8 Global Health

A Centralized Network Searching (in Vain) for Hierarchy

Suerie Moon

Introduction: Global Governance and Health

The health of individuals and nations can be protected, promoted, or harmed by the increasing interdependence resulting from globalization. The Covid-19 pandemic that began in 2019 has illustrated how quickly pathogens can wreak havoc on a regional or global scale. Other infections, such as tuberculosis (TB), continue to cause immense suffering and impede human development. Beyond infectious disease are numerous health threats requiring effective cross-border governance – obesity, antimicrobial resistance (AMR), chemical and biological weapons, tobacco use, opioid abuse, environmental degradation, and lack of access to healthcare – yet the arrangements to do so are weak or absent. At the same time, global governance processes taking place outside the health sphere (such as those addressing security, trade, investment, intellectual property (IP), and migration) can have profound health effects.

What does the future of global governance imply for the enduring challenge of protecting health?

Some conceptual clarification is merited before diving in. "Global health" is often used in the media and academic literature as shorthand for the health challenges of developing countries. But the concept is evolving, and I use "global health" more broadly in this chapter to refer to "the health of the global population, with a focus on the dense relationships of interdependence across nations and sectors that have arisen with globalization."[1] Health can be understood in at least three ways: as an intrinsic societal goal, as a necessary input for human and

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[1] Frenk et al. 2014.

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economic development, and as an indicator of the state of a society.[2] The health challenges affecting industrialized and developing countries are increasingly converging, as demonstrated by Covid-19 and non-communicable diseases (NCDs) that pose a growing burden worldwide. The threats and opportunities linked to globalization are a third type of health challenge. These are spread through the cross-border movement of: elements of the environment (e.g., air and water pollution); people (e.g., travel); production of goods and services (e.g., global manufacturing supply chains); consumption of goods and services (e.g., food, narcotics, healthcare); information, knowledge, and culture (e.g., medical knowledge, consumption habits); and rules (formal and informal norms, rules, laws).[3]

Furthermore, health is deeply connected to the economy. Health crises can trigger economic crises, as Covid-19 has done. And healthcare is big business. Health spending has increased dramatically worldwide, more than doubling per capita from $475 in 2000 to $1,061 in 2017, now comprising one-tenth of the global economy and expected to continue rising.[4]

How can we conceptualize the relationship between global governance and health?

The terminology in the literature is fluid.[5] The term "global health governance" (GHG) usually refers to governance of the global health system – the constellation of actors and institutions whose *primary intent* is to protect health – or the health sector. "Global health architecture" is also widely used,[6] but implies more rigidity and intentional design than "system." I use GHG here as it underscores the fluidity and interconnection that often emerges in unplanned ways, and more accurately reflects the empirical reality.[7] This chapter uses GHG to refer to governance of the global health system; and simply "global governance" when discussing health-impacting governance processes outside the health sector.

With respect to this volume's conceptual framework (see Introduction), contemporary GHG can best be characterized as a network, in which independent purposive actors negotiate the rules that will regulate their relations, rather than a hierarchy or market. Hundreds, if not thousands, of new actors have begun engaging in GHG over the past several decades, influencing agendas, rule-making, implementation, monitoring, and enforcement. These actors are connected through

[2] Rio+20 UN Conference on Sustainable Development 2012, 20. [3] Frenk et al. 2014.
[4] Author's calculations using World Bank World Development Indicators database.
[5] Lee and Kamradt-Scott 2014. [6] Frenk et al. 2014. [7] Szlezak et al. 2010.

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complex networks of funding relationships, expert communities, and formal and informal governance arrangements.[8] The global health system is more centralized than many other areas of global governance such as environment or investment, with the World Health Organization (WHO) the central node. But this centralization should not be confused with hierarchy. While the 1948 WHO constitution envisioned that the organization would become the "directing and co-ordinating authority on international health work,"[9] in practice the agency has been more technical, advisory, and focused on a few issue areas where states provided the funding and political backing to act. And while the constitution granted WHO the legal mandate "to propose conventions, agreements and regulations, and make recommendations with respect to international health matters" – more expansive rule-making authority than many other intergovernmental organizations (IGOs) – this power has seldom been exercised.[10] The remainder of this chapter covers the historical evolution of GHG, offers an explanation for drivers of change over the past several decades, analyzes why these changes matter, and concludes with reflections for the future.

What Has Been Happening? Four Periods of GHG

The ways in which the world governs cross-border health issues have evolved considerably since the mid-nineteenth century. This evolution can be divided into four periods:

The Birth of International Health Cooperation (~1850–1945)

In the first era, from about the mid-nineteenth to mid-twentieth centuries, disease came to be understood as a transnational threat that required some degree of international cooperation. In 1851 the first International Sanitary Conference was held in Paris, convening European powers to establish arrangements to minimize the spread of certain infectious diseases and their potential harm to travel and trade. By the time the first treaty came into force, the 1892 International Sanitary Conventions, governments had agreed to notify each other if any of six diseases[11] was detected in their territories, and committed to refrain from implementing measures restricting travel or trade without scientific or public health grounds. Notably, the main objective was to protect the economies of the cooperating parties and to limit the spread of infectious disease, not to

[8] Hoffman et al. 2015. [9] United Nations 1946. [10] Moon 2018.
[11] Cholera, plague, yellow fever, smallpox, typhus. and relapsing fever.

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protect population health in outbreak-affected countries. During this period international disease control efforts that reached behind borders were driven by colonial interests, for example, protecting soldiers and settlers from infections or improving the economic productivity of colonies by protecting workers.[12]

At the start of the twentieth century the Pan-American Sanitary Bureau and Office Internationale d'Hygiène Publique were established as the first permanent international organizations to facilitate health cooperation, followed after the First World War by the International Health Organization of the League of Nations. These organizations laid the groundwork for the creation of the WHO, but in comparison had quite limited mandates. In terms of non-state actors (NSAs), perhaps most significant was the Rockefeller Foundation, which in 1913 established its International Health Commission and launched a range of international health projects; the foundation set a precedent that endures to this day of autonomous NSAs playing an influential role in global health.[13] In the century that followed the 1851 conference the fields of medicine and biology advanced dramatically and the field of public health was invented – yet the international law of disease control barely changed.[14] This background makes the ideational and institutional shift that took place after the Second World War all the more remarkable.

