage through their participation in international institutions.<sup>106</sup> This latter dynamic can also be seen in the realm of human rights, where the international human rights regime has strengthened the ability of domestic civil society actors to push for improved rights protection at home. These actors are particularly crucial in the “naming and shaming” processes that have, in some cases, produced tangible improvements in compliance with human rights standards.<sup>107</sup>

103. Alvarez, “The WHO in the Age of the Coronavirus,” 578.

104. Thanks to Mara Pillinger for this observation.

105. Robert D. Putnam, “Diplomacy and Domestic Politics: The Logic of Two-Level Games,” *International Organization* 42 (3) (1988): 427–460, <https://doi.org/10.1017/S0020818300027697>.

106. Keohane and Victor, “Cooperation and Discord and Global Climate Policy,” 571.

107. Margaret E. Keck and Kathryn Sikkink, *Activists beyond Borders: Advocacy Networks in International Politics* (Ithaca, N.Y.: Cornell University Press, 1998); and Emilie Hafner-Burton, “Sticks and Stones: Naming and Shaming the Human Rights Enforcement Problem,” *International Organization* 62 (4) (2008): 689–716, <https://doi.org/10.1017/S0020818308080247>.

Much less benign dynamics, however, are becoming increasingly apparent in many policy domains, with domestic politics acting as a break on, rather than a catalyst for, multilateral cooperation. Such dynamics are especially apparent in the various forms of backlash against the EU—including during the 2016 Brexit debate—but have also been prominent in opposition to multilateral agreements associated with trade and migration<sup>108</sup> and in populist critiques of the UN system.<sup>109</sup> As the academic literature over the past decade has shown, populist sentiment—whether expressed by leaders or the general public—constrains states from delegating national sovereignty in ways that enable international cooperation and makes it more likely that states will resist guidance or assistance from “foreign” actors.<sup>110</sup>

This combination of virtuous and problematic dynamics is also evident in the realm of infectious disease. Certain domestic actors—whether governmental (in the case of health ministries) or nongovernmental (in the case of scientific researchers)—have been crucial in not only advocating for but also implementing deeper forms of global cooperation that now form part of the regime of global health security. In addition, the capacities and strengths of private-sector organizations can be harnessed in the service of better pandemic preparedness and response, including by providing technical input into strengthening health systems, reinforcing critical supply chains, and developing new manufacturing capacity. Pressure from companies in industries heavily affected by pandemics can also be exerted on governments to tighten international agreements and to find better ways to develop and implement public health recommendations.

108. See, for example, Jeff Colgan and Robert Keohane, “The Liberal Order Is Rigged: Fix It Now or Watch It Wither,” *Foreign Affairs* 96 (3) (2017): 36–40, <https://www.foreignaffairs.com/articles/world/2017-04-17/liberal-order-rigged>; Mark Copelovitch and Jon C. W. Pevehouse, “International Organizations in a New Era of Populist Nationalism,” *Review of International Organizations* 14 (2) (2019): 169–186, <https://doi.org/10.1007/s11558-019-09353-1>; and Thomas Wright, *Advancing Multilateralism in a Populist Age* (Washington, D.C.: Brookings Institution, February 2021), [https://www.brookings.edu/wp-content/uploads/2021/02/FP\\_20210204\\_multilateralism\\_wright\\_v2.pdf](https://www.brookings.edu/wp-content/uploads/2021/02/FP_20210204_multilateralism_wright_v2.pdf).

109. David Bosco, “For the UN, a Rise in Populism Reveals an Old Challenge,” *The Wilson Quarterly* (Fall 2018), <https://www.wilsonquarterly.com/quarterly/the-fate-of-the-international-order/for-the-un-a-rise-in-populism-reveals-an-old-challenge/>.

110. See, for example, Bertjan Verbeek and Andrej Zaslove, “Populism and Foreign Policy,” in *The Oxford Handbook on Populism*, ed. Cristóbal R. Kaltwasser, Paul Taggart, Paulina Ochoa Espejo, and Pierre Ostiguy (Oxford: Oxford University Press, 2017), chap. 20, <https://doi.org/10.1093/oxfordhb/9780198803560.013.15>. For a review of the literature on populism and international cooperation, and its relevance for COVID-19, see Jon C. W. Pevehouse, “The COVID-19 Pandemic, International Cooperation, and Populism,” *International Organization* 74 (S1) (2020): E191–E212, <https://doi.org/10.1017/S0020818320000399>.

Nevertheless, as COVID-19 has revealed, some domestic actors—whether through their opposition to public health measures, peddling of misinformation, or efforts to challenge scientific guidance or the advice of international civil servants—have been significant obstacles to the implementation of solutions identified at a global level. Populist leaders and politicians, along with their supporters, regularly questioned the competence and legitimacy of multilateral institutions such as the WHO—employing labels like “technocratic” and “elitist”—and denounced the advice of the “epistemic communities” of scientists and medical professionals. Beyond the direct effects of this kind of populist skepticism, scholars have suggested that anti-elitism can have a dampening effect on “naming and shaming” efforts. Because populists discount or ignore information from so-called elitist organizations, “news that their own country’s policies are not in line with the expectations of other member states will be unlikely to ruffle a populist’s feathers” and may even serve as a “badge of honour.”<sup>111</sup>

Within advanced democracies, the populist penchant for anti-elitist and anti-expert views has been particularly consequential—not only for efforts to combat the pandemic but also for the broader global standing of democracy. A year and a half on from the outbreak of COVID-19, the “sub-optimal performance” of leading democratic states had, according to one global health scholar, seriously “undercut the proposition that democratic governance is good for global health.”<sup>112</sup>

### *5.3.5 Inclusive Structures and Peer-to-Peer Dialogue*

Lastly, the IR literature highlights how the politics of inclusion and exclusion can shape possibilities for cooperation. While the NPT created clear “haves” and “have nots” and thus institutionalized forms of hierarchy in proliferation governance, other cooperative arrangements to address common challenges have created more egalitarian structures to generate buy-in. The Chemical Weapons Convention, for example, requires *all* members to give up their programs and to maintain “chemical defenses” that provide protection assistance to any member facing chemical weapons threats. These provisions have

111. Pevehouse, “The COVID-19 Pandemic, International Cooperation, and Populism,” 198–199.

112. David P. Fidler, “The Challenge of Strengthening Democracy and Global Health in U.S. Foreign Policy,” *Think Global Health*, September 27, 2021, <https://www.thinkglobalhealth.org/article/challenge-strengthening-democracy-and-global-health-us-foreign-policy>. As Fidler notes, poor pandemic performance in authoritarian states provides “cold comfort” to the world’s democracies, “because democratic governance is supposed to be better.” Assessments of those countries that did implement effective policies during the pandemic have tended to focus more on nonideological factors.

enabled greater participation and arguably enhanced the normative power of the convention. Similarly, the Universal Periodic Review (UPR) process for human rights requires all countries (including advanced liberal democratic states) to submit to peer review and to self-report on progress. The process's highly public form of information sharing among states, which occurs during interactive dialogue sessions in Geneva, has had the effect of catalyzing more extensive deliberation among a variety of stakeholders across the human rights system, "both in the run-up to and in the backwash of the UPR process."<sup>113</sup> The design features of inclusivity and peer-to-peer deliberation have evoked cooperative responses from many countries—even those with poor human rights records—and helps to mitigate against the charge that human rights protection and promotion is a "Western-inspired" project.

