

SARS: Political Pathology of the First Post-Westphalian Pathogen

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In March 2003, the world discovered, again, that humanity's battle with infectious diseases continues. The twenty-first century began with infectious diseases, especially HIV/AIDS, being discussed as threats to human rights,¹ economic development,² and national security.³ Bioterrorism in the United States in October 2001 increased concerns about pathogenic microbes. The global outbreak of severe acute respiratory syndrome (SARS) in the spring of 2003 kept the global infectious disease challenge at the forefront of world news for weeks. At its May 2003 annual meeting, the World Health Organization (WHO) asserted that SARS is "the first severe infectious disease to emerge in the twenty-first century" and "poses a serious threat to global health security, the livelihood of populations, the functioning of health systems, and the stability and growth of economies."⁴

As an emerging threat, SARS presents novel problems for public health. SARS challenges scientists to develop diagnostics, treatments, and a vaccine for a virus—the SARS-associated coronavirus (SARS-CoV)—not previously identified in humans. Clinicians struggled to diagnose and treat those infected with the SARS-CoV. SARS forced public health officials to respond to the international spread of a new pathogen amplified by globalization. SARS reintroduced societies to long-dormant, large-scale isolation and quarantine practices, raising questions about balancing public health and individual rights.

With SARS, so much has happened and, at the time of writing, so little time has passed, that attempting a comprehensive analysis of SARS as an emerging public health issue would be misguided. My objective is to probe the political pathology of SARS as the first post-Westphalian

pathogen. As WHO stated, SARS is the first severe infectious disease to emerge in the twenty-first century; but SARS is also noteworthy because it is the first pathogen to emerge into a political and governance environment that differs from what existed at the time of earlier outbreaks.

This article examines governance issues that SARS raises for public health in its post-Westphalian context. As explored below, the term "Westphalian" refers to the governance framework that defined international public health activities from the mid-nineteenth century. In the 1990s and early 2000s, literature on globalization's impact on public health described shifts away from Westphalian public health toward new approaches, strategies, and attitudes. Although post-Westphalian public health began to emerge before the SARS outbreak, SARS represents the first pathogen to emerge into this new political and governance context. As such, SARS presents an opportunity to examine the political pathology of a post-Westphalian pathogen. This examination evaluates the strengths and weaknesses of post-Westphalian public health in light of the challenges SARS generated. Not surprisingly, the political pathology of SARS contains good and bad news for public health governance.

My analysis proceeds in three parts. First, I explain "Westphalian" and "post-Westphalian" public health to elucidate how the structure and dynamics of international relations shape public health governance. Second, I examine the political pathology of SARS as a post-Westphalian pathogen. Central to this analysis will be China because the Chinese response to SARS provides insights into why public health has entered a post-Westphalian context. Third, I look at vulnerabilities and problems post-Westphalian public health may face in light of the SARS outbreak. The shift from Westphalian to post-Westphalian public health confirmed by SARS is not without sobering elements that require the attention of public health governance.

WESTPHALIAN AND POST-WESTPHALIAN PUBLIC HEALTH

Of germs and borders

In many respects, what transpired in the SARS outbreak happened frequently in the past—a new pathogenic microbe emerges in humans; spreads through international trade and travel; causes economic, political, and social disruption; and reveals weaknesses in public health systems. The great cliché of infectious disease control—germs do not recognize borders—applies to SARS as it previously applied to earlier outbreaks.

These observations raise the question whether the SARS outbreak really represents something new for public health. Analysis of emerging and re-emerging infectious diseases (EIDs) in the 1990s and early 2000s stressed that the world had not conquered infectious diseases and that microbes were increasingly formidable foes.⁵ The global devastation wrought by HIV/AIDS had, by the turn of the century, reached horrifying proportions, making this disease one of the worst in history.⁶ SARS joins, thus, a long list of germs that have not recognized borders.

For my purposes, what makes SARS interesting is not its germ; rather, SARS is important because of the context in which SARS-CoV did not recognize borders. Put another way, I am interested in the borders—the political and governance structure—that SARS did not recognize. SARS is the first post-Westphalian pathogen because its non-recognition of borders transpired in a public health governance environment different from what previous border-hopping bugs encountered. So much attention has been placed on the novelty of the SARS germ that we may not fully appreciate the novelty of the borders SARS ignored.

To advance my argument, I distinguish between “Westphalian” and “post-Westphalian” public health. Like all social endeavors, public health governance reflects larger political structures and forces, which shape how societies pursue public health. For example, in the United States, federalism structures public health governance in a particular way.⁷ Federalism constructs political borders between federal and state governments. Germs no more recognize these borders than they recognize international borders. Federalism does not, however, disappear as an influence on public health governance simply because germs do not recognize the boundaries it creates.

The same dynamic holds true at the international level—germs do not recognize boundaries between countries; but those boundaries nevertheless structure the political response to infectious disease threats. As explained below, principles for public health governance between countries traditionally derived from the structure for international relations established in 1648 at the Peace of Westphalia. “Westphalian public health” refers, therefore, to public health governance as structured by Westphalian principles. “Post-Westphalian public health” describes public

health governance that departs from the Westphalian template. SARS is the first post-Westphalian pathogen because it highlights public health’s transition from a Westphalian to a post-Westphalian context.

Before I distinguish Westphalian and post-Westphalian public health, I should acknowledge that the distinctions between them are not, in reality, as crisp as my analysis may project. Concepts that characterize post-Westphalian public health appeared before SARS emerged and have been applied to address existing pathogens. In addition, responses to other recently emerged microbes utilized tools that characterize post-Westphalian public health governance.

Nevertheless, SARS represents the first post-Westphalian pathogen for two reasons. First, the SARS outbreak is the first infectious disease epidemic since HIV/AIDS to pose a truly global threat. Other microbes that emerged in the last thirty years have had limited capacity to threaten international public health because of inefficient human-to-human transmission (such as the avian influenza, Nipah, Hendra, and Hanta viruses), dependence on food or insects as vectors (examples include *Escherichia coli* 0157:H7, variant Creutzfeldt-Jakob disease, West Nile and Rift Valley fevers), or specific geographical locations (e.g., *Neisseria meningitidis* W135, Ebola, Marburg, and Crimean-Congo hemorrhagic fevers).⁸ SARS posed a greater threat because of its more efficient person-to-person respiratory transmission and its fatality rate.

Second, because of the nature of the SARS threat, the epidemic severely challenged the emerging post-Westphalian governance system. SARS was a global public health emergency,⁹ and the sternest measure of governance systems is their performance in times of crisis. The SARS outbreak provided the first opportunity to evaluate how the new governance approach for infectious diseases would fare under serious microbial attack.

WESTPHALIAN PUBLIC HEALTH

Westphalian international politics

International relations scholars identify the Peace of Westphalia in 1648 as a landmark moment because it ended the Thirty Years’ War and established a political structure for international politics that has endured for over three centuries.¹⁰ Independent, territorial states interacting in a condition of anarchy characterize the Westphalian system.¹¹ States dominate the Westphalian structure and determine the nature of the anarchy in which they interact.¹² In the Westphalian system, anarchy means the absence of a common, supreme authority.¹³ Political authority is fragmented among states in the Westphalian structure.

This fragmentation created the need for principles to guide anarchical interaction. The key principle of the Westphalian structure is sovereignty—the state reigns

supreme over its territory and people.¹⁴ Sovereignty then generates derivative governance principles. First, because sovereignty means supreme power, the Westphalian system frowned upon one state intervening in the domestic affairs of other states.¹⁵ The principle of non-intervention excluded, thus, a great deal of sovereign behavior from diplomacy. Second, sovereignty meant that rules to govern interaction arose from the states themselves because no supreme, central law-making body existed. In the Westphalian order, a state was free to exercise its sovereignty as it saw fit unless that state had consented to a rule of international law that regulated its behavior.¹⁶

The combination of sovereignty, non-intervention, and consent-based international law meant that governance in the Westphalian system was horizontal in nature, meaning that (1) only states were involved in governance; (2) governance primarily addressed the mechanics of state interaction (e.g., diplomacy, war, and trade); and (3) governance did not penetrate sovereignty to address how a government treated its people or ruled over its territory. The Westphalian structure exhibited another characteristic—the great powers determined how the system functioned.¹⁷ Great-power management of international relations occurred through warfare and the balance of power.¹⁸ The great powers' role in the Westphalian structure also came to reflect political and cultural prejudices as European power expanded and brought non-European peoples into the Westphalian system.¹⁹

Like any brief description of complex reality, this overview of the Westphalian structure is simplistic. Nevertheless, it captures basic features of the international governance structure into which public health emerged as an issue in the mid-nineteenth century and under which Westphalian public health governance evolved in subsequent decades.

