D1 | WHO AND THE POLITICS OF PANDEMICS

Introduction

The global management of the COVID-19 pandemic has been torn by self-interest and resentment but has also showcased inspiring leadership and solidarity. The search for new technologies has blended "warp speed" science with a grasping refusal by Pharma and high-income countries (HICs) to share. While wealth and power have not guaranteed an effective national response, the vulnerabilities associated with poverty and marginalization have been all too predictable.

Many of the experiences of the COVID-19 pandemic point to deep flaws in the prevailing institutions of global health governance in relation to emergency preparedness. However, the pandemic also provides an opportunity to examine the forces, structures, and dynamics at the root of such flaws. This chapter explores these underlying factors with a focus on the political economy of prevention, preparedness, and response. In so doing, it locates the project of creating more effective management of such crises in the broader context of neoliberal globalization and the converging struggles of people's movements around the globe for an equitable and environmentally sustainable future.

The global COVID-19 experience

The early international response to the pandemic was shaped by the response in China. The speed with which the Wuhan outbreak was controlled was impressive although it involved a huge cost in terms of the burden on hospitals and healthcare workers and a very tight lockdown. Even as the epidemic in China was controlled, case numbers in the rest of the world started to rise from mid-March before declining, then again rising as second and later third waves occurred in differing parts of the world.

As with many diseases (communicable or otherwise), COVID-19 mortality has been unevenly distributed in many countries. Healthcare workers have carried a disproportionate burden: around 7.2 million healthcare workers had been infected as of April 2021 with perhaps 70,000 deaths (WHO 2021a). Shortages of personal protective equipment (PPE), testing resources, ventilators, and oxygen were universal early in the pandemic and accounted for many of the health worker casualties. They remain a challenge for poorer countries. During the April 2021 second wave surge in India a lack of medical oxygen in most cities contributed to many avoidable deaths.

There have been wide variations in countries' performance in managing the pandemic. Vietnam and Taiwan stand out for their success in preventing the

spread of the coronavirus. China and New Zealand stand out for their success in controlling outbreaks. By contrast, the USA, the UK and other European countries, Brazil, and India stand out for their failures to control the pandemic. Ironically, the USA and UK were identified as the best prepared countries in the 2019 Global Health Security Index (Global Health Security Index 2019) but were among the worst hit; politics appeared to trump public health.

The World Health Organization's COVID-19 response: the political tensions

The World Health Organization's (WHO) response to the pandemic is framed by the International Health Regulations (IHRs), which trace their genealogy to the periodic international sanitary conferences which were held from 1851 onwards. One of the principal drivers of these meetings was the tensions around the use of quarantine and border control in the event of a cholera outbreak. Countries hosting a cholera outbreak were concerned not to have trade disrupted, while countries not yet affected might seek to gain commercial advantage by restricting trade in the name of protecting their population. The IHRs, adopted by WHO in 1969, created an agreed framework for managing the tensions between trade and disease control.

Contradictions between trade and health, however, returned to the fore in 2003 in the context of the Severe Acute Respiratory Syndrome (SARS) outbreak when both China and Canada were accused of covering up the severity of the epidemic to protect tourism and trade. The SARS experience highlighted the dependence of the IHRs on prompt and full disclosure by countries experiencing an outbreak; but this was not always forthcoming. This led to a revision of IHRs in 2005, including a provision empowering the Director-General to draw on informal and media sources beyond the reports of the affected government.

States party to the IHRs are obligated to put in place certain "core capacities" including surveillance, laboratory capacity, and border controls. However, many low- and middle-income countries (LMICs) have been slow to come up to the required standard. For countries facing heavy disease burdens associated with lack of clean water and sanitation, child malnutrition, and maternal mortality, the opportunity costs of investing in core capacities may be very high. The pressures on such countries to put in place the required core capacities have been significant including repeated deadlines, various forms of naming and shaming, increasing pressure of external assessments, and threats of International Monetary Fund (IMF) sanctions. Such pressures have been driven in large part by the rich countries, including a network of countries, corporations, and philanthropies coming together in multistakeholder partnerships such as the US-sponsored Global Health Security Agenda.

The 2005 revised IHRs also replaced the previous requirements for countries to notify the WHO of specific disease outbreaks with a more generic category: a "public health emergency of international concern" (PHEIC), understood as any potential international threat to health.