The global health security regime shares key aspects of this more inclusive model through the obligations set out for all states under the IHR. Reforms to the IHR in 2005 also served to demonopolize states as the key suppliers of information on infectious disease, much like the Geneva-based human rights mechanisms mandate the participation of a range of stakeholders beyond sovereign governments.<sup>114</sup> Nonetheless, the review committee tasked with reporting on the functioning of the IHR during the COVID-19 pandemic recommended that the WHO work more actively with countries to establish a UPR process—akin to a pandemic preparedness and response "report card"—that could more routinely assess the level of implementation of the IHR and encourage a more collaborative approach to ensuring a whole-of-government response to disease outbreaks.

Such a system would not, and could not, be completely immune from politicization, but its focus on assessing capacities for gathering information about emerging pathogens and broader public health infrastructure could arguably make it less susceptible to the deep political divisions that have at times undermined the human rights UPR process. More important, such a system would enable countries to review their pandemic preparedness and response capacity *together with others*, to make the results public, and to support one another as peers, thereby contributing to a common accountability framework.<sup>115</sup>

113. Karolina M. Milewicz and Robert E. Goodin, "Deliberative Capacity-Building through International Organizations: The Case of the Universal Periodic Review of Human Rights," *British Journal of Political Science* 48 (2) (2016): 519, <https://doi.org/10.1017/S0007123415000708>.

114. *Ibid.*, 520.

115. See World Health Organization, *Report of the Review Committee on the Functioning of the IHR (2005) during the COVID-19 Response*, UN doc. A74/9 (Geneva: WHO, May 2001), <https://www.who.int/publications/m/item/a74-9-who-s-work-in-health-emergencies>.

## 5.4 Assessing Proposals for Reform of Pandemic Preparedness and Response

In addition to identifying ways that institutional arrangements can be tailored to different kinds of cooperation problems, the comparative research on institutional design raises key questions about the viability of some of the proposals that have been advanced to improve global pandemic preparedness and response.

### 5.4.1 *Binding Versus Nonbinding Arrangements*

This research reveals that, although binding agreements (for example, specific treaty commitments) are frequently argued to be the optimal solution to collective action problems—given the need for states to be confident of one another’s reliability—such arrangements may capture only a limited level of coordination and represent the lowest common denominator of agreement. In practice, they often lead to few actions beyond what countries would have done on their own.<sup>116</sup> Many international arrangements—particularly in the environmental domain—therefore adopt more flexible and nonbinding approaches.

This is also true for infectious disease, where many parts of the regime complex for global health security are nonbinding. Those parts of the regime that *are* covered by binding regulations—such as the IHR (2005)—were agreed upon in a much more favorable international context, when there was a broad commitment to globalization and collective action in the face of growing transnational threats and less ideological and geopolitical competition. Yet even here the two factors that have been relied upon to generate compliance with the IHR—the “technocratic legitimacy” of the WHO and the convergence of state interests—have not always been sufficient.<sup>117</sup> Thus, a key question facing proponents of a new legal instrument for pandemic preparedness and response is how ongoing issues of noncompliance with an existing binding agreement could be addressed by negotiating another treaty.

Current diplomatic discussions around such an instrument suggest that the preferred approach is the negotiation of an overarching framework convention, which would then be accompanied by more specific protocols. However, as some legal analysts have noted, previous conventions on protection of the ozone layer and tobacco control illustrate that the combination of framework and protocols works best when confronting

116. Keohane and Victor, “Cooperation and Discord and Global Climate Policy,” 573–574.

117. Alvarez, “The WHO in the Age of the Coronavirus,” 582.

a specific problem for which proven policy or technological solutions exist—as they did in these domains—and when additional permissive conditions are present. Thus, high-income countries in the Global North were strongly supportive of a binding agreement on the ozone layer, given the direct threat that ozone depletion posed to their societies, and had strong incentives to transfer resources to low-income countries to address any noncompliance problems.<sup>118</sup> In the case of the Framework Convention on Tobacco Control, agreement was made easier by the fact that noncompliance by individual countries “posed no systemic threat” and that the convention could mobilize assistance from the WHO, NGOs, and high-income states to transfer proven tobacco-control policies to low- and middle-income countries.<sup>119</sup> By contrast, framework conventions and protocols have been much less effective in the face of multidimensional transnational problems—such as global warming or biodiversity loss—where technological solutions are more complex and where policy solutions are both more costly and entail unequal effects. The policy domain of pandemic preparedness and response shares many of these more challenging background conditions.

#### 5.4.2 *The Lack of Incentives for Enforcement*

Though recent commentary on global health and infectious disease has often featured calls for stronger sanctions—or punishment—when states fail to meet formal commitments, comparative research indicates that such punishment provisions in international institutions exist in only a small minority of situations.<sup>120</sup> Global trade agreements—where dispute resolution mechanisms authorize a decentralized application of countermeasures by states—and investment treaties are much more the exception than the rule. Even within the realm of nuclear weapons, where punishment might be thought to be more robust, formal enforcement measures are largely absent from the nonproliferation regime, and states can withdraw from the NPT with ninety days’ notice. The assessment of a violation of the treaty is centralized in the UN Security Council, but actual enforcement is decentralized and left to UN member states. The latter can and do respond

118. David Fidler, “The Case against a Pandemic Treaty,” *Think Global Health*, November 26, 2021, <https://www.thinkglobalhealth.org/article/case-against-pandemic-treaty-0>. As Fidler notes, another contributing factor in this case was the chemical industry’s move to develop affordable alternatives, which then reduced the political and economic costs of substitution.

119. *Ibid.*

120. Koremenos, *The Continent of International Law*, 232.



to alleged violations unilaterally and sometimes through unofficial means (for example, Israel attacked nuclear facilities in Syria in 2007 and more recently in Iran).

In the case of infectious disease, the enforcement of treaty provisions has not been a feature of either international law or state practice, dating back to the mid-nineteenth century—this notwithstanding the fact that infectious disease treaties, including the IHR, often have a dispute resolution provision *and* that states have always been able to use countermeasures to respond to treaty violations under customary international law and the principle of state responsibility. The reason states have not invoked such measures, including in the case of COVID-19,<sup>121</sup> ties back to incentives. Pathogens with pandemic potential can originate anywhere. For example, the H1N1 virus that led to the 2009 influenza pandemic was first detected in the United States. This reality, in the words of global health expert David Fidler, “creates a shared interest among states not to litigate disease notification issues.”<sup>122</sup> Similarly, though a state experiencing an outbreak might protest against questionable trade or travel measures imposed by other countries, that state also knows that in the future it could be in a situation where it might wish to implement similar measures. In other words, states have reciprocal interests *not* to seek reparations for violating treaty rules on trade and travel measures. Hence, despite calls to give the IHR more “teeth” (for example, in the form of “sanctions”), states are unlikely to agree to such measures.

More generally, analysts of international cooperation are increasingly arguing that the core issue with transnational threats like climate change is really about addressing distributional conflict rather than achieving more effective forms of enforcement.<sup>123</sup> While scholarship on global warming has been influenced by the collective action paradigm, which views free

121. No state party to the IHR has yet alleged that China violated its treaty notification obligations or activated the IHR’s dispute settlement provision.

