

**Who Makes International Law?
How the World Health Organization Changed the
Regulation of Infectious Disease**

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Thesis submitted in partial fulfillment of the requirements for the degree of
D.Phil. in International Relations in the Department of Politics and International
Relations at the University of Oxford

Trinity 2014

95,924 words (including footnotes and excluding bibliography)

ABSTRACT

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This thesis investigates the impact of international organizations on the making of international law by applying insights on how international organizations work—or fail to work—to the process of institutionalized treaty making. Specifically, I probe the relationship between the World Health Organization (“WHO”) and international infectious disease law, focusing in particular on the 2005 International Health Regulations (“2005 IHR”), which was negotiated, adopted, and is now being implemented under WHO’s auspices.

The 2005 IHR is the most recent development in international infectious disease law, the history of which extends back to the beginning of international health cooperation in the mid-nineteenth century, before any international health organization was formed. Relying on secondary sources, WHO documents, archival materials, and personal interviews, I chronologically trace the evolution of international infectious disease law across changing institutional settings. I first examine the incremental growth of the older “barrier” approach to infectious disease regulation, initially developed in the absence of any international health organization and then with the aid of one of WHO’s predecessor organizations. I then analyze the decline of the barrier approach and the rise of the new “epidemiological” approach embodied by the 2005 IHR, with the aid of WHO.

Based on my empirical analysis, I conclude that WHO has radically changed the process of making international infectious disease law as well as its content. On its own initiative and without member state demand, WHO’s permanent staff experimented with novel practices that subsequently became the basis for the 2005 IHR. WHO’s work reduced the length of formal negotiation needed to arrive at a new agreement and the uncertainty associated with adopting a novel regulatory system. Its influence also raises normative questions about the proper role of international organizations in making international law—questions that require further exploration.

ACKNOWLEDGEMENTS

I have been aided by so many during the past seven years since starting this thesis.

At Oxford, I am indebted to my advisor, Ngaire Woods, whose insight and guidance improved this thesis immeasurably. Her entrepreneurship and engagement with the policy process are an inspiration and a model. Early versions of various chapters were presented at workshops at Oxford's Department of Politics and International Relations, the London School of Economics, the London School of Hygiene and Public Health, the International Studies Association, and the British International Studies Association, where panel members and discussants helped sharpen my ideas.

At Stanford Law School, Mark Kelman and Norman Spaulding have advised me over the years on navigating my academic and legal interests. Hank Greely helped me set up a workspace at the Center for Law and the Biosciences. Tino Cuéllar guided my independent research. Eric Feldman provided a helpful critique of my argument at the Harvard/Stanford International Junior Faculty Forum.

In San Diego, Judge McKeown worked with me to improve my writing, and Peter Cowhey enabled me to access library resources at the University of California at San Diego, which were critical in the final stages of this thesis.

Many others helped me find information and understand pieces of the story through personal interviews, informal discussions, and correspondence. I am particularly grateful to Pat Drury, Tim Evans, Max Hardiman, David Heymann, Francis Omaswa, Bruce Plotkin, and Alan Schnur at the World Health Organization, as well as Yonghua Hu, Adam Kamradt-Scott, Abla Mawudeku, David Nabarro, and Ray Yip. I also thank the staff at WHO's archives. My research was supported by the Commonwealth Scholarship, the Association of Universities and Colleges of Canada, Lincoln College, the Department of Politics and International Relations, the Gilbert Murray Trust, and the Canadian Centennial Scholarship Fund.

I could not have undertaken this emotionally challenging endeavor without the care, encouragement, and good company of those around me. My 1 Kingston Road family—Hashi Wijiyaatilake, Andrea Baumann, and Frederico Regateiro—has been with me since the beginning. They are the reason for my happiest year and so many of my warmest memories at Oxford. My Stanford family—Kate Bearman, Jennifer Clark, Anyu Fang, Sophia Lin Lakin, Reiko Rogozen, and Shanai Watson—kept me in good spirits in law school and beyond. My M3 family—Tanya Abrams, Paul Alsdorf, Kathryn Newhall, and Justin Steil—made a busy year delightful.

Aaron Kurman has been my editor, sounding board, and pep talk giver. I would be lost without his patient ear and steady love. My brother, Scott Wang, helped me proofread. He energizes me with ideas for future projects. Finally, as always, all my love and gratitude to my parents, who have, in one way or another, given me everything I have, and my grandma, who inquires about my dissertation every time I call her, asking in Shanghainese whether “the mission has been accomplished.”

Yes—任务完成了.

San Francisco, May 2014

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ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
CDC	Centers for Disease Control
CDS	Programme on Communicable Diseases
DDT	Dichlorodiphenyltrichloroethane
EBFs	Extra-budgetary funds
EMC	Division of Emerging and Other Communicable Diseases Surveillance and Control
GOARN	Global Outbreak and Alert Response Network
GPIN	Global Public Health Information Network
HIV	Human Immunodeficiency Virus
HOLN	Health Organization of the League of Nations
IAEA	International Atomic Energy Agency
IGWG	Intergovernmental Working Group
IHR	International Health Regulations
ISR	International Sanitary Regulations
ILO	International Labour Organization
IO	International Organization
MERS-CoV	Middle East respiratory syndrome coronavirus
OIHP	International Office of Public Hygiene (also known by its French name Office International d'Hygiène Publique)
PHEIC	Public Health Emergency of International Concern
ProMED	Program for Monitoring Emerging Diseases
SARS	Severe Acute Respiratory Syndrome
TEPHINET	Training Programs in Epidemiology and Public Health Interventions Network
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNRAA	United Nations Relief and Rehabilitation Administration
US	United States
WHO	World Health Organization
WWI	World War I
WWII	World War II

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Chapter 1

INTRODUCTION

Modern international life is increasingly legalized and bureaucratized, with sharp rises in the number of multilateral treaties¹ and international organizations (“IOs”)² during the latter half of the twentieth century.³ By 1993, there were approximately 1,500 multilateral treaties.⁴ By 2011, there were 262 conventional IOs, 36 with universal membership.⁵ These increases are not independent of each other. Many IOs were created in part to improve the enterprise of multilateral treaty making and have explicit treaty making roles written into their constitutions. Most developments in international law since 1945 have occurred within the framework of IOs.⁶

This thesis examines how the involvement of IOs has affected the making of international treaties—whether they have altered the costs or benefits of legalization, the process of negotiation, the substance of agreements, or the power relations between

¹ I use the terms “international treaty,” “international convention,” “international agreement,” and “international regulation” interchangeably to mean a written agreement concluded between states governed by international law.

² I use the terms “international organization,” “intergovernmental organization,” and “international agency” interchangeably to mean an international governmental organization composed of sovereign member states.

³ Edward Keene’s statistical analysis of patterns of treaty making finds that there was a sharp increase in treaty making during the nineteenth century, but he notes that the rate of increase in multilateral treaties remained low until the twentieth century—“specifically the period after 1919, perhaps even 1945.” Edward Keene, ‘The Treaty-Making Revolution of the Nineteenth Century,’ *The International History Review*, vol. 34, no. 3, 2012, pp. 478, 493-495.

⁴ Christopher C. Joyner, *The United Nations and international law* (Cambridge: Cambridge University Press, 1997), p. 30.

⁵ Union of International Associations, *Yearbook of International Organizations* (Brussels: Union of International Associations, 2012), p. 25. Conventional intergovernmental organizations include federations of international organizations, universal membership organizations, intercontinental membership organizations, and regionally oriented membership organizations. Universal membership organizations are organizations with (1) membership covering at least 60 countries regardless of distribution or at least 30 countries equitably distributed over several continents, and (2) management structure and activities reflecting membership in terms of geographic distribution and balance. *Ibid.*, p. 10.

⁶ Henry G. Schermers and Niels M. Blokker, *International institutional law: unity within diversity* (London: Martinus Nijhoff Publishers, 1997), p. 6.

countries. I take up these questions in the context of international infectious disease law. I will probe the relationship between institutional dynamics, power, and expertise in the World Health Organization (“WHO”), under whose auspices the revised 2005 International Health Regulations (“2005 IHR” or “revised IHR”)⁷ was negotiated, adopted, and is now being implemented.

International infectious disease law dates back to the beginning of international public health cooperation in the mid-nineteenth century. In an effort to control the cross border spread of epidemics while limiting interference with international traffic and trade, states convened conferences and concluded conventions before any international health organization was formed. These conventions were subsequently consolidated, renamed, and updated, but their legacy persists to this day. Their institutional context, however, has changed immensely since the mid-nineteenth century—from the 1907 formation of the International Office of Public Hygiene (“OIHP”⁸), a narrowly tailored health organization, to the 1946 founding of WHO, a large and permanent bureaucracy with a wide mandate.

The most recent development in international infectious disease law, and the primary focus of this thesis, is the 2005 revision of the IHR. The 2005 IHR entered into force for most signatory states in 2007, and is now legally binding on 196 parties, making it one of the most widely subscribed to instruments of international law.⁹ WHO played a role at several stages of the law’s formulation. In 1995, the World Health Assembly, WHO’s highest policy-making organ, composed of representatives from all

⁷ *International Health Regulations (2005)*, 2nd ed. (Geneva: World Health Organization, 2008) [hereinafter 2005 IHR].

⁸ This organization is commonly known by the acronym of its French name, Office International d’Hygiène Publique.

⁹ For a full list of state parties, see World Health Organization, ‘States Parties to the International Health Regulations (2005)’ [website].

member states, passed a resolution¹⁰ requesting the Director-General, the executive head of WHO's permanent staff, to prepare an update for the then-in force 1969 International Health Regulations ("1969 IHR").¹¹ There is universal accord in the IHR literature that the revision began with this resolution.¹² There is also widespread agreement among IHR scholars that the 2003 epidemic of Severe Acute Respiratory Syndrome ("SARS") played a critical role in the revision process. Many characterize the process up until SARS as stalled, and credit the outbreak with having accelerated it by demonstrating the international community's vulnerability to disease spread and thus the need for a new legal framework.¹³ The 2005 IHR was ultimately the outcome of two multilateral conferences called "Intergovernmental Working Groups," which were held in 2004 and 2005 and organized by WHO's staff.¹⁴ After a total of about three weeks of formal intergovernmental negotiation over the legal text, the World Health

¹⁰ World Health Organization, World Health Assembly Resolution 'Revision and updating of the International Health Regulations,' WHA48.7, 12 May 1995.

¹¹ *International Health Regulations (1969)*, 3rd ed. (Geneva: World Health Organization, 1983) [hereinafter 1969 IHR].

¹² See, e.g., Obijiofor Aginam, 'Globalization of Infectious Diseases, International Law and the World Health Organization: Opportunities for Synergy in Global Governance of Epidemics,' *New England Journal of International and Comparative Law*, vol. 11, no. 4, 2004, p. 69; V. K. Agrawal, 'Pandemic response and international health regulations,' *Medical Journal Armed Forces India*, vol. 63, no. 4, 2007, p. 366; Michael G. Baker and David P. Fidler, 'Global public health surveillance under new international health regulations,' *Emerging Infectious Diseases*, vol. 12, no. 7, 2006, p. 1058; Michael G. Baker and Andrew M. Forsyth, 'The new International Health Regulations: a revolutionary change in global health security,' *Journal of the New Zealand Medical Association*, vol. 120, no. 1267, 2007, p. 2872; David Bishop, 'Lessons from SARS: Why the WHO must provide greater economic incentives for countries to comply with international health regulations,' *Georgetown Journal of International Law*, vol. 36, 2004, p. 1175; Philippe Calain, 'Exploring the international arena of global public health surveillance,' *Health Policy and Planning*, vol. 22, no. 1, 2007, p. 2; David P. Fidler, 'SARS: political pathology of the first post-Westphalian pathogen,' *The Journal of Law, Medicine & Ethics*, vol. 31, no. 4, 2003, p. 489; David P. Fidler and Lawrence O. Gostin, 'The new International Health Regulations: an historic development for international law and public health,' *Journal of Law, Medicine & Ethics*, vol. 34, no. 1, 2006, p. 85; Bruce Plotkin, 'Human rights and other provisions in the revised International Health Regulations (2005),' *Public Health*, vol. 121, no. 11, 2007, p. 840.

¹³ See, e.g., Baker and Forsyth, 'The new International Health Regulations: a revolutionary change in global health security,' p. 2872; Belinda Bennett and Terry Carney, 'Trade, Travel and Disease: The Role of Law in Pandemic Preparedness,' *Asian Journal of WTO & International Health Law and Policy*, vol. 5, 2010, p. 311; Bishop, 'Lessons from SARS: Why the WHO must provide greater economic incentives for countries to comply with international health regulations,' pp. 1093-1094; Fidler and Gostin, 'The new International Health Regulations: an historic development for international law and public health,' p. 85.

¹⁴ The Intergovernmental Working Groups occurred in November 2004 and February 2005, the latter of which was suspended and reconvened for a final session in May 2005.

Assembly unanimously adopted the revised IHR in May 2005¹⁵ under Article 21 of WHO's Constitution, which authorizes the Health Assembly to adopt regulations on five specific subjects including the prevention of international disease spread.¹⁶

The 2005 IHR is but one example of an IO's involvement in creating a new international agreement. Many IOs have exercised authority similar to that of WHO, with expert committees preparing initial drafts, staff members organizing formal intergovernmental negotiations, and the representative organ adopting new treaties. Yet, despite the growing role of IOs in treaty making, our understanding of how international agreements are made and evolve remains largely unaffected by insights on how international institutions work—or fail to work. On one level this oversight is not surprising. The principle of consent remains the bedrock of international agreements and sets treaty making apart from other activities IOs engage in. Given that the final decision to accept treaties rests firmly with states, one might expect that the involvement of IOs is limited to creating administrative short cuts for arriving at agreements states would otherwise make on their own. An examination of treaty making within IOs must consider this possibility.

The goal of this thesis is to apply institutional insights to the contemporary process of treaty making within IOs. I do this by tracing the development of international infectious disease law across institutional settings. My primary focus is on WHO's relationship with infectious disease law, particularly its role in formulating the 2005 IHR. But a look at how international infectious disease laws were created and developed prior to WHO's existence provides historical perspective and a useful comparison. By unravelling the causal mechanism over time behind WHO's influence

¹⁵ World Health Organization, World Health Assembly Resolution 'Revision of the International Health Regulations,' WHA 58.3, 23 May 2005.

¹⁶ 'Constitution of the World Health Organization,' in *Basic Documents*, 47th ed. (Geneva: World Health Organization, 2009) [hereinafter Constitution of the World Health Organization], Article 21(a).

on the 2005 IHR, I hope to contribute to a growing literature on the relationship between international organizations and international law, and how they evolve alongside one another.

In this introductory chapter, I discuss the challenge of making international infectious disease law and I review the existing literature on how IOs can help or hinder the process of treaty making. I then outline my research questions, address methodological issues, and provide a roadmap for the remaining chapters.

The challenge of making international infectious disease law

There is both a technical need for, and significant sovereignty and pre-agreement negotiation costs associated with, international infectious disease law. On the one hand, infectious disease control provides a classic case for international cooperation through binding international law. On the other hand, coming to a consensus on what that law should require is a long and costly process.

Preventing the spread of infectious disease is a global public good¹⁷ that no single government can effectively or efficiently provide on its own. When an epidemic emerges and spills across national boundaries, cooperation is vital. To prevent further spread, a global outbreak must be tracked and epidemiological information collected, verified, analyzed, and disseminated on a regular and systematic basis. To avoid excessive protective measures that unnecessarily restrict international travel and commerce, states must agree to limit measures imposed. Where the disease in question is previously unknown, scientists and doctors must coordinate their research efforts to quickly fill gaps in knowledge by identifying the causative agent, creating diagnostic

¹⁷ Control of infectious diseases is considered a “global public good” in that it is “nondivisible,” meaning that all can benefit from the public good once it is produced, and “nonexcludable,” meaning that it is not possible to exclude any individual or group from the benefits. Lincoln C. Chen, Tim G. Evans and Richard A. Cash, 'Health as a Global Public Good,' in *Global Public Goods: International Cooperation in the 21st Century*, Inge Kaul, Isabelle Grunberg and Marc A. Stern, eds. (Oxford: Oxford University Press, 1999), p. 284.

tools, characterizing the course of infection, devising infection-control measures, and developing treatments. Resource transfers may be needed to ensure that the infection is controlled everywhere, including in countries with weak and vulnerable public health systems.

Though necessary to control infectious diseases, cooperation is difficult to execute and maintain in practice due to the incentive to defect. Countries develop different motives when faced with the exigencies of any particular outbreak. A country in the throes of an epidemic and its yet-uninfected neighbors will inevitably have divergent preferences as to when the epidemic should be reported, how much information should be divulged, and what precautions should be imposed.

The immense and uneven costs of disease reporting are exemplified by the September 1994 outbreak of plague in Gujarat, India—a rare case of over-reporting. Lacking adequate diagnostic equipment, the government of India adopted a low-threshold case definition and over-estimated the extent of the epidemic while awaiting laboratory confirmation.¹⁸ The result was widespread panic: hundreds of thousands of people fled the surrounding area, flights to and from India were cancelled by countries throughout the Eastern Mediterranean region and Asia, and India suffered a loss of US\$1.7 billion in trade, tourism, and travel.¹⁹ The inability to predict the course of an infection as well as how other countries will react creates an abiding incentive to protect economic interests by reneging on any cooperative system of reporting. An unreliable reporting system may in turn induce yet-uninfected countries to violate any agreement limiting the protective measures that may be imposed.

¹⁸ Richard A. Cash and Vasant Narasimhan, 'Impediments to global surveillance of infectious diseases: consequences of open reporting in a global economy,' *Bulletin of the World Health Organization*, vol. 78, no. 11, 2000, pp. 1360-1361.

¹⁹ Ibid.; Aginam, 'Globalization of Infectious Diseases, International Law and the World Health Organization: Opportunities for Synergy in Global Governance of Epidemics,' p. 68.

