RETHINKING HEALTH SECURITY AFTER COVID-19

Amanda Moodie and Nima Gerami
with Federica D'Alessandra

November 2021

For electronic copies of this report, visit:
www.elac.ox.ac.uk

Oxford Institute for Ethics, Law and Armed Conflict
Blavatnik School of Government
Radcliffe Observatory Quarter
120 Walton St, Oxford OX2 6GG

Edited by: Chase Harrison

Graphic design and layout by: Green Ink

RETHINKING HEALTH SECURITY AFTER COVID-19

Amanda Moodie and Nima Gerami
with Federica D'Alessandra

Oxford Programme on International Peace and Security

The Oxford Programme on International Peace and Security (IPS) is a research programme of the University of Oxford's Blavatnik School of Government, housed by the Institute for Ethics, Law and Armed Conflict (ELAC). ELAC is an interdisciplinary research institute which aims to strengthen the law, norms, and institutions that restrain, regulate, and prevent armed conflict. As part of this mission, IPS was established to look beyond the threshold of armed conflict and contribute to the understanding of other forms of organised violence and non-conventional threats to international peace and global stability.

Center for the Study of Weapons of Mass Destruction

Established in 1994, the Center for the Study of Weapons of Mass Destruction (CSWMD) is a research center located within the Institute for National Strategic Studies at the National Defense University in Washington, DC. CSWMD prepares US national security leaders to address the challenges posed by weapons of mass destruction through education, research, and outreach activities across the full spectrum of WMD issues. The Center provides cutting-edge research on the impact of WMD on US and global security to sponsors in the national security community, and has been designated by the Chairman of the Joint Chiefs of Staff as the focal point for WMD education in the Joint Professional Military Education system.

About Our Partnership

This project is a collaborative effort between IPS and CSWMD, for which Federica D'Alessandra is the Principal Investigator, resulting from activities funded by the University of Oxford Higher Education Innovation Fund through the Research & Public Policy Partnership Scheme. The scheme supports partnerships between the University and policymakers, both in the United Kingdom and elsewhere around the world, to improve the collective understanding of public policy issues and formulate apt public policy responses based on the best available evidence. Throughout the project, the authors consulted with policymakers and experts in the United Kingdom and the United States to incorporate policy needs, views, and feedback in the design of this report, shape its recommendations, and facilitate bilateral policy alignment. However, the views expressed here do not necessarily reflect the official policy or position of the University of Oxford, the National Defense University, the Department of Defense, or the UK or US governments.

Contents

Foreword

As the international community continues to deal with the fallout of COVID-19, more transmissible and lethal coronavirus variants have reinforced concerns that the world is entering an 'age of pandemics'. It is not a matter of if, but *when*, the next large-scale outbreak of infectious disease will occur, and most experts agree that it could be even worse than COVID-19.

Facing this harrowing prospect, governments around the world are doubling down on global health security as the framework for preventing, detecting, and responding to biological threats, whether naturally occurring, accidental, or deliberate. Ahead of the G7 Summit in June 2021, health ministers convened at the University of Oxford to discuss measures for strengthening international collaboration and the global health architecture. The resulting Communiqué from these meetings identified global health security as a priority for strategic action and committed to improving data sharing, disease surveillance, training for health personnel, and financing for the World Health Organization (WHO).

These efforts were mirrored on the other side of the Atlantic, where the US Congress introduced legislation intended to, among other things, recognise that 'it is in the United States' national security interest to work with partners to end the current COVID-19 pandemic' and establish an annual intelligence threat assessment on potential pandemic pathogens.

Yet despite promises of expanded multilateral cooperation, the world remains divided on the meaning of health security and whether it is the best approach for mitigating the risk of future pandemics. What are the arguments for and against framing public health as a national security issue? Can the concept of health security help policymakers break the gridlock in global health governance and address the growing threat of infectious diseases?

To address these questions, the Oxford Programme on International Peace and Security (IPS), Blavatnik School of Government, and the US National Defense University's Center for the Study of Weapons of Mass Destruction (CSWMD) partnered in 2020-2021 on an in-depth study of the conceptual evolution of health security, the policy trade-offs in linking health and security, and enduring problems with the current global health architecture. This report is a product of the IPS-CSWMD research and policy partnership. It offers recommendations for an alternative approach to existing narratives of health security that aims to improve multilateral cooperation, strengthen health systems, and promote human health and well-being.

Now more than ever, cooperation is needed not only between states but among policymakers, academics, and civil society to recover and rebuild from the pandemic. In this spirit, we are pleased that our two institutions could come together on this joint study and hope that it will inform research and policy efforts to learn from the mistakes made during the pandemic and to rethink the future of health security post-COVID-19.

Dapo Akande
Professor of International Law
Co-Director
Institute for Ethics, Law and Armed Conflict
Blavatnik School of Government

Brendan G. Melley
Director
Center for the Study of Weapons of
    Mass Destruction
Institute for National Strategic Studies
National Defense University

About the Authors

Amanda Moodie is a Policy Fellow and Director of the Program for Emerging Leaders at the National Defense University's Center for the Study of Weapons of Mass Destruction (CSWMD) in Washington, DC. She is also an adjunct professor at Missouri State University. A longtime nonproliferation analyst, she has served on the Biological Policy Staff at the Department of State and is regularly a member of the US delegation to meetings of states parties to the Biological and Toxin Weapons Convention. Prior to joining CSWMD in 2014, she held various positions at the James Martin Center for Nonproliferation Studies, Defense Threat Reduction Agency, Booz Allen Hamilton, and the International Institute for Strategic Studies. She has an MA in Law and Diplomacy from the Fletcher School at Tufts University and BA degrees in Political Science and English from Duke University.

Nima Gerami is a consultant at the Oxford Institute for Ethics, Law and Armed Conflict (ELAC) and the National Defense University's Center for the Study of Weapons of Mass Destruction (CSWMD). From 2007 to 2018, he was a member of the CSWMD research faculty, where he supported a range of projects on Middle East security issues in support of the US government and served in the Office of Chemical and Biological Weapons Affairs at the Department of State. In addition to government service, he has held various fellowships and positions at the University of Oxford, the Washington Institute for Near East Policy, and the Carnegie Endowment for International Peace. He is currently pursuing a PhD at King's College London and holds an MA in Government from Johns Hopkins University.

Federica D'Alessandra is the Deputy Director of the Blavatnik School of Government's Institute for Ethics, Law and Armed Conflict (ELAC) and the founding Executive Director of the Oxford Programme on International Peace and Security, based at ELAC. She is often called upon to advise governments and international organisations on various matters of international law and public policy. Prior to joining the University of Oxford, she held various appointments at Harvard University, including the John F. Kennedy School of Government, where she was a Fellow with the Carr Center for Human Rights Policy, and at Harvard Law School, focusing on national security, human rights, the laws of war, and foreign interventions.

Acknowledgements

List of Abbreviations

BTWC	Biological and Toxin Weapons Convention
CBRN	Chemical, biological, radiological, and nuclear-related issues
CDC	US Centers for Disease Control and Prevention
CEPI	Coalition for Epidemic Preparedness Innovations
COVAX	COVID-19 Vaccines Global Access Facility
COVID-19	Coronavirus disease 2019
EVD	Ebola Virus Disease
GHSA	Global Health Security Agenda
GHSI	Global Health Security Initiative
GHSS	US Global Health Security Strategy
IHR 2005	International Health Regulations (2005)
NBS	US National Biodefense Strategy
NHS	UK National Health Service
SARS-CoV-2	Severe acute respiratory syndrome coronavirus 2
SDG	Sustainable Development Goals
UN	United Nations
WHO	World Health Organization
WMD	Weapons of mass destruction

Executive Summary

The COVID-19 pandemic has posed major challenges to existing systems of global health governance. Even countries considered leaders in health preparedness, notably the US and the UK, struggled to contain COVID-19 domestically and were unable to mount an effective international response. As a result, the world suffered over 4.4 million deaths and an estimated 4.4 per cent decline in global GDP in 2020 alone – the deepest global recession since the end of World War II. The economic and health impacts of the pandemic have, meanwhile, fallen disproportionately on the world's most disadvantaged and vulnerable populations.

COVID-19 has therefore laid bare deep fissures in the current global health architecture and highlighted the need for urgent reform. One proposal for reducing the risk of future pandemics is to elevate public health as a national security priority. For decades, policymakers and experts have argued that the concept of national security should extend beyond state-centric, military-focused threats, to include infectious diseases and climate change. Accordingly, the US and UK governments, both erstwhile leaders in global health and biological preparedness, have committed to promoting health security as a framework for mitigating the threat of future pandemics. A health security approach, it has been argued, will increase attention, resources, and institutional capacity for dealing with health crises.

Yet the reflexive tendency to frame health risks in security terms has precluded serious examination of the assumptions and trade-offs underlying the health security paradigm. In this report, we contend that, while the security implications of pandemics are clear, the concept of health security distracts attention from the underlying determinants of health that exacerbate the effects of severe disease outbreaks and disproportionately affect the most vulnerable. Rather than adopting a securitised approach to infectious disease, COVID-19 should prompt world governments to focus on the wider determinants of health – such as universal health coverage and access to quality health care, among other health-related UN Sustainable Development Goals – as a way to ameliorate the impact of pandemics and other crises. The report challenges the following assumptions that undergird health security and proposes recommendations for an alternative approach.

Health Security: Assumptions and Policy Trade-offs

Assumption 1: Securitising health generates resources for responding to severe disease outbreaks.

- While framing health as a security issue is a useful tool for raising attention, awareness, and funding for pandemic preparedness, the focus on the external threats posed by infectious disease detracts from progress in the wider determinants of health, including access to quality health care, education, and clean water, which exacerbate health outcomes during biological events.

Assumption 2: Securitisation fosters multilateral cooperation on public health problems.

- Instead of promoting a collective approach to health challenges, the focus on health security has the potential to deepen the Global North-South divide, given the lack of consensus around the meaning of health security – with the North largely focused on preventing the cross-border spread of infectious diseases and the South emphasising action on the social determinants of health for non-communicable diseases.

Assumption 3: Synergy between national security and public health communities is necessary for rapid responses.

- Deepening the cooperation between the national security and public health communities is an integral part of pandemic preparedness and response, but an increased reliance on the military in health initiatives will likely prove unsustainable, counterproductive, and potentially self-defeating in the long run.

Policy Recommendations

What might an alternative approach to health, grounded in multilateralism and respect for individual rights, look like in practice?

1. Move away from securitised responses to health in favour of a traditional public health approach that prioritises human health and well-being as a component of foreign policy.

- Emphasise the need for global solidarity on health issues more broadly, including on infectious disease outbreaks and non-communicable diseases.
- Increase resources for addressing the wider determinants of health that exacerbate the impact of disease outbreaks, such as access to quality health care, education, and clean water, as set out in the UN Sustainable Development Goals.

2. Maintain a separate focus on biodefense in the appropriate fora.

- Decouple public health from bioterrorism, which requires a different institutional approach and risks diverting scarce resources away from improving health systems.

3. Strengthen existing global health institutions to facilitate multilateral cooperation.

- Empower the World Health Organization to respond more effectively to future health crises by increasing and diversifying funding streams to include both communicable and non-communicable diseases.
- Encourage donors to provide unrestricted funding to international health institutions to prevent the politicisation of health.
- Build public-private partnerships to improve the efficacy, sustainability, and durability of global health initiatives in the long term. These partnerships should build international capacity to proactively address underlying determinants of health that can prevent or mitigate the impact of infectious diseases.

4. Promote equitable vaccine distribution and long-term funding for vaccine and medical countermeasure development.

- Support multilateral funding mechanisms, such as COVAX, as part of a more systematic approach to global health research and development.
- Increase manufacturing capacity for diagnostics, treatments, and vaccines and share vaccine research, as well as any surplus supply.

5. Consider adopting a multilateral pandemic preparedness treaty or other legally-binding instrument to promote enforcement of obligations.

- Adopt the proposed multilateral pandemic preparedness treaty, provided that its negotiations lead to legally-binding enforcement provisions, in order to improve trust, increase information sharing, and boost capacities in both developed and developing countries in response to emerging health challenges.