1. To PHEIC or not to PHEIC

The IHRs authorize the WHO Director-General (DG) to convene a multinational emergency committee to advise the DG on whether to declare a PHEIC and, if declared, to issue advice to the DG, the states party to the IHRs, and to the global health community. The Emergency Committee for the COVID-19 outbreak met first on January 20, 2020 but was unable to agree on the need for a PHEIC (WHO 2020a; Director-General 2021). The difficulty in issuing one at that time was a delay in acknowledging person-to-person transmission. Although Chinese public health officials had clear evidence that person-to-person spread was occurring, its political leaders kept repeating that there was "no clear evidence of human-to-human transmission." Political concerns about public panic in China may have shaped this official line although it also generated serious anger among China's netizens (internet users) (Gonglei 2020), exposed the Chinese leadership to international criticism, and likely contributed to delays in countries outside China putting in place appropriate pandemic plans. The politicians were finally forced to acknowledge person-to-person transmission (Li et al. 2020), and the Emergency Committee reconvened on January 30 and declared a PHEIC (WHO 2020b).

2. Trade, travel, and the IHRs

Another limitation in WHO's early pandemic response derives from the historic tension between trade facilitation and public health containment. In the first month of the epidemic, WHO advised repeatedly against the application of any travel restrictions on China. Similar advice was issued over the succeeding months, although it became progressively more qualified. Notwithstanding WHO's advice against travel restrictions, by July 10, 2020, 192 countries, territories, and areas had implemented "additional measures" (beyond those recommended under the IHRs) that significantly interfered with international traffic (WHO 2020c). Interrupting transmission through restrictions on people's movement is a fundamental principle of disease control. Countries which controlled transmission effectively (including through travel restrictions) were able to open up their economies more quickly and have suffered less aggregate economic loss than those countries which experienced prolonged outbreaks (Nixon 2020).

3. To mask or not to mask

Respiratory transmission of the SARS-CoV-2 virus is not in question but the role of droplet only versus droplet plus aerosol transmission was initially controversial. Droplet only theory focuses attention on symptomatic cases who are coughing and sneezing and suggests that relatively short spatial separation (1–2 m) will be protective, focusing on source control (masking and isolation of cases). Aerosol theory suggests that pre-symptomatic and asymptomatic people can be infectious, and that transmission can take place across longer distances.

It therefore supports greater spatial distancing, universal masking in community settings, and closer attention to air flow and ventilation.

WHO's experts came to the view quite early that droplet transmission was the main route for community spread (WHO 2020d) and that accordingly a mask mandate in open settings was not necessary (WHO 2020e). Meanwhile, anecdotal evidence was accumulating suggesting aerosol transmission could contribute to spread in multiple closed environmental settings, as did evidence of the effectiveness of community masking in preventing community transmission (Duong 2020). WHO's February 2020 advice that questioned the need for widespread use of masks appears to have been motivated by a concern to ensure the availability of masks (then in short supply) for frontline healthcare workers. However, this concern had the effect of locking WHO into a policy path (in which asymptomatic transmission is considered rare) that ran counter to emerging evidence.

4. Staff and funding shortfalls

Following widespread criticism of WHO's 2014 Ebola response, member states agreed in 2016 to establish a unified emergency capacity that would cut across its three institutional levels (country, region, and headquarters) and would be subject to the operational management of the director of the Health Emergency Program (WHE). Another 2016 innovation was the establishment of the Contingency Fund for Emergencies (CFE). This was designed as a floating fund of $100 million dollars to be drawn from as needed, to ensure rapid emergency response, topped up by WHO donors as necessary. Over the four years to 2020, the WHE gained field experience from contributing to many health emergencies in different parts of the world. The reluctance of donors to fully fund the WHE and the CFE, however, meant that at the outset of the COVID-19 response the WHE was several hundred staff short and the CFE was nowhere near its $100 million target.

On April 14, 2020, in the midst of the pandemic, the US Trump administration announced its suspension of its assessed financial contributions to WHO ($900m in 2018–2019) pending a review of WHO's response to the pandemic (Gearan 2020). The WHO's apparent acceptance of China's advice regarding the lack of evidence for human-to-human transmission was central to the US critique. On July 8, 2020 President Trump announced that the USA was proceeding with the withdrawal (Cohen et al. 2020). On the same day, Joseph Biden pledged that he would reverse the decision on day one if he won the presidential election (BBC 2020); he won, and he did (Ravelo 2021). Although the US withdrawal from WHO reflected two arms of Trump policy – first, the rejection of multilateralism and, second, the economic and strategic containment of China – it was not supported in Europe. Several European countries responded by increasing their funding to WHO, as did other member states (WHO 2020f; Fletcher 2020).

The Independent Panel and the "origins story"

In May 2020, the World Health Assembly (WHA) commissioned an independent review of the global health response to COVID-19 to make recommendations to improve capacities for the future (WHO 2020g). The Independent Panel for Pandemic Preparedness and Response (IPPPR) presented its final report to the WHA in May 2021 (IPPPR 2021a). The panel argued that the initial outbreak became a pandemic due to gaps and failings at every critical juncture of preparedness for, and response to, a global health emergency. It linked these to the structural weakness of the WHO, stating that "Member States had underpowered the agency to do the job demanded of it" (ibid.). The absence of coordinated global leadership and worsening international geopolitical tensions had undermined multilateral institutions and cooperative action, leading to a WHO response that was "too little, too late." Amongst its recommendations: a call to create a Pandemic Framework Convention (a new pandemic treaty), discussed later in this chapter.