Because of the potential for opportunism, hard international law—law that is binding, precise, and delegates interpretive and enforcement authority to a third party²⁰—is a particularly well-suited institutional tool for regulating infectious disease cooperation. Hard legal commitments are useful when the benefits of cooperation are great but the potential for cheating and its costs are high. These conditions are likely to occur when national actions have significant external effects and cooperation involves the non-simultaneous performance of reciprocal commitments,²¹ as is the case in infectious disease control. By creating stable and predictable long-term constraints that motivate nations to cooperate even when doing so may run counter to their short-term interests, hard international law strengthens the credibility of commitments, enhances the capacity for enforcement, increases reputational costs if a violation is found, and legitimizes retaliation.²²

Yet, the same qualities that make international law a useful assurance device also makes a consensus on a legal agreement hard to reach at the outset. Any cooperative arrangement, legal or non-legal, requires “the actions of separate [nations]—which are not in pre-existent harmony—to be brought into conformity with one another through the process of policy coordination.”²³ That process of coordination is especially difficult and costly when negotiating a precise and obligatory set of legal constraints on sovereignty that will bind states to potentially inferior future outcomes.

Not only do states face different motives due to the exigencies of particular outbreaks, but they also have divergent systemic preferences on which diseases to regulate and how to regulate them due to variances in public health capacity,

²⁰ Kenneth W. Abbott, Robert O. Keohane, Andrew Moravcsik, Anne-Marie Slaughter and Duncan Snidal, 'The concept of legalization,' *International Organization*, vol. 54, no. 3, 2000, p. 401.

²¹ Kenneth W. Abbott and Duncan Snidal, 'Hard and soft law in international governance,' *International Organization*, vol. 54, no. 3, 2000, p. 429.

²² *Ibid.*, p. 422.

²³ Robert O. Keohane, *After hegemony: cooperation and discord in the world political economy* (Princeton, NJ: Princeton University Press, 1984), p. 51.

vulnerability to disease outbreak, and trade interests. Countries with well-developed sanitation and public health systems have little concern for diseases that arise from conditions like poor access to clean water, crowded living environment, and inadequate medical care. Countries with weak public health systems have little to benefit from a legal agreement that requires the reporting of diseases they lack the capacity to detect or to respond to. Additionally, those with strong international commercial interests will favor greater limits on protective measures, while those more susceptible to disease importation will advocate greater latitude to implement restrictions on travel and trade.

States must get around these differences to find common ground through multilateral negotiation if they are to agree to be bound by a uniform set of rules. Pre-agreement negotiation costs are particularly high when parties have conflicting national interests, when the subject of cooperation is new and complex, when states have a poor understanding of the underlying problem, and when the possible consequences of a legalized agreement are uncertain. The process by which states make international infectious disease law is interesting precisely because legal cooperation in the management of infectious disease is nearly as contested as it is beneficial. The fact that international laws are now so often made in the setting of permanent international organizations raises the question—to what effect?

How can IOs help?

The role of international organizations in making international treaties has received relatively little attention from international lawyers and international relations scholars alike. For the most part, the study of international law making has remained separate from the study of international organizations. Research on treaties tends to focus on states, leaving the agencies through which they interact, and which administer, implement, and interpret international laws, out of the picture. Research on

international organizations tends to address IO activities generally, but does not hone in on the contribution of IOs to the formulation of treaties specifically. Next, I review what international relations scholars—both those studying delegation to IOs generally and those examining institutionalized treaty making specifically—have to say about the effects, positive and negative, of making international law through IOs.

Positive effects of institutionalized treaty making

At the most general level, the literature on delegation argues that states act through IOs because doing so offers advantages over acting unilaterally or cooperating directly. These advantages include greater efficiency, lower transaction costs, and better information, which can be achieved by centralizing collective activities in a stable institutional structure—an IO—staffed by specialized personnel.²⁴ IOs are also advantageous because of their neutrality and independence, which can imbue their actions with legitimacy, enhance the credibility of commitments, facilitate collective decision-making and policy coordination, and lock in policy preferences over time.²⁵ In short, IOs create the “conditions for orderly multilateral relations.”²⁶

More specifically, there is a small body of literature that applies these general insights to treaty making, thus bridging the divide between the study of international law and the study of international organizations. A number of writers have noted the semi-legislative and semi-judicial roles played by IOs, particularly the United Nations (“UN”) and its agencies.²⁷ These scholars have explored the diversity of ways in which IOs affect international law and examined the spectrum of international legal

²⁴ Darren G. Hawkins, David A. Lake, Daniel L. Nielson and Michael J. Tierney, 'Delegation under anarchy: states, international organizations, and principal-agent theory,' in *Delegation and Agency in International Organizations*, Darren G. Hawkins, David A. Lake, Daniel L. Nielson and Michael J. Tierney, eds. (Cambridge: Cambridge University Press, 2006), pp. 13-20.

²⁵ Kenneth W. Abbott and Duncan Snidal, 'Why states act through formal international organizations,' *Journal of conflict resolution*, vol. 42, no. 1, 1998, pp. 4-5.

²⁶ Keohane, *After hegemony: cooperation and discord in the world political economy*, p. 211.

²⁷ These scholars and practitioners include José Alvarez, Rosalyn Higgins, Christopher Joyner, Frederic Kirgis, and Oscar Schachter, former senior legal counsellor at the United Nations Legal Department.

apparatuses impacted—including general principles of international law, customary international law, treaty law, the internal institutional law of IOs, and soft international law such as non-binding standards, recommendations, resolutions, and norms.²⁸ Since this thesis focuses on WHO’s contribution to the creation of an international agreement, I will limit my discussion to the literature on IOs and treaty making. I note, however, that the lines between treaty law, customary international law, and soft international law, and between law internal and external to IOs, are not always clear. Norms may become treaties, which may become customary international law over time, and rules internal to IOs may have external effects.

The literature on institutionalized treaty making suggests that the advantages of acting through IOs have affected all stages of the treaty making process, though the method of influence varies from organization to organization. Before creating a new agreement, IOs may conduct pre-initiation studies to assess the likelihood of the agreement’s adoption. Initiation itself may occur in an IO when a proposal is introduced in a competent organ, usually by a member state.²⁹ The charters or constitutions of some IOs specifically confer treaty-making power,³⁰ and even in the absence of such delegation at their founding, IOs are typically assumed to have the “implied power” to initiate and assist with treaty making.³¹

²⁸ See, e.g., José Alvarez, *International Organizations as Law-makers* (Oxford: Oxford University Press, 2005); Rosalyn Higgins, *The development of international law through the political organs of the United Nations* (London: Oxford University Press, 1963); Joyner, *The United Nations and international law*; Frederic L. Kirgis, *International Organizations in their Legal Settings* (St. Paul, MN: West Publishing Co., 1993); Oscar Schachter, 'The Development of International Law through the Legal Opinions of the United Nations Secretariat,' *British Year Book of International Law*, vol. 25, 1948; Schermers and Blokker, *International institutional law: unity within diversity*.

²⁹ Paul C. Szasz, 'General law-making processes,' in *The United Nations and International Law*, Christopher C. Joyner, ed. (Cambridge: Cambridge University Press, 1997), p. 45.

³⁰ Examples include the Charter of the United Nations, which mandates the General Assembly to “initiate studies and make recommendations” related to the “progressive development of international law and its codification,” and authorizes the Economic and Social Council to “prepare draft conventions for submission to the General Assembly, with respect to matters falling within its competence.” *Charter of the United Nations and Statute of the International Court of Justice* (New York, NY: United Nations, 1945) [hereinafter UN Charter], Articles 13(1)(a) and 62(3).

³¹ Alvarez, *International Organizations as Law-makers*, p. 276.

Once the process of treaty making is underway, IOs may conduct preliminary studies, prepare an initial draft, consult with governments, and convene formal negotiations. These tasks may be assigned to an expert body within an IO,³² which may receive or solicit input and guidance from member states to keep the developing treaty politically on track. IO government consultations may take the form of reports to member states, requests for state comments, or presentations and discussions in a plenary organ.

After a proposed text is prepared, it may be negotiated in a representative body where member states bargain over the details of the agreement, or it may simply be presented to a representative body for adoption. Alternatively, initial drafts may be prepared by member states, or not at all, in which case the treaty may be drafted provision by provision in formal negotiations. A third approach is for states to first reach a political accord and then to leave the task of formulating a clear, consistent legal text reflecting that accord to a specialized committee within an IO.

Finally, IOs have a range of methods for treaty adoption, reservations, and post-adoption follow-up. Although it remains true that states are only bound by the international agreements to which they consent, some IOs have innovative procedures, such as opt-out systems requiring member states to affirmatively reject treaties they do not wish to be bound by, or rules that limit or prohibit reservations.³³ After adoption, IOs may employ devices for simplifying the process by which treaties are updated. A

³² Notable examples include the International Law Commission, which receives political input and guidance from the Sixth Committee of the UN's General Assembly, and the United Nations Commission on International Trade Law.

³³ The International Labour Organization, for example, does not permit reservations to its conventions, though it often employs "flexibility clauses" to give states some leeway.

convention may be supplemented with protocols or easily amended technical annexes, which may not require explicit acceptance by states to become binding.³⁴

Thus, the benefits of operating through IOs—greater efficiency, lower transaction costs, more legitimacy, and better information and coordination—could accrue at any stage of treaty making. Scholars conclude that IOs have contributed to the proliferation of treaties by increasing state interactions, emphasizing common interests, identifying problems conducive to legal solutions, and providing resources and procedures for taking agreements from conception to enactment.³⁵ Scholars also argue that IOs have “democratized” treaty making by undertaking the endeavor within institutions that have widespread if not universal membership, thereby expanding the range of actors included.³⁶ All member states, regardless of clout, and sometimes even non-governmental organizations now have access to relevant information and the opportunity to participate in treaty making.

Negative effects of institutionalized treaty making

There are also disadvantages to working through IOs. To reap the rewards of delegation, states must necessarily cede some control to IOs—control that could be utilized by IOs to develop ideas and pursue agendas separate from those of member states. This is the central tenet of principal agent theory: there is inevitably some loss of control when one party (the principal) delegates to another party (the agent) the authority to act on its behalf. IOs can be actors in their own right rather than simply instruments of states. They can take actions that are undesired by member states by

³⁴ One example is the 1985 Vienna Convention for the Protection of the Ozone Layer, which was updated by the adoption of the Montreal Protocol in 1987.

³⁵ Louis Henkin, 'International organization and the rule of law,' *International Organization*, vol. 23, no. 3, 1969, p. 657.

³⁶ Oscar Schachter, 'The UN legal order: an overview,' in *The United Nations and International Law*, Christopher C. Joyner, ed. (Cambridge: Cambridge University Press, 1997), p. 4.

minimizing the effort they exert on behalf of their principals (shirking) or by shifting policy from their principals' preferences to their own (slippage).³⁷

The divergence between what principals want and what agents do (agency slack) may become significant if IOs exercise their authority for their own benefit. IOs derive authority from the delegation process and the mandate they have been charged with. They also have authority by virtue of their bureaucratic nature, which “modernity views as particularly legitimate and good,”³⁸ and the expertise of their professional staff members, which enables IOs to control information. IOs can alter incentives for state action by collecting and strategically deploying information,³⁹ and they can create new interests and actors by interpreting information and defining social reality.⁴⁰ Member states often defer to IOs to decide if there is a problem at all, who should solve it, and what good behavior and legitimate action mean.

Although principal agent theory does not tell us how the preferences of IOs are formed or change, scholars have generally identified two sets of autonomous IO interests: those grounded in epistemic incentives and those stemming from bureaucratic incentives.⁴¹ Epistemic preferences come from a shared professional identity, which may induce staff members to hold similar normative values, to view an IO's work through the lens of a certain “logic of appropriateness,”⁴² and to have a common vision

³⁷ Hawkins, Lake, Nielson and Tierney, 'Delegation under anarchy: states, international organizations, and principal-agent theory,' p. 8.

³⁸ Michael N. Barnett and Martha Finnemore, 'The politics, power, and pathologies of international organizations,' *International Organization*, vol. 53, no. 4, 1999, p. 707.

³⁹ Michael Barnett and Martha Finnemore, *Rules for the world: International organizations in global politics* (Cornell University Press, 2004), p. 6.

⁴⁰ *Ibid.*, pp. 6-7.

⁴¹ Andrew P. Cortell and Susan Peterson, 'Dutiful agents, rogue actors, or both? Staffing, voting rules, and slack in the WHO and WTO,' in *Delegation and Agency in International Organizations*, Darren G. Hawkins, David A. Lake, Daniel L. Nielson and Michael J. Tierney, eds. (Cambridge: Cambridge University Press, 2006), p. 260.

⁴² James G. March and Johan P. Olsen, 'The institutional dynamics of international political orders,' *International Organization*, vol. 52, no. 4, 1998, pp. 951-952.

of what “good policy” entails.⁴³ Bureaucratic preferences arise from contestation over limited resources. Staff members respond to incentives relating to job security and prospects for advancement, and subunits within an institution may compete for funding, leading to inefficient behavior that is not desired by the principal.⁴⁴ The upshot is that international organizations tend to advocate expansion, employing more and more staff,⁴⁵ and creating a world that “licenses yet more intervention.”⁴⁶

These insights into the undesirable internal dynamics of bureaucratic organizations provide a contrasting picture of how an IO’s involvement may affect treaty making. At each stage of treaty making, staff members within an IO may utilize their expertise and control over information to pursue their own goals and to realize their autonomous idea of how a given area should be regulated.

Some scholars have noted that IOs can hinder treaty making by submitting proposals that are ambitious to the point of being out of touch with political reality or that include too many parties to find common ground.⁴⁷ These scholars contend that IO involvement has increased the quantity but reduced the quality of treaties by creating weak agreements that states are not committed to abide by. Bruno Simma criticizes IOs for making it too easy to initiate treaty making. He notes that treaty texts are often formulated before it is known whether consent can be attained and a “deceptive atmosphere of concord” is maintained when negotiations should actually be postponed or halted.⁴⁸ The result is vague and ambiguous treaties, states—particularly those on

⁴³ Barnett and Finnemore, *Rules for the world: International organizations in global politics*, p. 5.

⁴⁴ Barnett and Finnemore, 'The politics, power, and pathologies of international organizations,' pp. 716-717; Cortell and Peterson, 'Dutiful agents, rogue actors, or both? Staffing, voting rules, and slack in the WHO and WTO,' p. 260.

⁴⁵ Roland Vaubel, Axel Dreher and Ugurlu Soylu, 'Staff growth in international organizations: A principal-agent problem? An empirical analysis,' *Public Choice*, vol. 133, no. 3-4, 2007, p. 276.

⁴⁶ Barnett and Finnemore, *Rules for the world: International organizations in global politics*, pp. 15, 17.

⁴⁷ Alvarez, *International Organizations as Law-makers*, pp. 365-369.

⁴⁸ Bruno Simma, 'Consent: Strains in the Treaty System,' in *The Structure and Process of International Law: Essays in Legal Philosophy Doctrine and Theory*, R. St.J. Macdonald and Douglas M. Johnson, eds. (The Hague: Martinus Nijhoff Publishers, 1983), pp. 487-494.

whose participation the success of a treaty depends—refraining from signing, states signing with numerous and significant reservations, or slow ratifications. Additionally, though IOs may have expanded the range of actors involved in treaty making by including less powerful countries, scholars note that IOs can also create new avenues for powerful member states to exert their influence.⁴⁹

What is missing?

The existing literature provides a catalogue of IO procedures and potential impacts, making it clear that it is impossible to generalize across IOs or treaties. IOs may affect any stage of the treaty making process. They may make treaties more inclusive by involving all member states, or less inclusive by creating new channels through which powerful states can press their interests. They may expedite and facilitate treaty making through centralization and specialization, or they may hinder treaty making by proposing regulations that states have no intention of following.

What is missing from the existing literature is an account of when and how IO involvement leads to one outcome rather than another. It remains unclear what causal mechanisms result in agreements that are more inclusive and represent a real consensus in the international community, when IO contributions are valuable and when they are counterproductive, and under what circumstances IO discretion and autonomy benefit rather than hurt treaty making. To address these questions, in-depth process tracing studies that incorporate insights on the internal institutional dynamics of IOs are needed.

This thesis begins to fill that gap. Research into large bureaucratic organizations suggests that they embody more than just the collective will of their founders and are liable to evolve in unanticipated and unintended ways over time. But these insights

⁴⁹ Alvarez, *International Organizations as Law-makers*, pp. 286-288; José E. Alvarez, 'The New Treaty Makers,' *Boston College International and Comparative Law Review*, vol. 25, 2002, p. 226.

generally have not been applied to IOs in their capacity as treaty makers. One exception is Laurence Helfer's study of the International Labour Organization ("ILO"), which employs historical institutionalism and places the organization's treaty making efforts within the context of its transformation over time as it adapted to changing circumstances.⁵⁰ Helfer concludes that treaty making within the ILO was most successful during early decades when membership was small and homogenous and less successful after World War II when membership became broader and more diverse. Another example in the domestic context is Daniel Carpenter's examination of innovation within two American executive agencies—the United States Post Office and the Department of Agriculture—over the course of several decades.⁵¹ Carpenter finds that, by building strong reputations and coalitions behind their preferred policies, entrepreneurial bureaucrats were able to induce the United States Congress to ask for the laws and policies that the bureaucrats favored. Using a similar historical process tracing method, I will examine WHO's involvement in creating international infectious disease law.

Research question

This thesis asks one simple question: how has WHO affected the making of international infectious disease law?

A longitudinal study

I ask this question across an extended period of time, beginning with the emergence of international infectious disease law in the mid-nineteenth century and ending with the adoption and then implementation of the 2005 IHR. International infectious disease laws across this time can be divided into two distinctive approaches

⁵⁰ Laurence R. Helfer, 'Understanding change in international organizations: Globalization and innovation in the ILO,' *Vanderbilt Law Review*, vol. 59, 2006.

⁵¹ Daniel P. Carpenter, *The forging of bureaucratic autonomy: Reputations, networks, and policy innovation in executive agencies, 1862-1928* (Princeton, NJ: Princeton University Press, 2001).

to disease management: the old “barrier approach” and the new “epidemiological approach.”

The barrier approach’s formation began in the mid-nineteenth century and was the basis for a series of inter-related and substantively similar legal agreements beginning with the First International Sanitary Convention of 1892 and ending with the 1969 IHR.⁵² The barrier approach persisted across a number of institutional contexts. It emerged before the existence of any international health organizations. Its development led to the formation of the first global health organization—OIHP—for the purpose of collecting information about the diseases regulated by the conventions. And it remained in effect for over half a century under WHO’s oversight.

The barrier approach sought to prevent diseases from crossing international borders in two key ways. First, it mandated the reporting of specific diseases so that certain epidemics could be tracked. The specific diseases covered varied over time, and included cholera, plague, yellow fever, typhus, relapsing fever, and smallpox. Signatory states initially reported directly to each other, then to WHO’s predecessor organizations when they were formed, and finally to WHO after its establishment. Second, the barrier approach mandated minimum sanitation and medical facility requirements at ports and airports, and defined maximum protective health measures that could be applied at national borders so that unnecessarily restrictive constraints on international travel and commerce could be avoided.