The Birth of WHO and Heyday of "International" Health (1945–~1990)

The 1948 creation of the WHO, and the UN system more broadly, marks the beginning of a second era that established a far more ambitious vision for what international cooperation should achieve for health. The rather progressive WHO constitution, signed by participating governments in 1946, defined health broadly as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." It declared that "enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being, without distinction of race, religion, political belief, economic or social condition." And it placed health among the highest priorities for international relations, asserting that "the health of all peoples is fundamental to the attainment of peace and security and is dependent upon the fullest cooperation by individuals and states."[15]

[12] Packard 2016. [13] Packard 2016; Youde 2013. [14] Fidler 2005.
[15] United Nations 1946.

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WHO's mandate was expansive, covering all of public health, and its founders envisioned a hierarchical organization able to direct and coordinate others. In the ensuing decades WHO would launch ambitious programs that successfully eradicated smallpox, eliminated (at least temporarily) malaria in some regions, conducted research on tropical diseases, and launched a campaign to extend primary healthcare to all. It issued guidelines on commercially sensitive topics such as essential medicines and the marketing of breast milk substitutes, and on socially sensitive topics such as sex and reproduction. WHO wore many hats: running operations in countries, issuing technical normative guidelines that carried great weight (particularly in developing countries), advocating on health policies, and acting as a political arena for international debates through its bi-annual gatherings of member states (the Executive Board and World Health Assembly). NSAs such as religious groups, non-governmental organizations (NGOs), professional bodies, companies, and foundations were all active in this period but were relatively few in number.

Although often characterized as a technical agency, WHO was not isolated from its political context. The growing numbers of its governing body, as decolonization swelled the ranks of member states, produced strong North–South tensions.[16] The Cold War's competition over ideas and influence also enveloped WHO, as reflected in debates over whether WHO should focus narrowly on controlling particular diseases (as backed by the USA) or get involved in expanding access to healthcare (supported by the Soviet Union).[17] Not by coincidence, in the 1970s the USA began supporting increased involvement in health by the World Bank, where its influence was more concentrated.[18] These dynamics contributed to WHO's paralysis and decline through the 1980s. By the 1990s WHO had hit a low point, with weak leadership, wide criticism from the public health community,[19] and a freeze on its core budget driven by anti-UN sentiment in the USA.[20] The search for alternatives to WHO – and the state-centered, multilateral model of global governance it represented – began in earnest.

The Millennium Development Goals Era and the Birth of "Global" Health (~1990–~2015)

Beginning in the 1990s, recognition of health as an important development, economic, and security issue began to grow outside the health

[16] Chorev 2012. [17] Chorev 2012; Cueto et al. 2019.
[18] Sridhar et al. 2017; Cueto et al. 2019.
[19] Godlee 1997; Smith 1995; Walt 1993; Yamey 2002. [20] Mackey and Novotny 2012.

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community. This ideational evolution was both reflected in and advanced by the World Bank's seminal 1993 *World Development Report*, "Investing in Health," which laid out the evidence and arguments for why health – and therefore health spending – was an important precondition for economic growth, as well as a worthy goal in its own right.[21] Reportedly, this analysis piqued Microsoft billionaire Bill Gates' interest in health.[22] In the years to follow the Bill and Melinda Gates Foundation (BMGF) would become one of the largest funders of global health projects (outspending many governments)[23] and an influential political voice.[24]

The rapid spread of HIV/AIDS and its unprecedented consequences for development also began to cause alarm in the 1990s. The 1996 creation of the Joint UN Programme on HIV/AIDS (UNAIDS) as a new UN entity reflected both recognition that HIV was not merely a health threat and a loss of confidence in WHO's ability to lead the global response.[25] This same loss of confidence informed the creation of the Global Alliance for Vaccines and Immunization (Gavi) in 2000 and the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria in 2002 as self-described "public-private partnerships" intended to be more tightly focused, results-oriented, and efficient than the WHO.[26] Also in 1996 the International AIDS Vaccine Initiative was founded as a non-profit organization and "public-private product development partnership (PDP)" to accelerate vaccine R&D efforts by coordinating with funders, researchers, and the pharmaceutical industry, presaging the creation of over two dozen analogous entities to mobilize R&D into neglected diseases in the ensuing decade.[27] A unifying theme underlying all these developments was a shift away from purely state-based approaches to addressing health problems.

With the agreement of the eight Millennium Development Goals (MDGs) in 2002, three of which directly targeted health,[28] health became central to the global development agenda. The term "global health" also began to overtake "international health" in usage, reflecting both a cosmopolitan concern with "the health needs of the people of the whole planet above the concerns of particular nations" and the growing influence of NSAs.[29] The dollars backed up this semantic transition. The amount of development aid allocated to health tripled over a "golden" decade, from about $11.6 billion in 2000 to $33.9 billion in 2010, with

[21] Musgrove 1993. [22] World Bank 2014. [23] Dieleman et al. 2016.
[24] McGoey 2015; Harman 2016; Youde 2013. [25] Knight 2008; Cueto et al. 2019.
[26] Szlezak 2008. [27] Ziemba 2005.
[28] MDGs 4, 5, and 6 on child mortality, maternal health, and HIV/AIDs, malaria, and other diseases, respectively.
[29] Brown et al. 2006.

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growth leveling out subsequently.[30] Health aid grew faster than official development assistance (ODA) overall, which grew only 77 percent from 2000 to 2014; the proportion of health spending within total ODA grew from less than 2 percent in 1990 to 8 percent in 2000 to 17 percent in 2014.[31] Governments remained the largest source of development assistance for health at 73 percent in 2014, but the proportion from foundations, NGOs, and corporations increased significantly from 6.0 percent in 1990 to 16.5 percent in 2000 to 17.3 percent in 2014, with the BMGF the single largest private contributor. While aid flows are important, by 2017 significant economic growth meant that DAH accounted for only 2 percent of total public spending on health in low- and middle-income countries (LMICs).[32]

