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The UN, WHO, and COVID-19

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The United Nations played an important role in the COVID-19 pandemic in terms of socio-economic and political influence on governance, performance, and trust. The UN played an important global role in fighting the pandemic. At its headquarters in New York, a response strategy was rapidly adopted. Many UN agencies and related multilateral bodies were called into action since the pandemic affected so many aspects of life for people all over the world, especially those in low- and middle-income economies that did not have the means to absorb the shock.

The UN strategy had three components—to provide immediate relief, to help countries restructure, and for countries to be more resilient in their preparedness going forward. First, the World Health Organization (WHO) developed a Strategic Preparedness and Response Plan (SPRP 2019 and updated in 2021) and guided its implementation, playing a large-scale, coordinated, and comprehensive global role. Second, the UN made a wide-ranging effort to address the devastating socio-economic, humanitarian, and human rights impacts of the crisis, with a focus on saving lives and keeping vital services accessible, households afloat, businesses solvent, supply chains functioning, institutions strong, and public services delivered. This included immediate support to the most vulnerable people in the most vulnerable countries, with life-saving assistance through a Global Humanitarian Response Plan. It also included the call for a stimulus package amounting to at least 10 per cent of global Gross Domestic Product (GDP), as well as support for low-income countries, including a debt standstill, debt restructuring, and greater support through international financial institutions. Preventing and responding to the increased levels of violence against women and girls was also critical. Third, it began preparing for the recovery process because emerging from the pandemic was an opportunity to address the climate crisis, inequalities, exclusion, gaps in social protection systems, and the many other fragilities and injustices that the pandemic exposed. Instead of going back to unsustainable systems and approaches, the UN promoted its Sustainable Development Agenda—a 15-year plan to achieve specific goals—as the guide to recovery.

The UN's Massive Efforts

The magnitude of the UN efforts can be shown using a few examples. The UN produced policy briefs on key thematic areas in relation to COVID-19, such as women and gender equality, mental health, human rights, food security, decent work, education, cities, tourism, and universal healthcare coverage.[1] The UN Secretary-General, António Guterres, launched the US$2 billion Global Humanitarian Response Plan for the most vulnerable.[2] In March 2020, he called for a global cease-fire, urging warring parties in all corners of the world to pull back from hostilities to better enable tackling COVID-19.[3] In May 2020, he co-convened with nearly 50 heads of state and government and leaders of the International Monetary Fund (IMF), World Bank, Institute for International Finance, Organisation of Economic Co-operation and Development, special envoys of the UN, the African Union and others a 'High-Level Event on Financing For Development in the Era of COVID-19 And Beyond'. They created six work-streams to address problems related to liquidity, debt, action by private creditors, external finance, ending illicit financial flows, and rebuilding according to the UN 2030 Sustainable Development Goals (UNSDGs), which have 17 components.

Although the role of the WHO was very much in the public eye, other UN organisations and agencies played critical roles too. In fact, all units of the UN, except the very few that relate to weather and warfare were active in fighting COVID-19. Their actions had gone largely unnoticed (especially in high-income countries). These global institutions were active in responding to COVID-19, and they continue to be important in its aftermath. Table 2.1 shows the many UN-related bodies and their roles. The WHO, United Nations Development Programme (UNDP), and the World Bank played major roles, but very few UN agencies did not take specific and targeted actions.[4]

Three additional examples provide a more detailed perspective to illustrate how key UN agencies dealt with COVID-19, which set the stage for their involvement with other epidemics and pandemics that may arise in the future.

United Nations Development Programme

The UNDP is the technical lead in the UN's socio-economic recovery programme and the UN core agency for the UNSDGs.[5] The UNDP was and remains concerned that the severe economic and social consequences of the pandemic, including lockdowns, represented a massive setback for achieving the UNSDGs, especially in the areas of

1. United Nations, 'United Nations Comprehensive Response to COVID-19: Saving Lives, Protecting Societies, Recovering Better', June 2020, https://www.un.org/sites/un2.un.org/files/2020/07/un_comprehensive_response_to_covid-19_june_2020.pdf.
2. United Nations Development Programme (UNDP), 'COVID-19 Pandemic', accessed 13 September 2022, https://www.undp.org/coronavirus.
3. United Nations, 'United Nations Comprehensive Response to COVID-19'.
4. Ibid.
5. UNDP, 'COVID-19 Pandemic'.

Table 2.1: COVID-19 response of UN funds and programmes, specialised agencies, other entities and bodies, and related organisations

Abbreviated Name	Full Name	COVID-19 Responses, Including Working with Member States, to:
Funds and Programmes		
UNDP	UN Development Programme	Lead the UN's socio-economic response to COVID-19 as part of its mission to strengthen governance, eradicate poverty, reduce inequality, and build resilience to crises and shocks [see details below].
UNEP	UN Environment Programme	Educate frontline decision-makers on how to deal with COVID-19 medical waste. Help nations incorporate pandemic waste strategies into crisis preparedness and response.
UNFPA	UN Population Fund	Distribute personal protective equipment for health workers and support health systems where needed.
UNHABITAT	UN Human Settlements Programme	Help governments at city level prepare for, prevent, respond to, and recover from the COVID-19 pandemic.
UNICEF	UN Children's Fund	Advise on/provide health and nutrition, education, child protection, water, sanitation and hygiene, social protection, humanitarian response, and gender. Leader in COVAX facility.
WFP	World Food Programme	Adapt its emergency food response to include COVID19 issues.
Specialised Agencies		
FAO	Food and Agriculture Organization	Assess and respond to COVID-19's potential impact on people's lives and livelihoods, global food trade, markets, food supply chains, and livestock.
ICAO	International Civil Aviation Organization	Develop COVID-19-19 Recovery Platform to collate the forecasts, guidance, tools, and resources for national regulators.
IFAD	International Fund for Agricultural Development	Address immediate impacts and put in place the building blocks to support post-crisis recovery.
ILO	International Labour Organization	Address COVID-19 work issues and promote human-centred recovery.
IMF	International Monetary Fund	Provide financial assistance and debt service relief to member countries facing the economic impact of COVID-19.

Table 2.1 (continued)

Abbreviated Name	Full Name	COVID-19 Responses, Including Working with Member States, to:
IMO	International Maritime Organization	Address significantly impacted shipping industry and seafarers. Urge member states to designate seafarers as key workers, so they can travel between the ships that constitute their workplace, and their countries of residence.
ITU	International Telecommunication Union	Address communication issues for work, school, and families.
UNESCO	UN Educational, Scientific and Cultural Organization	Promote global solidarity through education, for example distance learning, open science, and knowledge.
UNIDO	UN Industrial Development Organization	Launch COVID-19 Industrial Recovery Programme (CIRP), to provide targeted support to national governments for restructuring their post-COVID-19 industrial sectors.
UNWTO	UN World Tourism Organization	Develop the UNWTO COVID-19 dashboard, the first comprehensive tourism recovery tracker worldwide, on country measures to support travel and tourism, restart tourism, and accelerate recovery.
UPU	Universal Postal Union	Monitor disruptions to the global postal supply chain and seek to identify possible ways to mitigate its impact—particularly with regard to the widespread restrictions and cancellations of passenger flights.
WHO	World Health Organization	Lead health agency on COVID-19. COVAX partner (see details below).
WIPO	World Intellectual Property Organization	Launch support measures to help leverage IP, creativity, innovation, and entrepreneurship to build back better post-pandemic through contributing to job creation, investment, enterprise growth, and socio-economic development.
WMO	World Meteorological Organization	
WB	World Bank	Help low and middle-income countries strengthen their pandemic response, increase disease surveillance, improve public health interventions, and help the private sector continue to operate and sustain jobs (see below).