I. Introduction: The Global Impact of COVID-19

The novel coronavirus (COVID-19) pandemic has refocused attention on public health and the profound global impact of infectious disease outbreaks. Although the world has suffered deadly pandemics before, COVID-19's far-reaching effects are unparalleled in recent history, causing the worst economic downturn since the Great Depression and the first rise in global poverty in more than two decades, with as many as half a billion people being pushed into destitution.[1] Contrary to the popular belief that pandemics kill indiscriminately, mounting evidence suggests that COVID-19 disproportionately affects the elderly, black and minority ethnic communities, and the poor.[2] As UN Secretary-General António Guterres put it, the pandemic 'affects every person and community, [but] it does not do so equally. Instead, it has exposed and exacerbated existing inequalities and injustices'.[3]

While COVID-19 has taken the largest toll on the most vulnerable and disadvantaged members of society, the pandemic's mortality burden remains concentrated in the world's most advanced economies.[4] Nearly fifteen per cent of COVID-19 deaths, the most of any country in the world, have occurred in the United States, even though it accounts for only four per cent of the world's population.[5] During the first wave of the pandemic, the United Kingdom suffered the highest level and longest continuous period of excess mortality – the number of deaths above and beyond the number expected in normal circumstances – of any country in Europe.[6] This high mortality burden is particularly striking given that, just 45 days before the world's first suspected case of COVID-19, the Global Health Security Index ranked the US and the UK as the two best prepared for health crises.[7] Despite decades of planning, the leaders in global health and biological preparedness have struggled to contain COVID-19 domestically, let alone mount an effective international response. This failure has contributed to reigniting debate on the need to elevate public health as a national security issue.

Military spending on conventional security threats, such as wars and terrorism, continues to be prioritised over public health spending. Some argue this ignores the risk posed by non-traditional security challenges, such as pandemics and climate change, that potentially have a far greater impact on the safety and well-being of citizens.[8] This misalignment has prompted numerous scholars and policymakers to call for the broadening of national security to include health issues.[9] If the fundamental purpose of the national security apparatus is to protect lives, the argument goes, then COVID-19 has revealed that the traditional conception of national security has fallen short.[10]

However, this argument overlooks the debate on 'health security', which gained traction at the end of the Cold War and during the HIV/AIDS pandemic. Decades later, the definition of health security remains vague and open to interpretation, with competing narratives dividing countries roughly along Global North-South lines. If national security is an 'essentially contested' concept, our research shows that health security is an even more nebulous and contested term.[11] This contestation by states is further compounded by a divergence of views that cut across different academic fields and policy areas. In section I of this paper, we trace the development of 'health security' to underscore the lack of conceptual clarity and highlight where gaps and grey areas persist which fuel states' diverging positions. We begin by surveying the nexus between public health and national security, the origins of health security as a concept, and its institutionalisation in the US, the UK, and elsewhere. We demonstrate that, although a consensus is growing on the importance of health security, ambiguity surrounding the concept has led to vastly different approaches between the public health and national security communities, as well as contributed to international tensions and misaligned priorities among World Health Organization (WHO) member states.

Moreover, based on our research, we observe that the tendency to reflexively frame risks in security terms, while beneficial for generating policymaker awareness and funding, has precluded serious examination of the assumptions and trade-offs underlying the health-security nexus. For this reason, in section II of our paper, our analysis examines the dilemmas of viewing infectious disease through an outdated security lens, which can lead to overreliance on the national security apparatus and the military. We explore what this has meant for the US and the

UK in practice and provide policy recommendations for a different approach to public health. In doing so, we endeavour to bring to light the limits of current approaches to the health-security nexus framing and demonstrate what is lost, both in terms of pandemic response and prevention, with the securitisation of health.

Finally, in section III of this paper, we discuss the consequences of the health security framing at the multilateral level. In particular, we highlight how the security framing of public health threats such as pandemics has led to reactive – and arguably short-sighted – interventions aimed at (unsuccessfully) containing infectious diseases. Such interventions, which have been compounded by the nationalisation of pandemic response measures, such as vaccine distribution, have contributed to further entrenching divisions and inequalities, thereby weakening the global health architecture.[12]

Based on this analysis, we submit that, rather than doubling down on the framing of public health as a security issue, COVID-19 should prompt policymakers to move towards a global health agenda centred on human health and well-being which focuses on the wider determinants of health – such as universal health coverage and access to quality health care, among other health-related UN Sustainable Development Goals – as a way to mitigate the impact of pandemics. Framing health in these terms is crucial for addressing the root causes of health crises, protecting the most vulnerable populations, and promoting structural change within a global health architecture that is increasingly fractured in the wake of COVID-19. Finally, we offer recommendations for developing and sustaining a global health agenda that aims to harmonise international responses and achieve more equitable approaches to future pandemics.

II. Conceptualising Health Security

The concept of health security is widely employed in policy settings yet rarely defined precisely. Since the turn of the century, the term has risen to prominence as a means of capturing the complex interplay between the spread of infectious diseases beyond territorial borders, the risk of bioterrorism, and the impact of health crises on state stability. However, a growing North-South divide concerning *whose* security should be protected and *from what* is reflected in the divergent approaches to global health. Consequently, there is no consensus on the definition or conceptual and policy contours of health security. This has hampered the international community's pandemic preparedness and undermined the potential for building a cohesive, multilateral response to the COVID-19 pandemic. Any debate on health security, then, must start by examining the origins and evolution of the concept.

At the turn of the twenty-first century, globalisation, population mobilisation, climate change, and shifting agricultural practices led to the greater spread of infectious diseases, underscoring the connection between health and security. At the same time, the end of the Cold War and the rise of violent non-state actors that followed ushered in a new era of novel risks, prompting debate on the need to move away from the state as the referent object of security and to redefine national security to deal with non-traditional threats.

It is in this context that the notion of health security was born. There is, however, no agreement on the definition of 'security', let alone how this term should be applied in a health context. Some scholars assert that security is an 'essentially contested' concept, meaning that it is not objectively definable.[13] The same conceptual confusion applies to the notion of health security. The predominant view, championed by the US and the UK and later adopted by the WHO, is based on the premise that infectious disease could jeopardise the security of the nation-state and the integrity of territorial borders, implying that (global) health security requires a state-centric response. The state-centric nature of this approach has entailed a particular narrative of health security centred around prevention and responses to biological threats, whether naturally occurring, deliberate, or accidental. As the largest donors to the WHO, the US and the UK have been on the forefront of this movement (see Figure 1). This framing has placed public health, infectious disease, and bioterrorism under the umbrella of health security, which has become a vague, catch-all notion used to describe nearly any public health emergency.

Figure 1: *Top Financial Contributors to the World Health Organization 2018/2019*

NGOs **870 million** (USD)
United States of America **853 million** (USD)
United Kingdom **464 million** (USD)
Germany **359 million** (USD)
Japan **234 million** (USD)
European Commission **213 million** (USD)
Kuwait **95 million** (USD)
Norway **93 million** (USD)
China **89 million** (USD)
Canada **87 million** (USD)
Sweden **87 million** (USD)
Republic of Korea **72 million** (USD)
Australia **71 million** (USD)
France **71 million** (USD)
Philanthropy **789 million** (USD)

Source: 'Top 20 Contributors to the WHO for the 2018/2019 Biennium' in 'Our Contributors,' World Health Organization, 2021, https://www.who.int/about/funding/contributors.

Compounding this confusion, health security intersects, and at times is conflated with, the terms 'global health' and 'human security'. Global health, however, is distinct from health security insofar as it is centred primarily on 'improving health and achieving equity in health for all people worldwide'.[14] Whereas health security is focused on preventing and responding to large-scale epidemics, global health embraces the full breadth of health threats, including antimicrobial resistance, communicable and non-communicable diseases.[15] By contrast, human security focuses on the health and well-being of individuals and adopts a broader view of security 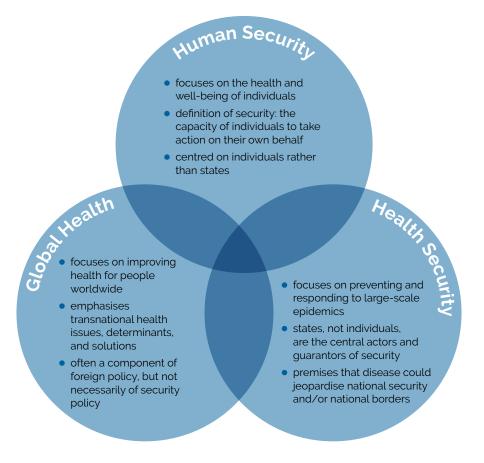as the 'freedom from want, freedom from fear, and the capacity of individuals to take action on their own behalf' (see Figure 2).[16] While health is a component of human security, health security has evolved into a distinct discipline that is more state-centric and focused on infectious diseases, rather than the wider determinants of individual health. In what follows, we trace the evolution of the US and UK conceptions of health security before discussing how diverging views from other countries, particularly in the Global South, have given rise to major areas of misalignment and hampered multilateral cooperation.

Emergence and Evolution of the US Approach

The roots of the US approach to health security can be traced to the HIV/AIDS and Ebola Virus Disease (EVD) crises, as well as the re-emergence of a drug-resistant strain of tuberculosis. In 1996, President Bill Clinton mandated a national policy stating that HIV/AIDS, EVD, and drug-resistant tuberculosis posed 'one of the most significant health and security challenges facing the global community'.[17] Following the release of this presidential directive, the Department of State re-established the Emerging Infectious Diseases and HIV/AIDS Program, which was responsible for the development and implementation of US policy on infectious disease preparedness and response.[18]

Figure 2: *Definitions of Human Security, Health Security, and Global Health*

Human Security
- focuses on the health and well-being of individuals
- definition of security: the capacity of individuals to take action on their own behalf
- centred on individuals rather than states

Global Health
- focuses on improving health for people worldwide
- emphasises transnational health issues, determinants, and solutions
- often a component of foreign policy, but not necessarily of security policy

Health Security
- focuses on preventing and responding to large-scale epidemics
- states, not individuals, are the central actors and guarantors of security
- premises that disease could jeopardise national security and/or national borders

Under pressure from the United States, the UN Security Council convened a meeting in January 2000 to address HIV/AIDS, which marked the first time the Security Council discussed health as a security issue.[19] Six months later, the Council adopted Resolution 1308 recognising that 'the HIV/AIDS pandemic, if unchecked, may pose a risk to stability and security'.[20] As US Ambassador Richard Holbrooke recounted, the Security Council had never held a meeting on public health because member states were wary of the politicisation of non-traditional security issues.[21] The rise of infectious diseases, however, solidified the Council's practice of addressing health crises as threats to international peace and security, manifested in successive resolutions that have been adopted in response to EVD outbreaks in West Africa in 2014 (Resolution 2177) and the Democratic Republic of the Congo in 2018 (Resolution 2439).[22] Most recently, in response to COVID-19, the Security Council in 2020 passed Resolution 2532, which for the first time demanded a 'general and immediate cessation of hostilities' and a 90-day 'humanitarian pause', setting an important legal precedent in expanding the UNSC's mandate concerning transnational health crises.[23]

In addition to responding to infectious diseases, a major driver of the securitisation of health was the threat of bioterrorism. After the 9/11 attacks and the subsequent anthrax scare, the US began to focus on shoring up its national public health infrastructure due to concern about the threat of chemical and biological weapons. Although there was some awareness prior to 2001 of this type of threat, the attacks led to increased funding for biodefense: the budget for research and development in 2005 stood at approximately $7.6 billion, a 1,736 per cent increase from the $414 million budget of 2001.[24] The preoccupation with the deliberate use of disease was also reflected in US policy documents, including the 2002 and 2006 National Security Strategies, which emphasised the threat posed by bioterrorism, as well as Homeland Security Presidential Directive-10, issued in 2004, which called for the creation of a national programme of layered defences against biological weapons attacks.[25]

As public attention surrounding the anthrax attacks receded and infectious diseases such as SARS and EVD came to the fore, US strategy and policy documents shifted away from an explicit emphasis on biological weapons to a focus on biosecurity, covering all measures to prepare and respond to naturally occurring and man-made biological threats. The National Strategy for Countering Biological Threats and the National Health Security Strategy in 2009, as well as the 2010 and 2015 National Security Strategies, explicitly linked health and security, emphasising the need to strengthen public health systems worldwide to combat emerging infectious diseases.[26]

> ## *The definition and scope of health security remained contested even as it was elevated to a national priority and enshrined in US policy.*

The Trump administration expanded the health-security nexus with the 2018 National Biodefense Strategy (NBS), which coordinated inter-agency efforts to defend against and respond to naturally occurring, accidental, or deliberate biological threats. The administration also published the 2019 Global Health Security Strategy (GHSS), which outlined the US approach to strengthening global health security.[27] Building on the 2018 National Security Strategy, the NBS reiterated that detection, prevention, and response to disease outbreaks were essential to protect the American people. It explicitly framed its prioritisation of biodefense and health issues in security terms: 'Health security means taking care of the American people in the face of biological threats to our homeland and to our interests abroad'.[28] These strategies, which were mandated by Congress, sought to coordinate and harmonise the work being done by government agencies in the biodefense and biosecurity sphere. Yet in March 2020, experts from the Government Accountability Office testified before Congress that there were still no detailed processes or responsibilities for joint decision-making within the biodefense enterprise, much less an approach that allowed agencies to work together to define and manage risk.[29] In other words, the definition and scope of health security remained contested even as it was elevated to a national priority and enshrined in US policy.