This era can be characterized by four interrelated governance features. First, rapid growth in the numbers and types of actors working in health contributed to what Fidler called an "unstructured plurality" and "anarchy" in GHG.[33] In a mapping of 200 major actors in the global health system, Hoffman et al. concluded that half had been founded between 1990 and 2010.[34] Second, both a cause and result of this population explosion was persistent questioning of the role of WHO. WHO frequently had to compete with the newer global health actors for funding and influence. That said, as a trusted source of technical normative guidance to countries and an arena for agenda-setting, negotiation, and rule-making it retained a central position. Third, this era focused on a handful of health challenges, foremost among them HIV/AIDS. This disease focus was coupled with a strong emphasis on technological interventions delivered through vertical, donor-supported programs, such as child vaccinations through Gavi and treatment for HIV and malaria with new medicines financed by the Global Fund. These investments yielded impressive and important achievements – record declines in childhood and maternal mortality, twenty-one million people on HIV treatment, decreases in malaria and TB cases, and reinvigorated pipelines of drugs and vaccines for previously neglected diseases.[35] However, these specific accomplishments did not necessarily build strong health systems that served everyone's needs, nor systems prepared for outbreaks. Finally, the MDG era saw continuing dominance by states and NSAs from the Global North as reflected in funding, leadership, and ideational influence, and continuing North–South conflicts over matters

[30] Institute for Health Metrics and Evaluation (IHME) 2016.
[31] Moon and Omole 2017.
[32] Author's calculations using World Bank World Development Indicators database.
[33] Fidler 2007. [34] Hoffman et al. 2015. [35] Ottersen et al. 2014.

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such as IP and health worker migration. Nevertheless, rising powers from the South such as Brazil, India, Indonesia, South Africa, and Thailand exerted considerable political influence, as did middle powers in the North such as Norway or Switzerland.

This period also witnessed an increasing appreciation among health practitioners and scholars of the many social, economic, and political determinants of health operating outside the national health sector. The highest-profile example was the impact of globalized IP rules negotiated into trade agreements in the 1990s, which required many developing countries to grant patents on medicines for the first time and thereby enable monopoly pricing of life-saving drugs. This issue was starkly illustrated by conflicts over access to low-cost generic HIV medicines in the developing countries that were hardest hit by the epidemic: effective HIV treatment had been developed in the mid-1990s at essentially the same time that the World Trade Organization's Agreement on Trade-Related Aspects of Intellectual Property came into force. The sharp political conflicts, largely between the patent-holding pharmaceutical industry and their home governments in the North versus governments and HIV groups in the South (working with international NGOs), illustrated at least two larger governance phenomena: the profound potential health impacts of global governance processes in non-health sectors, and the complex networks and political alliances between states and NSAs wielding different types of power to influence governance outcomes.[36] These phenomena existed prior to the MDG era but intensified during this time, alongside broader global governance trends such as the rise of influential NSAs and densification of global rule-making.

The Sustainable Development Goals and Covid-19 Era: A Return to WHO and Multilateral Institutions? (~2015–Future)

The 2015 agreement of the Sustainable Development Goals (SDGs) signaled a sea change for global health. The broad scope of SDG 3, "ensure healthy lives and promote wellbeing for all at all ages," reflected a major shift away from the disease-focused MDGs toward a renewed emphasis on health systems and a much more ambitious vision. The list of health challenges on the global agenda was long and broad, including the "unfinished MDG agenda" (HIV, TB, malaria, maternal and child health), AMR, outbreaks, NCDs, aging societies, mental health, accidents, rising medicines prices, genomics, personalized medicine,

[36] Hein and Moon 2013.

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unsustainable growth in healthcare spending, and the health impacts of climate change. One implication of this much broader agenda was continued pluralism as many more actors engaged in governance processes.

At the same time, it also implied renewed emphasis on WHO as the world's main arena for convening, priority-setting, negotiation, consensus building, and rule-making on a broad range of health matters. The large global health initiatives created during the MDG era each had tightly focused, narrow mandates: Gavi supported immunization in the poorest seventy countries; the Global Fund and UNITAID focused on HIV, TB, and malaria in developing countries. In addition the key instrument of each was funding, which was declining in relative importance with economic growth in LMICs. In 2017, external resources accounted for only 0.2 percent of health spending in upper-middle-income countries and 3.4 percent in lower-middle-income countries, on average.[37] In contrast the demand for governance – for example priority-setting, guidelines, norms and rules, monitoring, and accountability – in the face of proliferating actors and a vastly broadened agenda, was growing. Hence there was a renewed recognition of the importance of WHO.

This "return" to WHO was not inevitable. The 2014 West African Ebola crisis –particularly WHO's slowness in recognizing the severity of the outbreak, putting boots on the ground, sounding the alarm, and mobilizing an international response – spurred widespread criticism and an identity crisis.[38] A core conclusion of the seven major post-crises analyses was that WHO had indeed failed.[39] But its role as trusted interlocutor with governments, potential hub of global expertise, and arbiter of the severity of outbreaks was also recognized as irreplaceable.[40] The key question was, could WHO be reformed to fulfill these roles?

Kickbusch and Reddy called the Ebola outbreak a cosmopolitan moment for the global health community, akin to the HIV/AIDS crisis.[41] Yet the path the global community took at this crossroads was, in some senses, the opposite of HIV. Rather than create a raft of new organizations, energy was dedicated to reforming WHO. At an organizational level this focused on rebuilding the operational capacity on outbreaks that had been dismantled at the agency. At a more constitutive level, member states sent a clear message that managing outbreaks was a high priority and ought to be considered a core function.

[37] Author's calculations using World Bank World Development Indicators database.
[38] Moon et al. 2015. [39] Moon, Leigh, et al. 2017. [40] Gostin et al. 2016.
[41] Kickbusch and Reddy 2015.

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Other significant WHO reforms ensued. In 2016 governments finalized a Framework of Engagement with Non-State Actors (FENSA), which specified in unprecedented detail how WHO could engage with private firms, academia, civil society, foundations, and other NSAs. It was an effort to structure (at least WHO's interaction with) the unstructured plurality. To date this is the only major UN agency to have such a framework, though engagement with NSAs is now common across the UN system. In addition, in a first for WHO – and unprecedented for any UN agency – in 2017 the director-general (DG) of the organization was elected with each member state wielding one vote, a departure from previous elections in which negotiations among a small number of countries produced a winner. In contrast, the 2016–2017 election process was more open, involving proactive campaigning by the field of candidates, webcast candidate forums with public participation, active press coverage, and a lively debate on the leadership profile needed at WHO.[42] Notably, the BMGF began the millennium as the driving force behind Gavi, seen as a workaround to WHO; but by 2014 it had become the second largest funder of WHO – reflecting recognition of the agency's importance and normative influence, as well as an effort to influence it.[43]

When Covid-19 struck WHO had undergone significant reform to reprioritize outbreaks, and its leader had broad political support. The pandemic put WHO in the global public spotlight as never before. Seemingly overnight, starting in January 2020, the world paid close attention to WHO. Whether WHO deemed the epidemic an official Public Health Emergency of International Concern (PHEIC), or characterized it as a "pandemic," or recommended widespread public use of masks, became the subject of global media coverage and heated debate. WHO's political and technical decisions wielded global influence on state responses to the pandemic and on individual behavior, even if its guidance was far from universally respected.