In May 2020 the WHA also requested the DG to undertake studies "to identify the zoonotic source of the virus and the route of introduction to the human population, including the possible role of intermediate hosts" (WHO 2020h). The planned site visit to Wuhan did not proceed until January 2021 owing to visa delays and further negotiations about process. The joint international/Chinese team concluded that the path from bats to humans mediated by a wild animal was the most likely "origins story" and that escape from a lab was very unlikely (Joint WHO–China Study Team 2021). From a public health point of view sorting out the route of emergence is vital, particularly sorting out the ecological connections. There is already a large body of evidence suggesting that human encroachment into natural ecosystems may be contributing to an increasing frequency of novel pandemics. The prevention and early detection of future pandemics depends on clarifying this pathway in detail (see Box D1.1: The ecology of zoonotic disease).

Box D1.1: The ecology of zoonotic disease

The ecological dimension of emerging infectious diseases is widely acknowledged but the political economy of these ecological pathways is less widely recognized. The epicenter of the SARS epidemic in February 2003 was Guangdong. The virus appears to have evolved from horseshoe bats via civets (and/or other small mammals) sourced (farmed or captured from the wild) from Yunnan, Vietnam, and Laos, and then transported to the wet markets of Guandong. Human encroachment into wild places may be accelerating the transfer of the virus from bats to civets. Close proximity

of civets and humans through the wildlife trade sets the conditions for the adaptation of the virus to humans.

Highly pathogenic avian influenza (H5N1) also emerged in southern China. The first outbreak was in Hong Kong in 1997. The epidemic emerged in poultry but there were a handful of human cases and several deaths. After a massive cull of poultry, the epidemic was contained. Over the next several years the disease was confined to birds but emerged again in humans in Hong Kong in 2002. Over the next six years H5N1 infected 440 people, killing 262. Most of these infections were people living closely with poultry but there have been documented cases of human-to-human transmission (Wallace 2009).

The 2009 H1N1 pandemic came to attention in February 2009 through several small outbreaks of an influenza-like illness in different parts of Mexico. The H1N1 virus appears to have evolved from an avian adapted ancestor which gave rise to the "Spanish flu" in 1918 and to classic H1N1 swine flu (first isolated in 1930). Pigs, confined together in huge feedlots, including breeding stock flown around the world, provide an ideal vessel for assortment of viral genomes and the production of novel microbes capable of producing pandemics.

Middle East respiratory syndrome (MERS) was first identified in Saudi Arabia in 2012 and has grumbled along since then with occasional flare ups. It has a case fatality rate of around 34% (Eastern Mediterranean Regional Office 2020). The disease is caused by the MERS coronavirus (MERS-CoV) which originated in bats, with dromedary camels being a major reservoir host. One study estimates that 12% of cases in Saudi Arabia are direct infections from camels and the rest are human-to-human transmission (Cauchemez et al. 2016).

In the lead-up to the 2014 West Africa Ebola epidemic, deforestation and monocultures of palm oil attracted the fruit bats from Central Africa to move to West Africa, where they live in close proximity with monkeys in the shrinking forests. Local people depend increasingly on bush meat as their lands are appropriated by loggers, miners, and international agribusiness monocropping including maize, soybean, rubber, and palm oil (Wallace and Wallace 2016). Liberia, Guinea, and Sierra Leone were then (and still are) three of the poorest countries in the world. Subject to ruthless exploitation of the region's natural resources, they have also suffered from IMF structural adjustment programs which proscribed public spending on healthcare. Their health systems were bleeding health workers North (Sanders et al. 2015).

COVID-19 appears to have emerged in ways very similar to those described above for SARS. The WHO "origins story" investigation concluded that transmission of the virus to humans was mediated by a yet unidentified

intermediate species (presumably a small mammal) being traded in the supply lines and wet markets of the wildlife trade which may have acquired the virus from bats in the forests of South China, Vietnam and/or Laos.

The recurring pandemics of the twenty-first century and the wider acknowledgement of their ecological origins has seen the concept of "One Health" gain in political currency. Until recently, the One Health initiative focused primarily on bringing together human, animal, and plant health experts, but this will be insufficient unless informed by a strong sociological and political economy analysis (which is now developing) and commitments to conserving biodiversity, curbing global warming, and containing the growth in the material throughput economy.

Media coverage of the ecological encroachment story, still the most likely "origins story," has been minimal. The coverage of the origins investigation in the Western media has been dominated by allegations of a Chinese cover-up and of laboratory escape. Lack of trust in the thoroughness of the Wuhan site visit has since led to a call for a renewed investigation of the accidental lab story.