122. David P. Fidler, “COVID 19 and International Law: Must China Compensate Countries for the Damage?” *Just Security*, March 27, 2020, <https://www.justsecurity.org/69394/covid-19-and-international-law-must-china-compensate-countries-for-the-damage-international-health-regulations/>.

123. Michaël Aklin and Matto Mildemberger, “Prisoners of the Wrong Dilemmas: Why Distributive Conflict, Not Collective Action, Characterizes the Politics of Climate Change,” *Global Environmental Politics* 20 (4) (2020): 4–27, [https://doi.org/10.1162/glep\\_a\\_00578](https://doi.org/10.1162/glep_a_00578).

riding as the main constraint on effective climate action,<sup>124</sup> analysis of climate policy-making indicates that governments implement climate policies regardless of what other countries do and irrespective of whether a climate treaty dealing with free riding is in place.<sup>125</sup> Instead, states' actions reflect the fact that climate policies create "new economic winners and losers"—across and within countries—and are thus shaped by conflicts between "pro- and anti-climate reform interests."<sup>126</sup> This suggests that, before—or rather than—seeking more transparent and verifiable commitments as a means to increase compliance, those advocating stronger action on climate change should attend to the distributive conflicts that act as the biggest drag on cross-national climate policy. Pandemic preparedness and response can also be seen primarily as a distribution problem that demands greater attention to how benefits and costs can be equitably shared.

Within the context of distributive conflict, key states can play a "catalytic" role by investing enough to reduce the costs to so-called second movers and by empowering constituencies that will advocate for further reform.<sup>127</sup> The key contribution international institutions can make has less to do with addressing free riding and more to do with helping to create the initial incentive to act cooperatively—by strengthening coalitions of actors that can help to secure the necessary initial investments and by helping to catalyze and coordinate the constituencies that favor change.

### 5.4.3 *The Challenge of Transparency*

The question of incentives is also relevant to a final proposal featuring in discussions about the reform of pandemic preparedness and response: enhanced powers for the WHO to investigate pathogens with pandemic potential. In the report of the WHA's independent panel, this entails the

124. See, for example, David Victor, *Global Warming Gridlock* (Cambridge: Cambridge University Press, 2011), <https://doi.org/10.1017/CBO9780511975714>; Robert Stavins, "The Problem of the Commons: Still Unsettled after 100 Years," *American Economic Review* 101 (1) (2011): 81–108, <https://doi.org/10.1257/aer.101.1.81>; and William Nordhaus, "Climate Clubs: Overcoming Free-Riding in International Climate Policy," *American Economic Review* 105 (4) (2015): 1339–1370, <https://doi.org/10.1257/aer.15000001>.

125. See Dustin Tingley and Michael Tomz, "Conditional Cooperation and Climate Change," *Comparative Political Studies* 47 (3) (2013): 344–368, <https://doi.org/10.1177%2F0010414013509571>; and Liam F. Beiser-McGrath and Thomas Bernauer, "Commitment Failures Are Unlikely to Undermine Public Support for the Paris Agreement," *Nature Climate Change* 9 (3) (2019): 248–252, <https://doi.org/10.1038/s41558-019-0414-z>.

126. Aklin and Mildenerberger, "Prisoners of the Wrong Dilemmas," 5.

127. Thomas Hale, "Catalytic Cooperation," *Global Environmental Politics* 20 (4) (2020): 73–98, [https://doi.org/10.1162/glep\\_a\\_00561](https://doi.org/10.1162/glep_a_00561).

potential investigation of all countries on short notice, with full access for investigators to relevant sites and samples and standing visas for epidemic experts on the model of the International Atomic Energy Agency (IAEA) system.<sup>128</sup> But how can states be incentivized to agree to this intrusion into their sovereign jurisdiction?

In the domain of nuclear nonproliferation, a solution was found in the careful language and the interlocking bargain(s) of the initial NPT. Under the agreement, states have an inalienable right to develop nuclear energy for peaceful purposes—a specific and meaningful sovereign right. However, this right is contingent upon compliance with the treaty and its provisions on third-party monitoring. That is, states gain something substantial in exchange for consenting to limitations on sovereignty.<sup>129</sup> In the case of the Chemical Weapons Convention, states agreed to infringements on sovereignty—in the form of both declarations of possession of chemicals and routine and so-called challenge inspections—in exchange for a net gain in security. A mix of incentives was at play. First, many states lacked adequate defenses against the devastation that would ensue from chemical weapons use and thus saw the costs of transparency as tolerable. Second, the convention created a level playing field among *all* 193 member states, wherein all were required to destroy any chemical arsenals they possessed along with any dedicated production facilities (monitored by inspectors associated with the Office for the Prohibition of Chemical Weapons). Finally, the convention contained a provision pledging all members to assist any other member threatened with or attacked by chemical weapons. Together, these factors incentivized many states (including China) to accept routine inspection.<sup>130</sup>

As promising as these analogies might initially appear, the degree to which similar solutions could be applied to pandemic preparedness and response is more limited. This is so for at least two reasons:

- *The nature of the threat.* The perception of the use of nuclear weapons as a common existential threat helped to facilitate cooperation between the United States and the Soviet Union in arms control and crisis management and among a wider set of states concerned about nuclear weapons proliferation. Even here, however, views differed on the likelihood of a threat materializing, and most states recognized

128. IPPPR, *COVID-19*, 53.

129. Under the auspices of the NPT, the “gain” varies for different kinds of states, depending on their nuclear status.

130. Thanks to Amy Smithson for elaborating on the principles of “managed access” that underpinned the Chemical Weapons Convention.

that the effects of nuclear weapons use would likely be uneven (for example, South Korea and Japan would be much more affected by nuclear proliferation in North Korea than would countries in Europe or North America). Similarly, small island countries may view sea level rise as an existential threat, whereas landlocked countries will likely perceive this threat as less severe. Such perceptual variations are likely to be even more pronounced in how countries view infectious disease—with significant implications for whether and how cooperation can be fostered. While a shared perception of vulnerability is likely to have been enhanced by the experience of COVID-19—since the pandemic has devastated both developed and less-developed societies—levels of national resilience and capacity are highly uneven, shaping not only the degree to which countries believe that high levels of global cooperation are vital to their ability to cope with a significant disease event but also the key things they want from that cooperation.

In addition, it is important to recognize the differences between threats which manifest quickly, and those which move more slowly. Whereas the effects of a chemical weapons or nuclear attack are felt immediately, other threats—including the threat of a pandemic—do not affect all countries simultaneously or in the same way. The distribution of costs and benefits thus varies over time, and states can adjust their capacity to meet the challenges they face (some more effectively than others). States may also differ in how they weigh the “costs” of agreeing to transparency against the benefit of “gains” in security.

Finally, the actions required to address certain threats may be confined to a small set of actors and decision-makers or may require the engagement of multiple constituencies. During the Cold War, the field of nuclear arms control was dominated by scientific experts and skilled diplomats, and the implementation of intergovernmental agreements required a relatively small set of decision-makers to undertake specific commitments and actions. Containing a pandemic, by contrast, arguably requires a “whole-of-society” approach, with many private and public actors implicated in implementing the necessary steps.