The barrier approach was subsequently displaced by the epidemiological approach, which is the basis for the 2005 IHR. While the barrier approach focused on

⁵² Scholars and practitioners alike have grouped these agreements together as a connected legal framework while distinguishing them from the 2005 IHR. David Fidler refers to the legal agreements under the barrier approach collectively as the “classical regime” on the grounds that they have “changed little in [their] substantive objectives or the framework States used to achieve those objectives.” David P. Fidler, ‘From international sanitary conventions to global health security: the new International Health Regulations,’ *Chinese Journal of International Law*, vol. 4, no. 2, 2005, pp. 327-328.

measures taken at the border for a small number of specific diseases, the epidemiological approach relies on swift responses to epidemics at their source and takes an “all risks” approach⁵³ that is not confined to specific diseases. This shift is considered a “revolution in the governance of global infectious disease.”⁵⁴ Compared to the 1969 IHR which it superseded, the 2005 IHR facilitates deeper cooperation⁵⁵ and imposes more limits on state sovereignty.

The 2005 IHR expanded the obligations of signatory states and broadened the authority of WHO vis-à-vis state parties. Under the 2005 IHR, there are two main sources of information regarding public health threats: self-reporting by the country in which the threat is occurring, and reports from all other sources. Signatory states must self-report to WHO all events within its territory “which may constitute a public health emergency of international concern” (“PHEIC”).⁵⁶ Additionally, while WHO had no authority to actively collect information regarding disease outbreaks under the 1969 IHR, the organization must now carry out its own surveillance activities and is permitted to take into account reports from any source.⁵⁷

The 2005 IHR also gives WHO unprecedented authority to disseminate disease outbreak information, to declare a PHEIC, and to issue recommendations regarding health measures to be implemented.⁵⁸ At the same time, the 2005 IHR requires WHO to offer collaboration with an outbreak country in assessing and responding to an event

⁵³ Fidler and Gostin, 'The new International Health Regulations: an historic development for international law and public health,' pp. 86-87.

⁵⁴ David P. Fidler, 'Germs, governance, and global public health in the wake of SARS,' *Journal of Clinical Investigation*, vol. 113, no. 6, 2004, p. 799.

⁵⁵ The “depth of an agreement” is “the extent to which [an agreement] requires states to depart from what they would have done in its absence” (internal quotes omitted). Kal Raustiala, 'Form and substance in international agreements,' *American Journal of International Law*, vol. 99, no. 3, 2005, p. 584.

⁵⁶ 2005 IHR, Articles 6 and 7. Annex 2 outlines how events that may constitute a PHEIC are to be identified.

⁵⁷ Ibid., Articles 5, ¶ 4 and 9, ¶ 1.

⁵⁸ Ibid., Articles 11, 12, 15, 16, 17, and 18.

that may constitute a PHEIC.⁵⁹ Finally, whereas the 1969 IHR only imposed public health capacity obligations at points of national entry and exit, the 2005 IHR additionally requires state parties to make domestic institutional changes and build national public health capacity.⁶⁰

I will examine chronologically these developments in international infectious disease law alongside the development of international health organizations. I will analyze how international infectious disease laws were made before WHO was created—including the decades of treaty making without any international health organization and the decades of treaty making under the auspices of OIHP—as well as how international infectious disease law has been made since WHO’s founding.

Competing answers

This inquiry may yield three potential conclusions. One possible finding is that WHO did not play a substantive autonomous role in shaping infectious disease law. This conclusion would follow if the shift in legal approach was conceived, initiated, and pushed forward by states perceiving a new infectious disease threat. Perhaps these states used WHO instrumentally as an administrative tool to more efficiently complete the steps of treaty making, or as a political tool to shield a law advancing the interests of powerful states with the semblance of broad global legitimacy. Given that the barrier approach endured despite changes in institutional context, and that the shift from barrier to epidemiological approach occurred long after WHO’s establishment, one might wonder whether WHO’s involvement had much to do with the creation of the epidemiological approach and the 2005 IHR at all.

A second possible scenario is that WHO played a substantive autonomous role in moving away from the 1969 IHR and creating the 2005 IHR, to which 196 parties

⁵⁹ Ibid., Articles 10, 13, and 44.

⁶⁰ Ibid., Articles 5 and 13, and Annex 1.

have genuinely committed. This conclusion would follow if WHO played a significant and independent part in advancing the process of formulating the 2005 IHR—meaning that it did more than simply act at the behest and upon the direction of member states—but it did so while remaining sensitive to the cessions in sovereignty member states were willing to make. WHO may have channelled the needs and preferences of member states in a way that they could not have done on their own. Given that the most radical change in the history of infectious disease law since its emergence in the mid-nineteenth century occurred under the auspices of WHO, it stands to reason that the organization may have had a hand in that development.

A final possible conclusion is that WHO played a substantive role in shaping infectious disease law that was *too* autonomous, such that the 2005 IHR represents WHO's preferences rather than a true commitment by state parties. Scholars have criticized the tendency of IOs to push forward weak treaties that are not supported by a genuine international consensus or real state accommodation.⁶¹ One author specifically argues that while state parties formally accepted the 2005 IHR and its unprecedented constraints on sovereign choice, they do not intend to comply when doing so is not in their interest.⁶² The conclusion that WHO exercised too much autonomy would follow if the transition from the barrier to the epidemiological approach was advanced by WHO in the absence of real engagement with, and a basic accord amongst, state parties.

Argument

This thesis argues for the second competing answer—that WHO's permanent staff, the Secretariat, played a substantive autonomous role in creating the epidemiological approach, to which state parties have committed in good faith. The

⁶¹ Simma, 'Consent: Strains in the Treaty System,' pp. 485-504.

⁶² Eric Mack, 'The World Health Organization's New International Health Regulations: Incursion on State Sovereignty and Ill-Fated Response to Global Health Issues,' *Chicago Journal of International Law*, vol. 7, 2006.

Secretariat was able to play this role by exercising a limited autonomy from WHO's member states while operating within political and financial constraints. That autonomy cannot be fully appreciated if we look solely at the Secretariat's legal work on the 2005 IHR or if we examine solely the period of time when the IHR was formally being revised beginning in 1995. Rather, the significance of the Secretariat's participation in the treaty making process only comes into relief when we explore, over a prolonged stretch of time, the links between WHO's regulatory and non-regulatory work and between its formal and informal activities on infectious disease management. Through a slow-moving, cumulative process that spanned decades, the Secretariat was able to formulate a new approach to infectious disease control, campaign for funding, utilize public health crises to build political support around its favored policies, induce member states to demand the new regulatory system it had already created, and, ultimately, crystallize its preferred policies in international law.

Research design

Issue selection

One reason I chose to study international infectious disease law is because the subject is significant in itself. The IHR's revision process received much international attention, and there are high expectations for the law's ability to control the spread of infectious diseases and protect global public health safety. As the threat of infectious diseases rises on the international agenda, spilling from the public health arena to security and foreign relations, it is critical to analyze the legal framework and institutional structure in place and how they were created. This thesis takes a step back to examine the origins of the transition from the barrier to the epidemiological approach. A look at the 2005 IHR's origins can shed light on how infectious disease law might change going forward in response to new crises and circumstances.

A study of WHO's role in international infectious disease law also has broader implications for our understanding of institutionalized law making and how international law and institutions evolve over time. While international relations scholars have made significant progress in explaining the creation and initial design of IOs and treaties, the question of how institutions and laws adapt to changing circumstances after their creation has been relatively under-studied. As many IOs and treaties have now survived through numerous decades during which the circumstances of their establishment have become increasingly remote, the question of how IOs and treaties change in response to exogenous shocks or endogenous shifts becomes more important and pressing. Understanding one technocratic IO's contribution to the formulation of a new legal approach through detailed historical examination may highlight patterns or causal mechanisms that are generalizable to other IOs and other treaties.

Process tracing

This thesis employs the method of historical process tracing. An in-depth analysis of a historical episode is ideal for unravelling questions related to causal relations that implicate numerous factors, particularly factors that are difficult to quantify such as institutional complexity. According to Peter Hall, process tracing requires an analyst to draw observations “not only about the value of the principal causal variables, but about the processes linking these variables to the outcomes.”⁶³ Through process tracing, I will untangle the processes that link possible causal variables—including state preferences, an evolving WHO, and the nature of the contemporary infectious disease problem—to the observed outcome of the transition from the barrier to the epidemiological approach. I will assess whether the hypothesis

⁶³ Peter A. Hall, 'Aligning Ontology and Methodology in Comparative Research,' in *Comparative historical analysis in the social sciences*, James Mahoney and Dietrich Rueschemeyer, eds. (Cambridge: Cambridge University Press, 2003), p. 394.

that WHO played a substantive autonomous role in the IHR's revision is supported by the sequence of intervening events and contextual variables.

Process tracing is an indispensable tool for developing new hypotheses and theories. Detailed analyses of a particular episode in history have “powerful advantages in the heuristic identification of new variables and hypotheses”⁶⁴ because they “stimulate the imagination toward discerning important general problems and possible theoretical solutions.”⁶⁵ Process tracing can lead to theory development by “inferring that a more general causal mechanism exists from the facts of a particular case.”⁶⁶ Here, an examination of the creation and then revision of a handful of international infectious disease agreements over an extended period of time and across changing institutional settings provides a unique opportunity to understand the dynamics of international legal and institutional evolution, and may yield generalizable conclusions about how rules are formed in an increasingly bureaucratized and technical international environment.

I will, however, remain cautious of the potential to over-generalize from a study of a small number of cases in one issue area.⁶⁷ In the conclusion, I will consider whether the dynamics between WHO and international infectious disease law are unique, or whether they are more broadly applicable.

Sources

I rely on three types of sources. For the period after WHO's establishment, I have looked to the official literature of the institution where possible. Most WHO reports from the last few decades are available online. Many of the documents related

⁶⁴ Alexander L. George and Andrew Bennett, *Case studies and theory development in the social sciences* (Cambridge, MA: MIT Press, 2005), p. 20.

⁶⁵ Harry Eckstein, *Regarding politics: essays on political theory, stability, and change* (Berkeley: University of California Press, 1992), p. 143.

⁶⁶ Derek Beach and Rasmus Brun Pedersen, *Process-Tracing Methods: Foundations and Guidelines* (Ann Arbor, MI: The University of Michigan Press, 2013), p. 3.

⁶⁷ George and Bennett, *Case studies and theory development in the social sciences*, p. 24.

to the IHR revision—including information circulated by the Secretariat to member states and different versions of the legal text being considered—are publicly accessible, though of course much of the documentation from the formal intergovernmental negotiations could not be accessed. I also examined WHO’s archival documents related to the IHRs and infectious disease control. There, I found internal correspondence between WHO officials during the early decades of the institution’s existence as well as later documents related to proceedings of the World Health Assembly and the Executive Board that could not be located online.

Another critical source is the rich secondary literature documenting and examining international infectious disease law before and after WHO’s establishment. For the contemporary period, many have written extensively about the revision of the IHR. The works of scholars such as David Fidler and Lawrence Gostin, and the works of WHO officials such as David Heymann, Max Hardiman, and Bruce Plotkin, have been particularly useful. Journalists and popular non-fiction writers also chronicled much of the SARS outbreak. For the earlier period, several detailed histories recounting the origins of international infectious disease law and the history of WHO have been invaluable, including those by Norman Howard-Jones, Neville Goodman, and Robert Berkov.

While official documents and secondary literature are essential, they may only tell part of the story. For this reason, a third source has been a series of personal interviews with key officials within WHO as well as in the United States, Canada, and China. The aim of the interviews was to place the written documents in perspective and to gain insight into the goals and thinking of members of the Secretariat and state officials during the IHR revision process. The interviews also served as a reminder that

WHO and member states are not monolithic structures and that individual officials sometimes had different perspectives.

Chapter outline

This thesis comprises seven chapters. This chapter defined the research questions and situated the inquiry in the existing literature on international institutions and international law. The remaining chapters unfold in chronological order.

Chapter 2 traces the emergence and development of the barrier approach to infectious disease law prior to WHO's establishment. It describes a series of ad hoc intergovernmental meetings convened in response to outbreaks and with the goal of standardizing reporting and quarantine requirements with respect to "Asiatic" diseases for a club of primarily powerful European countries. Though no agreement was ratified for several decades, the meetings eventually led to a number of narrow treaties that were then consolidated as well as the creation of the first global international health organization—OIHP—to help implement and update those treaties. I analyze OIHP's institutional dynamics and discuss its impact on the subsequent evolution of infectious disease law.

Chapter 3 picks up at OIHP's dissolution and the incorporation of its functions into the newly formed World Health Organization. I examine how WHO is a different institutional home for international infectious disease law than OIHP. In particular, I draw attention to WHO's far broader mandate, the complex relationship between its member states and its Secretariat, and the organization's longevity—all of which can, over time, yield a different relationship between institution and law.

The next three chapters chronicle developments in international infectious disease law after WHO's establishment. Chapter 4 begins by assessing how legal agreements, initially developed without the involvement of any IO and then revised

with OIHP's assistance, evolved after they were transferred to WHO. On the surface, the barrier approach appears to persist, but amongst the Secretariat's leaders there was a consensus that a new approach was necessary. Even as the prevailing law continued to be applied and incrementally revised, WHO began informally developing an epidemiological solution to infectious disease control by responding to politically low stakes outbreaks in a novel way.

Chapter 5 looks at how the epidemiological approach rose in political salience during the 1990s and early 2000s. It pays particular attention to two key events—the anthrax attacks in the United States following 9/11 and the SARS epidemic in 2003—which the Secretariat framed as problems to which the epidemiological approach was an effective solution. Most critically, the Secretariat tested the new approach during the SARS outbreak. Faced with the pressure of a rapidly growing crisis, member states allowed the Secretariat to take unprecedented actions beyond its legal authority.

Chapter 6 delves into the two Intergovernmental Working Groups in 2004 and 2005 during which the revised IHR was formally negotiated. After SARS, member states urgently demanded a new infectious disease law, and gave the Secretariat broad discretion to direct the negotiation process. The Secretariat thus performed the critical functions of setting the timetable and procedure for negotiation, holding regional workshops to bring the interests of member states to light, drafting legal texts and background documents that served as the basis for negotiation, and mediating the negotiations themselves. Member states accepted the bulk of the Secretariat's proposals, but curbed its autonomy in a few areas where its proposals conflicted with clear and strong national interest.

The conclusion begins with a review of key insights gained from the empirical analysis. It then offers some general observations about how WHO has changed the

process of treaty making as well as whether and why its contribution was valuable in the case of the 2005 IHR. Finally, I discuss the extent to which the findings of this thesis can be generalized and the normative implications of making international law through bureaucratic and technical international agencies.

Chapter 2

NEGOTIATING INFECTIONS DISEASE LAW PRE-WHO

This chapter chronicles the emergence and development of the barrier approach prior to WHO's establishment. For much of that time, no international health organization existed. Then, the growth of the barrier approach led to the 1907 founding of a narrowly tailored organization, the International Office of Public Hygiene, whose functions were briefly performed by the Health Division of the United Nations Relief and Rehabilitation Administration ("UNRAA") during World War II. This chapter examines how, when, and by whom treaty making was advanced during this pre-WHO period, and whose voices were privileged in that process.

As noted in Chapter 1, the barrier approach encompasses a series of legal agreements culminating in the 1969 IHR adopted by WHO. Table 1 summarizes the pre-WHO legal developments under the barrier approach and, where applicable, the international health organizations that assisted with their formulation. These various agreements were negotiated through a cumulative and connected process, replaced and revised each other over time, and were bound together by substantive continuity. Treaties under the barrier approach focused on measures taken at national borders for a small number of specific diseases. They imposed reporting requirements with respect to those diseases, mandated minimum sanitary and health facility requirements at ports and airports, and defined maximum protective health measures that state parties could apply at borders.

YEAR	AGREEMENT	IO
1892	International Sanitary Convention	None
1893	International Sanitary Convention	None
1894	International Sanitary Convention	None
1897	International Sanitary Convention	None
1903	International Sanitary Convention consolidating and replacing the 1892, 1893, 1894, and 1897 Conventions	None
1912	International Sanitary Convention replacing the 1903 International Sanitary Convention	OIHP
1926	International Sanitary Convention, modifying the 1912 International Sanitary Convention	OIHP
1933	International Sanitary Convention for Aerial Navigation	OIHP
1934	International Agreement for dispensing with Bills of Health	OIHP
1934	International Agreement for dispensing with Consular Visas on Bills of Health	OIHP
1938	International Sanitary Convention, modifying the 1926 International Sanitary Convention	OIHP
1944	International Sanitary Convention, modifying the 1926 International Sanitary Convention	Health Division of the UNRRA
1944	International Sanitary Convention for Aerial Navigation, modifying the 1933 International Sanitary Convention for Aerial Navigation	Health Division of the UNRRA

Table 1: Pre-WHO legal agreements under the barrier approach.

This chapter opens with a framework for analyzing the steps of treaty making. I then chronologically examine developments in international infectious disease law between the mid-nineteenth century and the mid-twentieth century when WHO was established. These developments can be divided roughly into three segments. During the first segment, six international conferences were held to negotiate an agreement, but no cooperative arrangement resulted. Five more conferences were convened during the second segment, leading to several specific and narrow conventions that were then consolidated. The last of these five conferences also proposed the establishment of an international health office and led to the formation of OIHP to facilitate international cooperation on infectious disease. Finally, three more conferences were held and further adjustments and additions were made to the existing legal arrangements during the third segment.

This history reveals that the emergence and development of the barrier approach prior to WHO was characterized by frequent and long intergovernmental conferences. These conferences were convened by European powers on an ad hoc basis and made

international law in an incremental and piecemeal manner. International infectious disease law during this period was driven by cross-border epidemic crises and was designed to protect European states from “foreign” diseases, while minimizing the impact of protective measures on commercial interests, particularly those of Britain.

The steps of treaty making

I begin by presenting a framework for analyzing treaty making based on the work of negotiation scholars. This framework facilitates an analysis of how agreements are created by dissecting the process of treaty making into a series of constituent steps.

Negotiation scholars have developed models that decompose the entire process of making a multilateral agreement and are not limited to formal negotiations in the form of diplomatic conferences. These models typically describe the process as passing through three stages: pre-negotiation, formal negotiation, and agreement.¹ Each stage in turn is composed of smaller steps and processes.