Westphalian public health

The Westphalian structure for international politics had been in place for two centuries before the cross-border spread of infectious diseases became a subject for international diplomacy in the mid-nineteenth century. International cooperation on infectious diseases conformed to the Westphalian structure and reflected its principles. The international regime constructed to deal with the spread of infectious diseases provides an excellent example of Westphalian public health.

Beginning in 1851, the European great powers began developing diplomatic processes and international legal rules to facilitate cooperation on infectious diseases.²⁰ These processes and rules formed a horizontal regime between governments that sought to mitigate the friction infectious diseases created for state interactions, primarily trade and travel. In keeping with the principles of sovereignty and non-intervention, international cooperation on infectious

diseases did not penetrate the state to require improvements in national public health. For example, the international regime for infectious disease control crafted in the last half of the nineteenth century and the first half of the twentieth century never required states to improve national sanitation and water systems despite knowledge that such improvements would decrease cholera outbreaks and their spread.²¹ The regime merely targeted problems caused by infectious diseases moving between states through international trade and travel.

The regime on infectious diseases also reflected the interests of the great powers because disparate national quarantine measures imposed significant costs on growing levels of international trade.²² Further, the regime addressed only infectious diseases for which trade and travel were considered vectors, such as plague, cholera, and yellow fever. Diseases endemic in Europe, such as tuberculosis, were not included in the regime despite their cross-border transmissibility. The choice of diseases to include in the regime reflected European states' sense of vulnerability to diseases spreading from non-European regions.²³ This fear of disease importation was "not a wish for the general betterment of the health of the world, but the desire to protect certain favored (especially European) nations from contamination by their less-favored (especially Eastern) fellows."²⁴

The characteristics of Westphalian public health governance can be seen in WHO's International Health Regulations (IHR).²⁵ The IHR are the only set of international legal rules binding on WHO members concerning infectious diseases,²⁶ and the IHR continue the approach to cooperation on infectious diseases begun in the mid-nineteenth century.²⁷ The IHR are classically Westphalian in their structure and content.

The IHR's objective is to ensure the maximum security against the international spread of disease with minimal interference with world traffic.²⁸ This objective is horizontal because it focuses on infectious diseases moving between states. The IHR seek maximum security against the international spread of disease by requiring governments to (1) notify WHO of outbreaks of diseases subject to the Regulations;²⁹ and (2) maintain certain public health capabilities at ports and airports.³⁰ The IHR seek minimum interference with world traffic by regulating the trade and travel restrictions WHO members can take against countries suffering outbreaks of diseases subject to the Regulations.³¹

In keeping with the Westphalian template, the IHR constitute rules of international law created by states. The rules respect the principle of non-intervention by addressing only aspects of infectious diseases that relate to the intercourse among states. The IHR do not address aspects of public health governance that touch on how a government prevents and controls infectious diseases in its sovereign territory. The IHR's limited governance framework is also clear from the small number of diseases subject to its rules, currently only plague, cholera, and yellow fever.³²

Another characteristic marked Westphalian public health—infectious disease control ranked low as a foreign policy priority for states. Evidence for this claim comes in many forms. The fact that the existing IHR only deal with the same diseases discussed at the first International Sanitary Conference in 1851³³ suggests the low priority WHO members assigned to international infectious disease control. Widespread violation of the IHR's rules by WHO members also provides an indication of the unimportance of these rules to state behavior.³⁴ Acknowledgement by WHO personnel in the 1960s and 1970s that the IHR had not achieved their purpose underscores the low priority this governance regime received from WHO members.³⁵

Westphalian public health proved ineffective in the form of the IHR. The IHR's irrelevance to the HIV/AIDS epidemic further confirmed that the Westphalian template embedded in the IHR was suspect. Other developments also signaled the demise of Westphalian public health. After its formation, "[i]n a period of great vitality in the scientific understanding of infectious diseases and of progress in medical technology—in vaccines for prevention and drugs for treatment—the WHO added eliminating communicable diseases at their sources to its mandate of containing their spread through its more traditional functions of coordinating international health regulations and serving as an information clearinghouse."³⁶ Such vertical activities reflected more interest in public health conditions within poor countries than in managing the public health consequences of mechanistic state interaction for the benefit of the great powers' trading interests.

This shift from horizontal to vertical strategies was also apparent in the increasing role human rights played in public health. Comparing the IHR's approach with WHO's Health for All effort and its emphasis on the human right to the highest attainable standard of health³⁷ illustrates how far Westphalian public health had fallen out of favor by the end of the 1970s. The HIV/AIDS pandemic further highlighted these shifts because international human rights law, not the IHR, provided the norms guiding the fight against this new plague.³⁸ Human rights law focuses on how a government treats its citizens and governs its territory³⁹ and, thus, embodies a vertical rather than horizontal strategy that causes dissonance for the Westphalian structure for international relations.⁴⁰ The emphasis on human rights in responses to the HIV/AIDS pandemic⁴¹ also stimulated a growing role for non-state actors in public health governance. The human rights strategy made individuals actors in public health and brought non-governmental organizations (NGOs) into public health in new ways.

POST-WESTPHALIAN PUBLIC HEALTH

In the 1990s and early 2000s, governance strategies different from the IHR's Westphalian approach began to appear

in analysis of EIDs. A growing appreciation of globalization's impact on public health informed these strategies.⁴² Some themes in literature on the globalization of public health were familiar, such as germs do not recognize borders and infectious disease control requires cooperation. But the discourse on globalization and infectious diseases in the 1990s and early 2000s indicated that the Westphalian approach was bankrupt.

Bankruptcy was apparent in at least five ways. First, the increasing threat from pathogenic microbes challenged the low political priority states accorded to international infectious disease control. Second, the number and variety of EIDs made the focus on traditional epidemic diseases (e.g., cholera, plague, and yellow fever) anachronistic. Third, linking infectious disease policy narrowly to commercial intercourse proved unable to address many social and environmental problems fueling disease spread. Fourth, a state-centric governance framework was inadequate in the face of challenges infectious diseases presented. Fifth, a regime on infectious diseases designed mainly to address the fears and interests of the great powers was no longer appropriate given the disproportionate suffering developing countries experienced from infectious diseases.

The EID threat stimulated new thinking in the 1990s and early 2000s, which began to shape strategies on process and substance different from the Westphalian model. On the process side, "global health governance" (GHG) emerged as a framework distinct from the state-centric approach. On the substance side, experts encouraged the production of "global public goods for health" (GPGH) that differ from the narrower objectives of the Westphalian strategy.

Global health governance

Westphalian public health was premised on the principle that states constituted the only legitimate actors for governance purposes. The IHR reflect this state-centric framework, especially with regard to the flow of epidemiological information. Under the IHR, surveillance information upon which WHO can act comes only from governments.⁴³ Restricting surveillance and response to government-provided notifications and information proved a debilitating weakness for infectious disease governance under the IHR.⁴⁴

In contrast to the IHR's international governance approach, GHG includes not only states and inter-governmental organizations but also non-state actors, such as NGOs and multinational corporations (MNCs).⁴⁵ Non-state actors participate in GHG in two ways. First, participation can be informal in that non-state actors attempt to influence governments and international organizations in policy making. The influence of non-state actors—both MNCs and NGOs—has increased in global public health in the last decade.⁴⁶ On some issues, such as access to essential medicines, NGOs have taken the policy initiative, forcing

governments and international organizations to respond to NGO agenda-setting.⁴⁷

Second, non-state actors participate in GHG through involvement in formal governance mechanisms. NGOs have long been able to have formal relationships with international health organizations, through which NGOs could provide input, as illustrated by NGOs in “official relations” with WHO.⁴⁸ Under GHG, NGO involvement becomes more direct and participatory. Perhaps the best example of formal NGO participation in making global health policy is the Global Fund to Fight AIDS, Tuberculosis, and Malaria (Global Fund), the Board of Directors of which includes NGO representatives.⁴⁹ Thus, in contrast to official relations with WHO, NGO participation in the Global Fund involves making policy on an equal footing with governments.