Table 2.1 (continued)

Abbreviated Name	Full Name	COVID-19 Responses, Including Working with Member States, to:
Other Entities and Bodies		
UNAIDS	UN AIDS	As with HIV/AIDS, encourage governments to respect the human rights and dignity of people affected by COVID-19, e.g., equitable access to medicines, vaccines, and health technologies.
UNHCR	UN High Commissioner for Refugees	Provide a comprehensive protection and assistance response to people forced to flee who are disproportionately affected by COVID-19. Advocate for their inclusion in vaccination plans and work to address their growing needs in education, mental health and psychosocial support, child protection, and prevention and response to sexual and gender-based violence.
UNIDIR	UN Institute for Disarmament Research	
UNITAR	UN Institute for Training and Research	Assist in adult e-learning.
UNOPS	UN Office for Project Services	Fund country COVID-19 response projects, providing infrastructure, procurement, and project management services.
UNRWA	UN Relief and Works Agencies (for Palestinian refugees)	Raise funding to mitigate the worst impacts of the pandemic on registered Palestine refugees in the Middle East, with a special focus on health, cash assistance, and education.
UNSSC	UN System Staff College	
UNU	UN University	
UN Women	UN Women	Address gender-based COVID-19 violence: prevention and awareness-raising, support for rapid assessments, access to essential services, including helplines and shelters, addressing violence against women in public spaces, and support women's groups.
Related Organisations		
CTBTO	Preparatory Commission for the Comprehensive Nuclear Test Ban	

Table 2.1 (continued)

Abbreviated Name	Full Name	COVID-19 Responses, Including Working with Member States, to:
IAEA	International Atomic Energy Agency	Provide detection equipment, reagents and laboratory consumables, and biosafety supplies such as personal protection equipment and laboratory cabinets for the safe handling and analysis of COVID-19 samples.
IOM	International Organization for Migration	Track and protect migrants and host communities during COVID-19.
OPCW	Organisation for the Prohibition of Chemical Weapons	
UNFCCC	UN Climate Change	
WTO	World Trade Organization	Deal with IP rights regarding COVID-19 vaccines. Publishes WTO-IMF Vaccine Trade Tracker (see details below).
ITC	International Trade Centre	
Office of UN		
UNODC[i]	UN Office on Drugs and Crime	Address new waves of crime that exploit COVID-19, such as counterfeit medical products, fraud, and cyber-crime.

Source:

i. Organization of the United Nations Office on Drugs and Crime, 'Secretary-General's Bulletin', 15 March 2004, https://undocs.org/ST/SGB/2004/6.

poverty, decent work, education and health, and particularly areas affecting the poor and vulnerable, including women, daily wage labourers, informal sector workers, and migrant workers.[6] Every day, people lost jobs and income, with no way of knowing when normality would return.[7] Small island nations, heavily dependent on tourism, had empty hotels and deserted beaches. COVID-19 impacted travel for more than two years, which could potentially leave deep and longstanding economic scars.

The UNDP was able to draw upon its long experience with other epidemics—Ebola, HIV/AIDS, SARS, tuberculosis, and malaria.[8] In close coordination with the WHO, it responded to large numbers of requests from countries to help them prepare for, respond to, and recover from the COVID-19 pandemic, focusing particularly on the most vulnerable.[9] The immediate work of the UNDP was to help countries respond to the pandemic.[10] The next phase was to help decision-makers look beyond recovery towards 2030 and make better choices and manage complexity and uncertainty in four main areas: governance, social protection, green economy, and digital disruption.[11]

The Global Dashboard for COVID-19 Vaccine Equity, a joint initiative of the UNDP, the WHO, and the University of Oxford, found that inequality is a risk to economic recovery and that low-income countries would add US$38 billion to their 2021 GDP forecast if they had the same vaccination rates as rich countries.[12]

The World Bank

The World Bank mounted the largest crisis response in its history to help low- and middle-income countries strengthen their pandemic responses throughout the three stages of relief, restructuring, and resilient recovery. The World Bank was concerned with the steep increase in debt caused by COVID-19, especially in low- and middle-income countries. It projected that 800 million people would be unable to meet their basic needs. It estimated that 97 million people were pushed into poverty in 2020, an unprecedented increase. The International Labour Organization estimated that 205 million people would be unemployed in 2022, up from 186 million in 2019.[13] Globally, labour market recovery from the pandemic stalled during 2021.[14] Working hours in high- and upper-middle-income countries tended to recover in 2021, while both

6. UNDP, 'Responding to the COVID-19 Pandemic: Leaving No Country Behind', 23 March 2021, https://www.undp.org/publications/responding-COVID-19-pandemic-leaving-no-country-behind.
7. UNDP, 'COVID-19 Pandemic'.
8. Ibid.
9. UNDP, 'COVID-19 UNDP's Integrated Response', 15 April 2020, https://www.undp.org/publications/COVID-19-undps-integrated-response.
10. UNDP, 'COVID-19 Pandemic'.
11. Ibid.
12. Ibid.
13. Ibid.
14. International Labour Organization (ILO), 'ILO Monitor: COVID-19 and the World of Work, Eighth Edition Updated Estimates and Analysis', 27 October 2021, https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/briefingnote/wcms_824092.pdf.

lower-middle- and low-income countries continued to suffer large losses. Large and widening disparities emerged between richer and poorer economies.[15]

The World Bank took broad, fast action to help low- and middle-income countries strengthen their pandemic responses, increase disease surveillance, improve public health interventions, and help the private sector continue to operate and sustain jobs.[16] By early 2022, the World Bank had committed over US$157 billion to fight the health, economic, and social shocks that developing countries were still facing. The financing addressed the health emergency, strengthened health systems, protected the poor and vulnerable, supported businesses, created jobs, and aimed to jump-start a green, resilient, inclusive recovery.[17]

In addition, the World Bank partnered with COVID-19 Vaccines Global Access (COVAX) on a new financing mechanism that let COVAX make advance purchases—beyond the fully subsidised doses they were receiving from donors—to help speed up the vaccine supply.[18] Further funds helped low- and middle-income countries finance the purchase and distribution of COVID-19 vaccines, tests, and treatments for their citizens.

The World Trade Organization

The World Trade Organization (WTO)-IMF Vaccine Trade Tracker provides data on the trade and supply of COVID-19 vaccines by product, economy, and arrangement type, including intellectual property (IP) rights by country.[19] The WTO is the UN agency responsible for dealing with IP rights regarding COVID-19 vaccines.

One problem was that the head of the WTO, charged with bringing order to international trade relations, Director-General Roberto Azevêdo, announced in May 2020 that he would step down on 31 August 2020, cutting his second term short by exactly one year. This added another element of uncertainty to the COVID-19 pandemic.[20] It took some time to appoint a replacement. Dr Ngozi Okonjo-Iweala of Nigeria secured the support of the United States for Director-General of the WTO, and assumed office on 1 March 2021, becoming both the first woman and the first African to hold the position.

15. Ibid.
16. The World Bank, 'World Bank Group's Operational Response to COVID-19 (Coronavirus)—Projects List', 24 September 2021, https://www.worldbank.org/en/about/what-we-do/brief/world-bank-group-operational-response-COVID-19-coronavirus-projects-list.
17. The World Bank, 'How the World Bank Group Is Helping Countries Address COVID-19 (Coronavirus)', 10 January 2022, https://www.worldbank.org/en/news/factsheet/2020/02/11/how-the-world-bank-group-is-helping-countries-with-COVID-19-coronavirus.
18. The World Bank, 'World Bank Group's Operational Response'.
19. World Trade Organization (WTO), 'COVID-19: Measures Regarding Trade-Related Intellectual Property Rights', accessed 7 August 2022, https://www.wto.org/english/tratop_e/covid19_e/trade_related_ip_measure_e.htm.
20. Jack Ewing, 'W.T.O. Chief Quits Suddenly, Adding to Global Turmoil', *New York Times*, 14 May 2020, https://www.nytimes.com/2020/05/14/business/wto-chief-roberto-azevedo.html.

In 2021, India and South Africa submitted a plan to the WTO to allow countries to use existing IP to develop and manufacture vaccines and other medical products during the pandemic. This had the support of more than 100 nations, including China, but a handful of opponents from wealthy nations, including the United States, blocked it. Proponents of the IP waiver say removing barriers around existing vaccine technology would give countries the ability to produce vaccines for themselves or import them from anywhere that they could be made, as opposed to waiting for aid or limited purchase agreements to come through.[21] IP waivers fall under trade talks because the WTO has an agreement requiring countries to adopt and enforce these rules domestically. The WTO meetings to discuss this further in November 2021 were postponed due to COVID-19.[22] At a meeting of the Council for Trade-Related Aspects of Intellectual Property Rights (TRIPS) on 9–10 March 2022, members agreed to keep open two related agenda items on the WTO response to allow the Council to be reconvened at short notice when and if convergence is within reach.[23] In May 2022, the WTO director put forward the outcome document that emerged from the informal process conducted with the Quad (the European Union, India, South Africa and the United States) for an IP response to COVID-19.[24] At the 12th Ministerial Conference of the WTO in Geneva in May 2022, the proposed TRIPS agreement was opposed by the European Union, United Kingdom, United States and Switzerland, insisting that it would undermine pharmaceutical research. The final compromise deal will let governments compel companies to share their vaccine recipes for the next five years. The agreement fell short of the demand by India and South Africa to exempt all COVID-19 vaccines, treatments and diagnostics, though there will be a review in six months. Instead, governments can issue compulsory licences to domestic manufacturers but must compensate the patent holders.[25] Campaigners were disappointed with the result. Oxfam said: 'This is absolutely not the broad intellectual property waiver the world desperately needs to ensure access to vaccines and treatments for everyone, everywhere. This so-called compromise largely reiterates developing countries' existing rights to override patents in certain circumstances. And it tries to restrict even that limited right to countries which do not already have the capacity to produce COVID-19 vaccines. Put simply, it is a technocratic fudge aimed at saving reputations, not lives.'[26]