- *The nature of geopolitical competition.* The intensity of today’s geopolitical competition between the United States and China, which—unlike in the Cold War period—has directly affected the domain of pandemic preparedness and response, also makes it unlikely that new multilateral agreements on more-demanding levels of

transparency and inspection will be forthcoming.<sup>131</sup> The outcome of the WHA meeting in May 2021 confirms this sober assessment of the prospects for strengthening the WHO’s investigatory capacity, despite the level of devastation caused by the COVID-19 pandemic. In subsequent diplomatic discussions over a “pandemic treaty,” recalcitrant states could find themselves increasingly isolated in negotiations, initiating concerns about reputation that could make them amenable to side deals that incentivize their cooperation; however, the particular provision of robust inspection is unlikely to form a core part of that “zone of agreement.” It is also possible that an agreement among a smaller set of countries could still facilitate some advancements in global cooperation, but at present this kind of approach—for example, within the G7—is not prioritizing measures related to inspections. Indeed, no Western state has publicly declared its willingness to commit, ahead of any treaty negotiations, to allowing any form of “challenge” inspections by the WHO.

## 5.5 Revisiting the Preconditions for Cooperation

While it is sometimes assumed that the severity of a collective action problem will automatically generate an institutional solution, one of the central lessons of the IR literature is that optimal institutions or arrangements often fail to emerge, even when there is potential for large gains from their creation.<sup>132</sup> This is most obvious today in the diplomacy surrounding responses to climate change. Instead, conscious strategies to build those institutions are required, based on a clear understanding of the interests of national governments and the political dynamics among them, as well as the incentives under which states are operating.

### 5.5.1 *Understand the Incentives*

A central task in improving global cooperation on pandemics going forward will be to uncover and understand the current incentives for states to engage in collaborative efforts to better prepare for, detect, and respond to pandemics. Some of the analysis of the current pandemic has too quickly assumed a “harmony of interests” among states, when the landscape of interests may be more complex. The WHA’s independent panel suggested that the incentives for global cooperation in pandemic preparedness

131. Council on Foreign Relations, *Improving Pandemic Preparedness*, 50.

132. Keohane and Victor, “Cooperation and Discord and Global Climate Policy.”

and response currently appear to be too weak to ensure the systematic and timely engagement of states.<sup>133</sup> This observation reinforces the idea that a number of factors (alone or in combination) could be working against global cooperation: key government representatives are not convinced that certain forms of global cooperation offer a reliable solution to better pandemic preparedness and response and therefore do not see the need to cooperate; the costs and benefits of better pandemic preparedness and response remain unevenly distributed and are therefore diluting the power of the imperative to cooperate; and domestic political calculations in many states appear to point away from global cooperation.

The last factor is particularly important to unpack when evaluating proposals for the reform of pandemic preparedness and response. Given a lack of certainty around where the next infectious disease with pandemic potential may arise, all states do have an interest in a system of rapid information sharing, based on credible scientific and epidemiological standards, that will reveal whether an outbreak is unfolding in another country and that will lead to timely and coherent recommendations to countries on measures to prevent further spread. However, two further dynamics are also at work, related to the costs of cooperative action:

- Some governments have incentives to defect from schemes requiring transparency if they believe that providing information about an infectious disease outbreak or agreeing to outside scrutiny could compromise their national security, destabilize their political or social order, or cause widespread economic damage.
- While pandemic preparedness and response is a concern for all states, it is not the primary health priority for all. For states that require significant investments in public health infrastructure to meet more basic health needs or that are engaged in battles with noncommunicable diseases that are endangering their populations, the call to prioritize pandemic preparedness from the developed world fails to acknowledge their most pressing challenges.

This structure of incentives will need to be fully appreciated in any process designed to reform or create cooperative arrangements on pandemic preparedness and response.

133. IPPPR, *COVID-19*, 7.

### 5.5.2 Understand and Engage with Political Dynamics

Some of the assessments of pandemic preparedness and response have emphasized the need for cooperation in global health to be, at best, “de-politicized” or, at least, insulated from prevailing political pressures. But although institutional design can in some cases mitigate or redirect political forces, the IR literature suggests that such forces can never be eliminated. Much like other domains, global health policy—including for infectious disease—is both dynamic and heavily mediated by domestic and international politics. The goals, priorities, and even conceptual frames are increasingly contested.<sup>134</sup> This has been particularly true since the denouement of the so-called golden age of global health governance and diplomacy (from the late 1990s to the 2008 financial crisis), during which health outcomes improved dramatically and substantial resources were dedicated to global health objectives in development assistance budgets. Rather than wish the politics away, initiatives for change in pandemic preparedness and response need to understand those political dynamics and potentially channel them in more productive ways.

Today’s political trends thus entail that we attend not just to technical policy choices but to deeper questions of governance, including what mechanisms exist for negotiation and how contestation can be mediated.<sup>135</sup> One critical area of focus should be the politics between high-income and low-income countries and how the interests of the latter could be addressed through current negotiations over pandemic preparedness and response. The report of the G20’s expert panel, for example, calls for substantial new investment not only in global-level pandemic governance functions but also in strengthening the public health systems of low- and middle-income countries over the next five years.<sup>136</sup> This may prove to be the moment when developing countries have greater political leverage in efforts to prioritize global health *solidarity* and not just security from immediate global health threats.

The other area of focus should be the political priorities and strategies of the two largest powers, the United States and China. While the United

134. Fidler, “After the Revolution”; and Ilona Kickbusch, “Global Governance Challenges 2016—Are We Ready?” *International Journal of Health Policy and Management* 5 (1) (2016): 349–353, <https://doi.org/10.15171/ijhpm.2016.27>.

135. David Fidler, *The Challenges of Global Health Governance* (New York: Council on Foreign Relations, 2010).

136. G20 High Level Independent Panel, *A Global Deal for Our Pandemic Age*, 28. The report estimates that these countries will need to add 1 percent of GDP to public spending on their health systems.

States, under President Biden, has been lauded for its “return” to the WHO, both past and present U.S. behavior does not indicate that Washington necessarily prioritizes this particular intergovernmental forum for the realization of its global health priorities. Previous signature U.S. initiatives in global health, such as the 2003 President’s Emergency Plan for AIDS Relief, were bilateral rather than multilateral initiatives. Similarly, the United States has continued to favor voluntary contributions rather than mandated funding as the revenue source for the WHO. Finally, recent months have made clear that COVID-19’s “agitation of the US-China rivalry”<sup>137</sup> has affected how Washington engages on global health issues, with the Biden administration concerned to demonstrate the capacity and competence of liberal democratic states—as part of an ideological competition with China—and its broader ambition to maximize U.S. power and influence in different institutions and diplomatic processes.

Whereas the first decades of the twenty-first century were geopolitically conducive to concerted action on pandemics (such as SARS and H1N1), the relationships among great powers today are transforming in ways that adversely affect global health cooperation. Still, history has shown that high-profile events, and particularly moments of failure, can serve as the political impetus for new forms of cooperation, even between competing great powers. China’s 1964 nuclear weapons test constituted this kind of pivotal event in the development of the NPT, as it forced the United States and Soviet Union to recognize that countries they did not want to acquire nuclear weapons could (one day) do so. Politically, however, it was easier to convince a broad set of countries to sign on to a global framework than it was to impose threats on specific states of concern.