Global public goods for health

The pursuit of GPGH represents the second major break from Westphalian public health that developed in the 1990s and early 2000s.⁵⁰ “Public goods” are goods or services the consumption of which is non-excludable and non-rivalrous in nature.⁵¹ “Global public goods” exhibit non-excludability and non-rivalry in consumption across national boundaries.⁵² GPGH are health-related public goods or services the benefits of which are globally accessible.⁵³ Containment and prevention of globally dangerous infectious diseases and health-related information, such as global surveillance information on infectious diseases, are both considered GPGH.⁵⁴

Under the Westphalian model, the regime for infectious disease control sought to reduce problems cross-border microbial traffic caused. The objective was narrowly tailored to the national interests of the great powers, which feared importation of pathogens from poor, developing countries and sought to mitigate the impact of quarantine practices on their trade. The GPGH concept departs from the narrow, state-centric objectives of the Westphalian regime in two ways. First, GPGH envisage policy results that reach beyond the state and its national interests vis-à-vis other states. The ambition is to produce public goods that are accessible globally by governments and peoples. Thus, GPGH encompass more than state interactions and are sought for reasons beyond protecting national public health from exogenous threats and promoting national exports. Finally, the public goods sought promise to be beneficial to not only the great powers but also people in developing countries.

The second way GPGH deviate from the traditional approach involves how the goods are produced. In Westphalian public health, states produced regimes and reacted to their consequences. GPGH differ because they seek the participation of not only governments and international organizations but also non-state actions in their

production. “Public-private partnerships” (PPPs) in global public health best illustrate the process innovation in the GPGH concept.⁵⁵ PPPs in the infectious disease context “fall into two main categories: to discover new drugs and vaccines for diseases neglected by research and industry, and to vastly improve access by the poor to existing products.”⁵⁶ In connection with developing new drugs for infectious diseases, PPPs bring together governmental, intergovernmental, and non-governmental resources to produce products designed to improve health globally but especially in the developing world.⁵⁷ The deliberate involvement of non-state actors echoes the increased participation of such actors in GHG. WHO describes PPPs for infectious diseases as “reshaping the landscape of public health.”⁵⁸

Post-Westphalian public health and the revision of the IHR

Acknowledging the IHR’s failure as a governance mechanism, WHO began in 1995 a process of revising the Regulations to make them more effective.⁵⁹ The revision process from 1995 to the SARS outbreak identified a number of ideas to improve the IHR’s contribution to infectious disease governance,⁶⁰ and one of the most important ideas resonates with the GHG and the GPGH concepts—supplement disease reporting by governments with epidemiological information provided by non-governmental sources.⁶¹

From the earliest stages of the IHR revision process, WHO identified using non-governmental sources of information to improve global surveillance.⁶² Two factors encouraged WHO’s thinking. First, relying solely on governments to provide outbreak information under formal international legal obligations proved a failure under the IHR.⁶³ Although WHO still needed governments involved in global surveillance, the Organization wanted to be able to use epidemiological information from non-governmental sources.⁶⁴ Second, new information technologies, such as the Internet and e-mail, provided WHO with opportunities to mine non-governmental sources of information in order to enhance global surveillance.⁶⁵

Prior to the IHR revision process, WHO had access to non-governmental sources of information but, in law and policy, was limited in how it could use them. Legally, the IHR operated only on the basis of government-provided information.⁶⁶ This legal situation reflected Westphalian limitations on WHO’s ability to interfere with sovereignty in connection with infectious diseases. WHO’s efforts to establish effective global surveillance suffered from these Westphalian constraints on using epidemiological information. Only once during the IHR’s history did WHO report a disease outbreak to the international community based on information not received from the government of the country concerned.⁶⁷

The proposal to allow WHO to use information from non-governmental sources connects with the GHG and GPGH concepts. Giving WHO access to non-governmental information would make non-state actors formal participants in global surveillance. By providing information directly or indirectly to WHO, non-state actors could trigger a process in which governments and inter-governmental organizations would have to respond.⁶⁸ Under GHG, the public health initiative would no longer remain the exclusive province of the sovereign state.

The proposal to use non-governmental sources of information also connected with interest in GPGH. The provision of information is a classic public good because information can be consumed in non-excludable and non-rivalrous fashion.⁶⁹ As the IHR's history revealed, surveillance information the IHR generated was suspect for two reasons. First, WHO members routinely failed to report outbreaks the IHR required them to report.⁷⁰ Second, the short list of diseases subject to the IHR constrained the range of global surveillance information.⁷¹ The quality of global epidemiological information as a public good would improve with WHO able to use sources of information beyond governments. WHO's proposal to expand the IHR's disease coverage would combine with a larger supply of information to improve global surveillance as a public good. Improved surveillance would be a *global* public good because its production would involve non-state actors as providers and consumers of information.

The potential of transforming global surveillance was so substantial that WHO began to harvest it before the IHR revision was completed. WHO began operating its Global Outbreak Alert and Response Network (Global Network) in 1998.⁷² According to WHO, "[f]rom January 1998 through March 2002, WHO and its partners investigated 538 outbreaks of international concern in 132 countries."⁷³ Formal policy recognition of WHO's ability to use information from non-governmental sources came from the World Health Assembly in 2001,⁷⁴ before the IHR revision process was even close to being finished. WHO moved into GHG and GPGH production without a specific international legal framework in place—yet another break from the Westphalian model of infectious disease governance.

POST-WESTPHALIAN PUBLIC HEALTH AND INFECTIOUS DISEASES

Prior to SARS, global public health policy had begun to craft post-Westphalian governance strategies on infectious diseases. These strategies, exemplified by the Global Fund and the campaign for access to essential medicines, owed much to the global disaster that HIV/AIDS had become. The HIV/AIDS pandemic, combined with recognition of the growing threats of tuberculosis and malaria in the developing world, placed the traditional Westphalian

approach to infectious diseases under scrutiny; and it was found wanting. With HIV/AIDS, the post-Westphalian strategies represented increasingly desperate attempts to mitigate a public health nightmare of historic proportions. The success of these strategies was, however, very much in doubt before SARS. The Global Fund was nearly bankrupt after operating for less than two years,⁷⁵ and WHO's Roll Back Malaria campaign also suffered from inadequate funding.⁷⁶ Fears about bioterrorism, especially in the United States, shifted attention and resources away from GHG and GPGH to national defenses against the intentional use of pathogens. If post-Westphalian public health could not handle the strain existing diseases created, what would happen when the next infectious disease crisis broke upon the world?

SARS AND POST-WESTPHALIAN PUBLIC HEALTH

As the first severe infectious disease to emerge in the twenty-first century, SARS is a landmark event in global public health. In SARS, the world confronted a virus never before found in humans that was transmitted from person-to-person, that had a high fatality rate, and against which public health practitioners and physicians had neither adequate diagnostic technologies nor effective treatments or vaccines. The last time the world confronted a virus with this disturbing profile was when HIV emerged in the early 1980s, and HIV triggered one of the worst epidemics in history. As bad as HIV/AIDS became, especially for developing countries, public health experts were thankful that HIV was not transmitted by respiratory means. SARS-CoV is, however, transmitted from person-to-person by such means. Although SARS-CoV is not "airborne HIV" because the fatality rate of SARS is less than untreated HIV, SARS' fatality rate and respiratory route of transmission conjured memories of other global viral killers—the 1918-1919 influenza and smallpox—that wrought havoc upon humankind.

The epidemiological profile of SARS means that it would have presented a crisis even if infectious disease control remained mired in the Westphalian approach. SARS emerged, however, in a policy context that was moving away from the Westphalian framework. The SARS outbreak is, thus, pivotal for global public health because it represents the first serious challenge to a governance approach that deviates from the traditional model. This part examines how SARS reflected and affected the post-Westphalian approach to infectious disease governance. This analysis focuses on the behavior of the country at the epicenter of SARS—the People's Republic of China. The Chinese government's actions during the SARS outbreak cost the country dearly because it acted Westphalian in a post-Westphalian world.