What are some of the key lessons for WHO so far gleaned from the pandemic?

1. Adequate, assured, flexible funding for WHO

WHO is grossly underfunded, including the WHE and the CFE. "WHO's overall budget with roughly 5 billion USD per biennium equals the funding of a larger sub-regional hospital" (Germany and France 2020). The CFE is undersubscribed and there are hundreds of WHE positions vacant due to lack of funding (Independent Oversight and Advisory Committee for the WHO Health Emergencies Programme 2020). The Access to COVID Tools Accelerator (ACT-A), the lead multistakeholder mechanism financing and coordinating the global pandemic response where WHO is a member, but not the leader (see Box D1.2), was facing a funding gap of $16 billion for the 2020–2021 period (WHO 2021b) and the UN's Global Humanitarian Response plan is likewise grossly underfunded (Office for the Coordination of Humanitarian Affairs 2020).

The WHO response has not been able to raise needed revenues through funds paid by its member states. Rather, it has been forced to reach out to the private sector for donations with the launch in December 2020 of the WHO Foundation. This Foundation aims to raise one billion US dollars of capital to support grants to WHO and other agencies from the earnings of the fund (Hacker 2020). Assuming 10% return on investments (a rather optimistic assumption) this would yield perhaps $100 million per year, some of which would go to WHO. The Foundation has appointed Anil Soni as its CEO. An

ex-pharma executive and ex-senior advisor with the Gates Foundation (Hinnant 2020), Soni is explicit that he will be looking for partnerships with pharma, and he cites support for WHO's work for pre-qualification of medicines[1] as an area of which pharma is supportive (Ravelo 2020). The relationship between Bill Gates, his Foundation, and the private monopoly interests of pharma are well known and have been particularly vexing in efforts to obtain a temporary waiver on TRIPS intellectual property rights for COVID-related vaccines, treatments, diagnostics, and other health goods (see Chapter B4 and Box D1.2). The only long-term solution which preserves WHO's integrity and guarantees sufficient funds for emergency preparedness and response will be for a substantial increase in assessed contributions (ACs) and of untied donor support (Germany and France 2020).

Box D1.2: Philanthrocapitalism and the big pandemic binge

At the earliest stage of the SARS-CoV-2 outbreak, when the official pronouncement of the pandemic was still to come, the public health and scientific community summoned at the WHO in Geneva had mobilized enough international intelligence to strike a collective sense of concern for what was coming. The outcome agreement affirmed the concept of an "R&D Blueprint" (Research and Development) for the world, first mooted by the WHO in 2017. Medical knowledge could not be gated; only collaboration and information-sharing would reduce duplications, provide the best science, and accelerate development of any essential remedy against the rapidly spreading disease.

Oxford University evidently had in mind a similar approach when it took the world by surprise in April 2020 with the announcement that it would shun Big Pharma involvement and give away the rights of its coronavirus vaccine to *any* drug producer to expedite access to COVID-19-related intellectual property (IP). The virus by then was raging on a planetary scale and the Oxford scientists were unhappy with the level of global access. Their idea was to ensure the provision of tools for preventing or treating the new coronavirus at a low cost or free of charge, insisting that nobody should profit from this unprecedented global health crisis (Oxford University Innovation n.d.[b]). This commitment was enthusiastically endorsed by global health activists but was short-lived. Following pressure from the Bill & Melinda Gates Foundation (BMGF) (Hancock 2020), the Oxford team (Gilbert 2020) sealed an exclusive vaccine agreement with AstraZeneca, a giant drug maker which had hardly any experience with vaccine development, except for a little-known nasal-spray vaccine for the flu (Electronic Medicines Compendium 2003). The deal gave the pharma

company exclusive rights and gave the public no guarantee of low prices. In several interviews following criticism for having discouraged Oxford from the open-source strategy, Bill and Melinda Gates argued that Oxford *had to* partner with a pharmaceutical company to manufacture its vaccine, and that it would be their Foundation's role to ensure the AstraZeneca vaccine's affordability (Melinda Gates 2021).

In March 2020, the BMGF had already launched a bold bid to manage the world's scientific response to the COVID-19 pandemic with the design of the COVID-19 Therapeutics Accelerator, together with Wellcome Trust and Mastercard (Bill & Melinda Gates Foundation 2020a). A few weeks later came the announcement that 15 players in the life sciences industry would collaborate directly with the BMGF and contribute a range of assets, resources, and expertise needed to identify effective and scalable solutions to the pandemic (Bill & Melinda Gates Foundation 2020b). BMGF went on to co-host the launch of the ACT-A which established the status quo vision for organizing global efforts aimed at the research, development, manufacture, and distribution of much-needed vaccines and treatments. Like all other BMGF-driven organizations in the global health arena, the Accelerator was engineered as a public – private partnership based on charity and industry enticement (see Chapter B3). In sharp contrast to the WHO's inspiration for scientific sharing, which led to the Solidarity Call to Action and launch of the COVID-19 Technology Access Pool (C-TAP) in May 2020 (WHO n.d.[b]), the ACT-A perfectly embodies Bill Gates's long-standing commitment to protect intellectual property monopolies in the pharmaceutical field.