21. Simone McCarthy, 'A Year on, Proposal to Waive IP for Covid-19 Vaccines Is Still in Limbo', *South China Morning Post*, 5 October 2021, https://www.scmp.com/news/china/science/article/3151236/year-proposal-waive-ip-covid-19-vaccines-still-limbo.
22. World Economic Forum (WEF), 'What to Expect from the Next WTO Conference', https://www.weforum.org/agenda/2021/11/what-to-expect-from-the-next-wto-conference.
23. WTO, 'Members Updated on High-Level Talks Aimed at Finding Convergence on IP COVID-19 Response', 10 March 2022, https://www.wto.org/english/news_e/news22_e/trip_10mar22_e.htm.
24. WTO, 'Quad's Outcome Document on IP COVID-19 Response Made Public', 3 May 2022, https://www.wto.org/english/news_e/news22_e/trip_03may22_e.htm.
25. Andy Bounds, 'WTO Agrees Partial Patent Waiver for Covid-19 Vaccines', *Financial Times*, 17 June 2022, https://www.ft.com/content/9cfa15b6-dab8-4cc6-9ab4-c192c6ad0e0b.
26. Oxfam, 'WTO Agrees on Deal on Patents for COVID Vaccines—But Campaigners Say This Is Absolutely Not the Broad Intellectual Property Waiver the World Desperately Needs', 17 June 2022, https://www.oxfam.org/en/press-releases/wto-agrees-deal-patents-covid-vaccines-campaigners-say-absolutely-not-broad.

The World Health Organization

Before understanding the WHO and COVID-19, it is necessary to understand the WHO itself—what it can and cannot do, its funding sources and how they affect the WHO. The WHO is a specialised agency of the UN that is concerned with international public health. It was established on 7 April 1948, with headquarters in Geneva, Switzerland. There are currently 192 member states, 6 regional offices, and 141 country offices predominantly in low- and middle-income countries. It employs about 8,000 doctors, scientists, epidemiologists, managers, and administrators worldwide.

The Objective of the WHO in the WHO Constitution of 1948 is the attainment by all peoples of the highest possible level of health.[27] The functions are clearly laid out in Article 2:

1. to act as the directing and coordinating authority on international health work;
2. to establish and maintain effective collaboration with the UN, specialised agencies, governmental health administrations, professional groups and such other organisations as may be deemed appropriate;
3. to assist governments, upon request, in strengthening health services;
4. to furnish appropriate technical assistance and, in emergencies, necessary aid upon the request or acceptance of governments;
5. to provide or assist in providing, upon the request of the UN, health services and facilities to special groups, such as the peoples of trust territories;
6. to establish and maintain such administrative and technical services as may be required, including epidemiological and statistical services;
7. to stimulate and advance work to eradicate epidemic, endemic and other diseases;
8. to promote, in cooperation with other specialised agencies where necessary, the prevention of accidental injuries;
9. to promote, in cooperation with other specialised agencies where necessary, the improvement of nutrition, housing, sanitation, recreation, economic or working conditions and other aspects of environmental hygiene;
10. to promote cooperation among scientific and professional groups which contribute to the advancement of health;
11. to propose conventions, agreements and regulations, and make recommendations with respect to international health matters and to perform such duties as may be assigned thereby to the WHO and are consistent with its objective;
12. to promote maternal and child health and welfare and to foster the ability to live harmoniously in a changing total environment;
13. to foster activities in the field of mental health, especially those affecting the harmony of human relations;

27. Constitution of the World Health Organization, 1948, https://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf.

14. to promote and conduct research in the field of health;
15. to promote improved standards of teaching and training in the health, medical and related professions;
16. to study and report on, in cooperation with other specialised agencies where necessary, administrative and social techniques affecting public health and medical care from preventive and curative points of view, including hospital services and social security;
17. to provide information, counsel and assistance in the field of health;
18. to assist in developing an informed public opinion among all peoples on matters of health;
19. to establish and revise as necessary international nomenclatures of diseases, causes of death, and public health practices;
20. to standardise diagnostic procedures as necessary;
21. to develop, establish and promote international standards with respect to food, biological, pharmaceutical and similar products; and
22. generally to take all necessary action to attain the objective of the WHO.

The WHO was created to coordinate health affairs within the UN system. Its initial priorities were malaria, tuberculosis, venereal diseases, and other communicable diseases, plus women and children's health, nutrition, and sanitation. In more recent years, it has addressed non-communicable diseases (NCD), climate change, and disease and drug classification. From the start, it worked with member countries to identify and address public health issues, support health research, and issue guidelines. The work of the WHO is predominantly in low- and middle-income countries, so many in high-income countries may be less aware of the globally important scope and reach of the WHO. In addition to governments, the WHO coordinates with other UN agencies, donors, non-governmental organisations and the private sector.

The World Health Assembly is the decision-making body of the WHO and reviews its work, sets new goals, determines the policies of the WHO, appoints the Director-General, supervises financial policies, and reviews and approves the proposed budget. The assembly is held annually in Geneva, Switzerland.

Investigating and managing disease outbreaks is the responsibility of each individual country, although originally under the International Health Regulations (IHR)—an overarching legal framework that defines countries' rights and obligations in handling public health events and emergencies that have the potential to cross borders—governments were expected to report cases of some contagious diseases such as plague, cholera, and yellow fever. A revised version refrains from mentioning specific diseases and takes an 'all hazards' approach that includes not only pathogens, known and novel, but also other events that may constitute a Public Health Emergency of International Concern (PHEIC), such as chemical spills.

WHO decisions are made through the consensus of its member countries, principally at the annual World Health Assembly. The WHO's function is to act as the global

organisation and secretariat to coordinate and recommend the implementation of these decisions. The WHO has no authority to tell countries what to do or punish countries for failing to take measures. For example, decisions about membership or attendance for Taiwan lie solely with member states, not with the WHO.

The Secretariat of the WHO can sometimes respond quickly with technical advice, but requires the consensus of its member states for other decisions. This can seem unwieldy, cumbersome, and time-consuming, but the WHO must be cautious so that it is regarded as a reliable and trusted agency by member countries. Rarely, if ever, has the WHO had to retract a guidance, guideline, or recommendation, which are regularly revised to reflect evolving evidence—which sometimes means that earlier pieces of guidance or a recommendation are updated and changed. The WHO spends enormous amounts of time reading, learning, and absorbing the best and most recent robust evidence available and bases its global guidance on that, to reflect updated peer reviews and retractions, and with the expectation that each region and member state will adapt guidance to local circumstances in order to be most effective.

The WHO gets its funding from two main sources: member states assessed contributions—countries' membership dues, based on a percentage of GDP—cover less than 20 per cent of its total budget;[28] and funding from voluntary contributions largely from member states, as well as from other UN organisations, inter-governmental organisations, philanthropic foundations, the private sector, and other sources.[29] For some years now, the WHO's biggest financial backers have not been member states, but private entities.[30] Some of this funding is earmarked by the donor, while some is 'flexible funding.'

Deplorably, in 2020, 151 member states collectively owed the WHO nearly half a billion US dollars in unpaid dues—about 20 per cent of its annual budget. The sheer size of the dues of the two major debtors, the United States and China, highlighted the WHO's reliance on its largest members.[31] This precarious funding system illustrates its dependence on alternative funding, and in addition being beholden to any strings attached.

In spite of being seriously under-funded, the WHO has attained a number of signal achievements over the years, most prominently its vaccine programme, which is a widely agreed global health and development success story. The programme has proved effective against more than 20 life-threatening diseases. It currently prevents 2–3 million deaths every year from diseases like diphtheria, tetanus, pertussis, influenza, measles, and polio, in addition to having led to a steep reduction in river blindness and the eradication of smallpox.

28. World Health Organization (WHO), 'How WHO Is Funded', https://www.who.int/about/funding.
29. Ibid.
30. European Parliament, 'Private Financing of the World Health Organisation', 21 January 2020, https://www.europarl.europa.eu/doceo/document/E-9-2020-000327_EN.html.
31. Ben Parker, 'WHO's Members Owe It More Than $470 million', *The New Humanitarian*, 30 April 2020, https://www.thenewhumanitarian.org/maps-and-graphics/2020/04/30/world-health-organisation-funding.

The WHO has been criticised, however, for being slow to react when HIV/AIDS exploded across the world, and more recently with COVID-19 hit. This chapter explores whether the latter is true and whether the WHO is fit for purpose in the new era of the predominance of NCD, even while the world is still beset by infectious disease pandemics.