Despite the widespread effects of COVID-19, it has yet to serve as such a catalyst for collaboration between the United States and China. The impact of their growing rivalry is rippling through global health governance and diplomacy, as well as, increasingly, the transnational scientific community. Greater attention thus needs to be paid to how the two leading powers can identify “islands of agreement” that will enable other, broader forms of multilateral negotiation to succeed. Efforts to bring the United States and China together in collaborative ways prior to the recent Glasgow Climate Change Conference had mixed success. Thus, one of the most urgent diplomatic priorities for improving pandemic preparedness and response is to launch and sustain a form of “global health détente” between the United States and China, combining both official and so-called Track II mechanisms to provide the political support necessary for reformed or new cooperative arrangements. Well-placed “middle powers,” both Western and

137. Fidler, “A New Era in U.S. Global Health Leadership?”



non-Western, should spare no diplomatic effort in finding ways to facilitate and support such a process.

### *5.5.3 Take the Long View*

A final lesson from the IR literature is that various political and institutional changes can, over time, influence the effectiveness of cooperative agreements. The nuclear nonproliferation regime has grown and evolved into its present composition as different layers of legal obligation and different capacities for enforcement and inspection have developed. For example, IAEA inspections—which were highly contentious when the NPT was signed—became more robust following the 1991 Gulf War and the discovery of uranium enrichment programs in Iraq. The special inspections regime that was elaborated in the Additional Protocol enabled the IAEA to verify, in all sites associated with the nuclear fuel cycle, the non-diversion of declared nuclear material and the absence of undeclared nuclear materials and activities. At present, 137 states have ratified this more demanding protocol.<sup>138</sup>

It is worth remembering that many prominent diplomatic regimes that foster cooperation took several years to be negotiated and often experienced ratification delays that impacted their entry into force. Cooperation itself takes time. As a consequence, it often manifests not in perfectly designed institutions or agreements but in layers of collective action that may overlap to create a complex but evolutionary regime.

138. Another fourteen states have signed but not ratified.

# 6. Conclusion: Recommendations for Improved Global Governance of Pandemic Preparedness and Response

This review of findings and lessons from the academic literature on international cooperation and institutional design carries implications for current recommendations on how to improve the governance of pandemic preparedness and response at the global level. In particular, it suggests that schemes for reform need to embrace a clear-eyed understanding of the core cooperation problem faced by the global community and to confront both the incentives and political dynamics that shape state behavior. Before evaluating whether specific reform proposals should be supported, it is worth briefly summarizing the *functions* that any governance system for pandemic preparedness and response should fulfill and to identify *existing gaps* in those functions.

The analysis in this report suggests that the core functions of global pandemic governance fall into three main categories, even if these functions are shared across different actors and processes. The first is an effective system of *surveillance and information sharing*—a core public good—that will enable both detection and understanding of pathogens with pandemic potential. The second is the *production and equitable provision of key interventions*, which include not only diagnostics, treatments, and vaccines but also research and development standards. The third is *effective stewardship* of the system itself, through priority-setting, coordination, processes for consensus building, and accountability for outcomes.<sup>139</sup> Different capacities, both “hard” and “soft,” are required to execute these functions. The last function, for example, requires not only the right “machinery” but also credible and trusted leadership. Moreover, while global actors have

139. For further discussion of some of these functions, see Julio Frenk and Suerie Moon, “Governance Challenges in Global Health,” *New England Journal of Medicine* 368 (2013): 936–942, <https://doi.org/10.1056/NEJMra1109339>.

particular roles to play in carrying out these functions, the outcome of better pandemic preparedness and response relies mainly on action at the national and local levels. For example, though global institutions and processes can mobilize financing and provide technical cooperation as part of the second function, the actual execution of critical medical interventions rests with national and local actors.

At the special session of the WHA in late November 2021, member states reached consensus on moving forward with a new “international instrument” to strengthen pandemic preparedness and response and to explore further reforms to the IHR (2005). Though they appointed a negotiating body to develop a draft for discussion in summer 2022, diplomats did not agree specifically to the creation of a legally binding treaty but instead referred to a “global pandemic accord.”<sup>140</sup> What precise form the instrument will take therefore remains unclear. Moreover, the timeline for negotiation and review suggests that the outcome of the negotiation will not be presented to the WHA for a decision until 2024.

Given this report’s analysis of the pros and cons of a treaty approach, and the uncertainty surrounding the outcome of the WHA negotiations, the recommendations below focus on enhancing compliance with existing state commitments and addressing the distribution challenges that lie at the heart of better pandemic governance. As highlighted by the June 2021 report of the G20 High Level Independent Panel, critical gaps exist in our regime complex that constrain the fulfillment of the core governance functions identified above. In addition, investment in the resilient *national* public health systems that are the foundation for effective pandemic preparedness and response remains inadequate.<sup>141</sup> The following recommendations are therefore structured around three priorities: enhancing compliance with the IHR; pursuing targeted reforms of the WHO; and mobilizing to create new arrangements for better surveillance and more reliable and equitable access to countermeasures.

140. WHO, “World Health Assembly Agrees to Launch Process to Develop Historic Global Accord on Pandemic Prevention, Preparedness and Response,” press release, December 1, 2021, <https://www.who.int/news/item/01-12-2021-world-health-assembly-agrees-to-launch-process-to-develop-historic-global-accord-on-pandemic-prevention-preparedness-and-response>.

141. The panel’s report specifically identifies four major gaps: global governance mechanisms to ensure better coordination, adequate funding, and clearer accountability for outcomes; an effective, globally networked surveillance system to detect emerging infectious diseases and prevent spread at their source; greater investment in resilient national systems as a foundation for preparedness and response; and a permanent system for ensuring equitable access to critical medical interventions to respond to pandemics. See G20 High Level Independent Panel, *A Global Deal for Our Pandemic Age*.

## 6.1 Enhancing Compliance with the IHR

WHO member states have consistently rejected formal sanctions or enforcement mechanisms—both generally and specifically in relation to compliance with the IHR. Instead, the designers of the IHR (2005) attempted to align incentives through multiple strategies that would cajole states into acting in ways that advance global public health. The first strategy is the power of the director-general to declare a PHEIC, even over the objections of the state or states affected. This authority was established, in large part, to incentivize governments to cooperate with the WHO early and often. The second strategy is the IHR's reliance on the "market" and digital technology to encourage state compliance. Under this logic, member states will not be able to afford the stigma associated with a lack of transparency on infectious disease if they want the benefits associated with economic globalization, nor could they sustainably hide disease outbreaks given the many nongovernmental sources of information.

Reevaluation of whether these mechanisms for creating incentives are actually functioning as intended—particularly given the changing economic conditions within key states—will be central to the continued viability of institutionalized cooperation on pandemics through the IHR (2005). But more broadly, reform efforts should focus not on sanctions for lack of compliance, which are unlikely to gain traction, but on the *economic* and *political* barriers to improved national-level preparedness and the early sharing and processing of information on disease events. These could be addressed through the following kinds of proposals:

- A new investment package for lower- and middle-income countries, as recommended by the G20 report, based on: 1) costed national action plans for pandemic preparedness; and 2) pre-agreed and equitable contribution shares from advanced and developing countries.
- Further material rewards for improving domestic-level pandemic preparedness and information sharing (for example, through linkage to the funding of the International Monetary Fund and World Bank), based on a revised system of tracking country progress and identifying gaps in preparedness. Such a system could be co-led by the WHO and the World Bank, building on lessons from the IHR State-Party Self-Assessment Reports and the Joint External Evaluation peer-review process.<sup>142</sup>

142. The G20 expert report refers to this as a "Health Security Assessment Program" modeled on the Financial Sector Assessment Program. See *ibid.*