Emergence and Evolution of the UK Approach

The evolution of the health-security linkage in the UK is more difficult to trace, as relatively little information exists in the public domain. The UK actively supported US efforts to encourage the UN to address the issue of HIV/AIDS, which it viewed as symbiotically linked to armed conflict and civil unrest.[30] After the collapse of the negotiations on a legally-binding verification and compliance protocol for the Biological and Toxin Weapons Convention (BTWC), the UK Foreign and Commonwealth Office drew up a 'Green Paper' in 2002 in an effort to identify alternative potential regulatory measures.[31] This paper argued that 'greater efforts to tackle the threat posed by natural infectious disease to human, animal and plant health' were necessary in order to combat the threat posed by biological weapons.[32] In other strategy documents, British leaders indicated that health could be an important issue for stability and, in turn, impact counter-terrorism and counter-proliferation efforts.[33] However, there is little other information publicly available to suggest that policymakers were considering the threats posed by disease to national and international security in the early 2000s. With the exception of the SARS outbreak in 2003, there were relatively few major outbreaks during this period, and those epidemics that did emerge, such as the 2006 cholera outbreak in Angola, received little media attention in western countries, which may explain why policy positions in the UK and the US remained stagnant during this time.

The policy emphasis on infectious diseases became more explicit in 2008, when the UK government issued its first National Security Strategy. The document cited pandemics as a threat 'to individual citizens and to our way of life, as well as to the integrity and interests of the state', and identified both bioterrorism and state-level proliferation of biological weapons as security challenges facing the UK, along with other chemical, biological, radiological, and nuclear-related issues, i.e., CBRN.[34] Similarly, the 2008 National Risk Register – published in conjunction with the National Security Strategy in order to provide advice to people and businesses within the UK on preparing for civil emergencies – cited pandemic influenza, in addition to new and emerging diseases, as possible risks to the UK.[35] Over the next decade, UK strategy and policy documents gave increasing prominence to health threats: the 2010 National Security Strategy noted that the risk of pandemics, particularly influenza, was 'one of the highest we face', while the 2015 strategy described health security as a 'major area of global risk', and devoted an entire subsection to the nature of the threat and the UK's response.[36] As in earlier policy papers, these documents also emphasised the threat of biological weapons use in the context of CBRN more broadly.

In addition to biological weapons, the UK focused particularly on pandemic influenza, developing three response plans between 2011 and 2014: the 'Influenza Pandemic Preparedness Strategy', the 'Health and Social Care Influenza Pandemic Preparedness and Response', and the 'Pandemic Influenza Response Plan'.[37] To test these plans, the government ran a national flu exercise in October 2016, codenamed Operation Cygnus, which showed that the National Health Service (NHS) would be critically overstretched in a pandemic, yet the plans were not rewritten.[38]

By 2018, the UK published its first National Biological Security Strategy, which sought to 'take a truly comprehensive approach' to meet the risk of an infectious disease outbreak, whether it stemmed from natural, accidental, or deliberate causes.[39] Like the National Biodefense Strategy, the UK's National Biological Security Strategy was intended to improve coordination and capabilities between government departments, and it laid out an 'all-hazards' approach that would encompass work on natural, accidental, and deliberate risks from human, animal, and plant health. This approach represented a larger departure for the UK government, however, which previously had not issued a comprehensive strategy and instead made passing reference to the risk of disease in relation to influenza outbreaks. The government was unable to build on the strategy's recommendations: a planned parliamentary inquiry on implementation of the strategy's commitments in October 2019 was cancelled due to Brexit.[40] More broadly, Brexit detracted away from the focus on health policy, hampering the UK government's ability to strengthen the emerging global health architecture.

Multilateral Cooperation on Health Security

As the US and the UK have sought to define the intersection between health and security, they have simultaneously driven a discussion of these issues at the international level. Initially, however, international cooperation on global health issues progressed slowly and was primarily focused on the threat of bioterrorism. Indeed, in the wake of 9/11, then-US Secretary of Health and Human Services Tommy Thompson suggested that like-minded countries, including Canada, France, Germany, Italy, Japan, Mexico, the UK, and the US, as well as the European Commission and the WHO, should hold a meeting at the ministerial level to share best practices and address global health security.[41] In November 2001, Canada hosted the first meeting of this informal group, culminating in the formation of the Global Health Security Initiative (GHSI).[42] Other multilateral initiatives, such as the Proliferation Security Initiative and the G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, brought together multilateral coalitions to address threats from weapons of mass destruction, including biological weapons and their delivery systems.[43] Discussions in the WHO and the BTWC were expanded to encompass, respectively, the WHO's role in responding to the deliberate use of biological agents and the implementation of treaty obligations at the national level to prevent bioterrorism.[44]

> **Fundamental disagreements on the definition of health security persist, resulting in a wide variety of domestic policies that inhibit deeper multilateral cooperation on health crises.**

As the SARS pandemic brought attention to the need for disease surveillance and a coordinated response in 2003, international cooperation began to shift away from bioterrorism towards a broader health security focus. The US and the UK played leading roles in the development of international frameworks to combat avian and pandemic influenza.[45] Moreover, both countries engaged in multilateral negotiations to revise the 2005 International Health Regulations (IHR 2005), which reinforced the focus on global health security by requiring all states parties 'to develop core capacities to detect, assess, report, and respond to potential public health emergencies of international concern'.[46] Even during the negotiations of these revisions, however, concerns about biological weapons and other weapons of mass destruction continued to play a major role. The US and other countries wanted the IHR 2005 to require that member states notify the WHO about any CBRN events in their territory, regardless of whether those events had any public health impact, and to give the WHO the authority to conduct field investigations into suspected intentional CBRN use, as well as other provisions incorporating international security elements into the IHR. Some parties, particularly Latin American countries, strongly objected to any explicit reference to CBRN and expressed concern that field investigations would be used to conduct espionage or as a pretext for military action.[47] Although this opposition was not limited to members of the Global South (Japan, for example, spoke out strongly against the CBRN elements' inclusion), there is strong evidence of a Southern bloc.[48]

The climax of this evolution occurred in 2014 with the creation of the Global Health Security Agenda (GHSA), the result of 'intensified interagency deliberations' about the issue of global health security.[49] In contrast to GHSI, which focused on bioterrorism and was limited to a select group of like-minded countries, GHSA expanded its membership to overcome the Global North-South divide that had begun to emerge over the linkage between CBRN and health security.

The divergence and tensions about the inclusion of traditional security issues, such as biological weapons within the concept of health security, are further manifested in debates within the WHO. In a World Health Assembly meeting in 2007, for example, member states adopted different views on the meaning of health security.[50] The Prime Minister of Norway stated that health was a 'foreign policy issue', and the representative from Iran argued that security from disease 'will depend on increased collaboration between developed and developing countries'.[51] By contrast, Ghana's representative remarked, 'our response to the high burden of diseases has been to invest and continue to invest in biomedical technology, drugs, hospitals and health centres,

which do not produce health, but deal with ill health. Most of our Ministries of Health can better be described as Ministries of Ill-health'.[52] Ghana's emphasis on 'de-medicalizing health' led to a very different domestic approach to health security focused on upstream social determinants of health, such as poverty, education, and race or ethnic background.

For more than two decades, the US and the UK have sought to develop and refine the concept of health security at the national and international levels. Their approaches have often focused on the ways in which health risks can threaten societies and undermine stability. Still, not all governments or institutions have agreed that this is the correct framing of the issue. Fundamental disagreements on the definition of health security persist, resulting in a wide variety of domestic policies that inhibit deeper multilateral cooperation on health crises. Beyond this lack of normative cohesiveness and conceptual clarity, however, the securitisation of public and global entails, even at the domestic level, policy trade-offs that must be weighed.
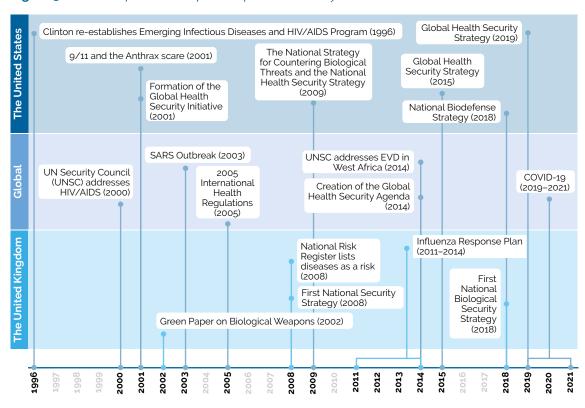
Figure 3: *The Conceptual Development of Health Security*

III. Policy Trade-offs in Securitising Infectious Disease: Challenging the Conventional Wisdom

As a result of international fragmentation and disagreement, COVID-19 has laid bare structural weaknesses in global health governance and domestic public health systems. While many countries faced shortages of hospital beds, medical supplies and personal protective equipment, laboratory testing equipment and capacity, and medical personnel, the US and the UK, in particular, struggled to contain the outbreak despite holding the top two spots in the Global Health Security Index of pandemic preparedness.[53] In fact, the unwillingness of the US and the UK to restrict travel is believed to have accelerated the spread of the disease.[54]

> *As a result of international fragmentation and disagreement, COVID-19 has laid bare structural weaknesses in global health governance and domestic public health systems.*

There was also stiff animosity over the actions of international health organisations. The WHO, for example, was sharply criticised – most vocally by then-US President Donald Trump – for failing to hold China to account for a lack of transparency about the COVID-19 outbreak and to warn other countries of the likely consequences of the virus.[55] While criticism of the WHO and China may be warranted, the failure to respond collectively to COVID-19 is a shared responsibility. As WHO Director-General Dr. Tedros Adhanom Ghebreyesus has remarked, 'all of us must look in the mirror: WHO, every Member State, all involved in the response', and should consider 'whether our global health architecture is fit for purpose'.[56]

On its face, the securitisation of health might appear to have distinct advantages. Efforts to promote a linkage between health and security, for example, have resulted in greater national and international attention to and funding for health-related issues. However, on closer inspection, some of these assumptions underpinning the argument for securitising public health do not fully stand up to scrutiny. In this section, we discuss three assumptions that most cogently reveal the policy trade-offs of securitising infectious disease.

Assumption 1: Health securitisation generates resources for responding to severe disease outbreaks.

The most prevalent argument for securitising health is that doing so brings more funding, attention, and political support to health issues. The EVD outbreak in 2014, for example, led to the adoption of UN Security Council Resolution 2177, the creation of the first UN emergency health mission, and the deployment of 3,000 US military troops to Liberia.[57] Public health experts have grown frustrated with the lack of prioritisation and attention given to the spread of infectious diseases, and many have welcomed the additional financial and human resources that result from identifying health as a national or international security concern.[58]

However, public health challenges can be considered foreign policy issues without necessarily being identified as security threats. Thus, care is warranted when deciding which health issues should be regarded as a priority and through which lens to approach them. Indeed, certain health concerns, such as poliomyelitis, malnutrition, tuberculosis, or malaria, do not threaten to destabilise societies the way policymakers feared HIV/AIDS or EVD would and have little connection with traditional biodefense. But their eradication still requires sustained financial funding and international political commitment. Other countries could well see spill-over effects from these health challenges if not addressed and therefore would benefit from making their eradication a foreign policy priority, even without an added security dimension.