The Accelerator's implicit arguments are that intellectual property rights do not represent an obstacle for responding to global health needs and must be safeguarded even during a pandemic. This is further evidence of just how influential Bill Gates has come to be, and how plutocratic change agents like him have been allowed to sell their partial and self-preserving recipes to pass for real cooperation and solidarity deeds. Gates's philanthropic activism in the COVID-19 pandemic further institutionalizes his dominance via the role played by the BMGF.

In the official narrative of multilateral development circles, the BMGF is firmly positioned next to the European Commission, the WHO (or at least its Secretariat), and the World Bank in the driving seats of the ACT-A initiative. The operational scaffolding of the Accelerator relies on the multistakeholder entities created in the last two decades with much of BMGF's transformational and financial direction. It is GAVI (Global Alliance for Vaccines and Immunization) and CEPI (Coalition for Epidemic Preparedness Innovations) that run the ACT-A vaccines pillar, with lateral

support from the Global Fund, UNITAID, and other hybrid players. It imposes the primacy of public–private partnerships (PPPs) in the management of the first pandemic crisis of globalization. It also embodies the decision of HIC governments (notably the EU and members of the G7) to entrust such PPPs, with their alliances with the pharmaceutical and the financial sectors, to deal with a global emergency (Gleckman 2021). In the pursuit of international cooperation against COVID-19, the outcome is an acceptance of control over responses to the pandemic by elites with the money and power to assume it. This is a political choice, one that now contributes to deepening unhealthy inequalities as we witness with the current vaccine "apartheid" (Winning 2021) that leaves much of the world on the losing side (Zaitchik 2021) and that furthers the weakening and almost *infantilization* of the WHO (Dentico 2020).

People with the most to lose from genuine social transformation have positioned themselves in charge of the development agenda, often with the passive assent of those most in need of social change:

> Within the narrative of charity, this immanent tension in the relation between the privileged and the marginalized is obscured. The conditions that serve the interests of the privileged are portrayed as if they are delinked from the conditions that deprive the marginalized. The inherent tension between the two as a *structural necessity* is obscured, and their relation is recast with the gaze of charity or moral responsibility. The privileged are now exempt from the causal process underlying the deprivation of the marginalized. The privileged are then offered a sense of relief and redemption … Ideology operates at this implicit level. (Kim 2021)

Bill Gates is not alone in this ideological function. The COVID-19 outbreak has played an instrumental role in ushering Ted Turner's UN (United Nations) Foundation model (Adams and Martens 2018) into the Geneva health arena, somewhat unexpectedly, through the establishment of the WHO Foundation at the end of May 2020 as part of the WHO transformation process (WHO 2020i). The explicit aim of the Foundation, which is presented as an *independent entity*, is to simplify the transiting of philanthropic support and expand the WHO contributors' pool, seeking donations from ordinary citizens, high net worth individuals, and corporations. The only sources of funding excluded by the Foundation are the tobacco and arms industries (Maani et al. 2021). The Foundation is tasked with the purpose "to maximize net financial contributions," and to this end it favors donors' participation in the design of their engagement with the WHO and interaction with the implementing partners they support.

But it would be naïve to consider this operation a mere WHO funding issue. In its constitutive relation with Ted Turner's UN Foundation, the WHO Foundation seems to serve the purpose of shaping a parallel fast-track diplomacy that escapes the intricacies of intergovernmental tensions while speeding up a clear geopolitical end from Geneva. As hinted by Dr. Tedros quite openly (WHO 2021c), it is through the interaction between the UN and the WHO Foundations that the WHO relationship with the US government was kindled throughout 2020, despite the Trump presidency. It is through these philanthropic foundations that vaccine equity is being sought, pushing for donation schemes from wealthier countries to poorer ones. Yes, this means that the crumbs on the table of the wealthy countries that have hoarded the pandemic vaccines should trickle down to the poor ones, making sure that no established economic or power structures are destabilized in the process. With the establishment of the WHO Foundation, it is the WHO Director-General asking for a new private-driven management system led by philanthrocapitalists, drug companies with their vested interests (Ravelo 2020), and their complicit or accommodating governments to govern global health. UN agencies are growing more and more dysfunctional in this scenario, being starved of funding by increasingly nationalistic governments. But putting plutocrats into a leadership position on public problem-solving means increasing their power to thwart solutions that might threaten them, even in the context of a pandemic. This is by no means the global governance we want or need.