At the same time, some ascribed to the agency far more power and authority than it had. The US Trump administration accused WHO of hiding information about the virus and delaying its emergency declaration, ultimately announcing US withdrawal from the organization.[44] But investigative reporting found, rather, that the Chinese authorities had delayed sharing information with WHO; the agency quickly shared the information it could obtain with the international community, but had little leverage over the Chinese government.[45] Some appeared to believe WHO could conduct independent investigations within the

[42] Kickbusch et al. 2017. [43] Harman 2016; Youde 2013.
[44] BBC Reality Check Team 2020. [45] AP 2020.

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sovereign territory of any nation state, which it had neither the legal nor political authority to do. In short, they believed the world had a hierarchical system of governance to address the serious threat of outbreaks, when in reality all we had was a loose, flat network.

Discussion

Several observations flow from this overview of the trajectory of GHG. First, there has been a clear move away from a primarily state-based system to one in which NSAs wield significant influence; yet this influence is often exerted in coalitions with like-minded states, or through them via domestic politics or direct lobbying of governments in international arenas. The system also remains centered around WHO. What we observe in health is a "Westphalia-plus" system in which NSAs wield influence alongside states, rather than a post-Westphalian system per se. Covid-19 – with its state-enforced lockdowns, travel bans, citizen surveillance, and economic rescue packages – has illustrated as seldom before the enduring centrality of the state: and as long as governments matter for health, WHO will matter for health. Indeed, protecting public health – which requires public goods provision, law enforcement, and collective action – demands a functioning, capable state.

Second, the beginnings of a shift to a multipolar world is certainly evident in global health politics, but dominance by the traditional powers in the North remains a key feature of the system. Money provides one indicator. High-income countries (HICs) remain the principal funders of the major global health organizations.[46] The top-five funders of WHO (USA, BMGF, Gavi, UK, Germany) accounted for half its $6 billion budget in the 2018–2019 biennium.[47] National health spending in HICs still dwarfs that of LMICs: HICs accounted for only 16 percent of the global population in 2017, but over 80 percent of total health expenditure – spending on average about twenty-two times as much per capita as the LMICs. That said, health spending in LMICs grew at a much faster pace: from 2000 to 2017 LMIC health spending increased by over 400 percent from $309 billion to $1.567 trillion, compared to 145 percent in HICs.[48] The system remains today "great powers-plus," and is only slowly becoming more multipolar.

Third, the global health system is expanding in scope and becoming more dense and complex. The increased number of health challenges

[46] Dieleman et al. 2016.
[47] WHO Contributors, https://open.who.int/2018-19/contributors/contributor.
[48] Author's calculations using World Bank World Development Indicators database.

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understood to have transnational dimensions is prompting the engagement and/or creation of many new actors. As noted earlier, among the three ideal types of governance modes (hierarchy, markets, networks), contemporary GHG most closely resembles a network. In the past, the global health system exhibited more features of hierarchy. The US government and US-based Rockefeller Foundation were dominant players in international health throughout the twentieth century,[49] and the USA and BMGF were the two largest funders of WHO at the start of the twenty-first.[50] Scholars have also highlighted the power of the World Bank, where US leadership and policy approaches have been dominant, to shape national health policies through its lending and policy advice.[51] The shadow of hierarchy cast by US global hegemony, either directly or through IGOs, covered the health sector.

But if we conceptualize global health as an issue area extending beyond development aid the picture is less clear. WHO was the site of long-standing political conflict between East and West during the Cold War, and continued through the 1990s and 2000s to be an arena for conflicts between North and South.[52] The North and the West, respectively, held dominant positions but did not always win these political contests. For example, the push for universal access to primary health care launched under the banner of "health for all by the year 2000" in 1978 at a WHO conference in Alma Ata – then part of the Soviet Union – was not welcomed by the USA but became an enduring objective in global health.[53] The goal was not achieved and was even undermined by the widespread implementation of World Bank-supported user fees under structural adjustment programs in the 1980s–1990s.[54] Yet its lasting legacy is reflected in the focus on universal health coverage in the SDGs and its central place in WHO's 2018–2023 workplan. WHO's efforts to limit infant formula and promote access to essential medicines was also hotly contested between North and South but ultimately sustained.[55] There were heavyweights and significant power disparities in the system but these did not add up to a clear hierarchy.

In terms of modes of governance, "markets" are even less applicable to global health. Unlike in environment, where certification schemes and harnessing consumer preferences have been prominent tools of global governance, these have not been widely used in health. This may be because health-related goods and services are more often consumed on the principle of need than consumer choice. And at national level, public

[49] Youde 2013. [50] Clift 2014. [51] Abbasi 1999; Sridhar et al. 2017.
[52] Chorev 2012; Cueto et al. 2019; Packard 2016. [53] Rohde et al. 2008.
[54] Maciocco 2008. [55] Maciocco 2008.

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health is usually undergirded by laws (e.g., on air and water quality, food safety, nutrition labeling, smoking restrictions, road safety, and health insurance requirements), often collectively financed through taxation (e.g., public health insurance or care systems), and enforced through the coercive power of the state (e.g., quarantines, bans on food additives, and closure of non-compliant businesses). Involvement of market actors and market-based policy tools are certainly present in global health, but markets are far from being a primary mode of governance.

Networked governance is the most applicable of the three. One manifestation of the relevance of networks is the proliferation of multi-stakeholder partnerships as an organizational structure and governing principle in global health.[56] Informal policy networks also loosely linked together like-minded NGOs, government representatives, IGO staff, industry executives, academic experts, and journalists, such as on issues relating to medicines prices and IP.[57] Whereas WHO used to be the dominant node in the network, we observe today an expanded, diversified network with an increased density of connections between the actors and nodes. WHO remains the central node, but other major nodes now operate as well.[58]

Yet the networks observable in global health are not characterized by "equality" between actors. Rather, as Faul has argued, networks reflect and can exacerbate power disparities between constituent actors, belying the surface-level discourse of partnerships or equal standing in formal decision-making processes.[59] Furthermore, the concept of networks fails to capture the way interactions between various parts of the system collectively produce certain outcomes, such as controlling a yellow fever outbreak, developing a new vaccine for meningitis, or reducing tobacco use in children.