Infectious diseases tend to be the health concerns most often designated as threats to national or international security. It is a common trope that communicable diseases 'know no borders', so policymakers in western countries have emphasised the risks of infectious diseases out of a fear that their own populations would be affected. Nevertheless, this prioritisation could lead to a misallocation of resources, with fewer resources devoted to other critical health issues, such as age-related diseases, maternal mortality, and malnutrition.[59] Such health issues may have less obvious short-term effects than infectious diseases, but can be equally devastating to global stability in their toll on health and emergency response services, the burden they exact on economic and social development, and the increased susceptibility to infectious diseases that they present.[60]

> *By framing health crises as security threats, resources that should go to strengthening public health systems may be diverted to other policy priorities.*

Capacity-building programmes funded by the US, for example, often focus on disease surveillance, vaccination programmes, improving laboratory capacities, research and development of medical countermeasures, and outbreak responses, all of which (with the possible exception of vaccination campaigns) are geared primarily towards containing an outbreak, rather than making improvements to public health systems that could prevent such outbreaks from occurring or mitigate their impact.[61] Equally, while the core funding of the WHO roughly reflects the division of the world's health burden between infectious diseases, non-communicable diseases, and injury, 60 per cent of the extra-budgetary funding is reserved for infectious diseases, as compared to 3.9 per cent for non-communicable disease and 3.4 per cent for injuries in 2008.[62] Extra-budgetary funding, which is provided by a limited number of specific donors, accounts for a majority of the WHO's budget growth in the past decade, rising from 48.8 per cent to 77.3 per cent of WHO funding between 1998 and 2008.[63]

Furthermore, by framing health crises as security threats, resources that should go to strengthening public health systems may be diverted to other policy priorities. The US opioid epidemic is a clear example of this problem: the Department of Homeland Security during the Trump administration reportedly framed the prevalence of illegal fentanyl as a WMD issue – hyping the threat of the use of fentanyl for a chemical weapons attack – in order to acquire more funding for the WMD office.[64] In short, although securitising health has succeeded in securing more funding, attention, and political support to health issues both domestically and at the international level, these short-term gains may be outweighed by the risk of focusing narrowly on specific health crisis, resulting in the diverting of resources at the expense of longer-term investments and expenditures.

Assumption 2: Securitisation fosters multilateral cooperation on public health problems.

As in the case of COVID-19, the identification of certain infectious diseases as security threats has in the past strengthened cooperation on the development of diagnostics, therapeutics, and vaccines. For instance, the securitisation of HIV/AIDS prompted many African governments to scale up awareness and treatment programmes, which resulted in additional international funding.[65] It also incentivised the US Congress to mandate that the military use its research capacity to engage in HIV vaccine research, and contributed to the WHO's adoption of the revised International Health Regulations.[66] States and international organisations are thus more likely to take health issues seriously if they are viewed through the lens of national security and to engage more proactively in international cooperation to mitigate or eradicate threats. Such cooperation – whether through the provision of financial or technical support, better communication, or the sharing of expertise – may be critical to containing and mitigating the threat posed by the rapid spread of infectious diseases beyond national borders.

Yet disagreements surrounding the definition of health security have led to a growing perception that the focus of health security is on preventing potential threats to western countries, with little regard for the Global South or the promotion of individual health and well-being.[67] While the WHO has championed the concept of health security, some member states have been far less enthusiastic. Brazil, in particular, has criticised the WHO for including the term in a report on IHR implementation and for stating that the IHRs were 'an important instrument for ensuring that the goal of international public health security is fully met', since the IHRs do not themselves contain any reference to security.[68] Along with allies such as Indonesia, India, and Thailand, Brazil has also objected to suggestions put forward by members of the European Union that global health security or international law should take precedence over national regulations, stating that it is 'not committed to working under the security concept'.[69]

> **Disagreements surrounding the definition of health security have led to a growing perception that the focus of health security is on preventing potential threats to western countries, with little regard for the Global South or the promotion of individual health and well-being.**

The scepticism among some developing countries about the merits of the health security paradigm has been coupled with an overall concern about health inequities and the structure of global health governance.[70] Perceptions about health inequity have occasionally impeded cooperation between developed and developing countries on health initiatives such as sample-sharing or communicable disease surveillance programmes. While the US and the UK assess that universal adherence to the GHSA will address health inequities, not all countries support this approach. For example, during the 2006 H5N1 pandemic, Indonesia refused to share its national virus samples with the rest of the international community without guaranteed access to vaccines and other benefits that might be developed from those samples.[71] When US government officials and western public health journalists criticised Indonesia for, in their view, putting global health security at risk in an attempt to profit from the virus samples, Indonesia pushed back, and the resultant disagreement led to the closure of a US Department of Defense Naval Medical Research unit in Jakarta.[72] In short, framing disease as a security threat does not necessarily engender international cooperation and can instead inflame political tensions.

Assumption 3: Synergy between national security and public health communities is necessary for rapid responses.

While military engagement in public and global health has a long history, the last two decades in particular reflect deepening military involvement in global health issues.[73] In the early days of the COVID-19 pandemic, political and military leaders in the US and the UK across the political spectrum supported leveraging the military to respond to health crises given its resource and logistical capabilities.[74] The profligate use of war metaphors to describe COVID-19 has only further contributed to a militarised mind-set that implies that the military is the most appropriate actor to neutralise public health threats.[75]

The US military, for example, has been intimately involved in Operation Warp Speed, the US campaign for COVID-19 vaccine and therapeutic development and distribution. An organisational chart of the $10 billion initiative reveals that military personnel vastly outnumber civilian scientists.[76] Many of these military officials have never been involved in health care or vaccine development, although they reportedly defer to their civilian counterparts on questions of public health.[77] The role of the military, at least within the US and the UK, has been largely limited to contracting and logistical issues, such as providing security and maintenance of the cold chain infrastructure, setting up vaccine manufacturing facilities, and offering programme support. This approach represents a significant departure from previous pandemics such as the H1N1

outbreak of 2009, in which the Centers for Disease Control and Prevention (CDC) had the central role in vaccine distribution.[78] In the UK, meanwhile, the Ministry of Defence has confirmed that the military response to COVID-19 is the largest-ever homeland military operation in peacetime.[79] Together with the NHS, the UK armed forces have been deployed to support the operation of vaccine centres and the administration of injections, in addition to being a reserve force on standby to assist the NHS should it be necessary.[80] Moreover, military personnel have been called in to support other elements of the COVID-19 response, including providing planning support, building hospitals, and constructing and staffing testing sites.[81]

The response to the COVID-19 pandemic, including the development and distribution of vaccines, has been a massive logistical undertaking. In many ways, early calls from political and military leaders to turn to the military made sense, as it has processes and partnerships from previous operations that could be adapted to meet the current challenge. Still, the reliance on the military to respond to the pandemic has several important ramifications. Should the military be called upon to perform more traditional defence activities at the same time as it carries out a disease response, its involvement in the health sector might prove unsustainable. An increasing dependence on the military for health response has occurred during a period of relative peace; if an outbreak were to occur while service members are carrying out more traditional kinetic operations, they would have difficulty carrying out both missions simultaneously – and the health mission would likely suffer.[82]

To be sure, the military is accustomed to dealing with competing priorities and would allocate its resources accordingly. However, the long-term economic impact of COVID-19 remains unclear, and it is very likely that the Pentagon and the UK Ministry of Defence will have to make hard decisions about spending cuts in the future.[83] Should that be the case, if the military is forced to cease health-related interventions on which the public has come to depend, negative perceptions of the military could emerge, thereby creating additional security risks.[84] Conversely, it is possible that the financial and personnel costs of military involvement in the COVID-19 response might be detrimental to operations elsewhere. Moreover, if policymakers are able to rely on the comparatively well-financed US and UK militaries to carry out health roles, they may decide to make further budgetary cuts to health programmes and services.

> *The framing of health security – and especially the overreliance on the military as part of pandemic response – could, at best, undermine the very mechanisms that have been established to promote health; at worst, it could become an additional tool of repression in the hands of authoritarian regimes.*

Second, characterising disease as a security threat might make it easier for governments to implement extreme or undemocratic measures. Many world leaders have praised the effectiveness of the lockdowns and technological surveillance adopted in China, Singapore, and South Korea in mitigating the spread of COVID-19, and western analysts have begun to ask whether such measures might be worth the human rights cost.[85] Other political leaders and governments have taken advantage of the pandemic as a convenient excuse to curtail freedoms and centralise power: in Hungary, elections have been suspended and Prime Minister Viktor Orbán will continue governing for an undetermined length of time; in the Philippines, President Rodrigo Duterte has ordered police to shoot anyone violating lockdown orders; and in Uzbekistan, quarantined individuals must relinquish their cell phones and bank cards.[86] Such harsh restrictions are neither new nor unique to the current pandemic. Indeed, during the HIV/AIDS pandemic, a number of policies abrogated the civil liberties of people living with the disease and of immigrants from countries with high prevalence of cases. These policies included housing denial, compulsory HIV or tuberculosis screening, and job dismissal, as well

as, in the most egregious case, the US detention of Haitian refugees in Guantánamo Bay.[87] A curtailing of rights has occurred in other public health responses. In one notable case, the South African government faced criticism for its forced isolation of extensively drug-resistant tuberculosis patients in its attempt to stop transmission.[88] There are countless other examples of infringements upon civil liberties in the midst of public health crises. Although one may argue that the severity of the situation demands radical measures, casting infectious disease as a security threat makes it easier for the state to rely on the military and other coercive tools in implementing these restrictions, and, in some cases, further strengthening authoritarianism.

Finally, the securitisation of public health reinforces the misperception that health initiatives have been used as a cover for political or military objectives. This is particularly problematic as it can stigmatise any future efforts to provide health assistance. Vaccinators in conflict-prone areas of Pakistan reported hostility to their efforts due to perceptions that they are part of a western-led conspiracy.[89] In Cuba, the US Agency for International Development funded an HIV prevention workshop that purportedly aimed simultaneously to recruit political activists to undermine the current regime.[90] Such ploys are likely to lend fodder to anti-vaccination or other conspiracy theories that could prevent vaccine take-up and endanger aid workers or health clinics.[91] They can also undermine health diplomacy by framing health not as an area where international cooperation is valuable and necessary, but as an arena for great-power politics. In other words, the framing of health security – and especially the overreliance on the military as part of pandemic response – could, at best, undermine the very mechanisms that have been established to promote health; at worst, it could become an additional tool of repression in the hands of authoritarian regimes.

IV. Conclusion and Policy Recommendations

In the wake of COVID-19, the international community has an unprecedented opportunity to reshape the global health architecture. The pandemic has laid bare the inequities within and between health systems, as well as the hollowness of calls for international collaboration on health issues. Health security is often touted as a multilateral initiative with collective benefits. In the words of UN Deputy Secretary-General Amina Mohammed, states must accept the reality that 'in an interconnected world, we are only as strong as the weakest health system'.[92] The emphasis on response and disease containment, however, has often resulted in short-sighted policy solutions, rather than on the prevention of future outbreaks. Instead of cooperating or collaborating to meet the common goal of health equity, states have pursued narrow national interests, often at the expense of fostering greater international cooperation on global health issues.

Addressing these problems requires developing an alternative approach to global health based on the principles of justice, equity, and collective responsibility. To that end, we recommend that the US and the UK lead the way, as they have successfully done in the past, in adopting the following steps:

1. Move away from securitised responses to health in favour of a traditional public health approach that prioritises human health and well-being as a component of foreign policy.