2. National preparedness and accountability

The Independent Oversight and Advisory Committee for the WHO Health Emergencies Programme (IOAC) interim report on the WHO's response to COVID-19 noted that, while most countries appeared ill-prepared for the pandemic, the orthodox metrics of preparedness (the "core capacities") and the evaluations of preparedness (using the Joint External Evaluation Tool, JEET) had no clear relationship with country performance (Independent Oversight and Advisory Committee for the WHO Health Emergencies Programme 2020). Rather, more recent research finds that the preconditions for effective policy responses include coherent whole-of-government responses, female leadership, transparency, effective public communication, and accountability of decision-makers. "Trust between governments and their constituencies," the study's authors note, "has contributed to effective containment, particularly reciprocal trust – both horizontally among people and vertically between people and their governments" (Tangcharoensathien et al. 2021).

Political culture also profoundly shaped the effectiveness of national pandemic responses. A culture of individualism and distrust of politicians and experts contributed to mask, lockdown, and social distancing refusals. Wide pre-existing social inequality contributed to a lower acceptance of solidaristic responses (Ford et al. 2020). The design of political institutions, and the level of support they provide for inter-sectoral coordination, intergovernmental coherence, and tight management of disease control, has also played a major role in shaping national performance in COVID-19 containment.

3. Research development and production

The importance of a planned approach to research and development (R&D) was an important lesson from the 2014 Ebola response and led to the extension of the R&D "blueprint" concept to emergency preparedness and response (WHO 2016). However, it is not clear how much influence WHO planning had on the explosion of R&D funding from the beginning of the COVID-19 pandemic. The ACT-A was deliberately created outside WHO and the development and main provisions of the various deals between the vaccine manufacturers and the global funders remain quite opaque. However, it is apparent that price points have been generous and there have been no provisions for open licensing of government-funded IP.

National production capacity is also critical. Thailand and Brazil both have publicly owned production capacity that is well placed to negotiate voluntary licenses and/or to ramp up local production for domestic consumption and export if the TRIPS IP rules were temporarily waived. As publicly owned manufacturers, they also have the credible threat of issuing government compulsory licenses, which may have encouraged the originators to sublicense aspects of their vaccine production. A key lesson from the COVID-19 experience would be for more middle-income countries to invest in public sector R&D and in production capacity. The African Centre for Disease Control aims to extend this continentally, reducing its current near-complete reliance on imports for its vaccine supplies (Irwin 2021). Such efforts would be greatly facilitated by an organized program to support technology transfer.

Pharma's reluctance to enable wider production capacity by refusing to join the C-TAP (intended to allow open-sharing of vaccine research and development) and by limiting its bilateral licensing was directly aimed at maintaining prices and profits in the medium to longer term. This reluctance was indirectly supported by HIC governments which chose not to include such obligations in direct R&D grant funding, who supported pharma's refusal to join C-TAP (Boseley 2020), and who (at least initially and for 8 months) opposed the TRIPS waiver proposal (the Biden administration's May 2021 decision to consider negotiations for a waiver has most countries now falling in line, although not yet the European Union). The restriction of the COVAX facility (the vaccine pillar of ACT-A) to supplying only 20% of funded countries' national vaccine

requirements was an implicit refusal to commit to herd immunity in these countries (see Chapter B4). This decision served to prevent the emergence of a single monopsonic purchaser (the COVAX facility) with the implications that this would have had for price negotiations. The role of the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA), a founding partner in the ACT-A, in this decision has not been disclosed.

Private pharma's preferencing of profit over access could be addressed by a combination of open licensing, expansion of public sector vaccine production capacity in LMICs, and organized technology transfer. Pharma and its supporters will fight fiercely against any proposed restrictions on their IP privileges, but LMICs have much to gain from such reforms, and the political will for such public interest policies has grown via strong civil society campaigning.

Where to next for the WHO and pandemic preparedness?

At present, the WHO is poised between two sets of considerations (not necessarily mutually exclusive): revising the IHRs or negotiating a new Pandemic Treaty.

1. Reforming the IHRs

The declaration of a PHEIC under the IHRs is presently an all or nothing step and there has been talk for several years of the desirability of making provision for a graded emergency declaration with a stepped level of alerts. The possibility of introducing an international public health alert (IPHA) has been suggested as a declaration short of a PHEIC. However, it is not clear that introducing an IPHA would require authorization in revised IHRs. Instead, the WHO DG might simply convene an Emergency Committee and invite them to consider advising on whether to declare an international public health alert.