- The issuing of regular opinions by global health lawyers on states' interpretation and fulfillment of their obligations under the IHR (2005).<sup>143</sup>
- A formalized “universal periodic review” of national pandemic preparedness and response, as recommended by the WHO's Independent Panel on Pandemic Preparedness and Response and the WHO's Review Committee on the Functioning of the IHR.<sup>144</sup> To strengthen this accountability mechanism, consideration could also be given to housing such a review process outside the WHO and within an intergovernmental arrangement that included a broader set of officials beyond health ministries.
- Regular “stress tests” to assess preparedness and resilience, administered nationally but including representatives of global bodies.
- Additional resources and support for nongovernmental forms of monitoring and reporting on preparedness (including through public indexes).
- A stronger and more systematic form of financial insurance to states that would assist in compensating them for any economic costs incurred from transparent reporting of disease events or from implementing interventions to address disease events. This insurance scheme should incorporate the lessons learned from the World Bank's Pandemic Emergency Facility, improve the analytics required to forecast and price risk, and investigate options for risk pooling among countries.<sup>145</sup>

## 6.2 Limited Reforms of the WHO

When considering potential reforms of the WHO, member states of the WHA should focus their energies on mobilizing support for a limited set of reforms that will strengthen its functional and coordinating role and increase its insulation from political pressure. This task must be premised both on deep reflection on what *actually* went wrong in the early months of the COVID-19 pandemic, and on a clear understanding of what mechanisms currently exist.

143. Alvarez, “The WHO in the Age of the Coronavirus,” 583.

144. See IPPPR, *COVID-19*, 51; and World Health Organization, *Report of the Review Committee on the Functioning of the IHR (2005)*.

145. G20 High Level Independent Panel, *A Global Deal for Our Pandemic Age*, 62.

The IHR (2005) already grant significant powers to the WHO to collect and share information, verify information, declare a PHEIC, and issue outbreak-specific guidance. They also articulate specific obligations for states to share information in a timely manner. The WHA’s independent panel report suggests that the core problem with COVID-19 was not information about the cases emerging in the Wuhan region but the slow pace with which information was transmitted and translated into effective public health guidelines by the WHO *and* the responses of individual national governments during the month of February 2020. In short, the primary problems were political rather than of institutional design. For example, the panel report finds that the WHO could have declared a PHEIC at least a week earlier than it did—raising questions about the current functioning of the organization’s Emergency Committee—and could have publicly voiced concerns earlier about the potential for human-to-human transmission. According to the panel’s report, the WHO operated with caution, weighing incomplete evidence, rather than on the basis of the “precautionary principle.” National governments also wasted crucial weeks, the report concludes, in which they could have acted both individually and collectively to stop the spread, relying instead on a “wait and see” approach.<sup>146</sup>

Nonetheless, specific proposals for reform of the WHO could make a tangible difference to its ability to play its functional role in future pandemic preparedness and response—assuming a disease event could occur in any country. Proposals that are worthy of support include:

- Promises from a “lead” set of countries to increase their contribution to the WHO’s budget, so that the proportion of voluntary contributions decreases to 50 percent of the WHO’s budget (with challenges to other countries to make proportionate increases). While the WHA meeting in May 2021 and preceding years of underfunding raise doubts about the feasibility of this proposal, it would represent an example of “catalytic” cooperation<sup>147</sup> and could be a critical step to providing the WHO with more predictable funding.
- Dedicated funding from international financial institutions for the WHO’s Health Emergencies Programme, to give it “surge” capacity in pandemic crises, as well as the creation of a Standing Committee for Emergencies linked to the executive board.<sup>148</sup>

146. IPPPR, *COVID-19*, 29.

147. Hale, “Catalytic Cooperation.”

148. IPPPR, *COVID-19*, 65.

- Formalized links between the WHO and its independent collaborating centers to assist in articulating technical recommendations in fast-moving pandemic environments.
- Reforms to the alert system, including: 1) greater transparency in the composition and decision-making of the WHO’s Emergency Committees, including through the creation of a Standing Committee for Emergencies; 2) clearer categories for evaluating disease threats that will better differentiate among disease outbreaks and reduce ambiguity over the status of a PHEIC declaration; and 3) clearer action guidelines attached to different phases of outbreak alert and response.<sup>149</sup>
- A single, seven-year term for the director-general of the WHO, as proposed by the WHA’s independent panel, to limit the political dynamics around reappointment; and further professionalization of the recruitment of senior staff.<sup>150</sup>
- Regular mobilization of a “Group of Friends” of the WHO to explicitly coordinate ways to leverage political dynamics to improve upon collective action.

### 6.3 New Institutional Arrangements and Mechanisms

Beyond inspiring discussion on reform of existing institutions and mechanisms, the scale of the challenges posed by COVID-19 has prompted a variety of bold proposals for change in the global architecture for managing infectious disease. These recommendations need to be assessed against the reality of significant fragmentation of global health governance over the past two decades, during which the number of new international actors and initiatives has exploded. Within the context of this “dense institutional ecosystem,”<sup>151</sup> a paramount concern is to avoid exacerbating coordination problems or the competition for scarce resources and political capital. Furthermore, without addressing the underlying political dynamics that are

149. Any proposed scheme for graduated pandemic alerts will be met with objections. See, for example, Clare Wenham, Matthew Kavanagh, Alexandra Phelan, et al., “Problems with Traffic Light Approaches to Public Health Emergencies of International Concern,” *The Lancet* 397 (10287) (May 15, 2021): 1856–1858, [https://doi.org/10.1016/S0140-6736\(21\)00474-8](https://doi.org/10.1016/S0140-6736(21)00474-8). The WHO has already effectively engaged in issuing “amber alerts” by providing countries with information before formally invoking PHEIC authority.

150. IPPPR, *COVID-19*, 65.

151. Brown and Held, “Health,” 168.

hampering effective cooperation—including geopolitical rivalry between the United States and China—any new schemes need to beware of reproducing the same problems in any new institutional scheme.

### 6.3.1 A Stronger Global Surveillance Network

COVID-19 has demonstrated that no country can expect to protect its population from pandemic threats solely through measures taken “at the border.”<sup>152</sup> The need for a coordinated global surveillance network to prevent and detect emerging infectious diseases has thus been a consistent theme in recent expert panel reports and in the deliberations of bodies such as the G7. This global public good requires urgent capacity-building efforts at the national level and prioritization by international financial institutions as they consider the possibility of a dedicated pandemic financing facility<sup>153</sup> or global health security fund.<sup>154</sup> The following proposals could help support the realization of this goal:

- A global genomic and epidemiological surveillance network, with the WHO at its center, to prevent and detect cross-species spillover and to rapidly share data.<sup>155</sup> As suggested by the G20 High Level Independent Panel, this network could build upon the model of the WHO’s Global Influenza Surveillance and Response system by increasing the availability of data on new pathogens, enabling just-in-time sharing of that data, and developing new analytic tools and predictive models. The newly created Hub for Pandemic and Epidemic Intelligence<sup>156</sup> (linked to the WHO’s Health Emergencies Programme) should be explored as part of the solution to filling this key governance gap.
- A new global prototype pathogen agenda that helps to develop vaccines against representatives of the main viral families known to cause human disease.
- Stronger capacity in regional and national surveillance “spokes,” rooted in national public health institutes and centers for disease

152. Alvarez, “The WHO in the Age of the Coronavirus,” 580.

153. IPPPR, *COVID-19*, 54.

154. G20 High Level Independent Panel, *A Global Deal for Our Pandemic Age*, 12–13.

155. *Ibid.*, 32–34.