To date, most health security initiatives have been state-centric and focused on mitigating or eradicating infectious diseases, such as HIV/AIDS, EVD, and COVID-19. These efforts, while important, neglect underlying chronic conditions and broader structural problems with health systems around the world. Smallpox or polio eradication efforts, for example, have not been coupled with sufficient investment in health systems or efforts to strengthen the provision of health care, and funding and political attention to health issues has waxed and waned with the spread of disease.[93] Moreover, these interventions are often conducted by private foundations or through public-private partnerships, rather than at the behest of governments. While these foundations emphasise the importance of strengthening health systems, their financial contributions often are targeted more narrowly to disease-specific programming.[94]

Instead, policymakers should focus additional resources on addressing the wider determinants of health that exacerbate the impact of disease outbreaks, such as access to quality health care, education, and clean water. One framework for determining such allocation of resources is the 2030 Agenda for Sustainable Development and the corresponding 17 Sustainable Development Goals (SDGs).[95] Of note is SDG 3, which aims to ensure healthy living and well-being among the global population. SDG 3 has nine 'outcome targets' (circumstances to be achieved) and four 'means to achieving' targets. Rather than focusing narrowly on infectious diseases by approaching global health issues through the lens of security, developed countries can focus their efforts on achieving these targets. According to this paradigm, the emphasis should be on ensuring universal health coverage and strengthening health care systems.[96] This requires investment of financial and human resources in improving the health of global populations, specifically ensuring that all people have access to 'the staff, stuff, spaces and systems' required to fight disease.[97]

2. Maintain a separate focus on biodefense in the appropriate fora.

Ensuring that countries can respond to a biological weapons attack will likely continue to be an important element of US and UK foreign policy. Consequently, it is critical to continue to question the assumption that investment in biodefense strengthens public health capabilities and vice versa. While enhancing national and international disease surveillance capacities may serve this dual purpose to some degree, there are other instances whereby focusing on bioterrorism may divert scarce resources away from improving health systems. Furthermore, allowing public health issues to dominate the security discourse and related fora (such as the BTWC) distracts attention from their fundamental purposes, since those institutions were established to address different objectives and do not have the appropriate tools to address public health crises.

3. Strengthen existing global health institutions to facilitate multilateral cooperation.

The WHO has struggled to fulfil its mandate in crisis scenarios; the COVID-19 pandemic is simply the latest in a series of outbreaks during which the WHO has underperformed.[98] Part of the blame can be ascribed to its unsustainable financial footing and the lack of attention to its core budget from its member states' domestic legislatures. At present, more than 75 per cent of the WHO's budget is derived from extra-budgetary contributions that can be earmarked for particular purposes.[99] Most of these extra-budgetary contributions have prioritised specific infectious diseases.[100] Moreover, since 1993, the WHO has been under a 'zero nominal growth' policy, which does not account for inflation, much less for the organisation's increase in responsibilities over the past two decades. This explains its reliance on extra-budgetary contributions, as well as on public-private partnerships – without these innovations, it would not have the resources to fulfil its responsibilities.[101] Governments which make extra-budgetary contributions to the WHO have undue influence over its agenda, often encouraging disease-specific programming which may not align with global health priorities.

> *The disease-by-disease, emergency-by-emergency approach to global health security has resulted in fragmented international responses to disease prevention and mitigation. If the WHO is to continue to play a central role in global health, it must have access to sufficient, sustained, and diversified funding streams.*

Compounding this problem is the perception that the WHO bends to political pressure, stemming from the WHO's dual mandate to support governments and act as an independent arbiter on global health issues. This dual mandate creates a gap between what the WHO's nature as a member-state organisation will allow it to do (which is primarily to serve in a monitoring and advisory capacity) and the expectation that it will play an operational role in epidemic response.[102] As a result, a variety of other global health institutions, such as GAVI, the Vaccine Alliance, the Coalition for Epidemic Prevention Innovation, the Global Fund to Fight AIDS, Tuberculosis, and Malaria, and the UN Mission for Ebola Emergency Response, as well as regional organisations, such as the African Union, have stepped in when the WHO has struggled to fulfil its role. Donors have sometimes chosen to put money towards these institutions rather than to the core budget of the WHO.

The disease-by-disease, emergency-by-emergency approach to global health security has resulted in fragmented international responses to disease prevention and mitigation. If the WHO is to continue to play a central role in global health, it must have access to sufficient, sustained, and diversified funding streams. As it currently stands, there is a significant disconnect between the role that policymakers seem to believe the WHO should play in both pandemic response and global health more generally and the amount of funding they are willing to provide. A first step towards addressing this issue would be to provide the WHO with additional unrestricted funding and to encourage international partners, such as the members of the G20, to do the same. Additionally, encouraging the WHO to outsource some of its responsibilities to other global health institutions could help the WHO regain its focus and make better use of its existing budget.

4. Promote equitable vaccine distribution and long-term funding for vaccine and medical countermeasure development.

At the height of the COVID-19 pandemic, wealthy countries, such as the US and the UK, have engaged in vaccine nationalism, which is not only immoral but detrimental to reducing transmission globally.[103] The US and the UK have amassed large stockpiles of COVID-19 vaccines

for their populations, inking bilateral deals with pharmaceutical companies to secure their supply.[104] And while the US and the UK have joined COVAX, formally known as the COVID-19 Global Access Facility – a platform to facilitate the equitable international distribution of effective COVID-19 vaccines – this initiative has fallen far short of the Biden administration's stated goal of vaccinating 70 per cent of the world by 2022.[105] As of September 2021, COVAX has sent out 311 million vaccine doses to 143 countries, falling behind schedule on its goal to vaccinate 2 billion people by the end of the year.[106]

The security lens through which the US and the UK have viewed global health for the past two decades encourages the danger of vaccine nationalism. If health security is about preventing threats to the domestic population, it stands to reason that governments would prioritise protection of that population first and foremost, regardless of the moral implications or the potential long-term consequences.

Meanwhile, the Global South has seen surging infections through the summer of 2021: countries in Africa, South America, and Southeast Asia reported sustained and significant increases and, in some cases, record case numbers.[107] These same areas have struggled to acquire and distribute vaccine doses: only 1.4 per cent of people in low-income countries have received at least one dose of a COVID-19 vaccine.[108] It is difficult for the US and the UK to argue that they are working to, in the words of the GHSA, 'achieve the vision of a world safe and secure from global health threats posed by infectious diseases', when they have placed orders to cover their entire population (or in the case of the UK, more than five times their population) while lower-income countries have such low vaccination rates.

In addition to moral costs, prioritising vaccination of the developing world at the expense of developing countries could have devastating and prolonged effects on an already fragile global economy.[109] It is also, as the WHO Director-General put it, 'epidemiologically self-defeating and clinically counterproductive'.[110] If people in developing countries cannot access vaccines, this will provide conditions for new mutations and variants to arise, and current vaccines may not provide protection against all of those strains, as is already being seen.

Aiding in the equitable distribution of vaccines is one way countries can reduce the risk of new variants developing and spreading.[111] In the near term, governments should waive patents and other intellectual property protection related to vaccines and other COVID-19 medical technologies until the pandemic has abated.[112] For those governments that still have purchase agreements in place with vaccine manufacturers, they could also consider abandoning those agreements in order to avoid competing with COVAX for the remaining doses.[113]

Cooperation on vaccine access should extend beyond periods of crisis. Poorer countries often lack the necessary infrastructure to develop medical treatments and vaccines. Multilateral funding mechanisms for the development of vaccines and other medical countermeasures are needed to provide a more systematic and cooperative approach to global health research. This should include providing additional funding to COVAX to ensure the development and manufacturing of second- or third-generation vaccines that would be more cost-effective to produce and affordable for developing countries. The US and the UK should consider providing financing to boost vaccine production capacity in other regions so that developing countries are not reliant on the provision of vaccines from countries with more resources.[114] Sharing excess supply from vaccine purchases and bilateral agreements with pharmaceutical companies could also be an important component of international vaccine distribution.

The pandemic provides a unique opportunity to emphasise the need for global solidarity around health issues, whether they are infectious disease outbreaks or chronic problems with structural causes. While states have a duty to protect their own citizens, these efforts ultimately will be undermined unless policymakers simultaneously prioritise efforts to equity in access to health care and medical treatments worldwide.

5. Consider adopting a multilateral pandemic preparedness treaty or other legally-binding instrument to promote enforcement of obligations.

In May 2021, WHO member states adopted a decision to discuss a new international treaty on pandemic preparedness, an idea largely initiated and driven by the Council of the European Union.[115] In the words of the Council, 'Such a treaty would support international efforts to reinforce global health security, in particular on preparedness and response to health emergencies, in light of lessons learnt from the [COVID-19] pandemic'.[116] The World Health Assembly will hold a special session in November 2021 to assess the possible benefits of such a treaty, and WHO member states may make a decision at that session about whether to pursue negotiations.

It is not yet clear what specifically would be included in a pandemic preparedness treaty, or how it would differ from existing obligations, such as the IHR 2005. However, existing agreements are not legally binding and do not contain any provisions for how to respond when states fail to live up to their obligations. The key weakness of the IHR 2005, in other words, is their lack of verification and enforcement provisions, and a new treaty could be helpful in addressing those weaknesses. Such a treaty could help improve trust and increase information sharing, while codifying existing international obligations in law.

Given the length of time and level of political commitment required to negotiate a new multilateral treaty, this may not be the most prudent approach. Alternatively, WHO states parties could consider amending the IHR 2005 to include consequences for non-compliance. However, previous calls for greater enforcement in the wake of the H1N1 and EVD pandemics went unheeded, and the process of renegotiating the text would likely be equally time-consuming and politically challenging.

Challenges and Opportunities Ahead

A number of challenges could inhibit implementing a multilateral, human-centred approach to health. First, it will be difficult to persuade policymakers grappling with their own internal issues – whether underfunded infrastructure, income inequality, demographic instability, or any number of other domestic shortcomings – that they should take on the responsibility of mitigating health crises elsewhere and devote resources to problems outside their own borders. It is easy to make the case that infectious diseases threaten a state's domestic population and thus its stability, and that such diseases are therefore deserving of attention from other countries. It is far more difficult to argue that, in a world of competing policy priorities, the non-contagious health risks of other countries' populations should take precedence on a policy agenda. Such investment could, however, help prevent a future global crisis, which would ultimately be more cost-effective.

The fact that many countries responded to COVID-19 by turning inwards and focusing on alleviating their own disease burden does not augur well for the development of multilateral approaches to the next major pandemic or health crisis. Nor is it likely that many countries will trust the US and the UK to have their best interests at heart, given the collapse of solidarity and cohesion between states during the current pandemic. Calls for the international community to invest in the WHO and other multilateral institutions by increasing their annual contributions and providing a platform for health activists may ring hollow in the wake of populist and nationalist movements that have gained momentum in the past decade. Any attempt to move towards a human-centred approach to health security must consider the need to rebuild trust and relationships. This process will take time.

Adopting a global health agenda that strives to protect people around the world and promote international collaboration will require visionary leadership. For the past two decades, progress on global health security has largely been driven by a small group of western countries, with the US and the UK at the helm. Realising a revived approach to global health based on justice, equity, and collective responsibility will require those countries to take a more inclusive approach and to listen to voices from the Global South when they speak about their priorities, even when these priorities conflict. The benefits of following this more inclusive approach will be substantial, not just in mitigating the next global pandemic, but also in creating a healthier and safer world for all.

Endnotes

1   International Monetary Fund, *World Economic Outlook Update, June 2020* (International Monetary Fund, 1 June 2020), https://www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020; United Nations, *Sustainable Development Goals Report 2020*, (United Nations, 2020), https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf; International Labour Organization, *As Job Losses Escalate, Nearly Half of Global Workforce At Risk of Losing Livelihoods* (International Labour Organization, 29 April 2020), https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_743036/lang--en/index.htm.

2   See, for example, Tony Kirby, 'Evidence Mounts on the Disproportionate Effect of COVID-19 on Ethnic Minorities,' *The Lancet Respiratory Medicine* 8 (2020), https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(20)30228-9/fulltext; Centers for Disease Control and Prevention, *Health Equity Considerations and Racial and Ethnic Minority Groups* (Centers for Disease Control and Prevention, 17 November 2021), https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html; and Matthias Pierce et al., 'Mental Health Before and During the COVID-19 Pandemic: A Longitudinal Probability Sample Survey of the UK Population,' *The Lancet Psychiatry* 7 (2020); 'Healthline Mental Health Index: Week Of June 21 — U.S. Population,' *Healthline Media*, 21 June 2021, https://www.healthlinemedia.com/insights/healthline-mental-health-index-week-of-june-21-u-s-population.

3   United Nations, *Sustainable Development Goals Report 2020* (United Nations, 2020), https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf.

4   Philip Schellekens and Diego Sourrouille, *Covid-19 Mortality in Rich and Poor Countries: A Tale of Two Pandemics?* (World Bank, May 2020); Philip Schellekens and Diego Sourrouille, 'The Unreal Dichotomy in COVID-19 Mortality Between High-Income and Developing Countries,' Brookings Institution, 28 May 2020, https://www.brookings.edu/blog/future-development/2020/05/05/the-unreal-dichotomy-in-covid-19-mortality-between-high-income-and-developing-countries/.

5   'Mortality Analyses,' Johns Hopkins Coronavirus Resource Center, 26 October 2021, https://coronavirus.jhu.edu/data/mortality.