The successes and failures of national COVID-19 responses invite questions about the core capacities specified in the IHRs and the metrics embedded in tools such as the Joint External Evaluation Tool. The importance of surveillance and laboratories and the monitoring of traffic at borders is not in dispute. However, the IHRs say nothing about communicating the science, building public trust, cultivating policy coherence across sectors and levels of government, intensive research and evaluation into response and outcomes, inclusive decision-making, or burden sharing. These factors have been very influential as the drivers of successful outcomes, perhaps more so than the core capacities specified in the IHRs. It would be useful to have these political and cultural "capacities" recognized in the IHRs, even if they do not lend themselves to inspection and certification.

The provisions for monitoring and encouraging national compliance with the advice of the IHR Emergency Committee, in particular the provisions around "additional measures" beyond those recommended by the DG, are weak and

without sanctions. A further issue concerns on-the-spot investigation. There is a case for giving WHO the authority to undertake on-the-spot investigations in assessing international risk without the approval of the host nation but the likelihood of powerful sovereign nations agreeing to this is small. However, if "after action" accountability was strengthened (perhaps through a proposed Pandemic Treaty) attention could be directed to political failures in emergency management, an irresponsible imposition of additional measures, and a lack of national transparency.

2. Pandemic treaty

In recent years there have been various calls to strengthen WHO's power vis-à-vis member states. On March 30, 2021, 20 global leaders (centered on UK, Germany, and France, and including WHO DG Dr. Tedros but not including Russia, China, or the USA) issued a call for a new pandemic treaty (Tomlinson 2021):

> The main objective of this treaty would be to promote a nationwide and societal approach that strengthens national, regional and global capacities and resilience to future pandemics. This includes … measures in the field of medicine and public health, e.g. vaccines, drugs, diagnostics and personal protective equipment. … In addition, such a treaty would lead to more mutual accountability and shared responsibility, transparency and cooperation in the international system in accordance with its rules and norms. (Heads of State 2021)

The Independent Panel on Pandemic Preparedness and Response has expressed support for some form of treaty, specifically calling for a Framework Convention to "address gaps in the international response, clarify responsibilities between States and international organizations, and establish and reinforce legal obligations and norms. Mechanisms for financing, research and development, technology transfer, and capacity building could also be enshrined in the Convention" (IPPPR 2021b, 46). The IHR Review Committee appointed to assess the functioning of the IHRs during the COVID-19 response also recommended a Global Convention and listed in detail some of the issues which might usefully be included (IHR Review Committee 2021, 50).

Many observers have been perplexed by the urgency which treaty supporters have exhibited in progressing the proposal, notwithstanding the lack of agreement about what it might contain and whether it would be a "framework convention" (an agreement in principle to be supplemented by more specific "protocols"), as proposed by the Independent Panel, or a unitary agreement. SKeptics have speculated that it is a smokescreen to distract attention from the TRIPS waiver controversy and the vaccine supply failure more generally.

Nonetheless, there would be scope for a treaty (or a framework convention) to serve a number of useful purposes, including:

1. Strengthening national accountability ("after action reviews") for prevention, preparedness, and response.
2. Creating a link between the declaration of a PHEIC and the triggering of a mandatory open licensing regime.
3. Reversing the ecological degradation contributing to the emergence of new infectious diseases.

The WHO's inability to hold nation states accountable for pandemic planning, implementation, and outcomes is a major weakness. "After action reviews" conducted in public, led by independent experts, and organized at the regional level would be valuable learning opportunities and would hold governments to account for their preparedness, transparency, solidarity, and response. A range of mechanisms for this "institutionalization of praise and shame" exist, such as the committees of experts under the International Labour Organization (ILO), the trade policy reviews under the World Trade Organization (WTO), the review committees of human rights conventions, and similar mechanisms under the Organization for Economic Co-operation and Development (OECD) and IMF (Braithwaite and Drahos 2000).

A second possible objective of the proposed treaty could be to ensure the rapid scale up of research and development and production for tests, medicines, and vaccines. One way of addressing this goal would be to secure a global commitment to mandatory open licensing through a mechanism such as C-TAP. This would be mandated through agreed conditions to be imposed by granting agencies and to be included in advanced purchase agreements.

Finally, a pandemic treaty should also include commitments to reverse the ecological degradation associated with extractivism and the capitalist growth fetish which is contributing to the increasing frequency of emerging infectious diseases, including pandemics (see Chapters A3 and C4). One option would be to authorize WHO to establish an international independent expert capacity to identify, characterize, and publicize high-risk industries and other developments that increase the likelihood of novel zoonoses and subsequent pandemic risk, and to mandate member states to develop and implement plans for mitigating such risks.