For this reason, I argue that "system" is a more appropriate concept than hierarchy, market, or even network to describe what we see in global health. Global health actors exhibit characteristics of a complex adaptive system in which many autonomous actors interact across multiple scales (local, national, regional, global), across time, countries, and sectors (complex); learn from previous interactions and adopt new strategies, making behavior difficult to predict (adaptive); and interact in ways that shape each other's thinking, choices, decisions, and actions (system).[60] Thus, "system" – and "complex adaptive system" in particular – offers a more apt analogy for GHG.

[56] Andonova 2017. [57] Hein and Moon 2013. [58] Hoffman et al. 2015.
[59] Faul 2016. [60] Hill 2011.

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Health has witnessed a shift from "old" (large international bureaucracies, multilateral arrangements, grand plans and designs) to "new" models of governance (smaller and nimbler organizations, club arrangements, and incremental, piecemeal, pragmatic action). But what may distinguish health from other global governance arenas is the persistent centrality of the large international bureaucracy that is the WHO. It is the largest UN specialized agency, with about 150 country offices and six regional offices, 8,000 total staff, and most recently an annual budget of about $3 billion.[61] Its scope of work and budget has increased every biennium over the past two decades. The younger organizations that were to be nimble and lean are now also bureaucracies – UNAIDS (700 staff spanning 79 countries)[62] and the Global Fund (700 staff in Geneva).[63] In addition, formal multilateral rule-making still matters, such as the International Health Regulations (IHRs), a binding set of international rules on how countries should prepare for and respond to disease outbreaks.[64] Revising the IHRs is likely to be a major post-Covid-19 effort.

Alongside the old is the new. In contrast to other sectors, there are very few treaties – only three – dedicated to health, but no shortage of guidelines, codes, technical norms and standards, frameworks, global action plans, resolutions, financial flows, and other tools that shape actor behavior. The rise of private authority from foundations, industries, and NGOs is omnipresent,[65] and hybrid formal governance arrangements (e.g., boards) combining representatives of public and private actors are the norm for new global health initiatives.[66] Yet at the WHO, where most normative instruments are negotiated, agreed, and legitimated, states have jealously guarded their decision-making authority. FENSA reinforced the principle that NSAs may contribute, participate, and collaborate with WHO, but it remains states who decide. Indeed, in her study of multi-stakeholder partnerships (many in global health) Andonova found that establishing norms and rules was a governance function rarely delegated to partnerships.[67]

Finally, the era of grand plans is not yet over. The ambition of the SDGs remains vast. The negotiation of global strategies and plans remains an oft-used tool for coordinating actors across a pluralist landscape. UN High-Level Meetings engaging heads of state on health are no longer unusual, having now been held on HIV, NCDs, AMR, TB, and universal health coverage (UHC). Covid-19 will prompt more. Massive global conferences, big ambitions, and master plans remain – but the

[61] Burci 2019. [62] UNAIDS 2018. [63] GFATM n.d. [64] Fidler 2005.
[65] Hall and Biersteker 2003. [66] Gleckman 2018. [67] Andonova 2017.

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implementation is more piecemeal and farmed out to all types of states and NSAs, from small to large, for-profit, non-profit, and in-between. In general the new has not replaced the old but rather has grown up around it – sometimes complementing, sometimes competing, but not yet overtaking it.

Why Is This Happening? Health as a Microcosm and a Unique Field

Many of the forces driving broader changes in global governance have also affected the health sector, particularly a globalizing economy, the demographic transition, neoliberal and cosmopolitan ideation, and technological change. Key features of the contemporary governance system also owe much to the particularities of the HIV/AIDS pandemic. These factors have interacted in complex ways to produce the system we see today.

In terms of material factors, a globalizing economy produced a new set of health challenges linked to the production (e.g., environmental health impacts of underregulated factories) and consumption (e.g., substandard medicines, processed foods, tobacco) of traded goods and services. It also both spurred (and was spurred by) the emergence of transnational rules seeking to govern that economy; as the health implications of these rules (e.g., IP, investment, trade in goods and services) became clearer, so did the impetus for health actors to engage in broader global governance processes. Globalized trade and travel patterns also facilitated the spread of infectious disease, moving the Covid-19 pathogen from China across Asia to Europe and the Americas in weeks, shutting down societies and economies. In addition, economic growth in middle-income countries generated both the wealth to increase domestic spending on health and transformed previously poor countries into attractive markets for multinational firms. This shift raised the prospects of heightened conflict between governments and firms on issues such as health technology pricing and regulation of goods and services.

Alongside these economic developments were important changes in population structures. Much of the world began the demographic transition over the past several decades, with populations transitioning from high to low birth rates, with a greater proportion surviving through childhood and infectious disease to face a rising tide of chronic NCDs, resulting in an overall aging of population structures. These population shifts increased demand for healthcare, prompted investment in developing an ever more sophisticated and costly suite of health technologies, and increased political and financial pressures on governments to ensure

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access to healthcare. They also broadened the global health agenda to examine the underlying causes of NCDs, which frequently involves a broader set of commercial actors (e.g., agriculture, tobacco, processed food, beverage, alcohol, pharmaceuticals) than the previous infectious disease agenda (primarily pharmaceuticals). The demographic transition has contributed to making health a major sector of the global economy and a hotly contested political issue.

In terms of ideational factors, as noted in the earlier subsection on "The Millennium Development Goals Era," an important shift in how health was conceived took place in the early 1990s, and caught the attention of well-resourced decision-makers – not least of whom Bill Gates. Perhaps there was also a certain fatigue with the vagaries and outright failures of development aid,[68] and that combating disease seemed (on the surface) seductively simple: few aspects of the human experience are as obsessively measured, counted, or studied as health. Technology also seemed to provide a silver bullet.[69] This appealing combination – a measurable problem and the availability of tools to solve it – may explain why health enjoyed its moment in the MDG limelight.

Furthermore, growing attention to health coincided with the post-Cold War ascendance of neoliberalism and the "new public management," which asserted that the private sector was fundamentally more capable, efficient, or effective than the public sector.[70] A frequently heard argument was that public problems could not be solved without private sector engagement, and therefore that business should "have a seat at the table."[71] The allocation of private sector seats on the boards of Gavi and the Global Fund were justified on these grounds, and this ideology is also reflected in the creation of PDPs. However, fierce debates have continued regarding what a "seat at the table" exactly means, and in particular where the line between private and public authority should be drawn.