6   Annie Campbell and Edward Morgan, *Comparisons of All-Cause Mortality Between European Countries and Regions: January to June 2020* (Office for National Statistics, 29 July 2020).

7   *2019 Global Health Security Index* (Nuclear Threat Initiative and Johns Hopkins Center for Health Security, October 2019), https://www.ghsindex.org/wp-content/uploads/2019/10/2019-Global-Health-Security-Index.pdf.

8   While the traditional conception of national security is state-centric and focused on the accumulation of military power, non-traditional security is concerned with transnational 'challenges to the survival and well-being of peoples and states that arise primarily out of non-military sources, such as climate change, resource scarcity, infectious diseases, natural disasters, irregular migration, food shortages, people smuggling, drug trafficking and transnational crime'. For more background, see Mely Caballero-Anthony, 'Understanding Non-Traditional Security,' in *An Introduction to Non-Traditional Security Studies: A Transnational Approach* (Sage Publishers, 2021).

9   For more on the recent debate about redefining national security post-COVID-19, see Oona Hathaway, 'COVID-19 Shows How the U.S. Got National Security Wrong,' *Just Security*, 7 April 2020, https://www.justsecurity.org/69563/covid-19-shows-how-the-u-s-got-national-security-wrong/; Robert Malley and Stephen Pomper, 'The Perils of Hyping Pandemic Response as a National Security Issue,' *Just Security*, 4 May 2020, https://www.justsecurity.org/70001/the-perils-of-hyping-pandemic-response-as-a-national-security-issue/; Ben Rhodes, 'The 9/11 Era Is Over,' *Atlantic*, 6 April 2020, https://www.theatlantic.com/ideas/archive/2020/04/its-not-september-12-anymore/609502; Samantha Power, 'How the COVID-19 Era Will Change National Security Forever,' *Time,* 14 April 2020, https://time.com/5820625/national-security-coronavirus-samantha-power/; Max Boot, 'Covid-19 Is Killing Off Our Traditional Notions of Self Defense,' *Washington Post*, 31 March 2020, https://www.washingtonpost.com/opinions/2020/03/31/covid-19-is-killing-off-our-traditional-notions-national-defense/?arc404=true; Lisa Monaco, 'Pandemic Disease Is a Threat to National Security,' *Foreign Affairs*, 3 March 2020, https://www.foreignaffairs.com/articles/2020-03-03/pandemic-disease-threat-national-security; Katrina vanden Heuvel, 'After This Pandemic Passes, America Needs a Reckoning with Its National Security,' *Washington Post*, 7 April 2020, https://www.washingtonpost.com/opinions/2020/04/07/after-this-pandemic-passes-america-needs-reckoning-with-its-national-security/; Anne-Marie Slaughter, 'Redefining National Security for the Post-Pandemic World,' *Project Syndicate*, 3 June 2020, https://www.project-syndicate.org/commentary/redefining-national-security-for-world-after-covid19-by-anne-marie-slaughter-2020-06?barrier=accesspaylog; Linda J. Bilmes, 'Rethinking National Security after Covid-19,' *Peace Economics, Peace Science and Public Policy* 26 (August 2020), https://doi.org/10.1515/peps-2020-0055; Igor Ivanov, 'Rethinking International Security for a Post-Pandemic World', *Carnegie Endowment for International Peace*, 20 April 2020, https://carnegieendowment.org/2020/04/20/rethinking-international-security-for-post-pandemic-world-pub-81584.

10   Hathaway makes a particularly cogent case in Hathaway, 'COVID-19 Shows How U.S.'

11   See, for example, Barry Buzan, *People, States and Fear: An Agenda for International Security Studies in the Post-Cold War Era* 2nd ed. (Rowman & Littlefield, 1991); Richard E. Little, 'Ideology and Change,' in *Change and the Study of International Relations: The Evaded Dimension,* ed. Barry Buzan and R. J. Barry Jones (St. Martin's Press, 1981); Steve Smith, 'The Contested Concept of Security,' in *Critical Security Studies and World Politics*, ed. Ken Booth (Lynne Renner, 2005). The original formulation is from W. B. Gallie, 'Essentially Contested Concepts,' *Proceedings of the Aristotelian Society* 56 (1955).

12   'WHO Warns of "Two-Track Pandemic" as Cases Decline but Vaccine Inequity Persists,' *UN News*, 7 June 2021, https://news.un.org/en/story/2021/06/1093472.

13   Buzan, *People States and Fear;* Little, 'Ideology and Change'; Smith, 'The Concepted Concept of Security.'

14   Jeffrey Koplan et al., 'Towards a Common Definition of Global Health,' *The Lancet* 373 (2009), https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(09)60332-9/fulltext.

15 See, for example, World Health Organization, *The World Health Report 2007: Global Public Health Security in the 21st Century*, (World Health Organization, 2007), https://apps.who.int/iris/bitstream/handle/10665/69698/WHR07_overview_eng.pdf?sequence=1&isAllowed=y; Koplan et al., 'Towards a Common Definition'; Robert Beaglehole and Ruth Bonita, 'What Is Global Health?' *Global Health Action* 3 (2010), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2852240/.

16 Sadako Ogata and Amartya Sen, *Human Security Now: Commission on Human Security* (Commission on Human Security, 2003), https://reliefweb.int/sites/reliefweb.int/files/resources/91BAEEDBA50C6907C1256D19006A9353-chs-security-may03.pdf; Colin McInnes, 'The Many Meanings of Health Security,' in *Routledge Handbook of Global Health Security,* ed. Simon Rushton and Jeremy Youde (Routledge, 2014).

17 The White House Office of Science and Technology Policy, *Fact Sheet Addressing the Threat of Emerging Infectious Diseases* (The White House, 1996).

18 Office of the Historian, *History of the Department of State During the Clinton Presidency (1993-2001)* (US Department of State, 2001). US National Security Advisor Sandy Berger created a new position dedicated to health issues on the National Security Council staff. The first 'Senior Advisor for International Health' was Rear Admiral Ken Bernard (USPHS, ret).

19 The United Nations Security Council, *Security Council Holds Debate on Impact of AIDS on Peace and Security in Africa* (United Nations, 10 January 2000), https://www.un.org/press/en/2000/20000110.sc6781.doc.html.

20 S.C. Res.1308, U.N. Doc S/RES/1308 (17 July 2000). In 2011, the Security Council revisited the topic of HIV/AIDS and adopted Resolution 1983 which, in building on Resolution 1308, encouraged the inclusion of HIV prevention, treatment, care, and support in the implementation of peacekeeping mandates. S.C.Rep.1938, UN Doc S/RES/1983 (7 June 2011). See also Simon Rushton, 'AIDS And International Security in the United Nations System,' *Health Policy and Planning* 25 (2010) https://doi.org/10.1093/heapol/czq051.

21 PBS Frontline, 'Interview with Richard Holbrooke (PBS, 30 May 2006).

22 S.C.Res.2177, UN Doc S/RES/2177 (18 September 2014); S.C.Res.2439, UN Doc S/RES/2439 (30 October 2018).

23 S.C.Res.2532, UN Doc S/RES/2532, (1 July 2020). The Security Council's responses to health crises have been largely driven by individual disease outbreaks and see an initial surge of funding, which is not sustained over time. If past is prologue, there is little to reason to believe that the experience of COVID-19 will lead to sustained attention or funding for health issues.

24 See 'Table 1: U.S. Government Civilian Biodefense Funding, FY2001-FY2007' in Clarence Lam, Crystal Franco, and Ari Schuler, 'Billions for Biodefense: Federal Agency Biodefense Funding, FY2006–FY2007,' *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science* 4 (2006).

25 The White House, *2002 US National Security Strategy* (The White House, 2002); The White House, *2006 US National Security Strategy* (The White House, 2006); Office of the Press Secretary, *Biodefense for the 21st Century, Homeland Security Presidential Directive / HSPD-10* (The White House, 2004). The Bush administration also took strong steps on global health such as the President's Emergency Plan for Aids Relief (PEPFAR) and pandemic flu preparedness after the 2005 H5N1 scare. These could have been put under the 'global health security' umbrella, but they were pursued in parallel to biodefense or biosecurity actions that were domestic in nature. See Gregory D. Koblentz, 'Biosecurity Reconsidered: Calibrating Biological Threats and Responses,' *International Security* 34 (2010), https://www.mitpressjournals.org/doi/pdf/10.1162/isec.2010.34.4.96.

26 US National Security Council, *National Strategy for Countering Biological Threats* (US National Security Council, 2009); US Department of Health and Human Services, *National Health Security Strategy of the United States of America* (US Department of Health and Human Services, 2009); The White House, *2010 US National Security Strategy* (The White House, 2010); The White House, *2015 US National Security Strategy* (The White House, 2015). See also Koblentz, 'From Biodefense to Biosecurity.'

27 President of the United States, *The National Biodefense Strategy of the United States of America* (The White House, 2018); President of the United States, *The Global Health Security Strategy of the United States of America* (The White House, 2019).

28 President of the United States, *The National Biodefense Strategy of the United States of America* (The White House, 2018).

29 US Government Accountability Office, *National Biodefense Strategy: Opportunities and Challenges with Early Implementation* (US Government Accountability Office, 11 March 2020).

30 In a 2001 statement to the Security Council, then-UK Permanent Representative Sir Jeremy Greenstock remarked that the pandemic posed 'a significant threat to international peace and security…[which] can contribute to the proliferation of armed conflict. And, conversely, it becomes increasingly clear that security conditions have a direct impact on the spread of HIV/AIDS and that conflict and civil unrest can increase vulnerability to HIV/AIDS'. See United Nations Security Council, 56th yr, 4259th meeting, UN Doc S/PV.4259 (19 January 2001), https://digitallibrary.un.org/record/431479/files/S_PV-4259-EN.pdf.

31 In the UK, a Green Paper is a document that describes a proposal that is still in a formative stage and sets out options for debate and discussion by Parliament and others. By contrast, a White Paper sets out a specific policy or set of policies that the government intends to transform into legislation in order to debate changes before a bill is introduced. See 'What Is a Green Paper?' *The Guardian*, 18 June 2009, https://www.theguardian.com/careandsupportreform/what-green-paper.

32 States parties to the Biological Toxin and Weapons Convention conducted a series of meetings from 1995 to 2001 to negotiate a legally-binding agreement to strengthen the treaty, including through on-site inspections and other verification measures. In 2001, the US withdrew from the negotiations, arguing that the proposed additions to the Convention would not achieve meaningful verification or greater security. Subsequent US administrations have continued to oppose a return to negotiations. See Jez Littlewood, *The Biological Weapons Convention* (Ashgate Pub, 2005). For the UK's Green Paper, see Graham Pearson, 'Return to Geneva: The United Kingdom Green Paper,' BTWC Review Conference Papers 6 (Bradford Disarmament Research Centre, Department of Peace

Rethinking Health Security After COVID-19

Studies, University of Bradford, 2002) https://bradscholars.brad.ac.uk/bitstream/handle/10454/844/RCP_6. pdf?sequence=1&isAllowed=y.

33   Laura Kanji, 'Hidden Dangers: The Implications of the Global Health Security Agenda,' *Harvard International Review* 2, (2016). For one example of a strategy document referencing the UK government's linkage between health and stability, see Foreign and Commonwealth Office, *UK International Priorities: A Strategy for the FCO* (Foreign and Commonwealth Office, 2003). https://isnblog.ethz.ch/security/hidden-dangers-the-implications-of-the-global-health-security-agenda.

34   UK Cabinet Office, *The National Security Strategy of the United Kingdom: Security in an Interdependent World* (UK Cabinet Office, March 2008).

35   UK Cabinet Office, *2008 National Risk Register* (UK Cabinet Office, 2008). Updates to the National Risk Register in 2010, 2012, 2017, and 2020 continued to cite human disease (particularly influenza pandemics), as well as animal disease, as risks with the potential to cause a civil emergency. See UK Cabinet Office, *2017 National Risk Register* (UK Cabinet Office, 2017); UK Cabinet Office, *2020 National Risk Register* (UK Cabinet Office, 2020).

36   UK Cabinet Office, *The National Security Strategy - A Strong Britain in an Age of Uncertainty* (UK Cabinet Office, 18 October 2010), 30-31; UK Cabinet Office, *National Security Strategy and Strategic Defence and Security Review 2015* (UK Cabinet Office, 23 November 2015), 65-66.