OVERVIEW OF CHINA'S RESPONSE TO SARS

China's response to SARS divides into three stages. The first stage, which began in November 2002 and lasted until early February 2003, witnessed the Chinese government suppress information about a severe outbreak of a respiratory disease in Guangdong Province. Experts believe that the SARS outbreak started in Foshan, Guangdong Province in mid-November 2002.⁷⁷ Despite efforts by China to keep the outbreak from being publicized,⁷⁸ news leaked out through the Internet, e-mail, and cell phone text messaging.⁷⁹ On February 10, 2003, Pro-MED mail, a non-governmental global electronic reporting system for outbreaks of infectious diseases,⁸⁰ posted one such e-mail asking about an epidemic in Guangzhou being linked in Internet chat rooms to hospital closings and fatalities.⁸¹ Also on February 10, WHO staff in Beijing and Geneva received an e-mail from the son of former WHO employee in China asking about a 'strange contagious disease' causing death and panic in southern China.⁸²

Although WHO's Global Network had picked up indications of problems in southern China as early as November 2002,⁸³ WHO's first official approach to the Chinese government about the outbreak information it was receiving from non-governmental sources came on February 10, 2003.⁸⁴ The publicly circulating information and WHO's queries led China to make its first official report to WHO about the outbreak on February 11, 2003, when China provided information about an outbreak of an acute respiratory syndrome involving 300 cases and 5 deaths in Guangdong Province.⁸⁵

The second stage of China's response began in mid-February 2003 and lasted until April 17, 2003. In this stage China acknowledged an outbreak but attempted to deny and cover-up the extent of the epidemic. China claimed that the outbreak was under control and declining in Guangdong Province and had not spread to other parts of the country. From mid-February 2003, the Chinese government prohibited state-controlled media from reporting on the outbreak.⁸⁶ During this period, the SARS outbreak reached Hong Kong, Vietnam, Singapore, Canada, and other countries, prompting WHO to issue a global alert about cases of atypical pneumonia on March 12, 2003⁸⁷ and an emergency travel advisory on March 15, 2003.⁸⁸

Although China requested assistance from WHO in mid-March 2003,⁸⁹ the government continued to suppress information about the outbreak. After a February 14, 2003 report to WHO,⁹⁰ China did not provide any more information until March 26, 2003.⁹¹ Even then WHO and other experts worried about the data China presented. On April 16, 2003, in a highly unusual move for the Organization, WHO publicly accused the Chinese government of underreporting SARS cases and misleading the public about SARS' spread.⁹² On April 18, 2003, *Time* Magazine reported that Chinese government officials deliberately hid SARS patients from WHO personnel investigating the SARS

problem in Beijing.⁹³ China's behavior stood in marked contrast to other countries affected by SARS, which were providing information and cooperating with WHO.⁹⁴

The third stage of China's response began on April 18, 2003, when "China's Communist leaders ... declared a nationwide war on the SARS virus and ordered officials to stop covering up the extent of the epidemic that is spreading throughout China."⁹⁵ On April 20, 2003, the Communist Party removed the mayor of Beijing and the Minister of Health from their Party posts because of their failure to address SARS' spread in China, actions that "constituted a political earthquake for the Communist Party, which has rarely acknowledged making mistakes during its 54-year rule."⁹⁶ In this third stage of its response, China increased the information it provided, improved its cooperation with WHO and other countries, and heightened the seriousness of its SARS control efforts.⁹⁷

CHINA, SARS, AND WESTPHALIAN PUBLIC HEALTH

The first two stages of China's response conform to patterns of the Westphalian approach to infectious diseases. As analyzed earlier, the central concept of the Westphalian template is sovereignty. States discipline their supreme powers over public health through rules of international law negotiated and accepted by each state. The rules of international law addressed the mechanistic aspects of state interaction by attempting to mitigate the drag public health measures created for international trade. The rules did not penetrate deeply into a state's sovereignty by subjecting its public health system to international scrutiny.

From the perspective of Westphalian public health, China's initial response to SARS was understandable. China was under no international legal obligation to report SARS cases to anyone.⁹⁸ If other countries wanted epidemiological information from China, it could handle such requests diplomatically as other issues of interstate concern were handled. China could utilize WHO in such diplomacy if it chose to do so; but China was under no legal obligation to use WHO in handling SARS. Aspects of China's public health system not directly related to the trade-public health nexus of the Westphalian approach would not, unless China consented, be the subject of diplomatic activity. Demands to the contrary would represent intervention into China's domestic affairs and an affront to its sovereignty.

These observations do not mean China's response to SARS was prudent merely because it conforms to Westphalian patterns. Nothing in the Westphalian model prevented China from responding more openly and cooperatively, as other nations did. My point is that the Westphalian approach to infectious diseases did not demand more from China with respect to SARS. Westphalian public health left China's sovereignty unfettered and to be exercised, for better or worse, as China's leadership saw fit.

CHINA CONFRONTS PUBLIC HEALTH'S "NEW WORLD ORDER"

China's response to SARS proved a miscalculation of historic proportions. The miscalculation involves not only the damage China suffered but also China's failure to grasp the post-Westphalian context of infectious disease governance. The unfolding saga of the SARS outbreak in China tells the story of the humbling of the sovereignty of a rising great power. The humbling of Chinese sovereignty occurred in both traditional public health governance areas, such as surveillance and response, and matters of political ideology. As a result of its response to SARS, China suffered extensive and withering international scrutiny and criticism of its attitude toward public health, its health-care system, and the political ideology underlying governance in that country.

Sovereignty versus global health governance

The lack of transparency in China's reporting of SARS cases and uncooperative attitude toward WHO during the first two stages of its response resembled sovereign acts that all too often states adopted during past outbreaks. China feared that openly reporting on the SARS outbreak would damage China's economy and image.⁹⁹ This rationale has, in the past, often been the reason states have not reported to WHO outbreaks of diseases subject to the IHR.¹⁰⁰ China was under no international legal obligation to report SARS cases or allow WHO to investigate the SARS outbreak in Chinese territory. Despite exercising its sovereignty in a manner consistent with applicable international law, China eventually engaged in an embarrassing and damaging retreat. Chinese sovereignty could not withstand the forces brought to bear on China by GHG.

China's refusal to provide SARS outbreak information to WHO in a timely, transparent, and verifiable manner ran headlong into the GHG mechanism of WHO's ability to use information from non-governmental sources. Through this mechanism, WHO knew that China was not being forthright and used this knowledge to pressure the Chinese government to cooperate. Unlike past situations of governmental denial and difficult behavior in outbreak situations, on this occasion WHO had a stronger political and epidemiological position because of the World Health Assembly's prior approval of WHO's use of non-governmental information. The SARS outbreak illustrates the power of bringing non-state actors into the process of global surveillance.

The premise of including non-governmental information in global surveillance is that countries can no longer hide outbreaks because of the revolution in information technologies. A WHO consultation on the IHR stated in 1995 that "in this age of wide media coverage, nothing can be hidden."¹⁰¹ Incentives to cover-up or deny outbreaks disappear when cover-up and denial are doomed to

failure. The expanded scope for global surveillance reflects the reality of an increasingly globalized world. As WHO stated in May 2003:

This is the most important lesson for all nations: in a globalized, electronically connected world, attempts to conceal cases of an infectious disease, for fear of social and economic consequences, must be recognized as a short-term stop-gap measure that carries a very high price—loss of credibility in the eyes of the international community, escalating negative domestic economic impact, damage to health and economies of neighboring countries, and a very real risk that outbreaks within the country's own territory can spiral out of control.¹⁰²

The World Health Assembly's approval in 2001 of using non-governmental information in surveillance represented prior recognition of this reality by most of the international community. Technological transformations altered the context in which states would exercise sovereignty in connection with infectious diseases. The sovereign decision of whether to report disease outbreaks is no longer constrained only by formal rules of international law, as is the case in the Westphalian model. Bringing new information technologies to bear on surveillance has forced sovereignty to transition into a much more demanding environment.