WHO Response to COVID-19

The WHO led the UN health response to COVID-19, harnessing the world's technical and operational expertise to translate knowledge into coordinated action. This included the SPRP 2019 and 2021. The WHO is the leader of the global Incident Management Support Team, the UN Crisis Management Team, the founder of the Access to COVID-19 Tools Accelerator,[32] and a partner in COVAX.

On the ground, the WHO response to COVID-19 included distributing medical supplies; training health workers; building testing and tracing capacities; preventing the spread of the virus, particularly among vulnerable populations, including in camps, prisons, and detention centres; disseminating information widely about prevention and containment measures; and supporting national response planning and decision-making.[33]

Early days

On 30 December 2019, the day before the WHO was formally alerted by China that atypical pneumonia cases had emerged in Wuhan, the Program for Monitoring Emerging Diseases (ProMED),[34] a programme of the International Society for Infectious Diseases had already picked up the information from Weibo, a Chinese social media platform. ProMED was launched in 1994 as an Internet service to identify unusual health events related to emerging and re-emerging infectious diseases, and toxins affecting humans, animals, and plants. ProMED is the largest publicly available system conducting global reporting of infectious disease outbreaks. It is an essential source of information used daily by international public health leaders, government officials, physicians, veterinarians, researchers, private companies, journalists, and the general public, providing timely reporting of important emerging pathogens and their vectors using a One Health approach. One Health is an approach to designing and implementing programmes, policies, legislation, and research in which multiple sectors communicate and work together to achieve better public health outcomes. The areas of work in which a One Health approach is particularly relevant include food safety,

32. WHO, 'Strategy and Planning', https://www.who.int/emergencies/diseases/novel-coronavirus-2019/strategies-and-plans.
33. United Nations, 'United Nations Comprehensive Response'.
34. Maryn Mckenna, 'How ProMED Crowdsourced the Arrival of COVID-19 and SARS', *Wired*, 23 March 2020, https://www.wired.com/story/how-promed-crowdsourced-the-arrival-of-covid-19-and-sars.

the control of diseases that can spread between animals and humans, and combatting antibiotic resistance.

On 31 December 2019, the WHO Country Office in Beijing noticed a media statement by the Wuhan Municipal Health Commission on its website about cases of 'viral pneumonia' in Wuhan. On 1 and 2 January, the WHO requested information from the Chinese authorities. China responded on 3 January. One day after being alerted on 1 January 2020, the WHO activated its Incident Management Support Team; put the organisation on an emergency footing for dealing with the outbreak; then informed its own regional and national offices; issued a Global Outbreak Report; shared information on its International Health Regulations Event Information System, which is accessible to all member states; and on 5 January 2020, issued its first Disease Outbreak News report, the first of many. The WHO then promptly established a dedicated COVID-19 website for advice, technical guidance, response, and research.[35] It eventually included every conceivable aspect of COVID-19, ranging from international data, research, dashboards, and situation reports to myth-busting,[36] advice to the public, and a Q&A Section. The WHO's SPRP 2019 coordinated action at the national, regional, and global levels to overcome the ongoing challenges, address inequities, and plot a course out of the pandemic.[37]

On 30 January 2020, the WHO declared a PHEIC—the highest level of alert—for only the 6th time since the alarm system originated in 2005.[38] A PHEIC is defined as an extraordinary event that constitutes a public health risk to other states through international spread and requires a coordinated international response. It is an ill-defined process whereby the WHO Director-General convenes Emergency Committees to provide their advice on whether an event constitutes a PHEIC.

Table 2.2 shows the times when PHEIC had been declared. At that point, all member states should have taken note to act.

The WHO was not starting from scratch to fight the outbreak. There were a host of existing committees and departments with decades of experience of emergencies, infectious disease outbreaks, health systems, vaccines, health promotion, treatments including drug therapies, law and economics, and more—all relevant to COVID-19's emergence. The WHO already had a dedicated department—the Immunization, Vaccines and Biologicals Department—ready to deal with epidemics.[39]

35. WHO, 'Fighting Misinformation in the Time of COVID-19, One Click at a Time', 27 April 2021, https://www.who.int/news-room/feature-stories/detail/fighting-misinformation-in-the-time-of-COVID-19-one-click-at-a-time; WHO, 'Corona Virus Disease (COVID-19)', https://www.who.int/health-topics/coronavirus#tab=tab_1.
36. WHO, 'Fighting Misinformation'.
37. WHO, 'Coronavirus (COVID-19) Pandemic', https://www.who.int/emergencies/diseases/novel-coronavirus-2019; WHO, 'Strategy and Planning'.
38. Amy Maxmen, 'Why Did the World's Pandemic Warning System Fail When COVID Hit?', Nature, 23 January 2021, https://www.nature.com/articles/d41586-021-00162-4.
39. WHO, 'Immunization, Vaccines and Biologicals Department of WHO', accessed 13 September 2022, https://www.who.int/teams/immunization-vaccines-and-biologicals/about.

Table 2.2: WHO public health emergencies of international concern (PHEIC)[i]

Year	Infection	Location and Spread
2009	H1N1 (swine flu)	Originated in Mexico and spread to the United States
2014	Polio	Reappeared in Afghanistan, Pakistan, and Nigeria
2014	Ebola virus infections	Spread throughout Guinea, Sierra Leone, and Liberia
2016	Zika virus epidemic causing microcephaly and other neurological disorders	The Americas
2019	Ebola outbreak	Spread in a conflict zone in the Democratic Republic of the Congo.
2020	COVID-19 pandemic	

Source:

i. Amy Maxmen, 'Why Did the World's Pandemic Warning System Fail when COVID Hit?', Nature, 23 January 2021, https://www.nature.com/articles/d41586-021-00162-4.

Table 2.3 outlines the most important WHO milestones in the early months of the pandemic. It provides a record to judge whether the WHO did its job of alerting the world about the emergence of a new infectious disease. The key takeaways from the table are that, given the circumstances, the WHO took action quickly, shared action quickly, and produced advice and guidelines quickly.

Challenges and Criticisms of the WHO

The WHO had to weather myriad issues relating to political personalities on a global scale, domestic politics of member countries, and increasingly fraught geopolitics. The WHO had hoped the world would pull together, but instead, it became even more divided. Some specific criticisms are outlined below.

Did the WHO fail to prepare the world for COVID-19?[40]

COVID-19 could not have been more predictable. Throughout history, nothing has killed more humans than viruses, bacteria, and parasites. Humans inhabit a planet dominated by micro-organisms. More than six distinct influenza pandemics and epidemics have struck in just over a century. Ebola viruses have spilt over from animals about 25 times in the past five decades. And at least seven coronaviruses, including SARS-CoV-2,

40. Matt Ridley, 'WHO Has Good Intentions but It Must Answer Serious Questions before It Is Trusted with Leading a COVID-19 Inquiry', *Telegraph*, 3 April 2020, telegraph.co.uk/news/2020/04/03/whohas-good-intentions-must-answer-serious-questions-trusted.

Table 2.3: Timeline summary on WHO's COVID-19 response, December 2019–April 2020

31 December 2019	WHO's Country Office in Beijing noted a media statement by the Wuhan Municipal Health Commission from its website on cases of 'viral pneumonia' in Wuhan. The Country Office notified the IHR focal point in the WHO Western Pacific Regional Office (WWPRO).
	WHO's Epidemic Intelligence from Open Sources (EIOS) platform also noted a media report on ProMED about the same cluster of cases of 'pneumonia of unknown cause' in Wuhan.
1 January 2020	WHO requested information from the Chinese authorities on the reported cluster of cases in Wuhan. WHO activated its IMST, as part of its public health emergency response framework, which ensures coordination of activities and response across the three levels of WHO (headquarters, regional, country), putting the organisation on an emergency footing for dealing with the outbreak.
2 January 2020	WHO Country Office wrote to China's National Health Commission, offering WHO support, and repeated the request for further information. WHO informed Global Outbreak Alert and Response Network (GOARN) partners about the cluster of pneumonia cases in China. GOARN partners include major public health agencies, laboratories, UN agencies, international organisations, and NGOs.
3 January 2020	Chinese officials provided information to WHO on the cluster of cases of 'viral pneumonia of unknown cause' identified in Wuhan.
4 January 2020	WHO tweeted that there was a cluster of pneumonia cases in Wuhan but there were no deaths, and that investigations to identify the cause were underway.
5 January 2020	WHO shared detailed information about a cluster of cases of pneumonia of unknown cause through the IHR Event Information System, which is accessible to all member states. It provided information on the cases and advised member states to take precautions to reduce the risk of acute respiratory infections.
	WHO issued its first of many Disease Outbreak News reports. This is a public, web-based platform for the publication of technical information addressed to the scientific and public health communities, as well as the global media. The report contained information about the number of cases and their clinical status; details about the Wuhan national authority's response measures; and WHO's risk assessment and advice on public health measures. It advised that 'WHO's recommendations on public health measures and surveillance of influenza and severe acute respiratory infections still apply'.[i]