Alongside neoliberalism, cosmopolitanism also deeply informed GHG. From Alma Ata's call for "health for all" to the BMGF's motto that "every life has equal value,"[72] global health is suffused with the idea that health is both a universal concern and responsibility of humanity. Neoliberalism and cosmopolitanism often coexisted, with broad agreement on universalist goals but strong disagreement on the appropriate roles of states and markets in reaching them.

Technological change also remains an important driver. The ever-expanding arsenal of health technologies prompted hope among patients, launched political movements for global access to medicines, strained

[68] Easterly 2006. [69] Birn 2005. [70] Labonte and Schrecker 2007.
[71] Ooms and Hammonds 2009. [72] Bill and Melinda Gates Foundation n.d.

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budgets, and sparked political conflicts between governments and firms.[73] Information and communication technology has also been transformative. It could rapidly translate the life experience of a malnourished child to a global public, motivating a social response. It could enable smaller, weaker states and NSAs to build cooperative networks and joint strategies. It amplified the microphones of activists and advocates. It could transmit information regarding suspicious outbreaks of infectious disease instantly from local media in one part of the world to public health agencies in another. And technology enabled man-made health threats such as chemical and biological weapons, requiring new efforts to govern and prevent large-scale disasters. Artificial intelligence and other digital technologies will bring more changes still. In sum, technology provided potential solutions to disease and bound the world more tightly together, while also creating a whole host of new challenges for governance.

With respect to the above-mentioned factors, health was a microcosm of broader global changes. But GHG was also profoundly shaped by the particular experience of HIV/AIDS, highlighting the importance of path dependence. "AIDS invented global health," as historian Allan Brandt argued.[74] AIDS was an unprecedented global health and development emergency. AIDS activists built the transnational networks that enabled worldwide social mobilization for the creation of the Global Fund (initially conceived only for HIV) and an interpretation of global IP rules that cleared the way for widespread access to generic HIV medicines.[75] By insisting that no decisions should be taken "about us, without us," AIDS activists also created the norm of community representation,[76] later replicated in other areas. The Global Fund board includes a seat for communities and two seats for NGOs, and UNITAID's board allocates two seats for communities and NGOs, for example. AIDS also galvanized unprecedented levels of development assistance, through the Global Fund, the US President's Emergency Plan for AIDS Relief, the World Bank, and numerous other initiatives. Brandt concluded that HIV/AIDS established a "new global health" that "recognizes the essential supranational character of problems of disease and their amelioration and the fact that no individual country can adequately address diseases in the face of the movement of people, trade, microbes, and risks."[77] While the growth of transnational health challenges at the start of the twenty-first century would have prompted new efforts to govern them, it was the HIV/AIDS pandemic and the remarkable political savvy of AIDS

[73] 't Hoen et al. 2011. [74] Brandt 2013. [75] 't Hoen et al. 2011.
[76] Smith and Siplon 2006. [77] Brandt 2013.

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activists that shaped the character of contemporary global governance institutions in health.

Kingdon's insight that change does not occur gradually, but in patterns of punctuated equilibrium, is well illustrated in global health.[78] Like HIV/AIDS the Covid-19 pandemic will surely be such a watershed moment, ushering in changes to global governance in health and far beyond. And as with HIV/AIDS, the characteristics of this new order are likely to be shaped not only by deep underlying determinants but also by the leaders and political strategies they adopt to shape it.

How Does It Matter? Implications for Governance

Global health's pluralistic, polycentric, and interconnected landscape of states and NSAs has significant implications for who has power and legitimacy in governance, and ultimately how effective GHG is.

Power

The complexity of contemporary global governance suggests that power should be conceptualized broadly, as the ability to shape the thinking and/or actions of others. An implication of considering power in this way is that many actors wield power in global governance and that power takes different forms. Elsewhere, using empirical examples from global health, I have argued for the utility of considering eight different types of power: physical, economic, structural, institutional, moral, expert, discursive, and network. (See Table 8.1 for examples).[79] Following Bourdieu's concept of power as capital,[80] I argue that these types of power are fungible, such that one type of power may readily be transformed into another. For example, economic power can be transformed through research grants into expert power, as when funders support academic research that is likely to protect their interests or uphold their world views.

Three important implications arise from this typology. First is that many more actors wield power in the global system than is widely recognized. This includes actors that international relations scholars have traditionally considered "weak" such as developing countries, moral leaders, or social influencers on Twitter. The increase and diversification of actors in GHG suggests that the distribution of power has become more diffuse. At the same time, this diffusion does not necessarily correct

[78] Kingdon 1995. [79] Moon 2019. [80] Hanefeld and Walt 2015.

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Table 8.1 *Types of power in global governance, with examples from health*

Type of power	Examples of actors wielding such power	Health-related examples of uses of such power
Physical	Militaries, militia, mercenaries, peacekeeping forces, police	Cordon sanitaire, quarantine
Economic	Wealthy governments, firms, foundations, individuals	Shaping WHO priorities through funding
Structural	Governments, traditional leaders	Governments levying taxes on tobacco sales
Institutional	Depends on institution: often governments, increasingly also firms and NGOs	Civil society delegation to Global Fund board voting on grantmaking policies
Moral	Religious leaders, social movement leaders, moral authorities	Speech by Nelson Mandela on destigmatizing HIV
Expertise	Academics, scientists, lawyers	Evidence on link between alcohol and cancer leading to changes in alcohol regulation
Discursive	Media, politicians, activists, public intellectuals	Contraception as sexual and reproductive right
Network	Any well-networked individual or group of individuals	Garnering invitations to prestigious committees or conference speaking roles

major power imbalances in the system. The second implication is that different types of power can reinforce each other to widen or entrench power disparities. But not always. If we accept the premise that GHG is a complex adaptive system, then the outcome of thousands of interconnected actors wielding different types of power pursuing their interests can be unpredictable. A small exercise of power in one part of the system can have butterfly effects elsewhere. The overall implication, then, of a more pluralistic and polycentric global governance system is a far broader distribution of power (even if lumpy) with increased unpredictability of outcomes.