156. WHO, “WHO, Germany Open Hub for Pandemic and Epidemic Intelligence in Berlin,” press release, September 1, 2021, <https://www.who.int/news/item/01-09-2021-who-germany-open-hub-for-pandemic-and-epidemic-intelligence-in-berlin>.



control but also linked to strengthened capacities in key “hubs” such as the WHO and the Food and Agricultural Organization of the United Nations. This hub-and-spoke system will require not only adequate infrastructure and training (particularly in molecular diagnostic capacity and data integration) but also agreement on the policies, principles, and underlying framework that will guide cooperation across the network.<sup>157</sup>

- Greater investment in “One Health”<sup>158</sup> approaches to minimize possible spillovers from animals to human beings.

### 6.3.2 A Global Health Council

Various assessments and reviews of global cooperation on pandemics have concluded that the WHO should remain at the center of global health security governance, given its valuable technical competencies and important functional roles in infectious disease.<sup>159</sup> But the same reports also stress the WHO’s lack of “political heft to mobilize and lead” multilateral responses to pandemics that pose wide-ranging threats and that it particularly struggles to “constructively partner” with the private sector.<sup>160</sup>

In response to this challenge, some have called for the creation of a Global Health Coordinator, reporting directly to the UN secretary-general, who could help to lead a coherent and unified response to pandemics and other global health emergencies across the UN system, while also providing “political cover” for the more technical work of the WHO.<sup>161</sup> In this proposal, the coordinator would facilitate Security Council involvement in infectious disease crises and work in concert with the leadership of financial bodies such as the International Monetary Fund, World Bank, G20 and G7,

157. G20 High Level Independent Panel, *A Global Deal for Our Pandemic Age*, 33.

158. As defined by the Centers for Disease Control and Prevention, One Health is “a collaborative, multisectoral, and transdisciplinary approach” to achieving optimal health outcomes, “working at the local, regional, national, and global levels” and “recognizing the interconnection between people, animals, plants, and their shared environment.” See Centers for Disease Control and Prevention, <https://www.cdc.gov/onehealth/basics/index.html#:~:text=One%20Health%20is%20an%20approach,animals%20and%20our%20shared%20environment.&text=Close%20contact%20with%20animals%20and,pass%20between%20animals%20and%20people>.

159. This conclusion features in the reports of the Council on Foreign Relations, the independent panel appointed by the WHA, and the G20 High Level Independent Panel.

160. Council on Foreign Relations, *Improving Pandemic Preparedness*, 77.

161. *Ibid.*, 78.

as well as with relevant nongovernmental and humanitarian organizations. As an alternative, the WHA's independent panel argued for a new Global Health Threats Council that would elevate pandemic management to the highest political level of decision-making (heads of state and government) and thus have the capacity not only to mobilize the resources and will to act decisively in emergencies but also to maintain a political commitment to pandemic preparedness in "normal times." Such a body, the panel suggested, could also monitor progress toward the goals and targets set by the WHO and thus increase efforts to hold actors accountable for their pledges.<sup>162</sup>

Do these ideas address the core problems witnessed during current and previous pandemics? While a UN coordinator role was in place in earlier cases, such as during the Ebola outbreak in West Africa and the Democratic Republic of the Congo, such a position does not address underlying issues related to resources and political will. Moreover, operational coordination across the UN system was not the most pressing problem during the COVID-19 pandemic. The director-general of the WHO already engages regularly with core parts of the UN system and has established a practice of cooperating with Bretton Woods institutions such as the World Bank and the International Monetary Fund. Coordination with particular regimes has been more problematic; for example, World Bank funding was not initially available for early vaccine orders under the COVAX scheme. In addition, the provisions for pandemic preparedness and response under the IHR (2005) contain few mechanisms for coordination across legal regimes (which extend beyond public health and trade to include investment, civil aviation, human rights, and peace and security); instead, states are left to "accommodate their competing international obligations."<sup>163</sup> A coordinator position, however, is not likely to be sufficient or appropriate to address these issues. Moreover, given the current political deadlock that plagues the Security Council, as well as concerns about unduly "securitizing" public health, elevation to this intergovernmental forum is a risky strategy for achieving effective collection action on pandemic preparedness and response.

The proposal for a Global Health Threats Council provides a different model for elevating the level at which states deliberate on global health security. As conceived by the WHA's independent panel, a new head-of-state-led council would help to address weaknesses in leadership at the global level and generate positive impacts from cooperation that would also be

162. IPPPR, *COVID-19*, 47.

163. Alvarez, "The WHO in the Age of the Coronavirus," 584.

felt at the national level.<sup>164</sup> While some might argue that a better approach is to convene, when needed, heads of state under the auspices of the WHO, effective pandemic preparedness and response is about more than health policy alone. A new head-of-state council would have broader scope than could be provided by any construct flowing from the WHO's constitution.

Establishing such a council nevertheless faces two challenges: the first is to maintain a separate body of pandemic governance at the head-of-state level that remains actively engaged outside the context of an emergency; the second is to avoid replicating the competitive dynamics that exist among great powers in the Security Council. The first problem could be addressed, in part, by ensuring that a Global Health Threats Council would have the backing and authority of the UN General Assembly and by creating "routine" links with key policy-makers in pandemic preparedness and response at the national level. The second challenge could be reduced if such a council stays clear of battles over foundational norms or principles and instead remains focused on the practical tasks of coordinating the actions of different actors and ensuring sufficient financing for their efforts. Nevertheless, even if a new body might avoid falling into some of the well-established patterns of rivalry and deadlock that affect the UN Security Council, diplomats would not be able to sidestep the painstaking work of finding areas of common ground between key states such as the United States and China.

### *6.3.3 A Permanent Platform for Equitable Access to Diagnostics, Treatments, and Vaccines*

A third set of reform proposals that should be actively pursued relate to the creation of a reliable and geographically diverse supply of medical countermeasures and tools to address pandemics. A stand-by production capacity for both finished products and inputs into the supply chain would shorten the response time to an unfolding crisis. But it could also help to ensure more equitable access to diagnostics, treatments, and vaccines by reducing the short-term trade-offs for countries seeking to meet both domestic and global needs.<sup>165</sup> The proposals for such a platform include innovative ideas on how to incentivize the private sector through a combination of "push" factors (such as cofunding of research and development and supply capacity) and "pull" factors (such as assured procurements).<sup>166</sup> These reform

164. IPPPR, *COVID-19*, 47. For the proposed terms of reference for the Council, see *ibid.*, 71–74.

165. G20 High Level Independent Panel, *A Global Deal for Our Pandemic Age*, 23.

166. See *ibid.*, 36–39; and IPPPR, *COVID-19*, 54–55.

ideas also try to address some of the weaknesses in COVAX as a mechanism for ensuring global access to vaccines.

COVAX was forged in a nonideal context wherein advanced countries *already* had advanced purchase commitments. Furthermore, because COVAX was promising to provide enough vaccines to cover 20 percent of countries' populations (later expanded to 30 percent), high-income states were always going to have to negotiate their own contracts to cover the rest of their citizens. Once they began doing so, the impetus to negotiate for 100 percent coverage soon took hold. The system therefore included an in-built incentive to defect from the arrangement and over-order vaccines. That impetus was driven, in large part, by the acute performance legitimacy concerns of today's advanced democracies. But those same concerns had the effect of transforming COVAX into a form of multilateral aid: the scheme provided pool procurement primarily for low- and middle-income countries and handled negotiations around vaccine reliability, indemnification, and regulatory concerns.