Unfortunately, the SARS outbreak represented China's second mishandling of infectious disease surveillance and reporting in recent years. In 2001, China admitted that the HIV/AIDS problem in its territory was far worse than it previously acknowledged.¹⁰³ A UNAIDS assessment of the HIV/AIDS epidemic in China conducted at the end of 2001 argued that China was "witnessing the unfolding of an HIV/AIDS epidemic of proportions beyond belief, an epidemic that calls for an urgent and proper, but currently yet unanswered quintessential response."¹⁰⁴ The same UNAIDS study observed that, in China, "[c]ensorship and restrictions on information concerning HIV/AIDS severely hinders an effective response."¹⁰⁵ Yet, in 2002, China detained a prominent HIV/AIDS activist for distributing by e-mail government information on the true scale of the HIV/AIDS epidemic in Henan Province, the epicenter of HIV transmission through unsanitary blood transfusions at government-run clinics.¹⁰⁶ The *Washington Post* editorialized that a "striking conclusion that emerges from Dr. Wan's disappearance, aside from the atmosphere of secrecy, is how shortsighted are the regime's policies. Facing the risk of an Africa-style AIDS crisis that could decimate its population and economy, any forward-looking government would welcome the efforts of such activists."¹⁰⁷

As with SARS, China was under no international legal obligation to report HIV/AIDS cases to WHO or to engage in international cooperation; yet the country found itself the subject of intense and withering scrutiny of its governance approach to HIV/AIDS because the international community had information about the growing scale of the Chinese HIV/AIDS epidemic. This incident also reveals the futility of Westphalian concepts of public health sovereignty in a world of globalized information on infectious diseases.

China's handling of SARS demonstrated that it had not grasped the new context for public health governance—epidemiological information about germs does not recognize borders. With SARS, China played the sovereignty card only to retreat when its sovereignty was seen, again, to be a deliberate attempt to hide an outbreak about which the world already knew. In some respects, China's behavior in connection with SARS was more inexplicable than with HIV/AIDS because the SARS virus is more transmissible than HIV and thus more dangerous to a world dependent on global air travel.

Both on its own and in combination with HIV/AIDS, the Chinese approach to SARS raised questions about why China exercised its sovereignty on public health issues in the way it did. In the Westphalian template, the nature of the state's government or ideology is not an issue because the principles of sovereignty and non-intervention mean that a state determines its own political and economic structures. Whether a government is a democracy or a dictatorship does not matter in Westphalian public health.

The post-Westphalian context for public health does not share this agnosticism. GHG contains assumptions about what constitutes good governance. Increasing the quality and quantity of global epidemiological information requires openness, transparency, and wide participation in public health in the collecting, analyzing, and disseminating of public health information. GHG requires political recognition of, and commitment to, an "open public health society" in which (1) citizens have a right to receive and disseminate information important to the protection and promotion of their health; and (2) non-state actors can hold governments accountable for their management of the public's health. In short, GHG requires the exercise of a *certain kind of sovereignty*, which differs from the Westphalian approach to sovereignty.¹⁰⁸

These deeper implications of GHG help explain why China's mishandling of the SARS outbreak provided commentators with material for critically analyzing China's communist rule. Some claimed that SARS would be "China's Chernobyl"¹⁰⁹ because it could cause a cascade of reforms that might destroy communist control and introduce democratic governance. These arguments assert that communist China cannot exercise the kind of sovereignty required by governance challenges posed by infectious diseases and other globalized phenomena.

National interest versus global public goods for health

The SARS outbreak reveals another aspect of post-Westphalian public health that China failed to grasp. The first two stages of China's response to SARS demonstrated that its leaders pursued a narrowly constructed national interest. These stages of China's response exhibited the government's myopic focus on "social stability" in China, continued flows of trade and investment into China, and the image of the Communist Party. Even in the face of a pathogen bearing all the attributes of an epidemic disease, China behaved as if its national interest could be introverted and non-responsive to the concerns of other countries and of non-state actors, such as MNCs. China's conception of its national interest broke apart in the post-Westphalian atmosphere of SARS.

Expanding global surveillance to include non-governmental sources of information improves the quantity and quality of global surveillance for infectious diseases. Improved surveillance represents a GPGH that benefits governments, NGOs, MNCs, and individuals.¹¹⁰ China's decision not to contribute to the production of timely and accurate global surveillance on SARS undermined this GPGH and alienated the Chinese government from the global community. Because it initially proved incapable of understanding its role in the production of a GPGH, China's short-sighted approach to its national interest backfired.

As with the confrontation between Chinese sovereignty and GHG, the collapse of China's initial framing of its national interest on SARS has deeper implications. The idea that a country's national interest with respect to infectious diseases can no longer be narrowly tailored and insular is not new. A government can construct its national interest in ways that reflect public health's global realities, and many states affected by SARS took a globalized approach to developing their national interests. China's miscalculation on SARS raises the question whether its communist government is capable of crafting the national interest in a way that recognizes China's public health is intertwined with that of other states and peoples.

For historic and ideological reasons, China has long exhibited sensitivity about outside interests interfering with its sovereignty. The SARS outbreak indicates that China had not grasped how embedded the Middle Kingdom is in global public health. The context of post-Westphalian public health makes China's historical and ideological phobias about threats to its public health sovereignty anachronistic and illegitimate. SARS teaches the lesson that the formulation of the national interest about germs cannot recognize either physical or ideological borders.

SARS and Taiwan

The impact of SARS on China's traditional notions of sovereignty and national interest are also apparent with respect to Taiwan. China fiercely defends its claim to sovereignty over Taiwan, leading experts to worry that China will someday risk war on this issue. This position posed problems for Taiwan's ability to handle its outbreak of SARS. China's attitude toward Taiwan has long plagued Taiwan's efforts to work with WHO on public health concerns because China has opposed any move that suggests Taiwan is an independent country.¹¹¹ SARS forced China to bend on its hard-line approach to Taiwan. Beijing approved in May 2003 a WHO team to travel to Taiwan to assist the Taiwanese with their SARS outbreak. As noted in *The Lancet*, this visit "was a historic moment: the first visit by any representatives of a UN-affiliated organization since China took Taiwan's seat on the world body 30 years ago."¹¹²

This development illustrates the power of post-Westphalian public health to challenge states on deeply and fiercely held political positions. China's refusal to allow WHO or other UN bodies to interact with Taiwan could not withstand the political pressure SARS placed on China. Chinese leaders probably realized that continuing to prohibit WHO assistance for Taiwan would only exacerbate the terrible political situation China had produced in its reaction to SARS. Even China's stance on Taiwan could not stand in the way of the need to incorporate Taiwan into the global effort to bring SARS under control.

BEYOND CHINA: SARS AND POST-WESTPHALIAN PUBLIC HEALTH

Although China provides the most dramatic evidence of the post-Westphalian context for public health, the SARS epidemic produced other indications that public health has transitioned into a new governance era. This section analyzes four areas that support the argument that public health governance has entered a post-Westphalian phase.

Strengthening global health governance

The SARS outbreak vindicated WHO's move to include non-governmental sources of information in global surveillance. WHO's efforts in this direction prior to SARS may have encouraged many countries affected by SARS to report information to WHO early, rapidly, and transparently. Countries as diverse as Canada, Singapore, and Vietnam have been praised for their cooperation on SARS, which is an indication that many countries faced with the same decision as China opted for openness, transparency, and cooperation.

The World Health Assembly reaffirmed, in May 2003, the importance of WHO's ability to use information from non-governmental sources when it requested the WHO

Director-General "to take into account reports from sources other than official notification."¹¹³ This request marked the second time the World Health Assembly supported this approach to global surveillance; but, coming in the midst of the SARS crisis, this resolution carries more political significance. This most recent action by the World Health Assembly strengthens the GHG strategy pioneered by WHO through its Global Network.

China's behavior during the SARS outbreak elucidates why the World Health Assembly's action is so politically important for GHG. WHO's experience with China's recalcitrance and deception brought home the importance for global public health of WHO having access to non-governmental sources of information. China's behavior put the final nail in the coffin of basing global surveillance only on governmental information. Given the cooperation exhibited by most countries affected by SARS, the World Health Assembly's renewed support for WHO's use of non-governmental information indicates how important such information was to overcoming China's intransigence. In light of the humbling of Chinese sovereignty, the World Health Assembly's action stands as a warning to any government tempted to behave in the future on an infectious disease outbreak as China did on SARS.