Legitimacy

We also observe that a broader set of actors has gained acceptance as legitimate voices in governance, but their bases for legitimacy differ. Stakeholders in GHG are now regularly defined to include: those who are directly affected by decisions (e.g., patients, community groups),

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those who contribute funds (e.g., foundations, billionaires, donor countries), those who have capacity to contribute (e.g., industry), those who bring evidence and expertise (e.g., academics, scientific experts), and those who simply care deeply about a topic (e.g., advocates, activists). The two largest new global health initiatives to be launched in a decade, the Global Financing Facility for Women and Children's Health in 2015 and Coalition for Epidemic Preparedness Innovations (CEPI) in 2016, were created with governing bodies consisting of all these groups. Some actors bank on normative claims to input legitimacy ("we should be at the table as democratic representatives of the governed" – governments and civil society) and others on instrumental claims to output legitimacy ("we should be at the table because the decision will be better and more likely to be implemented if we are" – experts, funders, industry, advocates). In a networked system with little hierarchy perhaps this widespread conferral of legitimacy is to be expected.

However, whether all these voices should play the same roles, and whether their underlying bases for legitimacy are equal, has remained strongly contested. These questions were central to the debate over FENSA: whereas WHO had previously considered all NSAs as a single category for establishing official relations, FENSA created four distinct groups (NGOs, the private sector, foundations, and academic institutions) with rules of engagement tailored to each. Whether the policies for engaging with commercial actors were adequate to safeguard WHO from undue influence or conflicts of interest is an unresolved debate as FENSA has moved from negotiation to implementation.[81]

And while NSAs have become widespread as stakeholders and governors it has also prompted pushback. Whereas NSAs frequently have decision-making roles in the governance of specific initiatives (e.g., the Global Fund, CEPI) that usually fund or implement programs, states have not conceded such authority in the WHO and broader UN arenas where norms and rules are decided, as noted. This is reflected in the FENSA decision, the SDG process, the election of the WHO DG, and other issues on which states made the final decisions.

For some the rise of "multi-stakeholderism" was seen as a Trojan horse for industries and foundations not only to exert more control over global health initiatives,[82] but also to counteract the numerical advantage that developing countries had in the WHO. From this perspective the shift away from WHO at the turn of the millennium could be seen, not as

[81] Buse and Hawkes 2016. [82] Sridhar and Woods 2013.

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a rejection of bureaucratic inefficiency, but as a shift to create new organizations where Northern actors would have more sway.

Effectiveness

The implications of these governance arrangements for effectiveness are mixed. As noted in the "Discussion" subsection, impressive achievements have been made in reducing deaths from high-burden infections. Alongside governments of LMICs, major contributions came from NGOs, foundations, and companies that were largely absent from the global health system of the 1990s. Yet these achievements are incomplete and under threat: an estimated 1.7 million new HIV infections still occur annually, a trend that has not appreciably changed in a decade;[83] malaria is developing resistance to previously effective drugs and insecticides, and cases could resurge;[84] TB cases have been declining very slowly while multi-drug resistant forms of the disease spread.[85] For health issues lower down the global agenda in the MDG era, such as mental health or obesity, the "new" global health system has not proven itself more effective than the old. This point was forcefully made by the 2014 West African Ebola crisis, which highlighted persistent vulnerability to health emergencies despite record-breaking global health spending the previous two decades. Some have argued that the potent advocacy of NGOs and foundations for their specific issues of interest – whether HIV, polio, or any other cause – allowed for a dangerous neglect of health systems. The pendulum has swung back to health systems again in the SDGs, though it remains to be seen whether in rhetoric only or in practice.

At a scale far greater than Ebola, the devastation wrought by Covid-19 has exposed, again, the fault lines in the global system. One issue that has been laid bare is that the global health system has largely been constructed to address health in LMICs. Many of the governance functions that all countries rely upon, such as the negotiation and enforcement of rules, have been neglected. For example, in contrast to security or trade, enforcement arrangements for the IHR (2005) amount to naming and shaming, with WHO often constrained from even doing that.

Overall health is a sector in which the effectiveness of global governance arrangements is relatively feasible to assess due to conceptual clarity on what "success" looks like – the control of disease, the decline of morbidity and mortality. The picture is a mix of significant achievements and many unaddressed problems.

[83] UNAIDS 2020. [84] WHO 2019b. [85] WHO 2019a.

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Reflections for the Future: What Should GHG Do and What Is the Role of WHO?

There is no shortage of health challenges on the horizon: the risk of outbreaks of infectious disease linked to urbanization, meat consumption, travel, and trade; persistently high maternal mortality in the poorest countries; declining efficacy of existing antimicrobials; pressure on health systems to care for aging populations with an increasingly costly armamentarium of health technologies; and the as-yet poorly understood health effects of climate change, to name just a few. The current context of dense relationships of interdependence is likely to intensify, as is the governance system that evolves in response.

Can GHG effectively protect, restore, and maintain public health? With a plurality of actors, subsequent proliferation of interests and agendas, and significant power disparities, is effective governance feasible? What must the system achieve in order to do so? As argued elsewhere, effective governance of the global health system requires that it collectively perform four functions: managing externalities, providing global public goods, mobilizing solidarity, and stewardship.[86]

The first function, managing externalities, is the ability to address situations in which actions in one country produce significant health-related impacts in another, such as the cross-border spread of infectious disease or environmental pollution. Such externalities are expected to increase with intensifying interdependence. For example, the increasing transborder movement of goods, people, and elements of the natural environment is expected to raise the risk of infectious disease outbreaks. These threats were the original impetus for international health cooperation 150 years ago, and touch on the "high-politics" issues of economic and national security. Unsurprisingly they have largely been managed through interstate negotiations. While NSAs play an important role in providing information, implementing programs, and conducting advocacy, states have retained the central decision-making roles in policy-making and financing. Growing multipolarity is likely to make effective agreements more difficult to achieve, however, as illustrated by USA–China conflict over the causes and consequences of Covid-19.[87] A central issue for the future is whether global health actors can find ways through the "gridlock" that may result, and effectively address such threats.[88] The experience of the past two decades suggests that global

[86] Frenk and Moon 2013. [87] Hale et al. 2013. [88] Hale et al. 2013.

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health has been a field of significant experimentation and innovation in governance, offering some reasons for optimism.[89]

The second function is the provision of global public goods. At national level, responsibility for provision of public goods, such as security or knowledge, generally falls to national governments (whether governments directly provide such goods or create policies that ensure private actors do so).[90] Without a global government this task falls to the global health system at large. Many global public goods for health (e.g., disease surveillance systems, scientific research, R&D for health technologies) have been financed primarily by wealthy countries, either through development aid, foreign affairs, or defense budgets.[91] Emerging powers have been increasingly called upon to share this burden and the willingness of HIC publics to do so may decline. Such trends have already characterized global policy debates on financing R&D. However, emerging powers continue to play a very limited role in financing – it is growing but very slowly.[92] A major question remains whether and how quickly[93] emerging powers will fill the gap that major powers are likely to leave in global public goods provision.