However, rushing into treaty negotiations, focused on the next pandemic, when member states are still coping with the current one and are in close negotiations regarding the proposed waiver, would place a significant burden on the diplomatic capacity of many LMICs. This may be its purpose. Nonetheless, the May 2021 WHA approved going forward with a follow-up meeting in November 2021 to discuss in broad outline what such a treaty might look like. Coincidentally, this is also the month the DG of the World Trade Organization is hoping to reach consensus on TRIPS revisions to accommodate a COVID-19 TRIPS waiver, but one that might also extend to resolving IPR issues that could affect rapid and equitable vaccine access in future pandemics (see Chapter B4).[2]

Political economy of pandemic prevention, preparedness, and response

The economic relationships of imperialism under contemporary globalization include unfair trade, tax avoidance, debt entanglement, and restriction of LMICs to the supply of raw materials and cheap labor in global value chains. The consequences of these dynamics include fragile health systems, conflict and migration, insufficiency of indigenous pharmaceutical capacity, and lack of fiscal capacity to buy vaccines. All these consequences have been evident in the COVID-19 pandemic.

The structures and dynamics of imperialism are complicated in the present era by the US determination to contain a rising China and to open the country up to Western liberal democratic capitalism. The US–China rivalry has been evident in former US President Trump's bullying of WHO and in the increasing hostility of anti-Chinese propaganda in political and media commentary in the West. It has also been evident in the ebbs and flows of vaccine diplomacy. Because of its success in controlling the epidemic in China, the Chinese leadership has prioritized the export and gifting of its vaccines while initially going slow on domestic vaccination.

The US leadership has been limited in its response because of its commitment to support the US vaccine manufacturers who have insisted on controlling supply to maintain prices and profits. This is somewhat now in flux, as the dangers of COVID-19 variants and an approaching vaccine herd immunity in the USA and other HICs is sparking a wave of new funding for, or donations of, vaccines for LMICs. As of writing (June 2021) the surge in new supply will still be insufficient (too little, too late) and the commanding role of patent-holding vaccine manufacturers remains firmly in place.

The global economy is in the midst of one of capitalism's episodic crises of over-production. Fewer factories and fewer people are needed to make things. Profits which no longer find their ways to investment in building productive capacity flow, instead, into the financial sector, where they support consumption through debt and "wealth creation" through speculation (see Chapter A1). The overhang of productive capacity contributes to unemployment, underemployment, and precarious employment. It weakens trade unions and deepens the exploitation of workers (see Chapter C2). In the post-pandemic short-term, the pandemic collapse in supply chains is leading to an excess in pent-up consumer demand that (for now) exceeds present supply (at least in HICs). This could temporarily increase employment in low-wage sectors. But the longer-term crises of contemporary capitalism roll across populations (hunger, displacement, conflict), ecosystems (forests, oceans, rivers), and global homeostasis (biodiversity, global warming). As COVID-19 has made abundantly clear, poor people and stigmatized minorities face greater exposure and lesser protection in outbreaks and pandemics. People living in poorer countries also suffer more because of weaker institutions (including lacking the core capacities of the IHRs and inability to access vaccine supplies).

Capitalism depends on growth. Growth means increased profit and space for investment. The addiction to growth drives the escalating invention of new and increasingly elaborated commodities and converts social functions into commodities. The need for growth drives the industrial scale farming of pigs and poultry and drives extractivism and the continuing human encroachment into natural ecosystems (see Chapter C4). Philanthrocapitalism plays a critical role in this regime. A major function of philanthropic spending is re-legitimation. When the perceived legitimacy of the neoliberal program is challenged, philanthrocapitalism steps forward to fund good works and demonstrate that neoliberalism is not so bad after all. A particular feature of the re-legitimation dynamic in the global health policy space is the focus on the narrow technical fix, including vertical disease programs (polio, malaria, tuberculosis, and AIDS/HIV) which serve to ameliorate the disease problem but without addressing the structural and social determinants of those problems.

This chapter points to a range of institutional reforms to strengthen public health emergency management, both nationally and internationally. However, it remains important to recognize how the failures of pandemic response are embedded in a broader system and reflect the macro structures, forces, and dynamics of that broader system. Effective strategies are those which address the more immediate institutional flaws *and* the structural forces which reproduce those flaws.

Notes

1 Pre-qualification of medicines by WHO is aimed at ensuring that medicines supplied by procurement agencies (such as UNICEF, the Global Fund to Fight AIDS, Tuberculosis and Malaria, and UNITAID) for distribution in resource-limited countries meet acceptable standards of quality, safety, and efficacy. WHO's list of prequalified medicinal products is used by international procurement agencies and increasingly by countries to guide bulk purchasing of medicines.

2 The November 2021 WHA special assembly did agree to begin negotiations on a treaty in March 2022, with an outcome to be presented to the WHA in 2024. The Omicron variant of the coronavirus postponed the WTO Ministerial Conference in November, with negotiations over the TRIPS waiver dragging on into 2022.

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