The SARS outbreak strengthened GHG in another important way. During the outbreak, WHO issued a global alert and several travel advisories. The global alert issued on March 12, 2003 was designed to alert national public health authorities of the international spread of an atypical pneumonia so that such authorities could heighten awareness within their surveillance and response systems.¹¹⁴ The March 15, 2003 emergency travel advisory contained "emergency travel recommendations to alert health authorities, physicians, and the traveling public to what was now perceived to be a worldwide threat to health."¹¹⁵ WHO later issued recommendations that travelers postpone non-essential travel to Hong Kong,¹¹⁶ Guangdong Province,¹¹⁷ Beijing,¹¹⁸ Shanxi Province,¹¹⁹ Toronto,¹²⁰ Tianjin,¹²¹ Inner Mongolia,¹²² Taipei,¹²³ Hebei Province,¹²⁴ and Taiwan.¹²⁵ Both the global alert and the travel advisories constituted unprecedented actions by WHO¹²⁶ and represent further evidence of a transition to post-Westphalian public health.

WHO's authority to issue such alerts and advisories was not a product of the Westphalian template because neither the WHO Constitution nor the IHR invested WHO with this power. The World Health Assembly also had not adopted any decisions or recommendations in this area. Under the Westphalian approach, WHO disseminated government-provided information on areas infected with quarantinable diseases to WHO members, which decided whether to apply measures to persons arriving from or traveling to such areas.¹²⁷ During the SARS outbreak, WHO issued alerts and advisories, an indication that the governance context had changed.

WHO's role in the Westphalian model was to act as a conduit for information not to take a strong position on how members should respond to such information. When members took trade-restricting health measures not permitted under the IHR, WHO would sometimes make statements about the appropriate public health response. For example, in 1998, when the European Union banned the importation of fresh fish products from East African countries suffering a cholera outbreak, WHO publicly stated that trade embargoes were "not an appropriate course of action to prevent the international spread of cholera, and can represent an additional burden on the economy of the affected countries."¹²⁸ This statement was a recommendation to WHO members about the appropriate way to respond to cholera outbreaks in other countries.

As part of the IHR revision process, WHO argued that it needed authority to issue recommendations for public health emergencies of international concern and proposed that the revised IHR contain a non-exhaustive list of types of potential recommendations.¹²⁹ WHO proposed the following process: "During an actual public health emergency of international concern, *WHO and the concerned State(s)* would choose the appropriate measures to be taken from the complete list, and use this as a basis for recommendations for use by Members."¹³⁰ Note that the proposal contemplates that WHO and the concerned states would *jointly* issue the recommendations, most likely out of WHO's concern for the affected states' sovereignty. Even though WHO cautioned that its list was non-exhaustive, none of the draft measures listed by WHO involved recommendations to travelers to postpone non-essential travel to disease-affected areas.¹³¹ The measures WHO listed were recommendations to WHO members on how to deal with travelers, goods, and conveyances coming from disease-affected areas.¹³²

The SARS outbreak witnessed, however, WHO acting beyond the authority it was proposing to write into the revised IHR. First, WHO's geographically specific travel advisories were directed at travelers, not WHO members. For example, WHO's first geographically specific travel advisory recommended "that persons traveling to Hong Kong Special Administrative Region and Guangdong Province, China consider postponing all but essential travel."¹³³ Second, WHO issued the March 12 global alert, March 15 emergency travel advisory, and the geographically specific travel advisories without reaching consensus on these actions with the concerned states. The diplomatic uproar that followed WHO's travel advisory concerning Toronto indicates that WHO acted without consulting the Canadian government. Officials at Health Canada "complained that WHO officials did not give them warning" of the travel advisory.¹³⁴ Similarly, WHO did not obtain China's consent when it issued advisories to travelers to postpone non-essential travel to many parts of China. In

connection with the March 15 emergency travel advisory, WHO officials "agonized over how to limit economic damage but concluded that the conservative course—consulting with national governments—had already failed."¹³⁵ This observation captures the abandonment of the Westphalian model by WHO during the SARS crisis.

Through the global alert and travel recommendations, WHO exercised leadership in coordinating a global response to SARS in the absence of an agreed policy and legal framework and without deference to the sovereignty of affected states. An infectious disease specialist at the U.S. Centers for Disease Control and Prevention argued that, through its actions, WHO "has assumed 'police' powers for controlling outbreaks that put it above national governments, the traditional guardians of public health."¹³⁶ These bold actions revealed WHO as an autonomous actor influencing events directly rather than just acting as a convenient device for coordinating members' behavior. Without any express policy or legal basis for these actions, WHO took steps with serious political and economic consequences for states affected by SARS.

Further indication of this sea change came in the acquiescence of WHO members affected by the alerts and advisories to their issuance by WHO. Although the WHO travel advisory concerning Toronto became controversial,¹³⁷ Canada did not challenge WHO's authority to issue the travel advisory without its consent but only whether the situation in Toronto warranted an advisory. Similarly, China questioned the WHO travel advisory against Guangdong Province but did not publicly challenge WHO's authority to issue the advisory without China's participation.

The World Health Assembly approved WHO's ability to issue alerts when, in May 2003, it requested the WHO Director-General "to alert, when necessary and after informing the government concerned, the international community to the presence of a public health threat that may constitute a serious threat to neighboring countries or to international health on the basis of criteria and procedures jointly developed with Members."¹³⁸ In this resolution, the World Health Assembly went beyond the recommendatory powers in WHO's proposals for the revised IHR. The IHR revision proposal sought to create a process where WHO and affected states would jointly choose the appropriate recommendation, but the World Health Assembly resolution empowers WHO to issue alerts after merely informing the governments concerned. *The resolution limits joint participation of the members to the development of the criteria and procedures for the exercise of the alert power.*¹³⁹

This World Health Assembly's decision is significant for GHG. As the SARS outbreak demonstrated, WHO-issued alerts and advisories could cause a country economic damage by affecting commerce and travel. In contrast to WHO's relative powerlessness in the Westphalian model, post-SARS WHO possesses independent authority that

carries real power, which WHO members have approved. Further, the authority to issue global alerts connects with the ability to use information from non-governmental sources. WHO members approved the WHO's ability to issue alerts against sovereign states without their consent based on information collected from governmental and non-governmental sources. Faced with the impossibility of preventing disease information from flowing to the international community, and with the possibility of facing the adverse consequences of a WHO alert based on global surveillance data, a country's incentive to hide an outbreak for fear of the economic consequences has diminished significantly. The argument that WHO alerts will deter countries from reporting outbreak information¹⁴⁰ neglects to recall the effect of WHO's ability to collect such information from non-governmental sources. The powers to use non-governmental information and to issue global alerts create a GHG pincer that squeezes the state's sovereign decision whether to report outbreak information and to cooperate with WHO and other countries.

States structured Westphalian public health through formal agreements under international law, as the IHR illustrate. The strengthening of GHG in the wake of SARS has occurred without any changes in international law on infectious disease control. Although WHO intends to complete the IHR revision process by 2005, the revised IHR will merely reflect changes in policy effected before and during the SARS outbreak without the direct use of international law. This subordinated role for international law is yet another reflection of public health's arrival in post-Westphalian territory.

The SARS outbreak has also produced a new GHG initiative from WHO: the formation of a PPP "to fight SARS and build capacity for surveillance, epidemiology and public health laboratory facilities in China and the surrounding region."¹⁴¹ WHO plans to collaborate with the Global Health Initiative of the World Economic Forum to raise US \$100 million from the global business community, especially enterprises operating in Asia, which monies will fund surveillance and response capabilities at country-level.¹⁴² Nothing equivalent ever appeared under Westphalian public health¹⁴³ because the initiative actively seeks participation from non-state actors and addresses national public health capabilities beyond the borders of states. The new PPP effort also connects with GHG because companies, not states or international organizations, took the lead in proposing the idea when "a number of companies approached the WHO offering money or other support toward eradicating the [SARS] virus."¹⁴⁴ The initiative connects, thus, with the interest in vertical governance strategies prevalent in other GHG efforts, such as the Global Fund.