37   DH Pandemic Influenza Preparedness Team, *UK Influenza Pandemic Preparedness Strategy* (UK Department of Health, 10 November 2011); DH/HIP/PIP, *Health and Social Care Influenza Pandemic and Response* (UK Department of Health, April 2012); Public Health England, *Pandemic Influenza Response Plan 2014* (Public Health England, 13 August 2014).

38   David Pegg, 'What Was Exercise Cygnus and What Did It Find?' *The Guardian*, 7 May 2020, https://www.theguardian.com/world/2020/may/07/what-was-exercise-cygnus-and-what-did-it-find; Harry Lambert, 'Government Documents Show No Planning for Ventilators in the Event of a Pandemic,' *New Statesman,* 2020, https://www.newstatesman.com/politics/health/2020/03/government-documents-show-no-planning-ventilators-event-pandemic. The UK government has cited the draft legislation produced in the aftermath of Operation Cygnus as essential to forming the basis of the Coronavirus Act 2020. See UK Department of Health & Social Care, *UK Pandemic Preparedness* (UK Department of Health & Social Care, 16 March 2020).

39   United Nations Office at Geneva, *Speaking Note: Strengthening National Implementation: The UK Biological Security Strategy 2018* (United Nations, 2018); UK Government, *UK Biological Security Strategy* (UK Government, 13 August 2018).

40   UK Parliament, *POSTPONED: JCNAA Examine Biosecurity and Human Health in Opening Session of Inquiry* (UK Parliament, 24 October 2019), https://old.parliament.uk/business/committees/committees-a-z/joint-select/national-security-strategy/news-parliament-2017/biosecurity-human-health1-evidence-19-20/.

41   'About the GHSI,' Global Health Security Initiative, 2019, http://ghsi.ca/about/.

42   Ibid.

43   'Statement Of Interdiction Principles,' Proliferation Security Initiative, 2018, https://www.psi-online.info/psi-info-en/botschaft/-/2077920; 'Principles and Guidelines,' Global Partnership Against the Spread and Weapons and Materials of Mass Destruction*,* 2021, https://www.gpwmd.com/principles-and-guidelines.

44   Caitriona McLeish, 'Evolving Biosecurity Frameworks,' in *The Palgrave Handbook of Security, Risk and Intelligence*, ed. Robert Dover, Huw Dylan, and Michael Goodman (Palgrave Macmillan, 2017).

45   Thomas Abraham, 'The Chronicle of a Disease Foretold: Pandemic H1N1 and the Construction of a Global Health Security Threat,' *Political Studies* 59 (July 2011) https://doi.org/10.1111/j.1467-9248.2011.00925.x.

46   First adopted by the World Health Assembly in 1969 and last revised in 2005, the International Health Regulations is the key international treaty that regulates a state's obligations to the international community on the spread of infectious diseases. Measures covered under the IHR are legally binding on 196 states parties, including all WHO member states. See World Health Organization, *International Health Regulations (2005)* (World Health Organization, 2008), http://apps.who.int/iris/bitstream/handle/10665/43883/9789241580410_eng.pdf?sequence=1. For more background, see Lawrence O. Gostin and Rebecca Katz, 'The International Health Regulations: The Governing Framework for Global Health Security,' *The Milbank Quarterly* 94 (2016).

47   Lorna Weir, 'Inventing Global Health Security, 1994–2005,' in *Routledge Handbook of Global Health Security, 1st ed.* (Routledge, 2014).

48   For the US position, see United States of America, *Initial U.S. Government Comments on the First Draft of the Proposed Revision of the International Health Regulations (IHRS)* (WHO, 5 March 2004). For other positions, see World Health Organization, *International Health Regulations: Working Paper for Regional Consultations* (12 January 2004); Pan American Health Organization*, Report of the North American Consultation Meeting of the Revision of the International Health Regulations (IHR)* (Pan American Health Organization, 2-3 June 2004); *Montevideo Document: Considerations and Points of Consensus Between Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay and Venezuela With Regard to Document A/IHR/IGWG/2/2 of 24 January 2005* (WHO, 24 January 2005). Analyst Lorna Weir notes that 'it is not clear to date whether the United States acted alone or in concert with its Northern allies' on including the CBRN references, and any comments made by the UK on the debate have not been preserved. See Weir, 'Inventing Global Health Security.'

49   'About the GHSA.' See also J. Stephen Morrison, 'The Global Health Security Agenda: A Snowy Promising Start,' *CSIS*, 19 February 2014, https://www.csis.org/blogs/smart-global-health/global-health-security-agenda-snowy-promising-start.

50   Ibid. The topics addressed by speakers at the 2007 meeting ranged from breastfeeding to public-private partnerships to nuclear meltdowns to what the delegation of the Holy See referred to as 'full harmony and sound balance of the physical, emotional, spiritual and social forces within the human person'. The lack of debate surrounding the 2008 report may be partly due to the timing of the report's release: the annual World

Health Assembly meeting was held in May 2008 and focused on non-communicable disease and the use of alcohol, among other issues (for more, see WHO Media Centre, *Sixty-First World Health Assembly* (World Health Organization, 2008). By contrast, the 2008 World Health Report focused on primary health care and was not released until October of the same year.

51   'Oslo Ministerial Declaration—Global Health: A Pressing Foreign Policy Issue of Our Time' (2007) *The Lancet* 369 (2007); World Health Organization, *World Health Assembly First Special Session, Verbatim Record* (World Health Organization, 2006).

52   Ibid., 172.

53   Loveday Morris, William Booth, and Luisa Beck, 'As Coronavirus Surges, a Frantic Europe Scrambles for Hospital Beds, Ventilators, Supplies,' *Washington Post*, 22 March 2021, https://www.washingtonpost.com/world/europe/as-coronavirus-surges-a-frantic-europe-scrambles-for-hospital-beds-ventilators-supplies/2020/03/22/75adc79e-695d-11ea-b199-3a9799c54512_story.html; Carmen Paun, 'Tension Over Shortage of Coronavirus Tests Across Europe,' *Politico*, 24 March 2020, https://www.politico.eu/article/europe-testing-question-coronavirus-crisis/; Loveday Morris, 'Coronavirus in Italy Fills Hospital Beds and Turns Doctors into Patients,' *Washington Post*, 3 March 2020, https://www.washingtonpost.com/world/europe/coronavirus-in-italy-fills-hospital-beds-and-turns-doctors-into-patients/2020/03/03/60a723a2-5c9e-11ea-ac50-18701e14e06d_story.html; Ju-min Park and Kiyoshi Takenaka, 'As Japan Reopens, Coronavirus Testing Slowed by Bureaucracy and Staff Shortages,' *Reuters*, 27 May 2020, https://www.reuters.com/article/us-health-coronavirus-japan-testing-idUSKBN23406H; Gavin Yamey and Clare Wenham, 'The U.S. and U.K. Were the Two Best Prepared Nations to Tackle a Pandemic—What Went Wrong?' *Time*, 1 July 2020, https://time.com/5861697/us-uk-failed-coronavirus-response; 'The Global Health Security Index,' GHS Index, 2021, https://www.ghsindex.org/.

54   Ngaire Woods and Anna Petherick, 'The Rich World's Super-Spreader Shame,' *Project Syndicate*, 11 August 2021, https://www.project-syndicate.org/commentary/g20-countries-are-covid19-super-spreaders-by-ngaire-woods-and-anna-petherick-2021-08.

55   Bayram Altug, 'WHO Criticized for "Contradictory" COVID-19 Statements,' *Anadolu Agency*, 7 July 2020, https://www.aa.com.tr/en/europe/who-criticized-for-contradictory-covid-19-statements/1902436#; Javier C. Hernández, 'Trump Slammed the W.H.O. over Coronavirus. He's Not Alone,' *New York Times*, 29 May 2020, https://www.nytimes.com/2020/04/08/world/asia/trump-who-coronavirus-china.html.

56   World Health Organization, *WHO Director-General Opening Remarks at the Member State Briefing on the COVID-19 Pandemic Evaluation* (World Health Organization, 9 July 2020), https://www.who.int/director-general/speeches/detail/who-director-general-opening-remarks-at-the-member-state-briefing-on-the-covid-19-pandemic-evaluation---9-july-2020.

57   Multi-Partner Trust Fund Office Gateway, 'All Donors to Ebola Response MPTF, 2014-2015,' United Nations Development Office, http://mptf.undp.org/tools/query/donors?filter_fund=EBO00; People's Health Movement, *Framing of Health as a Security Issue* (2017), https://phmovement.org/download-full-contents-of-ghw5/.

58   See, for example, Hathaway, 'COVID-19 Shows How the U.S'; Rhodes, 'The 9/11 Era Is Over'; Power, 'How the COVID-19 Era'; Boot, 'Covid-19 Is Killing'; Vanden Heuvel, 'After This Pandemic Passes'; George Monbiot, 'What Does "National Defence" Mean in a Pandemic? It's No Time to Buy Fighter Jets,' *The Guardian*, 8 April 2020, https://www.theguardian.com/commentisfree/2020/apr/08/national-defence-corona-pandemic-fighter-jets; Denise Garcia, 'Redirect Military Budgets to Tackle Climate Change and Pandemics,' *Nature*, 20 August 2020, https://www.nature.com/articles/d41586-020-02460-9.

59   Studies have found that global health initiatives that focus on the eradication of certain specific diseases have often distracted governments from coordinated efforts to strengthen health systems. See, for example, Johanna Hanefeld and Maurice Musheke, 'What Impact Do Global Health Initiatives Have on Human Resources for Antiretroviral Treatment Roll-Out? A Qualitative Policy Analysis Of Implementation Processes In Zambia' *Human Resources for Health* 7 (2009); Karen A. Grépin, 'HIV Donor Funding Has Both Boosted and Curbed the Delivery of Different Non-HIV Health Services In Sub-Saharan Africa,' *Health Affairs* 31 (2012), https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2012.0279; Sophie Harman, 'Ebola and the Politics of a Global Health Crisis,' *E-International Relations*, 10 October 2014, https://www.e-ir.info/2014/10/20/ebola-and-the-politics-of-a-global-health-crisis/.

60   This is hardly a novel idea. In Vannevar Bush's report to US President Franklin D. Roosevelt in 1945, 'Science, The Endless Frontier', he noted the economic and social impact of cardiovascular disease, as well as mental illness, and argued that any serious study of the relationship between science and national security would need to take these threats into account. However, the study of such chronic illness has rarely generated the same attention as infectious disease crises. See Vannevar Bush, *Science, The Endless Frontier: A Report to the President by Vannevar Bush, Director of the Office of Scientific Research and Development, July 1945*, (United States Government Printing Office, 1945).

61   Josh Michaud, Kellie Moss, and Jennifer Kates, 'The U.S. Government and Global Health Security' *Kaiser Family Foundation*, 17 December 2019, https://www.kff.org/global-health-policy/issue-brief/the-u-s-government-and-global-health-security; Committee on Enhancing Global Health Security through International Biosecurity and Health Engagement Programs, *A Strategic Vision for Biological Threat Reduction: The U.S. Department Of Defense and Beyond* (National Academies Press (US), 14 April 2020).

62   Devi Sridhar, 'Who Sets the Global Health Research Agenda? The Challenge of Multi-Bi Financing,' *PLoS Medicine* 9 (2012).

63   Ibid.

64   Paul Szoldra, 'Exclusive: DHS is Considering Classifying Fentanyl as a "Weapon of Mass Destruction,"' *Task & Purpose*, 15 April 2019, https://taskandpurpose.com/news/dhs-fentanyl-wmd/. See also Lawrence Gostin, James G. Hodge, and Sarah A. Noe, 'Reframing the Opioid Epidemic as a National Emergency,' *JAMA*, 23 August 2017, https://scholarship.law.georgetown.edu/cgi/viewcontent.cgi?article=3017&context=facpub.

65   Stefan Elbe, 'Should HIV/AIDS Be Securitized? The Ethical Dilemmas of Linking HIV/AIDS and Security,' *International Studies Quarterly* 50 (2006).

66   'US Military HIV Research Program,' Hivresearch.org, 2021, https://www.hivresearch.org.

67   William Aldis, 'Health Security as a Public Health Concept: A Critical Analysis,' *Health Policy and Planning* 23 (2008).

68   World Health Organization Executive Board, *Summary Record, 122nd Session, 21-25 January 2008*, (World Health Organization, 2021).