Table 2.3 (continued)

9 January 2020	WHO reported that Chinese authorities determined that the outbreak was caused by a novel coronavirus. WHO convened the first of many teleconferences with global expert networks, beginning with the Clinical Network.
10 January 2020	The Director-General spoke with China's Head of the National Health Commission. He also shared information with the Director of the Chinese Center for Disease Control and Prevention (CCDC). WHO issued a comprehensive online package of technical guidance with advice to all countries on how to detect, test, and manage potential cases.
11 January 2020	Chinese media reported the first death from the novel coronavirus. WHO tweeted that it had received the genetic sequences for the novel coronavirus from China and expected these to be made publicly available soon.
10-12 January 2020	WHO published a comprehensive package of guidance documents for countries, covering: • Infection prevention and control • Laboratory testing • National capacities review tool • Risk communication and community engagement • Disease Commodity Package (v1) • Disease Commodity Package (v2) • Travel advice • Clinical management • Surveillance case definitions
13 January 2020	The Ministry of Public Health in Thailand reported an imported case of lab-confirmed novel coronavirus from Wuhan, the first recorded case outside China.
14 January 2020	WHO suggested there could be human-to-human transmission.
19 January 2020	WWPRO tweeted that, according to the latest information received and WHO analysis, there was evidence of limited human-to-human transmission.
20-21 January 2002	WHO conducted the first mission to Wuhan and met with public health officials to learn about the response to the cluster of cases of novel coronavirus.
22 January 2020	WHO mission to Wuhan issued a statement saying that evidence suggested human-to-human transmission in Wuhan, but that more investigation was needed to understand the full extent of transmission.

Table 2.3 (continued)

23 January 2020	WHO Director-General convened an IHR Emergency Committee (IHREC), comprised of 15 independent experts from around the world charged with advising the Director-General as to whether the outbreak constituted a PHEIC. The IHREC was unable to reach a conclusion on 22 January based on the limited information available. The Director-General asked it to continue deliberations the next day. The Director-General held a media briefing to provide an update on the IHREC's deliberations. The IHREC met again on 23 January. Members were equally divided as to whether the event constituted a PHEIC, as several members considered that there was still not enough information. The IHREC advised it was ready to reconvene within 10 days. It formulated advice for WHO, China, other countries, and the global community. The Director-General accepted the advice and held a second media briefing, giving the IHREC's advice and what WHO was doing in response to the outbreak.
27-28 January 2020	A WHO delegation led by the Director-General arrived in Beijing to meet Chinese leaders, learn more about China's response, and offer technical assistance. The Director-General met with President Xi Jinping on 28 January, and discussed continued collaboration on containment measures in Wuhan, public health measures in other cities and provinces, conducting further studies on the severity and transmissibility of the virus, continuing to share data, and requested China to share samples with WHO. They agreed that an international team of leading scientists should travel to China to better understand the context, the overall response, and exchange information and experience.
30 January 2020	The WHO Director-General reconvened the IHREC, which advised the Director-General that the outbreak now met the criteria for a PHEIC. The Director-General accepted its advice and declared the novel coronavirus outbreak a PHEIC—WHO's highest level of alarm. At that time there were 98 cases in 18 countries except China. Four countries other than China had evidence (eight cases) of human-to-human transmission (Germany, Japan, United States, and Vietnam). The IHREC formulated advice for all countries and the global community, which the Director-General accepted and issued as Temporary Recommendations under the IHR. The Director-General gave a statement, providing an overview of the situation in China and globally; the statement also explained the reasoning behind the decision to declare a PHEIC and outlined the IHREC's recommendations.

Table 2.3 (continued)

24 February 2020	The Team Leaders of a WHO-China Joint Mission on COVID-19 held a press conference to report on the main findings of the mission. The mission warned that 'much of the global community is not yet ready, in mindset and materially, to implement the measures that have been employed to contain COVID-19 in China'.[ii] The Mission stressed that 'to reduce COVID-19 illness and death, near-term readiness planning must embrace the large-scale implementation of high-quality, non-pharmaceutical public health measures', such as case detection and isolation, contact tracing and monitoring/quarantining, and community engagement. Major recommendations were developed for China, countries with imported cases and/or outbreaks of COVID-19, uninfected countries, the public, and the international community. For example, in addition to the above, countries with imported cases and/or outbreaks were advised to 'immediately activate the highest level of national Response Management protocols to ensure the all-of-government and all-of-society approach needed to contain COVID-19'. In addition to the mission press conference, WHO published operational considerations for managing COVID-19 cases and outbreaks on board ships, following the outbreak of COVID-19 during an international voyage.
11 March 2020	At first, most cases were seen as being within China and among people who had travelled there, as well as those travellers' close contacts. While these cases were concerning, they did not suggest a pandemic, because there was not significant spread outside of China.[iii] On 11 March, WHO declared COVID-19 had reached the strict criteria to be labelled a pandemic.[iv] The Director General cautioned that 'Pandemic is not a word to use lightly or carelessly. It is a word that, if misused, can cause unreasonable fear, or unjustified acceptance that the fight is over, leading to unnecessary suffering and death.[v] Describing the situation as a pandemic doesn't change WHO's assessment of the threat posed by this virus. It doesn't change what WHO is doing, and it doesn't change what countries should do.'[vi]
13 March 2020	WHO, the UN Foundation and partners launched the COVID-19 Solidarity Response Fund to receive donations from private individuals, corporations, and institutions. In 10 days, it raised more than US$70 million from more than 187,000 individuals and organisations to help health workers on the frontlines to do their life-saving work, treat patients, and advance research for treatments and vaccines.

Table 2.3 (continued)

18 March 2020	WHO and partners launched the Solidarity trial, an international clinical trial that aimed to generate robust data from around the world to find the most effective treatments for COVID-19.
4 April 2020	WHO reported over one million cases of COVID-19 confirmed worldwide, a more than tenfold increase in less than a month.

Sources:

i. World Health Organization, 'Timeline—WHO's COVID-19 Response', accessed 21 September 2022, https://www.who.int/emergencies/diseases/novel-coronavirus-2019/interactive-timeline#!.

ii. World Health Organization, 'Timeline—WHO's COVID-19 Response', accessed 21 September 2022, https://www.who.int/emergencies/diseases/novel-coronavirus-2019/interactive-timeline#!.

iii. Jamie Ducharme, 'World Health Organization Declares COVID-19 a "Pandemic". Here's What That Means', Time, 11 March 2021, https://time.com/5791661/who-coronavirus-pandemic-declaration.

iv. Helen Branswell and Andrew Joseph, 'WHO Declares the Coronavirus Outbreak a Pandemic', Statnews, 11 March 20202, https://www.statnews.com/2020/03/11/who-declares-the-coronavirus-outbreak-a-pandemic.

v. 'WHO Director-General's Opening Remarks at the Media Briefing on COVID-19', 19 March 2020, https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19-19-march-2021.

vi. https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-COVID-19-19---11-march-2020.

have brought illness and death.[41] Centuries of history showed that such epidemics appear with recurring regularity, some killing as much as half the affected population.[42] Even the word 'influenza' relates to how pandemics were known to sweep the globe a few times every century; their viral origins yet to be discovered, these pandemics were attributed to the 'influence' of the stars.

Avoiding pandemics is, in practice, impossible. There were charges that the WHO had failed to prepare the world for another, inevitable, infectious disease epidemic. Given the recent epidemics of Ebola, Zika and SARS, should the WHO and individual countries not have been better prepared? Epidemiologists and researchers who specialise in biosecurity and public health have been outlining preparedness plans for at least 20 years. The core components consist broadly of surveillance to detect pathogens, data collection and modelling to see how they spread, improvements to public health guidance and communication, and the development of therapies and vaccines.[43]

In 1969, the WHO developed the IHR as a way of minimising the international spread of disease while interfering as little as possible in world trade, transportation, and travel. The IHR required that WHO be notified whenever cholera, plague, or yellow fever occurred, and published in *Weekly Epidemiological Record*. It also specified measures that countries should take with infectious diseases in general. Given today's vast number of global microbial threats, the regulations became outdated, and were revised in 2005. The revised IHR is now a formal framework for proactive international surveillance and response to any epidemic that begins to spread internationally.[44] Moreover, the WHO Health Emergencies Programme was established on 1 July 2016, at the request of the World Health Assembly.[45]

In 2017, the Wellcome Trust and the Bill and Melinda Gates Foundation launched the Coalition for Epidemic Preparedness Innovation (CEPI) at the World Economic Forum in Davos, Switzerland. Headquartered in Oslo, Norway, its aim was to develop vaccines to stop future epidemics. CEPI is an innovative global partnership between public, private, philanthropic, and civil society organisations, including the WHO.[46]

However, in spite of predictions and warnings, most national governments were ill-prepared for COVID-19.