The power of global public goods for health

A second area in which the SARS outbreak supports the

argument that public health has entered a post-Westphalian stage involves recognition of the power of producing GPGH. The SARS-related actions taken by WHO and its members to solidify the use of non-governmental information in global surveillance represent recognition that the production of GPGH, such as improved global surveillance information, is important for infectious disease governance. The WHO-proposed PPP on improving country-level surveillance and response capabilities also connects with the desire to produce better global management of infectious diseases.

SARS also triggered unprecedented global scientific cooperation to identify the causative agent for SARS, the formulation of appropriate treatment protocols, and the beginning of efforts to design diagnostic technologies and possible vaccine strategies.¹⁴⁵ Experts hailed these endeavors as a successful global collaboration in the face of an emerging epidemic disease.¹⁴⁶ In this effort, scientific activities on a germ did not recognize borders for the benefit of producing globally useful and needed scientific and clinical knowledge.

The speed with which scientists around the world collaborated to identify a coronavirus as the pathogen responsible for SARS reflected not only rapid advances of microbiology and virology since HIV's emergence but also the strength of collaborative efforts on producing openly available scientific knowledge critical to global SARS responses. Part of these efforts involved strategies to ensure that knowledge and research techniques developed in the SARS investigation remain publicly available and not subject to private appropriation through intellectual property rights.¹⁴⁷ With important scientific information on SARS in the public domain, prospects for the development of effective diagnostic, therapeutic, and prevention technologies as GPGH are enhanced.

Elevating public health as a national political priority

A lament of public health officials for decades has been the neglect of public health by governments. Public health was a low priority of states nationally and internationally in the Westphalian system. Part of the effort to highlight EIDs as a threat was to increase political attention to the inadequacies of national and international public health capabilities. Experts and government officials even tried to elevate the problem by characterizing infectious diseases, especially HIV/AIDS, as a threat to national security.¹⁴⁸

Before the SARS outbreak, bioterrorism provided more traction for elevating public health as a political priority, particularly after the anthrax attacks in the United States. Public health officials stressed synergies between bioterrorism preparedness efforts and everyday public health capabilities. Conceptually, the synergies worked in two directions: bioterrorism preparedness benefited public health

generally, and general public health improvements benefited bioterrorism preparedness. Before SARS, the lion's share of attention focused on how bioterrorism programs would produce positive externalities for public health.

The SARS outbreak has given efforts to elevate public health as a national political priority new momentum. The U.S. National Intelligence Council argued, for example, that "SARS has demonstrated to even skeptical government leaders that health matters in profound social, economic, and political ways."¹⁴⁹ According to WHO, "[o]ne of the most important lessons learned to date is the decisive power of high-level political commitment to contain an outbreak even when sophisticated control tools are lacking."¹⁵⁰ Important in this dynamic is the fact SARS hit economically advanced countries and areas, such as Canada, Hong Kong, Taiwan, and Singapore, hard. Public health experts in the United States also recognized the threat SARS poses for U.S. public health.¹⁵¹ Although some commentators attributed the low number of SARS cases in the United States to the improvements in public health derived from bioterrorism preparedness, public health officials realized that SARS exposed public health to threats that could strain infrastructure and capabilities severely, as happened in Canada.¹⁵² SARS also elevated public health as a national political priority in many countries because the outbreak caused severe economic damage. SARS-related economic damage to Asian economies has been significant enough to make political leaders realize the economic case for more robust national public health capabilities.¹⁵³

Reinforcing the public health-human rights linkage

SARS has highlighted a fourth area that points toward a post-Westphalian period for public health—the role of human rights in public health. Under Westphalian public health, human rights did not register as a concern. Although the relevance of international human rights law to public health has been apparent from the beginning of the human rights movement, neither national nor international public health paid much attention to human rights until HIV/AIDS exploded on the world. HIV/AIDS caused public health communities to turn to international human rights laws to help guide policy on the epidemic.¹⁵⁴

This human rights turn brought both civil and political rights (e.g., freedom of movement) and economic, social, and cultural rights (e.g., the right to health) to bear on public health. Civil and political rights became a policy instrument in the fight against stigma and discrimination faced by people living with HIV/AIDS. The right to health became a weapon in advocacy for greater access to essential medicines, including antiretrovirals.¹⁵⁵ As in other areas, HIV/AIDS led public health away from the traditional, state-centric Westphalian approach toward a strategy that placed

individuals and not states at the center of concern.

SARS reinforces the public health-human rights linkage but in ways different from what occurred with HIV/AIDS. The widespread resort by countries to isolation and quarantine to control SARS brought to life concerns about public health measures infringing on civil and political rights, such as freedom of movement.¹⁵⁶ The proper balance between public health and individual liberties has been debated in the context of U.S. bioterrorism policy.¹⁵⁷ But, apart from human rights criticisms of isolation and quarantine as responses to HIV/AIDS,¹⁵⁸ striking the proper balance between the protection of population health and respect for civil and political rights has not been a prominent question for public health policy.

SARS makes this question important in global public health policy, which represents yet another deviation from the Westphalian model. The different policy responses of governments affected by SARS indicate that the question of the proper balance between public health and individual rights has received different answers. In some countries, such as Singapore, the government used compulsory and tightly monitored isolation and quarantine, thus producing serious infringements on civil and political rights.¹⁵⁹ Other countries, such as Canada, relied more on voluntary isolation and quarantine strategies than on compulsory powers, creating an approach with less adverse impact on individual rights.¹⁶⁰ And still other nations, such as the United States, did not use voluntary quarantine in cases where other countries have utilized compulsory or voluntary quarantine (e.g., individuals who were in contact with suspect SARS cases).¹⁶¹

These varying approaches to balancing public health and human rights mean that SARS creates the need for further examination and application of the criteria international human rights law establishes to evaluate public health measures that infringe on civil and political rights. With public health experts warning that SARS may become endemic, isolation and quarantine will remain key public health instruments until more effective diagnostic technologies, therapies, or a vaccine are developed. More rigorous attention to the human rights implications of SARS is in order as part of the post-Westphalian context of this outbreak.

SARS AND THE VULNERABILITIES OF POST-WESTPHALIAN PUBLIC HEALTH

SARS confirms that public health has moved into a post-Westphalian phase that involves exciting governance possibilities. At the same time, the SARS outbreak contains reminders that post-Westphalian public health faces vulnerabilities that may undermine the new approaches applied in the SARS effort. The vulnerabilities meld into a concern about the sustainability of the post-Westphalian approach

to public health.

Public health governance on infectious disease control has experienced innovations in the past, which over time became ineffective. The emergence of public health as a diplomatic issue in the mid-nineteenth century represented a change because diplomacy added an international component to governance. Not long after the elevation of infectious disease control into a foreign policy concern, experts realized that the innovations of ad hoc conferences and the negotiation of international sanitary conventions was an inadequate response to the infectious disease problem. States then reformed the Westphalian approach by creating international health organizations charged with overseeing the international sanitary conventions and/or coordinating cooperation on infectious diseases.¹⁶²

These innovations also proved inadequate. The next reforms involved four changes: (1) the consolidation of the various international health organizations into one organization, WHO; (2) the unification of international law on infectious diseases to provide one set of rules, the IHR; (3) the creation of a different process for crafting international legal rules on infectious diseases in the form of the adoption of international regulations under Articles 21 and 22 of the WHO Constitution; and (4) articulating infectious disease control as part of the individual human right to the highest attainable standard of health.

The EID crisis revealed public health experts dissatisfied with how these four reforms panned out. Casting a pall over the reformed Westphalian approach was, of course, the global HIV/AIDS nightmare. The move from a Westphalian to a post-Westphalian approach merely represents the latest attempt at governance innovation. Believing that public health has reached the "end of history" with respect to infectious diseases in the post-Westphalian period would be naïve in the extreme.