The pre-negotiation stage is informal and “diagnostic.”² It is marked by confusion, a need for clarity, an identification of the problem, a recognition that a new order must be created, a search for possible solutions, and a commitment to negotiate.³ Pre-negotiation may be further divided into a precipitants step, wherein events occur that bring the particular problem to the attention of the international community, and an issue definition step, wherein the nature of the problem is defined, its scope and magnitude is determined, and a common body of knowledge is developed.⁴

¹ See, e.g. Fen Osler Hampson and Michael Hart, *Multilateral negotiations: lessons from arms control, trade, and the environment* (Baltimore, MD: Johns Hopkins University Press, 1995), pp. 25-28; Saadia Touval, 'Multilateral Negotiation—An Analytic Approach,' *Negotiation Journal*, vol. 5, no. 2, 1989, pp. 160-163.

² I. William Zartman and Maureen R. Berman, *The practical negotiator* (New Haven, CT: Yale University Press, 1982), pp. 47-48.

³ Ibid.

⁴ Pamela Chasek, 'A comparative analysis of multilateral environmental negotiations,' *Group Decision and Negotiation*, vol. 6, no. 5, 1997, pp. 439-440.

The pre-negotiation stage is pushed forward by the establishment of agendas or sets of principles that will guide subsequent formal negotiations.⁵ Through informal contact amongst the parties, a list of participants is agreed upon, initial coalitions emerge, role differentiation takes place, and substantive and procedural issues are addressed, as parties develop a general framework in which an agreement might be reached.⁶ Parties learn about each other's positions on various issues, a process that may be prolonged if issues are highly technical.⁷ The pre-negotiation phase is useful because it incurs lower exit costs than formal negotiations if pre-negotiation should fail.⁸

Formal negotiation is the "negotiation proper over the detailed terms of an agreement."⁹ During this stage, parties exchange information, weigh alternative packages, and move from a general framework to a specific agreement.¹⁰ Formal negotiation often begins with parties stating their initial positions, usually in a plenary setting. Parties then draft provisions of a potential agreement. The group may work from a draft text prepared in advance by one party, or drafting may begin during formal negotiation. Either way, scholars agree that reaching a single negotiating text is critical to managing the complexity of multilateral negotiation.¹¹ "[M]any-party negotiations are often too diffuse to be effective unless they focus on a single negotiating text,"¹²

⁵ Gilbert R. Winhatn, 'Multilateral economic negotiation,' *Negotiation Journal*, vol. 3, no. 2, 1987, p. 178.

⁶ Touval, 'Multilateral Negotiation—An Analytic Approach,' p. 160.

⁷ Robert L. Friedheim, 'The third United Nations conference on the Law of the Sea: North-South bargaining on ocean issues,' in *Positive Sum: Improving North-South Negotiations*, I. William Zartman, ed. (New Brunswick: Transaction Books, 1987), p. 90.

⁸ Hampson and Hart, *Multilateral negotiations: lessons from arms control, trade, and the environment*, p. 26.

⁹ Touval, 'Multilateral Negotiation—An Analytic Approach,' p. 162.

¹⁰ Chasek, 'A comparative analysis of multilateral environmental negotiations,' pp. 440-441.

¹¹ I. William Zartman, 'Introduction: Two's Company and More's a Crowd: The Complexities of Multilateral Negotiation,' in *International multilateral negotiation: approaches to the management of complexity*, I. William Zartman, ed. (San Francisco: Jossey-Bass, 1994), p. 3.

¹² Howard Raiffa, *The art and science of negotiation* (Cambridge, MA: Belknap Press of Harvard University Press, 1982), p. 254.

which allows delegates to hone in on concrete provisions that remain “bracketed” or under dispute.¹³

Finally, the agreement stage is when parties focus on consensus building and final bargaining. Parties may have second thoughts about the terms that they have thus far agreed to, and their misgivings may prolong this stage as they seek new assurances. Additionally, holdout parties may take advantage of the significant leverage they have by withholding consent at this crucial concluding moment and pressing for the adoption of proposals that have been thus far unacceptable.¹⁴ A neutral delegate might step in to mediate and time pressure often plays an important role in the adoption of a final agreement.¹⁵

These models for negotiation suggest that there are several key steps to creating any international treaty:

- The occurrence of precipitants, bringing attention to a problem
- The proliferation of confusion surrounding the problem
- Diagnosing the problem
- Building a common body of knowledge
- Searching for possible solutions
- Addressing procedural issues
- Creating a framework for an agreement
- Parties stating their initial positions
- Drafting a single negotiating text
- Negotiating the detailed provisions of the agreement
- Building a consensus on the agreement
- Adopting the agreement

¹³ Chasek, 'A comparative analysis of multilateral environmental negotiations,' p. 441.

¹⁴ Touval, 'Multilateral Negotiation—An Analytic Approach,' pp. 162-163.

¹⁵ Chasek, 'A comparative analysis of multilateral environmental negotiations,' p. 441.

These steps will serve as guideposts as I unravel the process of treaty making behind the barrier approach. I will examine when, how, and by whom each step of treaty making was pushed forward. I will also refer back to these steps when I examine treaty making behind the epidemiological approach under the auspices of WHO.

The impetus for convening the International Sanitary Conferences

Although the barrier approach to infectious disease management eventually became adopted globally, its roots were regional and specifically European. The barrier approach emerged from a series of fourteen International Sanitary Conferences held between 1851 and 1938. These conferences were convened on an ad hoc and irregular basis that nevertheless followed a common pattern: (1) a recent epidemic originating from outside Europe would highlight the externalities of divergent protective measures taken by European states and prompt a disagreement among them about how the international spread of infectious diseases should be regulated; (2) a state that stood to gain from standardizing infectious disease practices would call for a conference and invite attendees as it found appropriate; and (3) the conference would be held and would focus on the most immediately threatening disease.

The conferences began as meetings amongst a small club of European states with the shared interest of keeping three diseases that were considered foreign and “Asiatic”—cholera, plague, and yellow fever—out of Europe. The first conference officially called itself a “gathering of Mediterranean powers.”¹⁶ Diseases historically common within Europe, and on which European states had plainly conflicting interests, were not added to the regulations until much later.

¹⁶ Robert Berkov, *The World Health Organization: a study in decentralized international administration* (Geneva: Librairie E. Droz, 1957), p. 39.

Despite the shared desire to keep Asiatic diseases out of Europe, European countries were divided as to how that goal should be achieved. To reach an agreement, these countries had to adjust their existing divergent national practices to conform to a collectively agreed upon standard.

Notable amongst the differing national practices were the sophisticated systems for infectious disease protection in the Italian city-states,¹⁷ which had been developed in response to their historic engagement in commerce in the Mediterranean area and their resulting susceptibility to disease importation.¹⁸ The earliest protective measures consisted of attempts at complete isolation, known as *cordon sanitaire*.¹⁹ During the fifteenth century, Italian city-states began employing *lazarettos*—quarantine stations for temporarily housing travelers arriving from abroad before allowing those clear of disease to enter the city-state unrestricted.²⁰ They also developed a system of *bullitones sanitatis* or “bills of health,” which provided for the exchange of information regarding health conditions at the ports from which ships originated, and became general practice during the seventeenth century.²¹ Quarantine could be avoided if a ship had a clean bill of health from the last port of call certifying that the port was free of infectious diseases. Conversely, if a ship’s port of origin was infected, it could be denied entry altogether and suspect goods could be burned.

Whereas those countries most susceptible to importation of Asiatic diseases were primarily concerned with curbing transmission through quarantine,²² those more

¹⁷ For most of the second millennium, the geographic and political entity now known as Italy was a series of independent city-states until they were consolidated through a gradual process of unification that ended in the late nineteenth century. Martin Collier, *Italian Unification, 1820-71* (Oxford: Heinemann, 2003), p. 2.

¹⁸ Berkov, *The World Health Organization: a study in decentralized international administration*, p. 36.

¹⁹ Neville M. Goodman, *International health organizations and their work* (London: Churchill Livingstone, 1971), pp. 28-29.

²⁰ *Ibid.*, p. 31.

²¹ Berkov, *The World Health Organization: a study in decentralized international administration*, p. 36.

²² Norman Howard-Jones, *The scientific background of the International Sanitary Conferences* (Geneva: World Health Organization, 1975), p. 11.

remote and relatively protected had a different set of priorities. Specifically, for Britain and France, quarantine was chiefly a hindrance to their maritime commercial interests.²³ Britain, in particular, had the strongest commercial interests and was the most adamant opponent of quarantines, whereas France was more willing to compromise as the conferences progressed.²⁴

In the mid-nineteenth century, Britain dominated international commerce, accounting for 20% of world trade.²⁵ Almost 75% of all vessels traveling between Asia and Europe were under the British flag.²⁶ Britain was also in a unique domestic situation: a reform movement beginning with the Reform Act of 1832 made significant improvements to domestic public health. The Public Health Act of 1848 centralized the regulation of sanitary conditions in large urban centers and created a General Board of Health, which established local boards to improve water sanitation, sewage, refuse removal, and other sanitary matters.²⁷ As a result of these extensive public works, Britain became less susceptible to infectious disease. These reforms required large public expenditures and were possible in Britain due to its economic development and tax base—conditions lacking in most other countries.²⁸

The impetus for convening the International Sanitary Conferences ultimately came from Britain and France. According to one author, these two countries' "fear of economic collapse overwhelmed their dread of imported disease and led them to support some sort of international action to relieve shipping from the burdensome

²³ Mark W. Zacher and Tania J. Keefe, *The Politics of Global Health Governance: United by Contagion* (New York, NY: Palgrave Macmillan, 2008), p. 27.

²⁴ Ibid.

²⁵ Ibid., p. 26.

²⁶ Ibid., p. 28.

²⁷ Richard N. Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' in *Can nations agree?: issues in international economic cooperation*, Richard N. Cooper, Barry Eichengreen, Gerald Holtham, Robert D. Putnam and Randall C. Hennings, eds. (Washington, DC: Brookings Institution, 1989), p. 192.

²⁸ In 1870, Britain had a per capita income of about \$180 compared to \$80 for Germany, \$70 for Italy, \$60 for Sweden, and \$50 for European Russia. Ibid., p. 239.

shackles of quarantine regulations.’’²⁹ Britain and France sought to alter the existing patchwork of quarantine and bills of health beginning in the 1830s. This time frame correlates with technological advancements leading to the expansion of trade and travel on the one hand, and repeated outbreaks of cholera on the other.

Three monumental technological developments occurred in the early to mid-nineteenth century: the introduction of steam navigation in 1810, the spread of railroad systems around 1830, and the construction of the Suez canal in 1869.³⁰ These advancements resulted in the significant acceleration and expansion of trade—world shipping tonnage increased from 700,000 tons in 1850 to 26,200,000 tons in 1910.³¹ Faster transportation capability made delays imposed by quarantine more costly and those with commercial interests less tolerant of the existing patchwork system.

These technological developments also accelerated disease transmission, and the early nineteenth century saw repeated cholera outbreaks in Europe. The immediate impetus for convening the first International Sanitary Conference was two rounds of cholera outbreaks in 1830 and 1847. Cholera began in India, reached the fringes of Europe in 1829,³² and travelled to northern Europe by the end of 1831.³³ Another outbreak occurred in Europe in 1847, and five additional epidemics gripped the region during the next 50 years,³⁴ causing substantial morbidity and mortality.³⁵ In response, states imposed protective measures that were increasingly restrictive of trade, but with limited effect. Cholera “was a new and terrifying disease to the western world and

²⁹ Javed Siddiqi, *World health and world politics: the World Health Organization and the UN System* (Columbus, SC: University of South Carolina Press, 1995), p. 14.

³⁰ Berkov, *The World Health Organization: a study in decentralized international administration*, p. 37; Goodman, *International health organizations and their work*, p. 36; Siddiqi, *World health and world politics: the World Health Organization and the UN System*, p. 14; Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 25.

³¹ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 25.

³² Howard-Jones, *The scientific background of the International Sanitary Conferences*, pp. 9-10.

³³ Berkov, *The World Health Organization: a study in decentralized international administration*, p. 37.

³⁴ Ibid.

³⁵ Siddiqi, *World health and world politics: the World Health Organization and the UN System*, p. 14.

quarantines, even though at once tightened up under pressure of public opinion and hence more vexatious than ever, seemed to be impotent to stop this spread.”³⁶

The cholera epidemics of 1830 and 1847 posed particular difficulties for Britain and France, prompting them to act. As their commercial interests expanded with technological advances, they found the anti-cholera measures adopted by countries across Europe to be increasingly burdensome and unacceptable. In response to these costly externalities, France tried unsuccessfully to convene an infectious disease conference in 1834, an experience repeated by Britain in 1843.³⁷ A third attempt by France in 1851 led to the first International Sanitary Conference. Thus began a long process of overcoming divergent preferences with respect to the use of quarantine and building the barrier approach to disease management.

The first six International Sanitary Conferences (1851-1885)

British and French interests determined when the International Sanitary Conferences were first convened and shaped their initial slow progress. Each of the first six meetings was called in response to an infectious disease crisis—a precipitating event that brought the problem of infectious disease control and the costs of its accompanying commercial restrictions to the forefront. Each meeting launched the negotiating parties into the steps of treaty making.

What is immediately apparent from the history of the negotiations is how much groundwork needed to be done to overcome divergent interests, opinions, and science. Conference attendees came to the negotiating table with different perspectives that affected every step of the treaty making process, beginning with defining the problem and building a common body of knowledge. Working through these basic questions in

³⁶ Goodman, *International health organizations and their work*, p. 38.

³⁷ David P. Fidler, *International law and infectious diseases* (Oxford: Clarendon Press, 1999), p. 27.

formal plenary sessions proved to be a frustrating and time-consuming task, leading negotiating parties to attempt alternative strategies such as grappling with difficult questions in small committees, taking a vote, and skipping over them altogether. Additionally, there was initially no commonly accepted set of procedures to apply, and the parties spent some time discussing and experimenting with different procedural approaches. In the end, the first six conferences progressed with seemingly little to show for the significant expenditures in time and effort. But the history of the subsequent conferences reveals that these early meetings laid the foundation for future negotiations.

The First International Sanitary Conference (1851-1852)

The French government convened the first conference in Paris in 1851, following an 1834 report commissioned by the French Minister of Commerce on the sanitary regulations of Mediterranean countries.³⁸ The report pointed out the “needless difficulties that arose from differing quarantine requirements by different countries” and proposed “an international meeting...to standardize protective measures against importation of exotic diseases.”³⁹ Severe epidemics of cholera at the time had resulted in increasingly obstructive regulations: the *cordon sanitaire* was drawn along many frontiers, and harsh penalties, including fines and imprisonment, were imposed for violations of quarantine and other regulations.⁴⁰ The first conference was convened to “regulate in a uniform way the quarantines and lazarettos in the Mediterranean,”⁴¹ and was intended to cover cholera, plague, and yellow fever.⁴²

³⁸ The Minister of Commerce asked the Secretary of the Conseil Supérieur de Santé of France to undertake the study in the early 1830s. Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 11.

³⁹ Ibid.

⁴⁰ Berkov, *The World Health Organization: a study in decentralized international administration*, p. 38.

⁴¹ Quoted in Goodman, *International health organizations and their work*, p. 43.

⁴² Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 12.

The conference opened on 23 July 1951 and brought together twelve states: Great Britain, France, Spain, Portugal, Austria, Greece, the Kingdom of the Two Sicilies, the Papal States, Tuscany, Sardinia, Turkey, and Russia.⁴³ It was evident from the start that participants had done little preparation in advance of arriving in Paris. There was much confusion and the basic elements of the negotiation, including procedural matters, the parameters of discussion, and a common understanding of the problem, were yet to be developed. The Turkish medical delegate arrived over ten weeks late and asked for a pause in debate so he could study the documents.⁴⁴ The conference was resumed two days later.

Each country was represented by two delegates: a physician and a diplomat.⁴⁵ After some discussion it was agreed that each government would get two votes, but each delegate would vote as an individual and not as a government representative.⁴⁶ This procedure was used during the first conference, discarded during the second, and used again during the third,⁴⁷ as states grappled with the challenge of balancing adequate technical expertise with sufficient national political representation. Occasionally, two delegates from the same country casted opposing votes and slowed down decisions.⁴⁸

Cholera was the most urgent disease of concern and the immediate reason for convening the conference, but there was controversy about whether it should be discussed at all. The Austrian medical delegate was under instructions from his government to discuss only plague and yellow fever because the country had

⁴³ Ibid. Note that, within fifteen years, the four Italian states would be consolidated, and Austria and Turkey were, at the time, substantial maritime countries and much larger than they are now. Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 194.

⁴⁴ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 15.

⁴⁵ Ibid., p. 12; Siddiqi, *World health and world politics: the World Health Organization and the UN System*, p. 15.

⁴⁶ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 12.

⁴⁷ Ibid.

⁴⁸ Ibid.; Siddiqi, *World health and world politics: the World Health Organization and the UN System*, p. 15.

unsuccessfully applied quarantine measures against cholera.⁴⁹ The British medical delegate supported this view and declared that quarantine measures did not protect against cholera.⁵⁰

Against these protests, cholera was discussed, but there was little commonality in different parties' understanding of the problem and little convergence in notions about possible solutions. A basic common body of knowledge was lacking, as reflected by the foundational questions submitted to the conference by the French government, including "Is the cholera contagious?" and "Are quarantine regulations against this disease necessary for public safety?"⁵¹ Not wanting to be bogged down by these technical questions, it was agreed at the outset of the conference that scientific theories of disease transmission would not be discussed.⁵² This omission was difficult to maintain in practice, and much of the six-month-long conference was devoted to debate about disease propagation, especially with respect to cholera.⁵³

The question of whether quarantine is effective against cholera was too contentious for plenary debate, so the conference appointed a committee of seven members to study it.⁵⁴ The committee could not resolve the issue: three members (the Papal States, Tuscany, and the Two Siciles) advocated quarantine measures, while four (Britain, France, Austria, and Sardinia) rejected them.⁵⁵ Outside the committee, Spain, Greece, and Tuscany were in favor of quarantine.⁵⁶ Given this stalemate, the Portuguese medical delegate suggested a "harmless non-resolution[]" that quarantine

⁴⁹ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 12.

⁵⁰ Ibid.

⁵¹ These were the principal points submitted to the conference by the French government. Quoted in Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 193.

⁵² Siddiqi, *World health and world politics: the World Health Organization and the UN System*, p. 15.