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41. Amy Maxmen, 'Has COVID-19 Taught Us Anything about Pandemic Preparedness?', *Nature*, 13 August 2021, https://www.nature.com/articles/d41586-021-02217-y.
42. Wikipedia, 'List of Epidemics', Wikipedia, accessed 13 September 2022, https://en.wikipedia.org/wiki/List_of_epidemics.
43. Maxmen, 'Has COVID-19 Taught Us Anything'.
44. Stanley M. Lemon, Margaret A. Hamburg, P. Frederick Sparling, Eileen R. Choffnes, and Alison Mack, *Ethical and Legal Considerations in Mitigating Pandemic Disease: Workshop Summary* (Washington, DC: National Academies Press), https://www.ncbi.nlm.nih.gov/books/NBK54171.
45. Felicity Harvey, Walid Ammar, Hiroyoshi Endo, Geeta Rao Gupta, Jeremy Konyndyk, Precious Matsoso, et al., 'Special Report to the Director-General of World Health Organization (PDF)', Independent Oversight and Advisory Committee for the WHO Health Emergencies Programme, 2018.
46. Coalition for Epidemic Preparedness Innovation (CEPI), 'Preparing for Future Pandemics', accessed 13 September 2022, https://cepi.net; Wikipedia, 'Coalition for Epidemic Preparedness Innovations', accessed 13 September 2022, https://en.wikipedia.org/wiki/Coalition_for_Epidemic_Preparedness_Innovations.

Did the WHO get its priorities wrong?

Some critics accused the WHO of having changed its initial focus on infectious diseases to spending too much time on NCDs and their risk factors like obesity, tobacco, poor food, lack of exercise, and climate change. Yet 60 per cent of deaths globally are now due to such diseases. Heart disease is no longer a disease of old men in high-income countries. Today, it affects the wealthy and the poor alike, and claims more lives in low- and middle-income countries than in high-income countries; over half the deaths from heart disease are in Asia.

Did the WHO act too slowly?

As outlined in Table 2.1, it is hard to see how the WHO could have acted any quicker on a report of a few respiratory cases from Wuhan, which might have been ordinary viral illnesses like flu. The main delays at the start of the pandemic were not by the WHO but were at the country level.

The WHO sounded its highest level of alarm on 30 January 2020, by declaring a PHEIC, signalling that a pandemic might be imminent. In hindsight, some epidemiologists believe it could have been issued sooner. Yet, even then, most of the world failed to act, and few governments heeded the WHO Director-General's call to governments to move fast with public health measures including testing, tracing and social distancing.[47] For example, the United States did not roll out testing across the country until late February 2020, did not bar large gatherings until March, and did not immediately introduce contact tracing.[48] By mid-March, COVID-19 had spread around the world.[49] As explained earlier, the WHO has no authority to compel countries to take action. A report in *Nature* in January 2021 noted that, in hindsight, the WHO should have declared a PHEIC about a week earlier than it did on 30 January 2020 but the largest failing, researchers agreed, was that so many countries, except in Asia, ignored it.[50]

There was also confusion around terminology. The precise term PHEIC and its importance are unfamiliar to most lay people. 'Pandemic' is not a defined declaration, and countries have not agreed to take any actions once the term is used.[51] In practice, the public, and even governments and politicians, mainly ignored the PHEIC declaration and only really took note when the WHO started using the term 'pandemic' on 11 March 2020, once it was already spreading in several continents.[52]

47. Maxmen, 'Why Did the World's Pandemic Warning System Fail'.
48. Ibid.
49. Ibid.
50. Ibid.
51. Ibid.
52. Ibid.; Helen Branswell and Andrew Joseph, 'WHO Declares the Coronavirus Outbreak a Pandemic', *STAT*, 11 March 2020, https://www.statnews.com/2020/03/11/who-declares-the-coronavirus-outbreak-a-pandemic.

Was the WHO's messaging contradictory?

Some critics claimed that once COVID-19 began its global sweep, there were contradictions and inconsistencies in the WHO statements and advisories, such as on wearing face masks and the means of transmission. In fairness, the WHO and the world were on shifting sands. It has been likened to flying an aeroplane while trying to build it. As explained in Chapter 1, COVID-19 was a new pandemic, and it took time for experts to understand its unique characteristics. Evidence evolved, sometimes on a daily basis, on almost every aspect of COVID-19, including masking, social distancing, vaccines, and treatment.

COVID-19 treatment is a good example of this. The WHO established the COVID-19 Solidarity Therapeutics Trial in 14,200 randomised hospitalised patients in 2,000 hospitals in 52 countries.[53] It was the largest global collaboration among member states, designed to provide robust results on whether a particular drug could save lives. It was discovered by trial and error that some drugs worked and some, even with the enthusiastic endorsement of famous figures, did not. Bit by bit, treatment protocols evolved, but these were unknown and unavailable at the start of the pandemic. Economists like John Maynard Keynes and Paul Samuelson, and also Winston Churchill, have been variously credited with saying 'When the facts change, I change my mind. What do you do, sir/madam?'

Was the WHO subservient to China?

The WHO's dealings with, statements about, and visits to China came under criticism. The United States used it as a reason to withdraw funding from the WHO. The WHO was accused of overly praising the Chinese government,[54] with the issue of Taiwan becoming entangled as well.

One accusation was that China was less than forthcoming, even obstructing any investigation of the origin of COVID-19. The origin of the COVID-19 virus outbreak is unresolved and may remain so for decades to come. Theories include that it originated in wildlife, including wildlife being sold at the Huanan Seafood Wholesale Market in Wuhan,[55] and that it was accidentally released from a research laboratory (see Chapter 1).[56] It is important to continue to investigate the origin, so as to better prevent other

53. WHO, 'WHO COVID-19 Solidarity Therapeutics Trial', accessed 13 September 2022, https://www.who.int/emergencies/diseases/novel-coronavirus-2019/global-research-on-novel-coronavirus-2019-ncov/solidarity-clinical-trial-for-COVID-19-treatments.
54. Kate Kelland and Stephanie Nebehay, 'Special Report: Caught in Trump-China Feud, WHO Leader under Siege', *Reuters*, 29 January 2020, reuters.com/article/us-health-coronavirus-who-tedros-special/special-report-caught-in-trump-china-feudwho-leader-under-siege-idUSKBN22R1IL.
55. 'More Evidence that Covid-19 Started in a Market, Not a Laboratory', *The Economist*, 5 March 2022, https://www.economist.com/science-and-technology/more-evidence-that-covid-19-started-in-a-market-not-a-laboratory/21807945.
56. Jon Cohen, 'Do Three New Studies Add Up to Proof of COVID-19's Origin in a Wuhan Animal Market?', *Science*, 28 February 2022, https://www.science.org/content/article/do-three-new-studies-add-proof-covid-19-s-origin-wuhan-animal-market.

epidemics in the future. Genetics may prove the answer. This is far from the first time that the origin of a virus has been questioned. Historically, when HIV/AIDS swept the world in the 1980s, various fringe and conspiracy theories arose to speculate on its origin. After decades of investigation, it is now thought to have crossed from chimpanzees to humans in the 1920s in what is now the Democratic Republic of Congo.[57]

The first field visit to Wuhan by the WHO international team studying the origins of SARS-CoV-2 was in February 2020. The team itself came under criticism as being selected in a hurry without the balance of most WHO committees, and one member was found to have competing interests. The visit yielded no definite conclusions on the origin of COVID-19. The WHO Director-General called for further studies and reiterated that all hypotheses remained on the table. In July 2021, the WHO established the Scientific Advisory Group for Origins of Novel Pathogens (SAGO), comprised of 26 experts from countries including China, the United States, India, and Kenya. SAGO produced a preliminary report in June 2022 calling for further studies.[58]

Other Issues of Importance

Vaccine inequity

Rich countries were able to pay for vaccines and poor countries could not. Some nations have given third booster doses while most of the world had yet to receive a single dose. COVAX is a worldwide initiative aimed at equitable access to vaccines directed by the global Vaccine Alliance (GAVI), CEPI, and the WHO. Its aim is to accelerate the development and manufacture of COVID-19 vaccines, and to guarantee fair and equitable access for every country in the world. From the start, the COVAX vaccine programme was (and still is) severely affected by vaccine inequity. The constant pleas of the WHO for vaccine support from high-income countries for low- and middle-income countries have fallen on deaf ears.