A comprehensive analysis of why previous governance innovations led to dissatisfaction is beyond the scope of this article, but a common theme for all previous reform efforts would be a lack of sustainability. These innovations became unsustainable because (1) the commitment of governments to public health over time waxed and waned, but mainly waned; and (2) political, economic, social, and technological changes created conditions encouraging the emergence and re-emergence of infectious diseases. The lack of political commitment from governments and globalization's stimulation of the resurgence of infectious diseases led to acknowledgement that the Westphalian approach, and all the reforms made to it, did not provide an adequate governance framework.

The sustainability of post-Westphalian public health governance will also be an issue. Whether the elevation of public health as a national and international political priority seen in SARS remains is an open question. Whether the

elevation of public health as a political priority because of SARS spills over to affect positively efforts to deal with other infectious disease problems, such as antimicrobial resistance, also is uncertain.¹⁶³ SARS may cause governments to shift public health resources away from some existing problems toward SARS-related programs. As WHO indicated in connection with China, "[m]easures may need to be found for sustaining China's present monumental effort to contain SARS, particularly as programmes for responding to other priority diseases, such as HIV/AIDS and TB, may suffer in the long run."¹⁶⁴ The U.S. National Intelligence Council argued that SARS "will not lead to a significant boost in the fight against HIV/AIDS in the coming years. Indeed, many countries are likely to view spending on diseases like SARS and HIV/AIDS as a zero-sum game in the short-term."¹⁶⁵ How much positive spill-over effect, if any, SARS-induced shifts produce for general public health is unknown. If responses to SARS create public health systems only tuned to severe epidemic diseases with high cross-border mobility,¹⁶⁶ then post-Westphalian governance will risk becoming as irrelevant as the IHR became for today's infectious disease problems.

Elevated political commitment to public health in the post-Westphalian period may also have the ironic effect of rejuvenating Westphalian patterns of behavior. If states increase and sustain their national interests in connection with infectious disease control, then they might take firmer control of infectious disease diplomacy. This dynamic may be especially salient for the great powers. In the HIV/AIDS context, the United States' new Emergency Plan for AIDS Relief (Emergency Plan) now overshadows one of the highest profile experiments in GHG, the Global Fund.¹⁶⁷ The United States controls how the vast majority of the Emergency Plan's \$15 billion will be spent, with only a small amount being conditionally channeled into the Global Fund.¹⁶⁸ In many ways, the U.S. approach in the Emergency Plan shares more characteristics with Westphalian than post-Westphalian public health.

The SARS outbreak reveals potential vulnerability in post-Westphalian public health when one considers that the 2003 SARS outbreak did not significantly affect developing and least-developed countries, those nations with the least capability to respond to such a disease. For example, as of August 7, 2003, WHO reported only one SARS case from the entire African continent.¹⁶⁹ Even though it does not appear as if people with malaria or HIV/AIDS have greater susceptibility to infection by SARS-CoV, the prospect of SARS becoming a problem in sub-Saharan Africa, with its large population of immune-compromised and immune-challenged people, is nightmarish.¹⁷⁰ If, as public health officials fear, SARS becomes endemic in regions of the world and a seasonal epidemic disease, more developing countries may be affected. Whether post-Westphalian public health can handle SARS becoming

endemic and epidemic in more of the developing world is, at this point, uncertain.

The vulnerabilities of the post-Westphalian approach to public health revealed by SARS can also be glimpsed more conceptually. In 1997, I described the pathology of the globalization of public health in connection with EIDs as containing five elements: (1) international trade and travel as effective channels for infectious disease spread; (2) deteriorating or nonexistent public health capabilities, including the declining effectiveness of antimicrobial drugs; (3) the failure of the internationalization of public health; (4) the development of unprecedented levels of deeply rooted social, economic, and environmental problems that provide pathogens with fertile conditions; and (5) the weakening of the state's ability to address public health needs and social, economic, and environmental problems because of the globalization of markets.¹⁷¹

SARS underscores this pathology and the challenges it poses for states, international organizations, and non-state actors. SARS reinforces trade and travel as powerful vectors for spreading infectious diseases. SARS also reveals weaknesses and problems in the public health systems of many countries affected. The reliance on GHG mechanisms to address SARS also underscores that traditional internationalization of public health through the Westphalian approach failed to work. SARS' emergence also confirms the fertile conditions pathogens enjoy in the globalized era. The apparent speed with which SARS-CoV jumped from animals to humans and then became an international epidemic is evidence of the potent microbial miasma in which the global village exists.

Finally, SARS also raises concerns about the state's ability to address not only disease emergence but also the underlying economic, social, and environmental causes of such emergence. Post-Westphalian public health has given state and non-state actors new strategies for reacting to disease events. Whether post-Westphalian public health contains a strategy for preventing the emergence of infectious diseases remains murky. Such a prevention strategy would involve more significant interventions into the domestic affairs of sovereign states that post-Westphalian public health, at its present stage, does not contemplate. In addition to the long list of infectious diseases that have emerged or re-emerged in the last three decades, SARS may suggest that the forces of globalization mean that post-Westphalian public health can merely be reactive rather than preventive.

CONCLUSION

The global containment of SARS by July 2003¹⁷² represents a historic triumph that will enter the annals of public health history as one of the most significant achievements in global infectious disease control since the eradication of smallpox. The world's first post-Westphalian pathogen has

not, however, burned itself out like some new diseases that emerged in the recent past. At present, most indications are that SARS will return and remain a public health problem for the foreseeable future.

The political pathology of SARS presented in this article suggests that governance innovations taken to move public health into a post-Westphalian context contributed to the successful global response to a severe infectious disease threat. Commenting on SARS, David L. Heymann, WHO's Executive Director for Communicable Diseases, argued that "[i]n the 21st century there is a new way of working."¹⁷³ With the initial outbreak and public health emergency triggered by SARS, the "new way of working" on infectious diseases proved effective, which constitutes a victory for the emerging framework of post-Westphalian public health.

While victory should be savored, all should remember that germs do not recognize victories or defeats. The challenge for post-Westphalian public health is to create the conditions necessary for the governance innovations tested successfully in the SARS outbreak to be refined, improved, expanded, and sustained to meet the on-going threat pathogenic microbes present. The germs will keep coming. The great task for the global community that answered the initial challenge from SARS is to ensure that the "new way of working" continues to work effectively far into the twenty-first century.

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166. See criticism of Medecins Sans Frontieres that “[t]he only section of the [G8] Action Plan [on Health issued in June 2003] that shows determination is for SARS. Diseases that primarily affect poor people and occur in places of little consequence to the global economy are not treated with the same urgency.” Medecins Sans Frontieres, *G8*

Offers World an "Inaction Plan" on Health (June 3, 2003), at <<http://www.accessmed-msf.org/prod/publications.asp?scntid=3620031159124&contenttype=PARA&>> (last visited June 21, 2003). The G8 Action Plan on Health can be found at <http://www.g7.utoronto.ca/summit/2003evian/health_en.html> (last visited June 21, 2003).

167. For an overview, see *Fact Sheet: The President's Emergency Plan for AIDS Relief*, at <<http://www.whitehouse.gov/news/releases/2003/01/20030129-1.html>> (last visited June 21, 2003). Congress passed legislation to implement this plan in May 2003. See United States Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003, Pub. L. No. 108-25.

168. United States Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003, *supra* note 167 at §202(d).

169. World Health Organization, *Cumulative Number of Reported Probable Cases* (August 7, 2003), at <http://www.who.int/csr/sars/country/2003_08_07/en/> (last visited September 7, 2003).

170. National Intelligence Council, *supra* note 140, at 24.

171. D. P. Fidler, "The Globalization of Public Health: Emerging Infectious Diseases and International Relations," *Indiana Journal of Global Legal Studies* 5 (1997): 11–51, at 33–34.

172. World Health Organization, *SARS Outbreak Contained Worldwide: Threat Remains and More Research Needed, Says WHO* (July 5, 2003), at <<http://www.who.int/mediacentre/releases/2003/pr56/en/>> (last visited September 7, 2003).

173. *Severe Acute Respiratory Syndrome Threat (SARS): Hearing Before the Senate Comm. on Health, Education, Labor and Pensions*, 108th Cong., at 15. (April 7, 2003) (testimony of David L. Heymann, Executive Director, Communicable Diseases, World Health Organization).