⁵³ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 194.

⁵⁴ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 13.

⁵⁵ Ibid.

⁵⁶ Ibid., p. 15.

for cholera should be “optional” and of less duration than that for yellow fever.⁵⁷ This suggestion was not taken up, and instead the question was put to a vote. Fifteen of the 23 delegates present voted for cholera quarantine, four against, and four abstained.⁵⁸

At the time, medical scientists were split between the “contagionists,” who believed that diseases were communicated from sick to healthy individuals either directly or via objects capable of carrying infectious organisms, and “anti-contagionists,” who believed diseases were spread by atmospheric, climatic, or soil conditions.⁵⁹ The former group advocated the use of quarantine to control disease transmission while the latter group believed quarantine to be useless. In 1849, two years before the first conference, two British scientists—John Snow of London and William Budd of Bristol—put forth the correct hypothesis that cholera was transmitted by fecally contaminated water.⁶⁰ A number of scientists in different countries would stumble upon this view over the next few decades but their work did not gain immediate prominence. National motives driving the conferences forward were primarily political and commercial,⁶¹ and these interests dominated over contested science. Indeed, the president of the conference explicitly laid out the primacy of concerns about shipping over those about public health at its opening.⁶²

Even if medical opinion were uncontested, the parties would not have reached an agreement on the use of quarantine at the first conference, as diplomats had strict instructions from their governments on how to vote.⁶³ For the most part, physicians and

⁵⁷ Ibid.

⁵⁸ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 196.

⁵⁹ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 12; Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 28.

⁶⁰ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 12.

⁶¹ Siddiqi, *World health and world politics: the World Health Organization and the UN System*, p. 15.

⁶² World Health Organization, *The First Ten Years of the World Health Organization: 1948-1957* (Geneva: World Health Organization, 1958), p. 6.

⁶³ Goodman, *International health organizations and their work*, p. 40.

diplomats alike reflected the positions of their national governments.⁶⁴ Britain was adamantly against the use of quarantine and pushed to abolish the practice altogether.⁶⁵ The Mediterranean states supported the right of port authorities to maintain quarantines but were willing to accept limited restraints on quarantine procedures to facilitate commerce.⁶⁶ There was thus a conflict between a voting majority of the negotiating parties, who favored quarantine, and the key industrial powers, whose support was needed to create an effective regulatory system.

The parties ultimately formulated a draft convention consisting of 11 articles, which were elaborated in an annexed regulation consisting of 137 articles.⁶⁷ All the participating countries signed the convention, but its practical result was “nil.”⁶⁸ Sardinia was the only country to exchange acts of ratification with France in May 1852, which were denounced a few years later rendering the agreement inoperative.⁶⁹ Underlying the convention was a profound disagreement over what a cooperative treaty should look like. Basic elements of pre-negotiation remained incomplete, as a common understanding of the nature and scope of the problem and a shared body of knowledge was yet to be built. Moreover, Europe’s greatest industrial power, Britain, did not see any value in quarantine. According to the leading British health official, the 1851 draft convention was an “irrational derangement of commerce.”⁷⁰

While the convention had little effect at the time, it constituted an important part of a longer negotiation process, and presaged later conventions.⁷¹ The conference forced states to confront confusion surrounding infectious disease and to grapple with

⁶⁴ Siddiqi, *World health and world politics: the World Health Organization and the UN System*, p. 15.

⁶⁵ Goodman, *International health organizations and their work*, p. 44.

⁶⁶ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 27.

⁶⁷ Goodman, *International health organizations and their work*, p. 46.

⁶⁸ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 15.

⁶⁹ Ibid. Howard-Jones also notes that a few sources have indicated that Portugal also ratified the convention, but that this assertion is false.

⁷⁰ Goodman, *International health organizations and their work*, p. 43.

⁷¹ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 196.

the nature and scope of the problem. The conference's significance, therefore, lies not in the text it produced, but in the larger treaty making process it put in motion.

The Second International Sanitary Conference (1859)

A second conference was convened by France in Paris in 1859 because so few parties ratified the 1852 convention. The same negotiating parties participated, except the Kingdom of the Two Sicilies, which did not have diplomatic relations with France at the time, and Austria, which withdrew when war broke out between Austria and France.⁷² During the intervening years since the first conference, British scientist John Snow demonstrated that there was a strong correlation between cholera incidence and water supply in London,⁷³ while Florentine scientist Fillipo Pacini showed that cholera was caused by a parasitic microscopic organism.⁷⁴ These findings did not receive much attention and had no impact on the conference.

The French government wanted to salvage some of the results of the previous meeting and again tried to bypass the disagreement concerning the nature of infectious disease by “discuss[ing] matters at a purely diplomatic level.”⁷⁵ Believing that the differences and interminable discussions amongst medical experts were responsible for obscuring the issues and producing a convention that was too detailed,⁷⁶ physicians were excluded and negotiating parties were asked to send only a diplomatic delegate.⁷⁷ France prepared a single negotiating text, consisting of a simplified version of the first convention, hoping it would serve as a starting point for further discussion. But the second conference “essentially rehashed the proceedings of the first.”⁷⁸ Britain was

⁷² The participating parties were Austria, France, Great Britain, Greece, the Papal States, Portugal, Russia, Sardinia, Spain, Tuscany, and Turkey. The Ionian Islands sent an observer. Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 20.

⁷³ Siddiqi, *World health and world politics: the World Health Organization and the UN System*, p. 16.

⁷⁴ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 17.

⁷⁵ Ibid., p. 20.

⁷⁶ Goodman, *International health organizations and their work*, p. 53.

⁷⁷ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 20.

⁷⁸ Ibid.

even more adamant about the uselessness of quarantines, a position that continued to be unacceptable to most other states. Greece was most fervent about the authority of countries to impose quarantine restrictions and France took an intermediate position.⁷⁹ The question of the effectiveness of quarantine for protecting against cholera was put to a vote, which resulted in deadlock until the chair cast a negative ballot.⁸⁰

The result of five months of negotiation was a second convention of 44 articles that was an amended version of the first convention of 1952.⁸¹ It was signed by Great Britain, France, Austria, Spain, Portugal, the Papal States, Sardinia, and Russia, while Greece and Turkey abstained.⁸² Not a single state ratified the agreement. Like the first conference, the second one produced an agreement that masked profound differences in political interest and scientific understanding. France took significant steps to push the negotiation forward, including drafting the negotiating text, but these efforts resulted in another unratified convention.

The Third International Sanitary Conference (1866)

Cholera spread across Europe again in 1865.⁸³ It was imported into Egypt by Mecca pilgrimage, and then traveled across the Mediterranean.⁸⁴ For the third time, the French government called a conference, and the Ottoman emperor accepted France's proposal to hold the meeting in Constantinople.⁸⁵ All the countries that were present in the first two conferences attended the third, as well as new participants—Belgium, Denmark, the Netherlands, Persia, Prussia, and Sweden/Norway, then still politically

⁷⁹ Berkov, *The World Health Organization: a study in decentralized international administration*, p. 39.

⁸⁰ Ibid.

⁸¹ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 29.

⁸² Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 20.

⁸³ Berkov, *The World Health Organization: a study in decentralized international administration*, p. 39.

⁸⁴ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 23.

⁸⁵ Ibid.

united.⁸⁶ By this time, Sardinia, Tuscany, and the Two Sicilies had been consolidated into a unified Italy, but the Papal States remained separately represented.

The third was the longest of the fourteen conferences, lasting seven months from 13 February to 26 September 1866.⁸⁷ It differed from the previous two conferences in important respects. First, it was narrower in scope and discussed cholera exclusively. Second, rather than circumventing scientific questions, the delegates confronted them directly. Since quarantine in the Mediterranean ports had seemingly failed to prevent importation, the need for a technical inquiry into cholera and the most effective means to controlling it had become more pressing.⁸⁸ Although no convention resulted, the conference produced a document that was “a kind of agreed text-book on cholera.”⁸⁹

The conference set up six thematic committees to discuss a list of technical questions proposed by the French government. The themes were (1) the origins and genesis of cholera, (2) its transmissibility and propagation, (3) hygienic preventive measures, (4) quarantine and disinfection preventive measures, (5) special measures for the pilgrimage and in various regions, and (6) the route of spread of the 1865 pandemic.⁹⁰ The first committee, composed of all participating physicians and three diplomatic delegates from Belgium, France, and Spain, concluded that cholera originated from certain areas of India where it existed permanently, that it regenerated itself inside people, and that it could propagate from country to country by moving with

⁸⁶ Seventeen countries were invited and all except the United States attended. The participating parties were Austria, Belgium, Denmark, France, Spain, the Papal States, Great Britain, Greece, Italy, Netherlands, Persia, Portugal, Prussia, Russia, Sweden/Norway, and Turkey. Egypt, then under Turkish sovereignty, was represented by an observer. Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 199.

⁸⁷ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 24.

⁸⁸ Goodman, *International health organizations and their work*, pp. 54-55.

⁸⁹ Ibid., p. 55.

⁹⁰ Ibid.

traveling individuals.⁹¹ These findings were unanimously endorsed by the conference in plenary session, though one of the British delegates abstained.

At the end of the conference, participants adopted a “Final Act” containing basic principles concerning the origins of cholera, the methods of spread, and how the disease can be prevented.⁹² The Act set out the thirty-four questions posed, presented the available evidence, and recorded separate votes on each question.⁹³ The Act’s conclusions were not always clear or consistent. For instance, the report did not lucidly define the cause of cholera, instead calling it a “morbific principle.”⁹⁴ The parties still disagreed on the length of cholera’s period of contagion—it was voted fourteen to four with one abstention that the length of contagion was not beyond a few days, a finding that was at odds with another conclusion in the report that the period of incubation alone was a few days long.⁹⁵ The committee also drew a “confused and misleading” conclusion regarding the effect of conditions such as misery, high temperature, and confined air on the spread of cholera.⁹⁶ Nevertheless, the third conference was a “landmark”⁹⁷ in that it made progress on fundamental questions of medical science that had thus far been inadequately addressed or ignored.

The Final Act represented a narrowing but not a closure of the gap amongst physicians. For the first time, parties outlined a set of principles for controlling the spread of cholera. But the emerging common understanding of medical questions did not automatically translate into agreement on practical elements of cooperation, and it in turn made political divisions more prominent. Four states—Britain, Turkey, Persia,

⁹¹ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 31.

⁹² The Act was adopted with many individual reservations. Goodman, *International health organizations and their work*, p. 56.

⁹³ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 199.

⁹⁴ Ibid.

⁹⁵ Ibid., pp. 200-201.

⁹⁶ Ibid., p. 201.

⁹⁷ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 34.

and Russia—remained opposed to quarantine rules.⁹⁸ Some parties proposed a ban on pilgrims returning from Mecca by sea via Egypt in 1866, as that had been the route of cholera spread to Europe in 1865. But the British diplomatic representative maintained that cholera was not transmissible—a position the British medical representative did not press for in the technical report—and Turkey opposed it for practical reasons. Turkey did, however, agree to build a quarantine station in the Sanai between the Hejaz and Egypt for future use, reflecting an agreement on the importance of taking protective measures for pilgrims before departure. Such a quarantine station was established several decades later.

The Fourth International Sanitary Conference (1874)

The fourth conference was convened in 1874 by Russia following a violent return of cholera in 1872 and 1873. It was held in Vienna, and attended by twenty-one countries, four of which—Luxembourg, Romania, Serbia, and Switzerland—were participating for the first time.⁹⁹ Russia called the conference in the hopes of obtaining relief from the stringent quarantine requirements imposed by Mediterranean countries on its ships due to the persistence of cholera around the Black Sea and other Russian territories.¹⁰⁰ Additionally, the opening of the Suez Canal in 1869 required a new assessment of cholera risk for Europe.¹⁰¹ The fourth conference was a continuation of the third. Its main accomplishment was to evaluate the continued validity of the previous conference's conclusions,¹⁰² and the negotiating parties adopted them without much discussion or modification.¹⁰³

⁹⁸ Goodman, *International health organizations and their work*, pp. 55-56.

⁹⁹ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 38.

¹⁰⁰ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 203.

¹⁰¹ Goodman, *International health organizations and their work*, p. 58.

¹⁰² Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 38.

¹⁰³ Goodman, *International health organizations and their work*, p. 58.

The fourth conference also saw some procedural and institutional innovations. It was the first conference to adopt written rules of procedure to regulate debates.¹⁰⁴ The rules specified that each country should have only one vote regardless of how many delegates attended the conference, and that French was generally the language of conference proceedings.¹⁰⁵ Participating states also recommended for the first time the creation of a permanent International Commission on Epidemics charged with the tasks of promoting the study of epidemics, presenting reasoned proposals on quarantine, providing technical advice to states, and preparing agendas for subsequent international sanitary conferences.¹⁰⁶ This proposal reflected the need for institutional and procedural regularity encountered by negotiating parties that reconvened on an irregular and ad hoc basis to discuss a complex, technical problem. In other words, the negotiating parties sought to delegate part of the treaty making process to an efficient and credible central international health organization—a proposal that was taken up over thirty years later.¹⁰⁷

On the subject of maritime quarantines, the most pressing issue of the conference, there remained deep divisions along the same lines as before. A committee report to the conference concluding that maritime quarantines were useless and recommending that they be abolished was met with great opposition.¹⁰⁸ Most Mediterranean states remained convinced of the effectiveness of quarantines and adamant that they had the right to apply restrictions on infected ships at their ports, while Russia and Northern European states continued to oppose them.¹⁰⁹ With its

¹⁰⁴ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 38.

¹⁰⁵ Ibid.

¹⁰⁶ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 203; Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 39.

¹⁰⁷ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 203.

¹⁰⁸ Goodman, *International health organizations and their work*, p. 59.

¹⁰⁹ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 29.

domestic sanitary reforms, Britain was able to taper its quarantine law in 1825 and shift from quarantine to medical observation for cholera in 1873.¹¹⁰ The 1866 outbreak was Britain's last serious encounter with cholera; subsequent epidemics did not have significant impact on the country.¹¹¹

In the end, the negotiating parties were not able to overcome differences with the respect to the need for maritime quarantine,¹¹² and a compromise was proposed allowing states to choose from two possible systems—one employing quarantine and the other substituting medical inspection for quarantine.¹¹³ The principles of both systems were laid out, and the conference voted unanimously with one abstention to adopt regulations providing both for the abolition of maritime quarantine and for its retention.¹¹⁴

The Fifth International Sanitary Conference (1881)

The fifth conference took place in Washington, D.C., from 5 January to 1 March 1881.¹¹⁵ It stands out from the other International Sanitary Conferences in several respects. It was the first meeting convened and attended by the United States (“US”), and the only one held in the western hemisphere. The primary focus of the conference was yellow fever, a disease that was of far greater interest to the United States and Spanish America than to Europe and had not been extensively discussed in previous conferences.¹¹⁶ While the US continued to participate in European-led efforts thereafter, it primarily pursued its infectious disease goals at a regional level, assuming leadership over initiatives in the American hemisphere.¹¹⁷ The fifth conference was also the most international of all the nineteenth century sanitary conferences, with 26

¹¹⁰ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 202.

¹¹¹ Ibid., p. 203.

¹¹² Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 40.

¹¹³ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 203.

¹¹⁴ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 40.

participating countries, including seven from Latin America, as well as Haiti, Hawaii, China, Japan, and Liberia, though most were represented by diplomatic representatives already situated in the US.¹¹⁸

In other respects, the conference followed existing patterns. It was called by a great power motivated by its perceived interests at a time of crisis. Yellow fever originated from the West African coast and killed over 500,000 in the United States and far more in the Caribbean during the nineteenth century.¹¹⁹ The immediate impetus for convening the conference was an 1878 yellow fever epidemic that travelled up the Mississippi valley and killed over 20,000 people that year.¹²⁰ The outbreak prompted the US Congress to pass the National Quarantine Act in 1878 and to create the National Board of Health in 1879. The new legislation included provisions requiring vessels destined for the United States to present a certificate from a US consular official at the vessel's site of origin laying out its sanitary history.¹²¹ The implication was that a ship could not leave for the US before it had been boarded, inspected, and given a bill of health by an American agent in a foreign country.¹²² The US thus called the conference with the objective of "obtain[ing] international assent to a piece of domestic legislation that would otherwise be unenforceable."¹²³

Like the previous conferences, the fifth conference yielded no tangible results due to disagreements amongst powerful states. Given the narrow American objective in convening the conference, there was no desire or attempt to build a common

¹¹⁵ Goodman, *International health organizations and their work*, p. 61.

¹¹⁶ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' pp. 204-205.

¹¹⁷ Fidler, *International law and infectious diseases*, p. 30.

¹¹⁸ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 43.

¹¹⁹ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 205.

¹²⁰ Ibid.

¹²¹ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 43.

¹²² Ibid.

¹²³ Ibid.

understanding of the problem, and the conference assumed an “administrative” character.¹²⁴ The American medical delegate tried to explain that the proposal was to simply transfer the same inspection from the point of arrival to the point of departure, thus creating fewer commercial obstructions, but the proposal for extraterritorial jurisdiction affronted other negotiating parties and was “thoroughly rejected.”¹²⁵ A compromise resolution, voted by a majority of 11 to 7—with the United States in the dissenting camp—resulted, stipulating that the consul of the country of destination had the right to be present at the examination of ships by the local health authority at the port of departure, and the ability to authenticate and add remarks to the bill.¹²⁶ There was also a proposal to establish a permanent international Sanitary Agency of Notification in Vienna and Havana, the former office covering Europe, Asia, and Africa, and the latter covering the Americas. Nothing came of the proposal, or six others of less importance resulting in divided votes.¹²⁷ On 1 March 1881, 22 participating states signed the final act, but “their signatures represented nothing more than confirmation that the act was a true record of disagreement.”¹²⁸

The Sixth International Sanitary Conference (1885)

The sixth conference was prompted by another serious cholera outbreak in 1883, which spread from India to Egypt and then Europe,¹²⁹ leading again to tightened quarantine restrictions around the Mediterranean.¹³⁰ The Italian government convened the conference to address the “complete anarchy [that] continue[d] to reign in quarantine matters,”¹³¹ and to reach agreement on the minimum quarantine requirements that could safely be accepted.¹³² The conference met in Rome from 20

¹²⁴ Ibid.

¹²⁵ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 207.

¹²⁶ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 45.

¹²⁷ Ibid.

¹²⁸ Ibid.