The third function is broadly conceptualized as mobilizing solidarity, and includes development assistance, technical cooperation, humanitarian aid in emergencies, and advocacy for those whose own states have failed to protect them. After a decade of rapid growth DAH reached a plateau from 2010.[94] DAH has also shifted out of middle-income countries and concentrated in the lowest-income countries where it comprises on average one-quarter of health spending.[95] However, with the majority of the world's poor living in middle-income countries, a key question is whether this DAH transition can be achieved in a manner sensitive to health inequalities such countries, as well as whether it can better address extreme deprivation and rising needs in the lowest-income countries. The rise of emerging powers as new donors – illustrated most clearly by China's large and growing role in health aid in sub-Saharan Africa[96] – may counteract the decline from traditional donor countries, though the modalities of these new aid flows is likely to differ.[97]

Similar questions arise regarding humanitarian assistance, which has been financed and delivered predominantly by the wealthy countries but where emerging powers – again, particularly China – play a growing role.[98] In the face of growing security threats and the erosion of norms

[89] Held et al. 2019. [90] Barrett 2007. [91] Moon, Røttingen, et al. 2017.
[92] Policy Cures Research 2017. [93] Kahler 2013. [94] Dieleman et al. 2016.
[95] Chatham House Centre on Health Security, Working Group on Health Financing 2014.
[96] Shajalal et al. 2017. [97] Shajalal et al. 2017; Fan et al. 2014. [98] Hirono 2018.

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protecting humanitarian assistance, record levels of forced displacement,[99] and other humanitarian emergencies, a central question is whether these geopolitical shifts will enable the humanitarian aid system to provide adequate relief for emergencies in the decades to come.

The last subfunction under mobilizing solidarity is agency for the dispossessed, which is concerned with the extent to which outsiders can protect the right to health of people whose rights are violated by their own governments. Despite the emergence of the "responsibility to protect" doctrine, the resurgence of nationalism and efforts to weaken international institutions suggest this function will become increasingly difficult. Blatant disregard in Syria for well-established norms banning the use of chemical weapons, for example, highlight this challenge. Graphic media coverage and vocal advocacy by NGOs was inadequate to convince governments to refrain from violating long-held international norms.

Finally, the fourth function is stewardship, which refers to providing overall strategic direction so that all other functions can be performed. It includes convening for negotiation and consensus building, setting priorities, establishing rules, evaluation for accountability, and advocating for health in global governance processes beyond the health sector (e.g., trade, investment, migration). The sheer breadth of health issues requiring effective global governance and the proliferation of actors has highlighted the need for stewardship. Stewardship is needed for ensuring the system as a whole functions, for setting goals and agendas legitimately, and for monitoring this complex system. As argued in the subsection on "The Sustainable Development Goals and Covid-19 Era," the need for stewardship has driven a return to WHO. Analysts examining the 1990s bemoaned the overall decline of WHO,[100] and in the MDG era highlighted how new global health initiatives competed with the organization for funding, influence, and relevance.[101] But what is less widely recognized is that most of these initiatives were channels for DAH; they focused on one function of the global health system – mobilizing solidarity – and did not play a major role with respect to the other three. DAH matters less in a context of emerging powers.

Three brief examples illustrate the implications. First, the drive to expand healthcare to achieve UHC is a central target of the health-related SDGs, and will largely depend on domestic financing in all but the poorest countries. WHO's role remains central in providing policy guidance, in convening countries and other actors to share experiences and evidence, and in monitoring and accountability for progress toward

[99] UNHCR 2020. [100] Godlee 1997; Yamey 2002. [101] Buse and Harmer 2004.

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UHC. Similarly, outbreaks of infectious disease affect all countries, and most financing for outbreak preparedness is expected to come from domestic resources not DAH. As Covid-19 has demonstrated, WHO retains a central role in gathering and interpreting information daily on potentially risky disease events, assessing when an outbreak should be declared a PHEIC, and supporting governments on outbreak responses. Many actors besides WHO have the capacity to stamp out chains of transmission or run clinics, such as the US Centers for Disease Control or Médecins Sans Frontières. But no other actor has the authority to monitor countries to ensure an adequate level of preparedness or to issue travel warnings that can bring economies to a halt, for example. After President Trump declared in 2020 that the USA was withdrawing as a member state of WHO in the heat of the Covid-19 pandemic, the USA appeared isolated as other member states announced their political and financial support to the agency.[102] Third, DAH is expected to play a relatively small role in addressing NCDs (e.g., heart disease, mental illness, cancer, and diabetes) in developing countries. However, WHO plays a critical role in convening the global community and providing policy guidance to governments on issues such as taxes on sugar or tobacco, marshaling the evidence base on various foods, warning labels on alcohol, and the design of healthy buildings and cities.

These three examples illustrate the ways in which WHO acts as a focal point for self-organizing, autonomous actors in the global system. Contrary to its constitution, WHO's main function today is not as a directing and coordinating authority, but rather as a convener, advisor, legitimator, and political arena.

Questions regarding the role of WHO are often not only about the organization itself, but also about the appropriate role of states vis-à-vis NSAs, and about the relative strengths of intergovernmental institutions versus the many forms of hybrid public–private and pure private governance that have arisen. WHO's place at the center is likely to endure in an increasingly fragmented yet ambitious Westphalia-plus, Great Powers-plus system. A key question for the future is whether WHO will be appropriately mandated, financed, and led to adequately perform the stewardship function – and whether states will be willing to grant it the greater hierarchical authority to do so.

Society's response to cross-border health threats has evolved significantly since the 1850s. Today's dense and complex adaptive system of

[102] Schmitz 2020.

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GHG reflects significant shifts in how the purpose of global governance is defined, from a system that originated primarily to protect the trade interests of the major powers to one that seeks to govern an expansive range of health issues across all countries. Complex adaptive systems are difficult to predict, however, and how Covid-19 will alter the trajectory of that evolution is an open question. What may be predicted with greater certainty is that the central role of states – and by extension the intergovernmental institutions they have built – as the actors with authority and responsibility for protecting public health will endure in an increasingly dense and crowded ecosystem.

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