69   Sangeeta Shashikant, 'WHO Meeting on Avian Flu Virus Ends with Draft Documents,' *Third World Network*, 28 November 2007, https://twn.my/title2/health.info/twnhealthinfo041107.htm. See also Simon Rushton, 'Global Health Security: Security for Whom? Security From What?' *Political Studies* 59 (2011).

70   Rushton, 'Global Health Security.' See also Aldis, 'Health Security as a Public Health Concept'; Shawn Smallman, 'Biopiracy and Vaccines: Indonesia and the World Health Organization's New Pandemic Influenza Plan,' *Journal Of International & Global Studies* (2013).

71   Elbe, 'Haggling Over Viruses: The Downside Risks of Securitizing Infectious Disease,' *Health Policy and Planning* 25 (2010).

72   Ibid. See also Smallman, 'Biopiracy and Vaccines'; Richard Holbrooke and Laurie Garrett, '"Sovereignty" That Risks Global Health,' *Washington Post*, 10 August 2008, https://www.washingtonpost.com/wp-dyn/content/article/2008/08/08/AR2008080802919.html.

73   Joshua Michaud et al., 'Militaries and Global Health: Peace, Conflict, and Disaster Response,' *The Lancet* 393 (2019).

74   See, for example, James Stavridis, 'Navy Hospital Ships Will Be Used in the Fight Against COVID-19. But There's Much More the Military Can Do in this Crisis,' *Time*, 23 March 2020, https://time.com/5808410/u-s-military-fight-coronavirus-pandemic/; Paul Edgar, interview with Vincent Brooks and Robert Neller, 'Horns of a Dilemma,' *War on the Rocks*, podcast audio, 24 April 2020, https://warontherocks.com/2020/04/using-the-military-to-help-fight-covid-19.

75   Colin McInnes and Kelley Lee, 'Health, Security and Foreign Policy,' *Review of International Studies* 32 (2006); Costanza Musu, 'War Metaphors Used for COVID-19 are Compelling But Also Dangerous,' *The Conversation*, 8 April 2020, https://theconversation.com/war-metaphors-used-for-covid-19-are-compelling-but-also-dangerous-135406; Alexandre Christoyannopoulos, 'Stop Calling Coronavirus Pandemic a "War,"' *The Conversation*, 7 April 2020, https://theconversation.com/stop-calling-coronavirus-pandemic-a-war-135486.

76   Nicholas Florko, 'New Document Reveals Scope and Structure of Operation Warp Speed and Underscores Vast Military Involvement,' *Stat News*, 28 September 2020, https://www.statnews.com/2020/09/28/operation-warp-speed-vast-military-involvement/.

77   Ibid.

78   Ibid.

79   UK Ministry of Defence, "*Over 5,000 Armed Forces Deployed in Support of the COVID-19 Response in the Biggest Homeland Operation in Peacetime,*" 4 January 2021, https://www.gov.uk/government/news/ over-5000-armed-forces-deployed-in-support-of-the-covid-response-in-the-biggest-homeland-operation-in- peacetime.

80   'COVID: The Military's Role in UK's Mass Vaccination Programme,' *Forces.net*, 12 January 2021, https://www.forces.net/news/covid-militarys-role-uks-vaccination-programme.

81   Laura Smith-Spark and Florence Davey-Attlee, 'Military Forces Drafted in as Europe Risks Being Overwhelmed by Covid Cases,' *CNN*, 7 November 2020, https://www.cnn.com/2020/11/07/europe/europe-coronavirus-military-role-intl-gbr/index.html.

82   Clare Wenham, 'The Oversecuritization of Global Health: Changing the Terms of Debate,' *International Affairs* 95 (2019).

83   Scott R. Baker et al., 'COVID-19 Induced Economic Uncertainty: A Comparison Between the United Kingdom and The United States,' *Stanford Institute for Economic Policy Research*, 2020, https://siepr.stanford.edu/research/publications/covid-induced-economic-uncertainty.

84   Charles J. Dunlap Jr., 'The Last American Warrior—Non-Traditional Missions and the Decline of the U.S. Armed Forces,' *Fletcher Forum of World Affairs* 18 (1994); Christopher Watterson and Adam Kamradt-Scott, 'Fighting Flu,' *Armed Forces & Society* 42 (2015).

85   Yaroslav Trofimov, 'Democracy, Dictatorship, Disease: The West Takes Its Turn with Coronavirus,' *Wall Street Journal*, 8 March 2020, https://www.wsj.com/articles/democracy-dictatorship-disease-the-west-takes-its-turn-with-coronavirus-11583701472.

86   See, for example, Sarah Jacobs Gamberini and Amanda Moodie, 'Governing a Pandemic,' *Inkstick Media,* 7 May 2020, https://inkstickmedia.com/governing-a-pandemic/; Selem Gebrekidan, 'For Autocrats, and Others, Coronavirus Is a Chance to Grab Even More Power,' *New York Times*, 30 March 2020, https://www.nytimes.com/2020/03/30/world/europe/coronavirus-governments-power.html.

87   Elbe, 'Should HIV/AIDS Be Securitized?'; Gwen D'Arcangelis, 'Reframing the 'Securitization of Public Health': A Critical Race Perspective on Post-9/11 Bioterrorism Preparedness in the US,' *Critical Public Health* 27 (2016).

88   Christa van Wyk, 'Drug Resistant Tuberculosis in South Africa—What Level of Risk Justifies Isolation?' *Med Law* 28 (2009).

89   Shoaib Fahad Hussain et al., 'Eradicating Polio in Pakistan: An Analysis of the Challenges and Solutions to this Security and Health Issue,' *Globalization and Health* 12 (2016); Leonard S Rubenstein, 'Global Health and Security in the Age of Counterterrorism,' *Journal of the Royal Society of Medicine* 108 (2015).

90   'USAID Programme Used Young Latin Americans to Incite Cuba Rebellion,' *The Guardian*, 4 August 2014, https://www.theguardian.com/world/2014/aug/04/usaid-latin-americans-cuba-rebellion-hiv-workshops.

91   Wenham, 'The Oversecuritization of Global Health.'

92   United Nations Secretary-General, *Deputy Secretary-General's Remarks at Online Launch of the Group of Friends of Solidarity for Global Health Security [As Prepared for Delivery]* (United Nations, 2020).

93 Michaud et al., 'Militaries and Global Health: Peace, Conflict, and Disaster Response' *The Lancet* 393 (2019).

94 Katerini T. Storeng, 'The GAVI Alliance and the "Gates Approach" to Health System Strengthening,' *Global Public Health* 9 (2014).

95 United Nations, *Transforming Our World: The 2030 Agenda for Sustainable Development* (United Nations, 2015).

96 David L Heymann et al., 'Global Health Security: The Wider Lessons from the West African Ebola Virus Disease Epidemic,' *The Lancet* 385 (2015).

97 Bob Herman, 'Paul Farmer on the Coronavirus,' *Axios*, 9 March 2020, https://www.axios.com/paul-farmer-coronavirus-covid19-interview-7750d0ae-7b19-4e9d-be65-16d985ebba1a.html.

98 Francesco Checchi et al., 'World Health Organization and Emergency Health: If Not Now, When?' *BMJ* 352 *(2016)*.

99 Christy Feig and Sonia Shah, 'Setting the Record Straight on WHO Funding,' *Foreign Affairs*, 18 November 2011, https://www.foreignaffairs.com/articles/2011-11-18/setting-record-straight-who-funding.

100 Sridhar, 'Who Sets Global Health.'

101 Srikanth K. Reddy, Sumaira Mazhar, and Raphael Lencucha, 'The Financial Sustainability of the World Health Organization and the Political Economy of Global Health Governance: A Review of Funding Proposals,' *Globalization and Health* 14 (2018).

102 Ibid. See also Joel Negin and Ranu S Dhillon, 'Outsourcing: How to Reform WHO for the 21st Century,' *BMJ Global Health* 1 (2016).

103 Nicholas G. Evans and Mark Eccleston-Turner, 'COVID-19 Vaccine Nationalism Will Cost Lives Worldwide,' *Slate*, 3 May 2021, https://slate.com/technology/2021/05/vaccine-nationalism-covid-19-india.html.

104 Sara Marley, 'AstraZeneca Aims for 30 Million U.K. Vaccine Doses by September,' *Bloomberg News*, 17 May 2020, https://www.bloomberg.com/news/articles/2020-05-17/astrazeneca-aims-for-30-million-u-k-vaccine-doses-by-september; Health and Human Services, *Trump Administration's Operation Warp Speed Accelerates AstraZeneca COVID-19 Vaccine to Be Available Beginning in October*, (Health and Human Services, 21 May 2020) https://www.hhs.gov/about/news/2020/05/21/trump-administration-accelerates-astrazeneca-covid-19-vaccine-to-be-available-beginning-in-october.html; Eric Sagonowsky, 'Sanofi CEO: Upfront Funding Wins U.S. First Access to Coronavirus Shot,' *Fierce Pharma*, 13 May 2020, https://www.fiercepharma.com/vaccines/thanks-to-early-investment-u-s-set-for-first-access-to-sanofi-s-covid-19-vaccine-report.

105 Nurith Aizenman, 'Biden Announces a New Goal to Vaccinate 70% of the World's Population within a Year,' *NPR*, 22 September 2021, https://www.npr.org/2021/09/22/1039800001/biden-announces-a-new-goal-to-vaccinate-70-of-the-worlds-population-within-a-yea.

106 'COVAX Vaccine Rollout,' Gavi, The Vaccine Alliance, 28 September 2021, https://www.gavi.org/covax-vaccine-roll-out; Seth Berkley, 'COVAX Explained,' Gavi, The Vaccine Alliance, 3 September 2020, https://www.gavi.org/vaccineswork/covax-explained.

107 Peter Mwai, 'Coronavirus in Africa: Concern Grows over Third Wave of Infections,' *BBC News*, 9 July 2021. https://www.bbc.com/news/world-africa-53181555; Lisa Schnirring, 'COVID-19 Surges Accelerate in Southeast Asia,' Center for Infectious Disease Research and Policy (University of Minnesota, 2 July 2021) https://www.cidrap.umn.edu/news-perspective/2021/07/covid-19-surges-accelerate-southeast-asia; Samantha Pearson and Luciana Magalhaes, 'South America Is Now Covid-19 Hot Spot, with Eight Times the World's Death Rate,' *Wall Street Journal*, 21 June 2021, https://www.wsj.com/articles/south-america-is-now-covid-19-hot-spot-witheighttimes-the-worlds-death-rate-11624299176.

108 Hannah Ritchie et al., 'Coronavirus Pandemic (COVID-19),' Our World in Data, accessed 26 August 2021, https://ourworldindata.org/covid-vaccinations.

109 Marco Hafner et al., 'COVID-19 and the Cost of Vaccine Nationalism,' *RAND Corporation*, 2020, https://www.rand.org/pubs/research_reports/RRA769-1.html.

110 Tedros Ghebreyesus, 'Vaccine Nationalism Harms Everyone and Protects No One,' *Foreign Affairs*, 2 February 2021.

111 Woods and Petherick, 'The Rich World's Super-Spreader Shame.'

112 Doctors Without Borders, *Open Letter: UK Government Must Support Proposal to Suspend Intellectual Property During Pandemic* (Doctors Without Borders, 10 March 2021), https://msf.org.uk/article/open-letter-uk-government-must-support-proposal-suspend-intellectual-property-during.

113 Evans and Eccleston-Turner, 'COVID-19 Vaccine Nationalism.'

114 Ezekiel J. Emanuel et al., 'An Ethical Framework for Global Vaccine Allocation' *Science* 369, 6509 (11 September 2020), https://www.science.org/doi/full/10.1126/science.abe2803.

115 'The World Must Learn from COVID before Diving into a Pandemic Treaty,' *Nature,* 6 April 2021, https://www.nature.com/articles/d41586-021-00866-7.

116 Council of the European Union, *An International Treaty on Pandemic Prevention and Preparedness* (Council of the European Union, 31 May 2021).

Oxford Institute for Ethics, Law and Armed Conflict
Blavatnik School of Government
Radcliffe Observatory Quarter
120 Walton St, Oxford OX2 6GG

www.elac.ox.ac.uk

PAX ORBIS TERRARUM

OXFORD PROGRAMME
ON INTERNATIONAL PEACE
AND SECURITY