May to 13 June 1885.¹³³ Twenty-eight states attended, sending sixty-three delegates, thirty-one of whom were medical.¹³⁴

The conference opened in an atmosphere of open disagreement and clear conflicts of interest, most notably between the great powers of Britain and France. Perceived as the purveyor of cholera, the British Empire had much at stake in the quarantine negotiations. Britain was also a necessary party in any effective agreement, as the country had occupied Egypt since 1881, and could determine whether ships traveling from India to the Mediterranean would be quarantined at Suez.¹³⁵ Britain's intransigence frustrated France and other countries, which saw themselves exposed to danger due to British commercial interests.¹³⁶ Several European states were furious with Britain's failure to establish an effective quarantine system between the Red Sea and the Mediterranean.¹³⁷ Prior to the conference, the French foreign office "quoted with approval Hungarian press articles accusing the British government of 'brutally setting aside the most elementary regard for international safety.'"¹³⁸

This disagreement persisted despite advancements in science that were later acknowledged as the "dawn of the bacteriological age."¹³⁹ During the outbreak in 1883, the German physician Robert Koch led a study of cholera in Egypt and India,

¹²⁹ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 30.

¹³⁰ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 208.

¹³¹ Goodman, *International health organizations and their work*, p. 65.

¹³² Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 55.

¹³³ Goodman, *International health organizations and their work*, pp. 64-65.

¹³⁴ Argentina, Austria-Hungary, Belgium, Brazil, Chile, China, Denmark, France, Germany, Great Britain, Greece, Guatemala, India, Italy, Japan, Mexico, Netherlands, Peru, Portugal, Romania, Russia, Serbia, Spain, Sweden/Norway, Switzerland, Turkey, United States, and Uruguay. Ibid.

¹³⁵ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 208.

¹³⁶ Goodman, *International health organizations and their work*, p. 64.

¹³⁷ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 30.

¹³⁸ Goodman, *International health organizations and their work*, p. 64.

¹³⁹ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 46.

resulting in the identification of the cholera bacillus as the cause of cholera in 1884.¹⁴⁰ Koch's work demonstrated that the cholera bacillus originated largely in human waste and was transmitted through oral ingestion.¹⁴¹ These discoveries created a sensation when Koch returned to Germany and was widely discussed in European scientific circles.¹⁴² But they were met with skepticism and resistance outside of Germany,¹⁴³ and it took another decade before Koch's findings were accepted at intergovernmental conferences.¹⁴⁴

Thus, despite new scientific knowledge about cholera, the sixth conference unfolded much like earlier meetings. While the participants agreed that quarantine of land travelers was useless and that most goods did not carry cholera and thus did not need to be disinfected,¹⁴⁵ the question of maritime quarantine at Suez remained divisive and the "old quarrel broke out with renewed bitterness."¹⁴⁶ Because four-fifths of all ships traversing the canal at the time were British, many arriving directly from India, the crux of the negotiations came down to what quarantine controls should be imposed at Suez on British maritime traffic coming from cholera-infected areas.¹⁴⁷ A large majority of the parties favored a 24-hour observation period for healthy ships coming from cholera-infested areas, and a three- to six-day observation period for apparently healthy individuals arriving on infected ships. But the British practice in 1883 was to inspect ships from cholera-infected areas, send cholera cases to hospitals, detain passengers with suspicious symptoms for 48 hours, and allow the remainder of the

¹⁴⁰ Siddiqi, *World health and world politics: the World Health Organization and the UN System*, p. 17; Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 30.

¹⁴¹ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 30.

¹⁴² Ibid.

¹⁴³ Siddiqi, *World health and world politics: the World Health Organization and the UN System*, p. 17.

¹⁴⁴ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 30.

¹⁴⁵ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 208.

¹⁴⁶ Goodman, *International health organizations and their work*, p. 65.

¹⁴⁷ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 56.

passengers to travel freely.¹⁴⁸ Britain insisted that cholera was endemic to Egypt and Hejaz, where Mecca was located, and had never been imported from India,¹⁴⁹ and even denied that cholera was infectious at all, representing a step back from the conclusions of the third conference twenty years earlier.¹⁵⁰ The conference established a technical committee, but the crucial question of cholera's mode of transmission was determined to be too controversial for discussion, with the British and Indian delegates showing great sensitivity to any reference to the topic.¹⁵¹ As a result, although Koch attended the conference as a German medical delegate, his work was ignored and not even mentioned in the conference transcript.¹⁵²

Against British protests, the conference voted in favor of a 24-hour observation period for healthy ships coming from areas of cholera infestation, and a three- to six-day observation period for healthy persons on infected ships.¹⁵³ Britain was “in a minority of one” with respect to many of the crucial questions discussed.¹⁵⁴ The majority of the conference agreed to adjourn in June and reconvene in November, but the conference never resumed.¹⁵⁵

¹⁴⁸ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' pp. 208-209.

¹⁴⁹ Ibid., p. 208.

¹⁵⁰ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 52.

¹⁵¹ Ibid., p. 55.

¹⁵² Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 209; Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 30.

¹⁵³ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 208; Goodman, *International health organizations and their work*, p. 65.

¹⁵⁴ This excludes India, which was not a sovereign power but whose views aligned with those of Britain. Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 56.

¹⁵⁵ Ibid., p. 57.

CONFERENCE	PRECIPITATING EVENT	KEY PARTIES	OUTCOME
First (1851–1852) Length: 26 weeks Convened by: France Location: Paris Participants: 12 states	Cholera epidemics of 1830 and 1847	Britain France	Unratified convention on quarantine for cholera, plague, and yellow fever
Second (1859) Length: 20 weeks Convened by: France Location: Paris Participants: 11 states	Same as above (continuation of first conference given lack of ratification)	Britain France	Unratified convention on quarantine for cholera, plague, and yellow fever
Third (1866) Length: 32 weeks Convened by: France Location: Constantinople Participants: 16 states	Cholera epidemic of 1865	Britain France Turkey	No convention; technical report on cholera
Fourth (1874) Length: 4 weeks Convened by: Russia Location: Vienna Participants: 21 states	Cholera epidemic of 1972-1973; opening of Suez Canal in 1869	Britain France Russia	Shallow agreement that made quarantine optional
Fifth (1881) Length: 8 weeks Convened by: USA Location: Washington, D.C. Participants: 26 states	Yellow fever epidemic of 1878	United States	Shallow agreement with no commitments
Sixth (1885) Length: 3 weeks Convened by: Italy Location: Rome Participants: 28 states	Cholera epidemic of 1883	Britain France Italy	No convention; conference adjourned and never resumed

Table 2: The first six International Sanitary Conferences (1851-1885).

Despite having spent over ninety weeks cumulatively in formal intergovernmental negotiations, the parties were not able to overcome their considerable differences. States were brought to the negotiating table by crises that highlighted their conflicting preferences with respect to the use of quarantine, and they arrived with no preparation or common understanding of the underlying infectious disease problem, leaving them much ground to cover. A significant portion of the first six conferences was spent working through foundational issues such as what the parameters of debate were, what procedures to use, and what science to rely on. In particular, it took substantial effort to narrow divergent medical perspectives and to arrive at even a tentative and fragile accord on the nature of cholera and how it could be prevented.

This difficult task was necessary. As Richard Cooper notes, a basic level of agreement on “means-ends relationships” regarding how to tackle the problem at hand is a necessary precondition for cooperation.¹⁵⁶ Indeed, when negotiating parties tried to skip over scientific questions during the first, second, fifth, and sixth conferences, any resulting conventions represented superficial accord that masked underlying division and were ultimately sparsely ratified or not ratified at all. Thus, rushing to negotiate the detailed terms of an agreement without having laid a basis of common understanding was an ineffective treaty making strategy.

But an emerging scientific consensus was also not enough to close the gap between the majority of the negotiating parties who favored quarantine and key powers whose participation was necessary to make any agreement possible. Because the parties could not arrive at a workable political compromise, no effective convention resulted. As we will see, the primary task of the next set of conferences was to strike an acceptable political bargain.

Though no widely ratified conventions resulted, the first six conferences provided “a unique forum for the international exchange of ideas between medical administrators and medical scientists of different nations and cultures.”¹⁵⁷ Critically, the parties began laying the foundation for future negotiations by undertaking crucial steps in the treaty making process, including defining the nature of the problem, building a common body of knowledge, exploring possible solutions, and addressing procedural issues. Additionally, proposals were made for the creation of a permanent international health organization and it was agreed that a quarantine station should be built in the Sinai Peninsula. Both entities were established in subsequent decades.

¹⁵⁶ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 237.

¹⁵⁷ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 9.

The next five International Sanitary Conferences (1892-1903)

The first six conferences were followed by five more in quick succession in 1892, 1893, 1894, 1897, and 1903. The four meetings in the 1890s resulted in the signing of four narrow conventions, three of which were implemented—two on cholera and one on the plague. The 1903 conference consolidated these conventions into a broader agreement with the key features of the barrier approach.

Compared to the first six conferences, this next set was far more successful in producing treaties that went into effect, and at an accelerated rate. One reason for this development was that the new meetings built on the work of earlier conferences as well as evolving scientific understanding. Koch's research identifying the cholera bacillus as the cause of cholera was increasingly accepted in subsequent years and his clinical tests for identifying cholera became standard even for British health authorities in 1893.¹⁵⁸ Another reason for successful treaty making during this period was that parties learned from previous conferences to be careful not to impinge on British maritime interests. Rather than proposing broad conventions that touched on British sensitivities, they aimed for narrow agreements in areas where a consensus was more feasible. Two of the four conventions concerned cholera transmission via the Muslim pilgrimage to Mecca, a subject of increasing concern to health authorities at the time.¹⁵⁹ A third convention concerned more general provisions for cholera, and the final agreement was on the plague.

The Seventh International Sanitary Conference (1892)

Cholera was epidemic in the Middle East during the 1890s. Pilgrims traveling to Mecca created ideal conditions for disease transmission: people gathered from all parts of the world, mingled in crowded and unsanitary conditions, and then dispersed

¹⁵⁸ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 209.

¹⁵⁹ Ibid., pp. 209-210.

again. Austria-Hungary convened the seventh conference to address the issue of cholera spread by pilgrims.

The seventh conference met in Venice from 5 to 31 January 1892.¹⁶⁰ Fourteen states attended.¹⁶¹ Keen on securing British participation, Austria-Hungary took special measures. In a November 1891 letter, the Austrian-Hungarian ambassador in London assured the British Prime Minister that his government “would endeavour to exclude from discussions at the Conference everything that might seem unacceptable to English interests.”¹⁶² In preparation for the conference, Austria-Hungary also signed a protocol with Britain providing that British ships destined for the United Kingdom would be free to traverse the Suez Canal in quarantine, whether infected or not.¹⁶³ According to the protocol, two sanitary guards would board ships that were infected or suspect and prevent any contact of persons or goods with the shore during its transit through the canal.¹⁶⁴ The Sanitary Council of Egypt, an advisory body of foreign physicians in Egypt since the 1830s,¹⁶⁵ would also notify its members that an infected or suspect ship was in transit through the canal.¹⁶⁶ Only members of the Sanitary Council of Egypt were invited to participate in the Venice conference and they were also encouraged to adhere to the protocol.

During the conference, the same conflict of interest persisted with respect to quarantine, particularly between the British and the French. A French delegate proclaimed that “not all countries can spend like rich England” to create an excellent

¹⁶⁰ Goodman, *International health organizations and their work*, p. 66.

¹⁶¹ Austria-Hungary, Belgium, Denmark, France, Germany, Great Britain, Greece, Italy, Netherlands, Portugal, Russia, Spain, Sweden/Norway, and Turkey (including Egypt). *Ibid.*

¹⁶² Correspondence quoted in Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 62.

¹⁶³ *Ibid.*, p. 63.

¹⁶⁴ *Ibid.*

¹⁶⁵ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 210.

¹⁶⁶ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 63.

domestic sanitary system.¹⁶⁷ But this time there was sufficient consensus to create an agreement of limited scope, focusing on the transmission of cholera via the pilgrimage to Mecca.¹⁶⁸ The convention established a quarantine station on the Sinai Peninsula where all returning pilgrims would be quarantined for 15 days if cholera was present at their ports of embarkation in the Hejaz.¹⁶⁹ Because this quarantine requirement was limited to pilgrim ships and did not deal with general maritime traffic or European travelers, British maritime interests were not seriously implicated and the country's agreement was secured on this narrow topic.¹⁷⁰

The conference also proposed that all westbound ships through the canal be required to undertake varying degrees of quarantine and disinfection if they had cases of cholera on board, depending on whether the ships had a doctor and a sterilizer on board.¹⁷¹ These provisions were initially adopted over British concerns about whether infected or suspect British troopships would be able to traverse the canal in quarantine.¹⁷² Britain did not sign the initial version of the convention, and subsequent correspondence between Britain, Austria-Hungary, and France led to a private meeting in Paris from 19 May to 9 June 1892 attended only by the three parties, during which Britain's concerns were addressed through modifications.¹⁷³ It was this amended version that was ultimately signed and ratified by all fourteen participants.¹⁷⁴

¹⁶⁷ Ibid.

¹⁶⁸ Goodman, *International health organizations and their work*, p. 66.

¹⁶⁹ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 210.

¹⁷⁰ Goodman, *International health organizations and their work*, p. 67; Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 31.

¹⁷¹ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 210; Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 64.

¹⁷² Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 64.

¹⁷³ Ibid.

¹⁷⁴ Ibid.

The Eighth International Sanitary Conference (1893)

Cholera struck Europe again in 1892, this time arriving by land through Afghanistan, Persia, and Russia.¹⁷⁵ Austria-Hungary convened the eighth conference, held in Dresden from 11 March to 15 April 1893.¹⁷⁶ Nineteen countries attended, all of them European.¹⁷⁷ The objective was to create a broader agreement on measures taken during cholera epidemics. In advance of the conference, Austria-Hungary circulated a questionnaire to participating governments on various subjects to be discussed.¹⁷⁸ Negotiations were thus becoming procedurally more sophisticated, as state parties narrowed the ensuing discussion through advanced preparation.

Three commissions were set up to address (1) notification, (2) measures on land, rivers, and seas, and (3) special measures for the mouth of the Danube. The result of the conference was a second International Sanitary Convention on cholera that expanded the approach of the first. The convention consisted of four articles and two annexes, and contained notification requirements as well as maximum permissible measures for cholera. The convention made obligatory notification of the first cases of cholera in a country to all other states signatory to the convention via diplomatic channels.¹⁷⁹ Land quarantines were forbidden—only travelers with cholera or cholera-like symptoms could be detained at land frontiers.¹⁸⁰ Healthy ships could not be detained and healthy passengers must be allowed to land.¹⁸¹ Goods capable of

¹⁷⁵ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 210; Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 66.

¹⁷⁶ Goodman, *International health organizations and their work*, p. 67.

¹⁷⁷ Austria-Hungary, Belgium, Denmark, France, Germany, Great Britain, Greece, Italy, Luxembourg, Montenegro, Netherlands, Portugal, Romania, Russia, Spain, Serbia, Sweden/Norway, Switzerland, and Turkey. Ibid.

¹⁷⁸ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 69.

¹⁷⁹ Berkov, *The World Health Organization: a study in decentralized international administration*, p. 40; Goodman, *International health organizations and their work*, p. 67.

¹⁸⁰ Goodman, *International health organizations and their work*, p. 67; Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 70.

¹⁸¹ Goodman, *International health organizations and their work*, p. 67; Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 70.

transmitting cholera were listed along with permissible measures. The only goods subject to import restrictions were used clothes, bed linen, and rags.¹⁸² Maritime quarantine measures remained essentially the same as the previous convention, and special regulations were prescribed for ships entering the Danube.¹⁸³ Of interest to Britain, the convention did not require any measures to be taken in Asia.¹⁸⁴

These provisions were sufficiently in line with British preferences to receive the country's support. The second International Sanitary Convention was eventually ratified in 1897 by eleven states.¹⁸⁵ Its content evidences the emergence of the barrier approach. The eighth conference is also significant because Britain recognized for the first time at an international conference that cholera could be spread from person to person, although the country continued to oppose quarantine with equal fervor.¹⁸⁶

The Ninth International Sanitary Conference (1894)

Another outbreak of cholera amongst pilgrims in Mecca¹⁸⁷ led the French government to convene the ninth conference in Paris from 7 February to 3 April.¹⁸⁸ Sixteen countries participated,¹⁸⁹ with the objective of reducing cholera at its source through measures imposed on pilgrims before departure.¹⁹⁰ The outcome was a third convention supplementing those of Venice and Dresden.¹⁹¹ The convention, containing seven articles and four annexes, established a quarantine station at the head of the Persian Gulf, stipulated sanitary conditions for pilgrim ships, and proposed a “means

¹⁸² Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 70.

¹⁸³ Ibid.

¹⁸⁴ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 31.

¹⁸⁵ Goodman, *International health organizations and their work*, p. 68.

¹⁸⁶ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 70.

¹⁸⁷ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 31.

¹⁸⁸ Goodman, *International health organizations and their work*, p. 68.

¹⁸⁹ Austria-Hungary, Belgium, Denmark, France, Germany, Great Britain, Greece, Italy, Netherlands, Portugal, Russia, Spain, Sweden/Norway, Persia, Turkey, and the United States. Ibid.

¹⁹⁰ Ibid.

¹⁹¹ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 73.

test” requiring pilgrims to show ability to pay for their return journey as a condition for pilgrimage.¹⁹²

The convention’s requirements primarily burdened Britain and Turkey. The two countries controlled areas from which most pilgrims came and would have been responsible for implementing various health measures.¹⁹³ Although Britain agreed to undertake medical inspections of pilgrims in ports, both countries opposed the means test for pilgrims.¹⁹⁴ Thirteen of the sixteen participating states signed the convention, with Sweden/Norway, Turkey, and the United States abstaining.¹⁹⁵ Britain signed with reservations, including rejecting Annex III to the convention, which contained provisions for controlling shipping in the Persian Gulf, 98% of which, according to a statement from the chief British delegate, were British.¹⁹⁶ The convention ultimately remained a “dead letter”¹⁹⁷ due to numerous reservations and because Turkey, on whom implementation largely depended, did not ratify the agreement.¹⁹⁸

The Tenth International Sanitary Conference (1897)

A worldwide pandemic of plague began in the early 1890s in southern China.¹⁹⁹ By 1897, plague was epidemic in Bombay and threatened to spread to Europe,²⁰⁰ causing many European countries to impose quarantine measures that were far harsher than those that had been recently accepted for cholera.²⁰¹ In an uncoordinated attempt to keep plague out of their territories, France and Russia forbade Muslim pilgrims from

¹⁹² Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 211; Goodman, *International health organizations and their work*, p. 68; Siddiqi, *World health and world politics: the World Health Organization and the UN System*, p. 18.