Theories of democratic accountability and certain influential strands of political theory<sup>167</sup> argue that governments can justifiably prioritize the health and well-being of their own citizens. Such a position would be ethically defensible, however, only if it did not entail excess purchases of vaccine doses and was balanced by high-income countries taking other proactive steps to expand vaccine access and manufacturing—steps that leading democracies have either avoided or been very slow to take. But even if such steps were taken, democratic accountability pressures are such that many high-income countries do not perceive the sharing of doses, before a vaccine is fully available to their own citizens, to be politically feasible on the sort of timescale that global health advocates believe to be most effective or just.

In the case of COVID-19, however, the even bigger challenge confronting the goal of vaccine equity has been vaccine scarcity. This issue has three main sources. First, a supply chain problem was “baked into” the COVAX mechanism through its specific targets. The initial vaccination target of 20 percent, which at the outset appeared ambitious because it would ensure that those individuals most at risk would be protected, subsequently proved insufficient in light of the toll of the pandemic and the longer-term

167. See, for example, David Miller, *National Responsibility and Global Justice* (Oxford: Oxford University Press, 2007), <https://doi.org/10.1093/acprof:oso/9780199235056.001.0001>; and Allen Buchanan, *Justice, Legitimacy and Self-Determination* (Oxford: Oxford University Press, 2003), <https://doi.org/10.1093/0198295359.001.0001>.

goal of providing enough coverage to reach herd immunity.<sup>168</sup> Insufficient early financing of COVAX made supply shortages all but inevitable, and these shortages, in turn, led low-income countries to use grants and loans from the World Bank—designed for administering vaccines—to finance doses.<sup>169</sup> The second constraint on vaccine supply stemmed from the limited amount of global manufacturing capacity. Not only COVAX but all countries around the world relied on a small set of vaccine producers. Third, despite mechanisms to address patent-related intellectual property issues, including schemes for compulsory licensing and “open source” manufacturing,<sup>170</sup> many countries still lack the technical know-how needed to take patent licenses forward and thus contribute to expanding global production.

The design of any permanent, negotiated platform to supply critical diagnostics, treatments, and vaccines should therefore begin with the recognition that the ACT Accelerator program suffered from various forms of inequity: large donor countries were seen to have outsize influence over the scheme, and access to testing capacity, supplies, treatments, and vaccines was ultimately dependent on the good will of donors—leaving much of the world’s population with restricted and delayed access. The proposals of the WHO’s independent panel, which envisage “end-to-end” planning for research and development, technology transfer, clinical trials, and manufacturing processes, are designed to transform pandemic preparedness and response from a charity model to a shared-fate model, in which more societies participate in the production and distribution of the requirements for meeting potential pandemic challenges.<sup>171</sup>

168. COVAX’s initial supply problems were magnified by one final challenge: though the first vaccines to conclude trials were mRNA vaccines, these were not the vaccines COVAX had invested in.

169. With the restructuring of COVAX in June 2021, vaccine doses will now be sent to low-income countries, thereby freeing up money to help these states manage logistical challenges and avoid wastage.

170. Countries are already able to issue compulsory licenses under the Trade-Related Aspects of Intellectual Property framework of the WTO. However, the process is slow and marked by legal obstacles and pressures from pharmaceutical companies that make it difficult to act quickly during public health emergencies. Moreover, the framework is limited to patents only and thus does not address other intellectual property restrictions, such as trade secrets. The Biden administration, building on an earlier proposal from South Africa and India, has therefore called for the negotiation of a temporary waiver of intellectual property rights protections for technologies that are needed to prevent, contain, or treat COVID-19, including vaccines and vaccine-related technologies. This proposal seeks to extend such a waiver beyond patents.

171. IPPPR, *COVID-19*, 54–55.

Even if such a platform is not agreed upon by all states, it could form the basis of a concerted effort on the part of a grouping of advanced liberal democratic states (whether through the G7, the G20, or the EU). This is one area of cooperation that does not require universal membership and could benefit from early catalytic leadership by a set of countries whose reputations were severely damaged by their early performance during the pandemic and their continued failure to address vaccine access.

#### 6.4 A Multifaceted Strategy

In pursuing the reform proposals identified above, interested states and nonstate actors must remain cognizant of two realities: that in a multilateral framework, with near-universal membership and the need for consensus decision-making, they are likely to make only modest progress;<sup>172</sup> and that without movement on underlying incentives or specific efforts to manage the spillover effects of geopolitical competition on global health, investment in cooperative arrangements and institutions such as the WHO is unlikely to accelerate.

This is why efforts to improve pandemic preparedness and response should rely not on one solution or negotiating process but should instead embrace a range of strategies that assemble a “patchwork”<sup>173</sup> of interlinked rules, processes, and organizations to fulfill the critical functions of pandemic governance. Instead of being focused solely on states or on a single institution (like the WHO), such efforts—to return to the concept used at the start of this paper—would be “polycentric.” The resulting patchwork for pandemic preparedness and response could be a combination of club-based commitments among a smaller set of states to launch new initiatives (such as a permanent COVAX); stronger peer review of national policies to uncover particular deficiencies in national preparedness; specific financing facilities to support and incentivize states to improve their infrastructure for addressing public health emergencies; new provisions in economic institutions that link resources to progress on pandemic preparedness; enhanced support for nongovernmental monitoring and reporting on levels of preparedness for pandemics; and a stronger global surveillance network.

The academic research on international cooperation indicates that, to succeed, those advocating for and designing such arrangements must squarely confront the distribution problems that have undermined cooperative efforts on pandemic preparedness and response and therefore create venues and mechanisms to foster *political* dialogue—both among

172. This has been the lesson of the UN Framework Convention on Climate Change.

173. Keohane and Victor, “Cooperation and Discord and Global Climate Policy.”

today's rival powers and between low- and high-income countries. They must also battle against the increasing desire on the part of political leaders and publics to "return to normal". Above all, they must work to ensure that the opportunity presented by the crisis of COVID-19 will be translated into concrete achievements on global cooperation.

# Appendix A

## Rethinking the Humanitarian Health Response to Violent Conflict: Meeting on Cooperative Responses to Common Threats | February 8 and 22, 2021

### Participants

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Professor Welsh is the author, co-author, and editor of several books and articles on humanitarian intervention, the evolution of the notion of the “responsibility to protect,” civilian protection, the UN Security Council, and Canadian foreign policy. She was elected an International Honorary Member of the American Academy of Arts and Sciences in 2021 and is a member of the Academy’s Committee on International Security Studies (CISS). She is also a member of the Advisory Boards of the Global Centre for the Responsibility to Protect and the Auschwitz Institute for Peace and Reconciliation.

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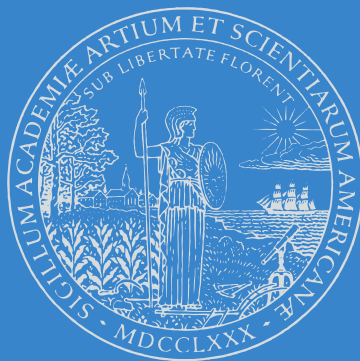
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