COVAX had allocated more than 2 billion COVID-19 vaccine doses by September 2022,[59] supplying these to over 140 countries,[60] but this is still totally inadequate. The WHO has repeatedly warned of the dire consequences of uneven vaccinations, including the emergence of variants. Its initial goal for every country to vaccinate 40 per cent

57. Wikipedia, 'Discredited HIV/AIDS Origins Theories', accessed 13 September 2022, https://en.wikipedia.org/wiki/Discredited_HIV/AIDS_origins_theories.
58. WHO, 'Scientific Advisory Group for the Origins of Novel Pathogens', accessed 13 September 2022, https://www.who.int/groups/scientific-advisory-group-on-the-origins-of-novel-pathogens-(sago); and WHO, 'Preliminary Report for the Scientific Advisory Group for the Origins of the Novel Pathogens', 9 June 2022, https://www.who.int/publications/m/item/scientific-advisory-group-on-the-origins-of-novel-pathogens-report.
59. COVAX Data Brief, 6 September 2022. https://www.gavi.org/sites/default/files/covid/covax/COVAX-data-brief_12.pdf.
60. 'Factbox: Vaccines Delivered under COVAX Sharing Scheme for Poorer Countries', *Reuters*, 7 October 2022, accessed 9 October 2022, https://www.reuters.com/business/healthcare-pharmaceuticals/vaccines-delivered-under-covax-sharing-scheme-poorer-countries-2022-01-03/.

of its population by the end of 2021 was not met.[61] Perhaps only when high-income countries have been fully vaccinated will it become easier to get them to share vaccines.

Another issue facing the WHO and COVAX was that of the tobacco industry and its forays into COVID-19 vaccines. The WHO Framework Convention on Tobacco Control (WHO FCTC) Article 5.3 specifically states:

> In setting and implementing their public health policies with respect to tobacco control, Parties shall act to protect these policies from commercial and other vested interests of the tobacco industry in accordance with national law.[62]

The tobacco industry has used COVID-19 to shift its image from vilified industry to trusted health partner, using the pandemic to maximise contact with policy-makers and health professionals;[63] as well as distributing ventilators, gels, personal protective equipment and free masks.[64] Philip Morris/Medicago are developing a COVID-19 vaccine with the unlikely support of the government of Canada.[65] Vaccines are also being produced by British American Tobacco's biotech subsidiary, Kentucky BioProcessing,[66] and others.

There are two issues—the first is that these vaccines are enabling the industry to gain publicity with slogans such as 'Tobacco to the rescue'.[67] The second is the access of the tobacco companies to the WHO, COVAX, and governments, in contradiction to WHO FCTC Article 5.3. This could lead to the unimaginable situation of GAVI, the WHO. and CEPI sitting in the same room and discussing public health with the tobacco industry. When these vaccines come onto the market, they will pose an ethical and health dilemma for the WHO and GAVI, and also for low- and middle-income countries short of vaccine supply. At the time of writing, WHO has formally rejected the Canadian vaccine, and it has not been approved by national regulators for distribution

61. McCarthy, 'A Year on'.
62. WHO, 'WHO Framework Convention on Tobacco Control Article 5.3'.
63. Campaign for Tobacco Free Kids (2020), 'Big Tobacco Is Exploiting COVID-19 To Market Its Harmful Products', https://www.tobaccofreekids.org/media/2020/2020_05_COVID-19-marketing; STOP, 'Trading "Philanthropy" for Favors: Tobacco Industry CSR During COVID-19', 17 August 2020, https://exposetobacco.org/news/ban-ti-csr/?utm_source=Stopping+Tobacco+Organizations+and+Products+%28STOP%29&utm_campaign=891101c19c-Stop_Newsletter_8.25.20&utm_medium=email&utm_term=0_a7474fe40f-891101c19c-354163305#utm_source=mailchimp&utm_medium=email&utm_campaign=COVID-19-accountability; Andrew Rowell, 'Coronavirus: Big Tobacco Sees an Opportunity in the Pandemic', *The Conversation*, 14 May 2020, https://theconversation.com/coronavirus-big-tobacco-sees-an-opportunity-in-the-pandemic-138188.
64. Alan Selby, 'Vape Firm Says Thank You to Frontline NHS Staff with Vouchers for E-Cigs', *The Mirror*, 11 August 2020, https://www.mirror.co.uk/news/uk-news/vape-firm-says-thank-you-22504039.
65. Philip Morris International, 'PMI Announces Medicago to Supply up to 76 Million Doses of Its Plant-Derived COVID-19 Vaccine Candidate', *MarketScreener*, accessed October 2020, https://www.marketscreener.com/quote/stock/PHILIP-MORRIS-INTERNATION-2836703/news/Philip-Morris-International-PMI-Announces-Medicago-to-Supply-Up-to-76-Million-Doses-of-Its-Plant-D-31601227.
66. Patricia Nilsson and Clive Cookson, 'BAT Joins Race to Develop COVID-19 Vaccine', *Financial Times*, 1 April 2020, ft.com/content/e3737752-6147-4c0e-82f2-e7df9eb9f6f8.
67. *Ejinsight*, 'How a Use for Tobacco Helps Accelerate COVID-19 Vaccine', 28 October 2020, https://www.ejinsight.com/eji/article/id/2617626/20201028-How-a-use-for-tobacco-helps-accelerate-COVID-19-accine.

in the United Kingdom, European Union or the United States. This subject is discussed in Chapter 3.

US withdrawal from the WHO

Matters came to a head in mid-2020 when then United States President Donald Trump announced he would end America's relationship with the WHO and withdraw funding. On 6 July 2020, the United States officially notified the UN Secretary-General of its intention to withdraw its membership. This was at the time the world and the United States were experiencing huge daily increases in the number of COVID-19 cases.[68] The United States reiterated accusations that the WHO was too lenient with China.[69] President Trump threatened to freeze WHO funding permanently, accusing the WHO of withholding critical information about the dangers of COVID-19.[70] None of the accusations was supported by facts.[71]

The decision would clearly damage the WHO. First, there was the loss of funding.[72] Second, it was an unwelcome distraction for an organisation trying to tackle one of the most serious threats in decades to global public health, including for Americans. In response, 750 US leaders from academia, science, and law urged the US Congress to block the president's action.[73] An article in *The Lancet* in August 2020 concluded that withdrawal would also harm the United States. Its withdrawal from the WHO would have dire consequences for US security, diplomacy, and influence. The WHO has unmatched global reach and legitimacy. The Trump administration was hard-pressed to disentangle the country from WHO governance and programmes. The Pan American Health Organization is among six WHO regional offices and is headquartered in Washington, DC. The United States is also a state party to two WHO treaties: the WHO Constitution, establishing it as the 'directing and coordinating authority on

68. Lawrence O. Gostin, Harold Hongju Koh, Michelle Williams, Margaret A. Hamburg, Georges Benjamin, William H. Foege, et al., 'US Withdrawal from WHO Is Unlawful and Threatens Global and US Health and Security', Comment, *Lancet* 396, issue 10247 (1 August 2020): 293–295, https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31527-0/fulltext.
69. Amy Maxmen, 'What a US Exit from the WHO Means for COVID-19 and Global Health', *Nature* 582, no. 17 (27 May 2020), https://www.nature.com/articles/d41586-020-01586-0.
70. Julian Borger, 'Caught in a Superpower Struggle: The Inside Story of the WHO's Response to Coronavirus', *Guardian*, 18 April 2020, https://www.theguardian.com/world/2020/apr/18/caught-in-a-superpower-struggle-the-inside-story-of-the-whos-response-to-coronavirus; Maxmen, 'What a US Exit from the WHO Means'.
71. Borger, 'Caught in a Superpower Struggle'.
72. McKee Martin, 'Coronavirus Has Killed 30,000 Americans, and All Trump Can Do Is Blame the WHO', *Guardian*, 16 April 2020, theguardian.com/world/commentisfree/2020/apr/16/coronavirus-30000-americans-trump-blame-who.
73. Lawrence O. Gostin, Matthew M. Kavanagh, John Monahan, Timothy Westmoreland, Eric A. Friedman, Charles Holmes, et al., 'Letter to Congress on WHO Withdrawal from Public Health, Law and International Relations Leaders', 30 June 2020, https://oneill.law.georgetown.edu/letter-to-congress-on-who-withdrawal-from-public-health-law-and-international-relations-leaders.

international health'; and the IHR 2005, the governing framework for epidemic preparedness and response'.[74]

> Various US institutions collaborating with WHO on vital work would be harmed if the relationship is severed. There are 21 WHO collaborating centres at the US Centers for Disease Control and Prevention (CDC) and three at the National Institutes of Health, focused on US priorities, including polio eradication, cancer prevention, and global health security. The Secretariat of the 44 WHO Collaborating Centers for Nursing and Midwifery is based in the USA.[75]

The UN Secretary-General said it was 'not the time' to cut funding or to question errors. 'Once we have finally turned the page on this epidemic, there must be a time to look back fully to understand how such a disease emerged and spread its devastation so quickly across the globe, and how all those involved reacted to the crisis.'[76]

A formal notification to withdraw from the WHO requires one year before it becomes effective. On his first day in office, Joseph Biden, who won the 2020 presidential election, honoured a campaign promise to retract the withdrawal by his predecessor.[77]

> The WHO plays a crucial role in the world's fight against the deadly COVID-19 pandemic as well as countless other threats to global health and health security. The United States will continue to be a full participant and a global leader in confronting such threats and advancing global health and health security.[78]

The WHO: The Way Forward

If not WHO, then who?