¹⁹³ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 31.

¹⁹⁴ Goodman, *International health organizations and their work*, p. 68.

¹⁹⁵ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 73.

¹⁹⁶ *Ibid.*, pp. 73-74.

¹⁹⁷ Opening remarks of the chief delegate of Austria-Hungary at the tenth conference in 1897, quoted in *ibid.*, p. 78.

¹⁹⁸ Goodman, *International health organizations and their work*, p. 68; Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 31.

¹⁹⁹ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 212.

²⁰⁰ Goodman, *International health organizations and their work*, p. 68.

²⁰¹ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 32.

leaving for Hejaz, and Britain, Netherlands, Persia, and Austria-Hungary also adopted special measures.²⁰² Austria-Hungary called the tenth conference to develop effective and uniform regulations dealing with the plague. The conference was held in Venice from 16 February to 19 March 1897 with 21 participating states.²⁰³

Two committees were established: one on technical matters and the other on ways and means.²⁰⁴ The technical committee unanimously agreed that plague was caused by a bacterium that had been isolated in 1894. There was general recognition that rats, mice, and other rodents were susceptible to the disease and that human outbreaks were often preceded by rodent epidemics.

The conference resulted in a convention covering measures to be taken against the plague inside and outside Europe as well as provisions on disinfection and surveillance.²⁰⁵ It was unanimously agreed that first cases of the plague must be notified telegraphically to other signatories.²⁰⁶ This system for information exchange was viewed as central to moderating excessive sanitary measures.²⁰⁷ State parties to the convention were also required to give ships and passengers found to be healthy on inspection free pratique regardless of the bill of health received at the port of departure.²⁰⁸ This outcome was a victory for Britain.²⁰⁹

The convention was signed by all participating states but Denmark, Sweden/Norway, and the United States.²¹⁰ Those signing subject to ratification

²⁰² Goodman, *International health organizations and their work*, p. 69.

²⁰³ Austria-Hungary, Belgium, Denmark, France, Germany, Great Britain, Greece, Italy, Luxembourg, Montenegro, Netherlands, Persia, Portugal, Romania, Russia, Spain, Serbia, Sweden/Norway, Switzerland, Turkey, and the United States. *Ibid.*, p. 68.

²⁰⁴ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 79.

²⁰⁵ Goodman, *International health organizations and their work*, p. 69.

²⁰⁶ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 213; Goodman, *International health organizations and their work*, p. 69.

²⁰⁷ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 32.

²⁰⁸ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 213.

²⁰⁹ *Ibid.*

²¹⁰ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 80.

announced that they would apply the convention immediately to the extent that they could.²¹¹ The parties also unanimously expressed support for the establishment of an international committee to codify and consolidate the four sanitary conventions produced in the last four conferences.²¹²

The Eleventh International Sanitary Conference (1903)

A congress of shipping interests in Vienna in 1902 pressured their governments to call the eleventh conference, which met in Paris from 19 October to 3 December 1903.²¹³ Twenty-three states were represented.²¹⁴ Its purpose was to codify and consolidate the previous conventions into a single legal instrument, to revise the 1897 convention in view of new knowledge about the role of rats in the epidemiology of plague, and to elaborate on the 1897 proposal for the establishment of a permanent international health office.²¹⁵ Most of the conference was spent on committee meetings on these three subjects.

The result of the conference was “the first effective general convention”²¹⁶ and the “launch[]” of the “contemporary global health regime”²¹⁷—in other words, the launch of the barrier approach. The International Sanitary Regulations of 1903 consisted of 184 articles, codifying and replacing the previous conventions while bringing quarantine requirements in line with new scientific knowledge.²¹⁸ Twenty countries signed the convention and sixteen ratified it by 1907.²¹⁹ The 1903 agreement

²¹¹ Goodman, *International health organizations and their work*, p. 69.

²¹² Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 80; Siddiqi, *World health and world politics: the World Health Organization and the UN System*, p. 18.

²¹³ Goodman, *International health organizations and their work*, pp. 69-70.

²¹⁴ Austria-Hungary, Argentine, Belgium, Brazil, Denmark, France, Germany, Great Britain, Greece, Italy, Luxembourg, Montenegro, Netherlands, Persia, Portugal, Romania, Russia, Serbia, Spain, Sweden/Norway, Switzerland, Turkey, and the United States. *Ibid.*, p. 70.

²¹⁵ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 82.

²¹⁶ Goodman, *International health organizations and their work*, p. 70.

²¹⁷ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 33.

²¹⁸ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 85.

²¹⁹ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 214.

provided for detailed measures for the destruction of rats on ships as a preventive measure against the plague,²²⁰ and reduced the minimum observation period for cholera and plague to five days.²²¹ The convention also included provisions on sanitary standards for ships and in ports, inspection of ships, certificates of inspection, quarantines of infected ships and travelers, bills of health for people on board ships, and the spread of disease by pilgrims.²²² The convention focused exclusively on cholera and plague, with the exception of one short article that “paid lip service” to yellow fever,²²³ which received little attention because the topic was only of interest to the United States.²²⁴ Significantly, Article 181 of the convention invited the French government to propose, through diplomatic channels, the establishment of an international health office at Paris to collect and disseminate information on epidemic diseases.²²⁵

²²⁰ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 85.

²²¹ Goodman, *International health organizations and their work*, p. 70.

²²² Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, pp. 34-35.

²²³ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 85.

²²⁴ *Ibid.*, p. 84.

²²⁵ Siddiqi, *World health and world politics: the World Health Organization and the UN System*, p. 2.

CONFERENCE	PRECIPITATING EVENT	KEY PARTIES	OUTCOME
Seventh (1892) Length: 4 weeks Convened by: Austria-Hungary Location: Venice Participants: 14 states	Cholera epidemic among pilgrims in the Middle East during the early 1890s	Britain France Austria-Hungary	Convention on cholera measures for pilgrims returning through Suez Canal ratified by 14 states
Eighth (1893) Length: 5 weeks Convened by: Austria-Hungary Location: Dresden Participants: 19 states	Cholera epidemic in Europe arriving by land in 1892	Britain Austria-Hungary	Broader convention on cholera measures ratified by 11 states
Ninth (1894) Length: 8 weeks Convened by: France Location: Paris Participants: 16 states	Cholera epidemic among Mecca pilgrims in 1893	Britain France Turkey	Convention on cholera that never entered into force
Tenth (1897) Length: 4 weeks Convened by: Austria-Hungary Location: Venice Participants: 21 states	Plague pandemic of 1890s	Britain Austria-Hungary	Convention on plague measures ratified by 18 states
Eleventh (1903) Length: 8 weeks Convened by: France Location: Paris Participants: 23 states	N/A – shipping interests pushed for consolidation of four existing agreements	France Britain	Convention on cholera and plague ratified by 16 states; proposal to create health IO

Table 3: The next five International Sanitary Conferences (1892-1903).

During this period, states continued to be motivated to pursue international cooperation by epidemic crises that highlighted the costs of unilateral responses to outbreaks. France and Austria-Hungary spearheaded the effort. Having begun developing a common understanding of the problem of infectious disease during the first six conferences, the negotiating parties spent the next five conferences seeking politically feasible legal solutions. They were able to do so by taking special measures to accommodate Britain's preferences and by progressing incrementally through narrow agreements that were later consolidated. The resulting International Sanitary Convention of 1903 contained the defining features of the barrier approach—notification requirements and standardized protective measures at borders for a small number of specific diseases, namely cholera and the plague.

The International Office of Public Hygiene

The final three International Sanitary Conferences were held after the establishment and with the aid of the International Office of Public Hygiene—the first permanent and global health organization. OIHP subsequently played an important role implementing and updating the existing conventions. With some assistance from other health IOs formed after the world wars, OIHP received and disseminated information on cases of cholera, plague, and yellow fever, and helped to set agendas for the last three conferences. It produced a monthly bulletin covering the laws and regulations of signatory states, the occurrence of infectious diseases, and the measures taken. It also published information of general public health interest in areas beyond those regulated by the conventions. Because of the way the organization was set up, OIHP's work reflected the preferences of member states, particularly powerful ones that contributed the most to its budget.

OIHP's establishment

Like the creation of the International Sanitary Conventions, the birth of OIHP was “very European.”²²⁶ Its formation was initiated by European powers keen on international cooperation; its main objective was to protect Europe from foreign diseases; and its office was located in Paris and run by French staff using French as its working language. OIHP was established at a weeklong organizational conference in Rome in 1907, which France persuaded Italy to call in accordance with the 1903 proposal. Twelve countries, two from the Americas, attended the conference.²²⁷ The French ambassador in Rome was elected Chairman, and France prepared draft statutes

²²⁶ Berkov, *The World Health Organization: a study in decentralized international administration*, p. 4.

²²⁷ Belgium, Brazil, Egypt, France, Great Britain, Italy, Netherlands, Romania, Russia, Spain, Switzerland, and the United States. Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 86.

for OIHP, which were accepted with minor changes.²²⁸ The Italian government also prepared draft statutes providing that OIHP should only deal with plague, cholera, and yellow fever. Ultimately, it was agreed that the principal role of OIHP was to collect and disseminate documents of general public health interest, particularly those pertaining to those three diseases.²²⁹ After several administrative meetings, OIHP began tackling technical questions in 1910.²³⁰

OIHP's structure

OIHP was composed of a Permanent Committee and a small permanent staff. The Permanent Committee was the organization's representative and central decision-making organ, and comprised of one technical representative from each member state—generally high-level officials from domestic health administrations. The permanent staff consisted of a director, a Secretary-General, two or three technical assistants, a librarian, an accountant, and typists.²³¹ According to David Leive, the staff's role was strictly limited and it did not have meaningful influence over the Committee.²³² Thus, OIHP's main accomplishments can be attributed to the Committee while the permanent staff performed circumscribed tasks and exercised little autonomy.

OIHP's operation

The Permanent Committee generally met twice a year in Paris for about ten days.²³³ There were nine members at the Committee's first meeting in November 1908, where the Italian Director-General of Health was elected as the Committee's first chairman. In later years, OIHP's membership expanded to nearly 60 countries.²³⁴

²²⁸ Ibid.

²²⁹ Ibid.

²³⁰ Ibid., p. 87.

²³¹ Goodman, *International health organizations and their work*, p. 88.

²³² David M. Leive, *International regulatory regimes: Case studies in health, meteorology, and food* (Lexington, MA: Lexington Books, 1976), p. 18.

²³³ Goodman, *International health organizations and their work*, p. 88.

²³⁴ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 86.

Committee members had differing voting power depending on how much their state contributed to OIHP's annual budget.²³⁵ Those contributing the most commanded six votes while those contributing the least received one vote.²³⁶ This weighted voting procedure had significant influence on the outcome of decisions though no question was ever put to a direct vote.²³⁷ The Committee elected a president who was responsible for controlling OIHP between its sessions.

Formally, the Committee had limited powers as it largely depended on the goodwill of states to fulfill its main function of publishing information on the application of the conventions. Its mandate did not give it authority to interpret or enforce the law. But in practice member states permitted the Permanent Committee to play a more significant role,²³⁸ in large part because the Committee was composed of national representatives whose weighted preferences reflected those of their respective national health administrations if not their respective governments as a whole. States sometimes submitted questions about interpreting controversial or ambiguous provisions in the conventions to the Committee, which generally took a cautious stance. It refrained from taking positions on specific controversies between states, did not attempt to ascertain the actual situation regarding a notifiable disease or protective measures taken, and treated reported information concerning outbreaks with great sensitivity.²³⁹ The Committee was also conservative in formulating proposals for updating the conventions.²⁴⁰

Another important component of the Committee's work was to conduct studies and disseminate knowledge on general topics of public health, including those related to

²³⁵ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 215.

²³⁶ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 86.

²³⁷ Goodman, *International health organizations and their work*, p. 87.

²³⁸ Leive, *International regulatory regimes: Case studies in health, meteorology, and food*, pp. 19-20.

²³⁹ *Ibid.*, p. 20.

²⁴⁰ *Ibid.*, p. 22.

the conventions—such as the elimination of rats, bills of health, railways, and air travel—as well as those beyond the scope of the conventions. In the early years of OIHP’s work, the small membership of the Permanent Committee made it a particularly fruitful venue for discussing technical issues and medical developments.²⁴¹ For example, at a Committee meeting in 1910, representatives discussed measures to standardize the potency of diphtheria antitoxin produced in different countries, thus beginning a long tradition of creating international standards for medical products that would be taken up by subsequently formed health IOs.²⁴² By 1914, the Committee had published findings and recommendations on the regulation of drinking water and effluents, tuberculosis reporting, prophylactic measures for typhoid fever, surveillance of leprosy, as well as other topics relating to health threats such as malaria and hookworm.²⁴³

OIHP’s decline

After 1914, OIHP’s influence waned for a number of reasons. Though intended to be permanent, the organization’s work was limited and then cut short by war. With the exception of publishing its monthly bulletin, OIHP did not operate from 1914 to 1919 due to World War I, nor did it operate during World War II. Its position in international health was then overshadowed by the formation of other health IOs.

The final three International Sanitary Conferences (1912-1938)

The final three conferences occurred during a period of great political, social, and public health turmoil stemming from the two world wars. While the entire landscape of international health cooperation transformed with the creation of two new

²⁴¹ World Health Organization, *The First Ten Years of the World Health Organization: 1948-1957*, p. 19.

²⁴² Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 87.

²⁴³ Alexandra Minna Stern and Howard Markel, 'International efforts to control infectious diseases, 1851 to the present,' *Journal of the American Medical Association*, vol. 292, no. 12, 2004, p. 1476; World Health Organization, *The First Ten Years of the World Health Organization: 1948-1957*, p. 20.

health IOs to meet the demands emanating from enormous epidemics and hostilities, the International Sanitary Conventions remained relatively stable. The final conferences incrementally revised previous agreements by adding three new diseases and incorporating OIHP into the disease notification system. At the same time, the number and diversity of states participating in the negotiations increased significantly, from around 20 primarily European states at previous meetings to 65 states and territories at the thirteenth conference, approximately half from outside of Europe.

OIHP's Permanent Committee played an important role in these incremental legal revisions even as the organization began to decline. It provided a regular forum for intergovernmental discussions on medical developments as well as the need for and political feasibility of legal changes. Although there was no formal relationship between OIHP and the sanitary conferences, the Permanent Committee conducted most of the preparatory work for the three conferences, and its members attended and participated actively in deliberations.²⁴⁴ The Committee's proposals were generally accepted with minor changes,²⁴⁵ though it only introduced proposals that it considered absolutely necessary.²⁴⁶

The Twelfth International Sanitary Conference (1911–1912)

The primary topic of focus at the Permanent Committee's October 1910 meeting was an ongoing cholera epidemic in southern Italy.²⁴⁷ The Committee discussed the outbreak situation and measures taken by Italian authorities, emphasizing the need for another International Sanitary Conference to address divergent national interpretations of the 1903 convention.²⁴⁸ Based on this recommendation, the French government took

²⁴⁴ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 89.

²⁴⁵ Leive, *International regulatory regimes: Case studies in health, meteorology, and food*, p. 18.

²⁴⁶ *Ibid.*, p. 22.

²⁴⁷ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 216.

²⁴⁸ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 87.

steps to convene a conference and requested OIHP to prepare a draft text. Revising the 1903 convention became the sole agenda item at the Committee's next meeting. States represented at the 1903 conference but not yet a member of OIHP were invited to send technical delegates.²⁴⁹ The Committee members and additional invitees discussed the recently discovered El Tor strain of cholera, the role of healthy carriers of the cholera vibrio in disease spread, and the deratting of ships. They prepared a background report on cholera as well as a proposal for an updated and extended convention for the twelfth conference.²⁵⁰

The twelfth conference was held in Paris from 7 November 1911 to 17 January 1912 and attended by 41 countries.²⁵¹ The primary concern was the new recognition that healthy unaffected individuals could carry and spread cholera for days or even months.²⁵² While there was unanimous agreement that the carrier problem was a vital one, there were divergent views on the extent of the threat and the feasibility of routine examination of the stools of large numbers of healthy passengers on overcrowded ships.²⁵³ In the end, the convention did not mention carriers and left it to national health authorities to require examinations.²⁵⁴ A few minor modifications were made to the 1903 convention's provisions on the plague.²⁵⁵ Yellow fever received the least attention, but was added as a disease subject to notification for the first time.²⁵⁶ Notification requirements were also updated to require states to send reports to all other signatory states as well as to OIHP. The result of the conference was a convention that

²⁴⁹ Ibid., pp. 87-88.

²⁵⁰ Goodman, *International health organizations and their work*, p. 71.

²⁵¹ Ibid.

²⁵² Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 90.

²⁵³ Ibid., p. 91.

²⁵⁴ Ibid., p. 92.

²⁵⁵ Ibid.

²⁵⁶ 1912 International Sanitary Convention, Article 1. Cited in Fidler, *International law and infectious diseases*, p. 45.

superseded those of 1892, 1893, 1894, 1897, and 1903. Ratifications for the convention increased over time and reached 29 out of 41 signatories by 1922.²⁵⁷

World War I, OIHP, and the League of Nations

For the most part, OIHP did not operate during World War I (“WWI”). After the war, there was great enthusiasm for international cooperation, including health cooperation, resulting in demands for a larger health IO to facilitate broader cooperation related to pressing post-WWI public health needs. The Health Organization of the League of Nations (“HOLN”) was created in 1923.²⁵⁸ Unlike OIHP, which did not have the capacity to carry out field programs and was largely dependent on work done by national administrations or members of the Permanent Committees, HOLN was a larger IO with greater resources that made it independently active through the provision of technical assistance.²⁵⁹

HOLN mostly dealt with issues outside OIHP’s domain, but there was some overlap between the two organizations as the League developed its own mechanism for collecting and disseminating epidemiological information that was not limited to the diseases covered under the International Sanitary Conventions. HOLN established an Epidemic Commission that reported on select outbreaks, particularly in Eastern Europe, as well as a Sanitary Bureau in Singapore, that gathered and circulated information about outbreaks in Asia.²⁶⁰ In 1926, HOLN created the Weekly Epidemiological Record, a weekly publication that collects and disseminates standardized international health statistics.²⁶¹ OIHP and HOLN subsequently arrived at an arrangement whereby

²⁵⁷ Goodman, *International health organizations and their work*, p. 92.

²⁵⁸ The possibility of integrating OIHP into HOLN was considered, but it was opposed by the United States, which did not join the League of Nations and thus could not send an official delegate to HOLN, and by France, which wished to retain OIHP as a French organization. Ibid.