The WHO, over its over 70-year history, is the *only* global organisation with the history, the reach, the experience, the in-country offices, the trust, the credibility and the ability to coordinate global public health. Some governments around the world, including in the United States, Australia, and the European Union, have called for the WHO to be reformed or restructured amid criticism of its response to the COVID-19 outbreak.[79] Many agree that to improve the world's ability to respond to pandemics, the WHO needs to be strengthened.

Suggestions have been made before and during the COVID-19 epidemic, and include:

74. Gostin et al., 'US Withdrawal from WHO'.
75. Ibid.
76. Helen Davidson, '"Crime against Humanity": Trump Condemned for WHO Funding Freeze', *Guardian*, 15 April 2020, https://www.theguardian.com/world/2020/apr/15/against-humanity-trump-condemned-for-who-funding-freeze.
77. Jenny Lei Ravelo, 'On His First Day in office, Biden Retracts US Withdrawal from WHO', *Devex*, 21 January 2021, https://www.devex.com/news/on-his-first-day-in-office-biden-retracts-us-withdrawal-from-who-98961.
78. Ibid.
79. Kate Kelland and Josephine Mason, 'WHO Reform Needed in Wake of Pandemic, Public Health Experts Say', *Reuters*, 13 January 2021, https://www.reuters.com/article/us-health-coronavirus-crisis-idUSKBN29I210.

1. **New treaty on pandemics:** The WHO could be strengthened through a new treaty on pandemics that countries would need to sign and ratify, akin to the existing WHO FCTC. In December 2021, the World Health Assembly agreed to kickstart a global process to draft and negotiate such a convention, agreement, or other international instrument under the Constitution of the WHO to strengthen pandemic prevention, preparedness, and response. Treaties take on average about a decade from conception to when they come into force, so it is hard to see how this treaty could be ready much before 2024. At the time of the May 2022 World Health Assembly, the idea drew vehement criticism on the basis that countries would have to cede their sovereignty to supranational governance, and even that democracy was under threat. This is untrue. Like the WHO FCTC, such a treaty would not have legal teeth for enforcement and compliance, and would rely on voluntary implementation by member states. The next steps will be a series of negotiations and a public consultation hearing, with a progress report to be delivered to the 2023 World Health Assembly, and an outcome document to the 2024 World Health Assembly.
2. **Larger, reliable, flexible/untied funding:**[80] For every US$1 invested in it, the WHO provides a return of US$35 in societal value.[81] A larger, reliable budget for the WHO would give the organisation greater autonomy. A wider and improved funding base would enable the WHO to be less reliant on its big country funders, in particular the United States and China,[82] and thereby avoid being dependent on fundraising amid a disaster.[83] In 2022, the Executive Board governing the WHO considered the most recent report of the Working Group on Sustainable Financing,[84] a Working Group set up under the Rules of Procedure of the Executive Board. The most recent discussions ended in a stalemate, not surprisingly, as this has recurred many times in the last two decades: every member state agreed that the WHO needs to be funded more sustainably and more flexibly, but there is no consensus on raising the needed contributions.[85] At the 2022 World Health Assembly, the member states of the WHO agreed to substantially improve the agency's financing model, giving it greater flexibility and enhanced capacity to fulfil its mandate. It is only the first step towards reform and investment, with many details to be worked out.

80. Claire Chaumont, 'Opinion: 5 Ways to Reform the World Health Organization', 5 August 2020, https://www.devex.com/news/opinion-5-ways-to-reform-the-world-health-organization-97843.
81. Alexandra Finch, Kevin A. Klock, Eric A. Friedman, and Lawrence O. Gostin, 'At Long Last, Member States Agree to Fix the World Health Organization's Financing Problem', 1 June 2022, https://www.thinkglobalhealth.org/article/long-last-member-states-agree-fix-world-health-organizations-financing-problem.
82. Kelland and Mason, 'WHO Reform'.
83. Maxmen, 'Why Did the World's Pandemic Warning System Fail'.
84. WHO, 'Sustainable Financing: The Report of the Working Group', 10 January 2022, https://apps.who.int/gb/ebwha/pdf_files/EB150/B150_30-en.pdf.
85. WHO, 'Working Group on Sustainable Financing', 25 January 2022, https://apps.who.int/gb/ebwha/pdf_files/EB150/B150(2)-en.pdf.

3. **Stronger, enforceable sanctions:**[86] The WHO relies on consensus and diplomacy for the implementation of its recommendations. The IHR currently mandate that governments report any 'public health emergencies of international concern' and cooperate with the WHO, but the WHO has no legal ability to enforce this. There is a precedent with another UN-related organisation, the WTO, which has the ability to impose sanctions on its member countries when they fail to abide by its rules.[87] There are proposals to reform the IHR to include enforceable sanctions against countries that fail to comply with their mandate,[88] although this would probably not be acceptable to member states, especially large powers such as the United States, China, and India. Some member states might be glad to renegotiate the IHR, for a variety of conflicting agendas (perhaps to increase reporting requirements, reinforce the role of the WHO, shift other international/translational trade and travel obligations, and shift the requirements so that outbreaks do not shine lights on shortcomings), while others are reluctant to change the IHR for a variety of reasons (such as that the resulting instrument may be less effective, it would open up the difficult issue of state sovereignty, and negotiations would be time-consuming and expensive). At the moment, there does not seem to be any appetite to open the IHR to renegotiation, as reflected by member states deciding instead to establish a new negotiating body for a new pandemic-related international legal instrument, akin to the WHO FCTC. The WHO FCTC does not include enforceable sanctions but, like most UN Conventions, moves forward by consensus and holds regular Conference of Party Meetings with a regular reporting system where countries' progress (or lack of it) is published.
4. **More open governance:** There are recommendations that the governance of the WHO must be reformed to facilitate the inclusion of alternative voices, such as from civil society, and to better channel the influence of private philanthropists.[89] Appointing non-voting, non-state actors to the WHO's governing body is already under consideration.[90]
5. **More focussed mandate:** In theory, the WHO covers the broad remit of improving the health of all populations everywhere. Should the WHO examine the idea of focusing primarily on activities where it can bring the most added value?[91] It needs to be borne in mind that while new epidemics and their risk factors are complicated and lengthy, NCDs now cause 60 per cent of global deaths, and should not be ignored.

86. Chaumont, 'Opinion: 5 Ways to Reform'.
87. Ibid.
88. Ibid.
89. Ibid.
90. WHO, 'WHO Reform: Involvement of Non-state Actors in WHO's Governing Bodies Report by the Director-General', 4 January 2021, https://apps.who.int/gb/ebwha/pdf_files/EB148/B148_35-en.pdf.
91. Chaumont, 'Opinion: 5 Ways to Reform'.

6. **Bring in technical expertise from other sectors:** The WHO must maintain its technical focus but could broaden its expertise to include more input from political scientists, urban designers, lawyers, logisticians, philosophers, economists, and information technology specialists.[92]
7. **Improving the reporting system:** There are many practical suggestions regarding future pandemics. For example, countries with outbreaks might be more willing to share information if there was a gradient of warnings to the PHEIC, coded by colour, rather than an all-or-nothing decree.[93] There could be a more precise definition of a pandemic, and the obligation it would place upon all countries.

Reforms will not come immediately, if for no other reason than that the COVID-19 pandemic has not yet receded at the time of this book going to print. But if the discussion is delayed, then the danger is that the momentum and urgency might wane, as in the past. Panels were previously set up to assess failures in the response to the Ebola outbreak in West Africa in 2014–2016. One expert said: 'Less than 10 per cent of the recommendations were followed up on. We have an amazing talent to outrage ourselves about a situation, but when it comes time to deliver any change, there is very little traction, and people go back to doing whatever they had done before.'[94]

Could COVID-19 teach us to work differently?

92. C. Chaumont, 'Opinion: 5 Ways to Reform the World Health Organization, 5 August 2020, https://www.devex.com/news/opinion-5-ways-to-reform-the-world-health-organization-97843.
93. Maxmen, 'Why Did the World's Pandemic Warning System Fail'.
94. Ibid.