²⁵⁹ Leive, *International regulatory regimes: Case studies in health, meteorology, and food*, pp. 22-23.

²⁶⁰ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 36.

²⁶¹ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 227.

the two organizations cooperated in the collection of infectious disease information, which was then published in the Weekly Epidemiological Record.

The Thirteenth International Sanitary Conference (1926)

International health cooperation after WWI focused on urgent demands emanating from the war and massive infectious disease outbreaks that occurred during hostilities. One of OIHP's primary post-WWI tasks was to prepare a proposal for a revision of the 1912 convention, to be considered at the thirteenth International Sanitary Conference. The Permanent Committee considered various topics related to the revision at its meetings between 1921 and 1926. It transmitted a proposed text to governments, which was subsequently adopted without significant changes²⁶² at a conference held in Paris from 10 May to 21 June 1926. Sixty-five states and territories, divided approximately equally between Europe and the rest of the world, attended the conference.²⁶³

The conference considered whether any changes were necessary to the existing provisions on cholera, plague, and yellow fever, and whether other infectious diseases should be included.²⁶⁴ On the subject of the three already regulated diseases, only minor changes were made. The obligation to avoid more stringent measures than those provided for was explicitly accepted for the first time: Article 15 of the convention stipulated that "measures as laid out in this chapter constitute a maximum."²⁶⁵ The surveillance system was also modified to require state parties to report notifiable diseases only to OIHP, which was in turn obligated to disseminate outbreak information

²⁶² Goodman, *International health organizations and their work*, p. 93.

²⁶³ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 95.

²⁶⁴ Ibid.

²⁶⁵ Quoted in Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 37.

to other signatory states.²⁶⁶ OIHP collated reported information and sent it to all state parties by weekly telegram or immediately in urgent situations.²⁶⁷

The main reason for the modesty of the revisions was that parties generally agreed that the three diseases were no longer as significant a threat as they used to be. The negotiating parties perceived yellow fever to be tamed. The Brazilian delegate who served as rapporteur of the yellow fever committee noted that “yellow fever is a disease near to disappearance, and...the measures that must still be included in the convention will soon become useless.”²⁶⁸ Participating states were also confident in the efficacy of an anti-cholera vaccine and believed it could easily manage the disease.²⁶⁹ Finally, plague had been confined to ports and areas where it was endemic.

On the subject of other diseases, there was significant support for adding influenza, smallpox, and typhus to the list of notifiable diseases. The influenza pandemic of 1918-1919 killed an estimated 15 million people, while the typhus epidemic of 1919 in Eastern Europe infected nearly two million in Poland and the Soviet Union.²⁷⁰ But ultimately the impracticality of quarantine measures for controlling influenza was recognized and it was not included.²⁷¹ The Swiss delegate argued that smallpox was universal in presence and thus not suitable for notification of specific cases. The conference finally agreed that signatory states must report first confirmed cases of cholera, plague, and yellow fever, but only *epidemics* of smallpox and typhus to OIHP.

²⁶⁶ Ibid., p. 36.

²⁶⁷ Goodman, *International health organizations and their work*, p. 94.

²⁶⁸ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 97.

²⁶⁹ Goodman, *International health organizations and their work*, p. 228.

²⁷⁰ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 226.

²⁷¹ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 97.

The Fourteenth International Sanitary Conference (1938)

The fourteenth and final conference was convened by France at Egypt's request and brought together 50 countries for four days of negotiation from 28 October to 31 October 1938. The conference resulted in a partial revision dissolving the Maritime Health and Quarantine Council of Egypt.²⁷² A provision was also added designating the Permanent Committee of OIHP the "Court of Arbitration" for interpreting and applying the sanitary conventions,²⁷³ a role it was already playing on an unofficial basis. The 1938 convention was signed by twenty-nine states and came into effect soon after.²⁷⁴

World War II, OIHP, and the United Nations

OIHP's operations were again disrupted during World War II ("WWII"). The most important health IO during WWII was the Health Division of the United Nations Relief and Rehabilitation Administration, a temporary organization created to address emergencies related to the war. The Health Division took over OIHP's responsibilities in 1943 due to the occupation of France, where OIHP's headquarters was located. In addition to performing OIHP's functions, the Health Division, like HOLN, provided direct assistance in war-torn areas. After WWII, OIHP was dissolved and its functions absorbed by the newly established World Health Organization.

²⁷² Goodman, *International health organizations and their work*, p. 75.

²⁷³ Ibid.

²⁷⁴ Ibid.

CONFERENCE	PRECIPITATING EVENT	KEY PARTIES	OUTCOME
Twelfth (1912) Length: 10 weeks Convened by: France, upon OIHP's proposal Location: Paris Participants: 41 states	Cholera epidemic in Southern Italy in 1910	France Italy	Yellow fever added; convention signed by 41 states and ratified by 29 states by 1922
Thirteenth (1926) Length: 6 weeks Convened by: France, upon OIHP's proposal Location: Paris Participants: 65 states and territories	World War I	France	Smallpox and typhus added
Fourteenth (1938) Length: 4 days Convened by: France, at Egypt's request Location: Paris Participants: 50 states	N/A – Egypt had for years wanted to abolish the Quarantine Council	France Egypt	Dissolution of Quarantine Council of Egypt; convention signed by 29 states

Table 4: The final three International Sanitary Conferences (1912-1938).

Other developments

Several other developments outside the International Sanitary Conferences contributed to the pre-WHO development of the barrier approach: the International Sanitary Convention for Aerial Navigation was concluded in 1933; bills of health and consular visas were eliminated in 1934; and the 1926 International Sanitary Convention was updated a second time in 1944. These legal developments, facilitated either by OIHP or by UNRAA's Health Division, generally involved lower levels of engagement with countries, were not prompted by immediate threats, and were adhered to at a diminished rate.

OIHP was requested by the 1919 Peace Conference to study the subject of attaching an annex regulating quarantine to the general Convention for Air Navigation. A typically conservative organization, OIHP took no action at first, but the recurrence of yellow fever in 1928 prompted it to begin discussing a draft sanitary convention for air travel with the International Commission for Air Navigation, the forerunner to the International Civil Aviation Organization. The International Sanitary Convention for

Aerial Navigation, regulating the health treatment of airline crew, passengers, and cargo, based on the same principals as those of the 1926 International Sanitary Convention for maritime quarantine,²⁷⁵ was approved by the Permanent Committee and the Air Navigation Commission and then submitted by the French government to other countries for signature. It was signed by 12 countries in 1933, came into force with 10 ratifications in 1935,²⁷⁶ and was subsequently modified in 1944.²⁷⁷ Goodman suggests that the small number of signatures and ratifications may have been because the convention was not discussed at a conference, but merely circulated to governments.²⁷⁸

In 1934, bills of health and consular visas, both of which had become redundant, were eliminated by agreement at the recommendation of the Permanent Committee.²⁷⁹ Bills of health were previously used to bring the first news of sanitary conditions at a ship's port of departure and consular visas previously provided assurance to the country of arrival that information on the bill of health was accurate. But faster sources of information had become available in modern times and the obligation of state parties under the International Sanitary Conventions to notify occurrences of disease, assuming the requirement was complied with, made reassurance unnecessary.

Finally, the International Sanitary Conventions of 1926 and 1933 were modified again in 1944 to reflect medical advances and to respond to post-war problems.²⁸⁰ The Health Division of UNRAA initiated the revision and convened an expert committee in London to conduct preliminary preparations. This update was prepared in anticipation of some of the difficulties that the United Nations might face, rather than responding to

²⁷⁵ Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' p. 229.

²⁷⁶ Goodman, *International health organizations and their work*, p. 74.

²⁷⁷ Fidler, *International law and infectious diseases*, p. 23.

²⁷⁸ Goodman, *International health organizations and their work*, p. 74.

²⁷⁹ Leive, *International regulatory regimes: Case studies in health, meteorology, and food*, pp. 21-22.

²⁸⁰ Goodman, *International health organizations and their work*, pp. 75-76.

an existing threat.²⁸¹ The revision replaced OIHP with the Health Division for purposes of receiving disease notifications, recommended anti-typhus vaccination and anti-louse preparations, introduced new standardized travel documents, and revised the yellow fever provisions in light of the development of the anti-yellow fever vaccine. The convention came into force with the signature of 17 states in 1945. Not all countries signing the 1926 and the 1933 conventions signed the 1944 revision, resulting in a patchwork of agreements.

Concluding thoughts

This chapter set out to characterize how, when, and by whom international infectious disease law was made prior to the establishment of WHO. One might anticipate that treaty making without the benefit of a centralized IO was disorganized, inefficient, and driven by powerful countries with the wherewithal to convene diplomatic gatherings. These expectations are borne out by the evidence.

Overall, the pre-WHO treaty making process was shaped by powerful European countries. France and Austria-Hungary pushed negotiations forward by convening conferences and proposing draft texts, while Britain blocked agreements that impinged on its trade interests. The resulting conventions were configured to protect European public health with minimal impact on British commerce.

The treaty making process was long and difficult because participating states had to overcome not only conflicting national preferences, but also contested science. Effective conventions were concluded only after basic principles of infectious disease became commonly accepted and British interests were protected through narrow, cautious agreements that sidestepped its sensitivities. These treaties of limited scope

²⁸¹ Ibid., p. 76.

were subsequently consolidated and incrementally expanded, thus minimizing the uncertain consequences resulting from cooperation on a new and complex subject.

It is surprising how much of the pre-WHO treaty making process occurred at formal diplomatic conferences, and how ill-suited that venue was for many of the treaty making steps. Negotiations were frequent, protracted, and showed little progress at first because the parties arrived at the negotiating table without any basis for a shared understanding of the problem or possible solutions. Instead, they completed every step of the treaty making process—including pre-negotiation steps such as diagnosing the problem and building a common body of knowledge—under the spotlight of intergovernmental conferences. Thus, in contrast to treaty making models proposed by modern negotiation scholars that depict pre-negotiation as an informal affair with lower exit costs, pre-negotiation during the late nineteenth century was a formal endeavor conducted in a politically high-profile environment.

Formal diplomatic conferences were a difficult setting to complete many of the steps of treaty making. The conferences were generally called on a reactionary and shortsighted basis, with the goal of quickly arriving at an agreement to address the most recent infectious disease crisis, and took place in an already contentious climate that underscored conflicting national interests. Participating countries were often impatient to adopt an agreement and proceeded on the premise that a majority of states could outvote a minority on crucial questions concerning the science behind infectious disease or cessions of sovereignty. This approach was unsuccessful on both fronts. It was impossible to ignore uncertain science or to overcome it with a poll, and many conventions were initially adopted only to remain fallow because they did not represent a genuine consensus amongst the negotiating parties.

The danger of creating treaties that mask underlying disagreement or that lack true commitment—a criticism that has been launched against modern IOs—is thus not unique to institutionalized treaty making. International sanitary conferences, convened before the formation of any IO, also resulted in open-ended agreements that did not require meaningful changes to state behavior or in unratified agreements that papered over profound discord. Whether operating within or without an IO, the enterprise of treaty making is prone to false agreements.

The establishment of OIHP changed the process of treaty making in several respects, most significantly by providing a regular informal forum for intergovernmental discussions about public health cooperation. Rather than meeting on an ad hoc basis following a public health crisis of exceptional gravity, OIHP's existence ensured that regular meetings took place, during which national health administrators participated in an on-going conversation about updating the conventions and other public health topics of the day.

Because of OIHP's institutional characteristics—a narrow mandate, a miniscule permanent staff, weighted voting within the Permanent Committee, and a brief existence—its work remained closely tied to member state preferences and its actions remained conservative. The organization exercised negligible autonomy and had little room to evolve when the diseases it covered came under control. Moreover, the world wars brought new and broader public health concerns that demanded a more involved approach to international health cooperation. Consequently, post-war international public health problems were addressed outside of the International Sanitary Conventions and OIHP through the creation of bigger health IOs, including the World Health Organization. The next chapter focuses on WHO and examines how its

institutional characteristics, and thus its capacity to contribute to the treaty making process, differ from those of OIHP.

Chapter 3

WHO: A NEW INSTITUTIONAL CONTEXT FOR INFECTIOUS DISEASE LAW

The previous chapter chronicled the pre-WHO emergence and development of the barrier approach through fourteen historic International Sanitary Conferences held from 1851 to 1938. From 1903 onwards, the treaty making process was assisted by OIHP, a small organization with a narrow mandate. Recall that OIHP was run by a Permanent Committee, composed of representatives from each member state, and its work was supported by a miniscule permanent staff that performed circumscribed tasks. Though the Permanent Committee did not have explicit responsibilities for revising and interpreting the International Sanitary Conventions, it nevertheless performed those functions as member states looked to it for assistance. The Committee conducted most of the preparatory work for the three final International Sanitary Conferences; members of the Committee participated actively in deliberations at the conferences; and member states sometimes submitted to the Committee questions concerning the interpretation of ambiguous legal provisions. In playing these roles, the Committee took a conservative approach, proposing only those legal revisions it felt to be absolutely necessary and refusing to take positions on specific controversies between states.

After some disruption during World War I and World War II, OIHP was dissolved in 1946 and its work was transferred to the World Health Organization via UNRRA's Health Division and WHO's Interim Commission. This chapter assesses WHO's capacity to contribute to the treaty making process by examining how WHO compares to OIHP as an institutional home for international infectious disease law.

On first glance, there are some parallels between the legal roles played by OIHP and WHO. OIHP's Permanent Committee formulated conservative proposals for

updating international infectious disease conventions that were generally accepted by member states with minor changes. WHO's World Health Assembly—a body equivalent to OIHP's Permanent Committee and comprised of national representatives from member states—has the authority to adopt hard international law, though it has rarely done so, and member states have generally accepted legal instruments adopted by the Health Assembly. If we focus solely on international infectious disease law, it seems that WHO and OIHP are not that different. In both organizations, similar bodies are authorized but reluctant to put forward legal change, and ultimately it is up to member states whether to be bound by any treaty.

I argue in this chapter that these apparent similarities are deceiving because they do not take into account how WHO operates in practice and as a whole organization. In reality, WHO's mandate is broad and complex, and its work on infectious disease law does not occur in a vacuum, separate from its efforts on other issue areas and its non-regulatory endeavors. Once we consider the breadth and potential for cross-pollination in WHO's work as well as the relationship between member states, the World Health Assembly, and WHO's Secretariat, it becomes evident that WHO is a very different institutional setting than OIHP.

There are three key differences between WHO and OIHP that generate more opportunities for dynamism and change in the former. First, WHO is a bigger and better-funded organization with a more ambitious and ambiguous mandate that gives it the authority to act in a wide spectrum of areas and the capacity to provide direct services. International infectious disease law is but one small element of WHO's overall work and can be affected by the organization's other pursuits. Second, the World Health Assembly is a very different entity than the Permanent Committee, and offers member states a weaker set of controls over the organization's wide-ranging

activities. The World Health Assembly is governed by contrasting voting rules that have hampered its leadership capacity and led a small group of wealthy member states to develop alternative mechanisms of control that have been effective, but fragmented and imperfect. Third, whereas OIHP was assisted by a miniscule staff, WHO is supported by a Secretariat composed of thousands of experts located in offices across the globe, giving rise to an agent with the potential to develop interests separate from those of its principal, member states. Though the Secretariat is meant to take its marching orders from the World Health Assembly, the Health Assembly's weakness in combination with the core group of wealthy states' fragmented controls have left the Secretariat some room for autonomy.

These three features were critical to the subsequent evolution of international infectious disease regulation under WHO's auspices. They were the primary ingredients for a new relationship between institution and law, one that was not possible within the framework of OIHP.

WHO's conflicting legacies and ambiguous mandate

OIHP's mandate was to collect and disseminate facts and documents of general public health interest, particularly those pertaining to the three diseases regulated by the International Sanitary Convention at the time of its founding—cholera, yellow fever, and the plague.¹ As mentioned above and in Chapter 2, OIHP also informally performed other functions related to the infectious disease conventions, but the scope of its work remained narrow, and thus easily monitored and controlled.

By contrast, WHO's mandate is to work towards the “attainment by all peoples of the highest possible level of health.”² This objective is not only vast and open to

¹ Norman Howard-Jones, *The scientific background of the International Sanitary Conferences* (Geneva: World Health Organization, 1975), p. 86.

² Constitution of the World Health Organization, Article 1.

interpretation, but it is also in tension with the purpose of the International Sanitary Conventions, which were created to protect Europeans from “foreign” diseases and European commerce from excessive public health measures. This ambiguity and internal tension created space for future change in international infectious disease law—space that is particularly significant given the analysis below concerning the Secretariat’s potential to engage in agent slack and to pursue autonomous interests separate from those of member states.

WHO’s conflicting legacies

The World Health Organization was created after World War II as part of the United Nations system of specialized agencies.³ At the time of its formation, it absorbed the functions of three existing international organizations engaged in health work—the International Office of Public Hygiene, the Health Organization of the League of Nations, and the Health Division of the United Nations Relief and Rehabilitation Administration. These subsumed organizations were themselves formed under contrasting circumstances and had divergent overarching goals and approaches, which were the reasons they were created as separate organizations in the first place. Combining them in one body meant that WHO, from the beginning, encompassed conflicting approaches to international health cooperation.

International Office of Public Hygiene. OIHP was the oldest and narrowest of the subsumed health IOs. Its founding document expressly cautioned the organization not to “interfere in any way in the administration of the different States.”⁴ With a

³ The Charter of the United Nations provides for the promotion of “solutions of international economic, social, health, and related problems” and the establishment of various specialized agencies “by intergovernmental agreement and having wide international responsibilities, as defined in their basic instruments, in economic, social, cultural, educational, health, and related fields.” UN Charter, Articles 55 and 57.

⁴ Statutes of Constitution of the International Office of Public Health, Article 2. Cited in Neville M. Goodman, *International health organizations and their work* (London: Churchill Livingstone, 1971), p. 102.

permanent staff of four or five medical experts and an annual budget set at 150,000 French francs—an amount that could not be exceeded without the consent of the signatory states⁵—OIHP was, in any case, in no position to influence member states' national health administration or to provide direct assistance.

Although OIHP's membership in its later years expanded to include a more diverse group of countries, the organization remained “the fruit of long and persistent European co-operation.”⁶ As a “club of...health administrators, most European, whose main preoccupation was to protect their countries from importation of exotic diseases without imposing too drastic restrictions on international commerce,” OIHP was “firmly rooted in the ideas of the past.”⁷ After WWI, it was recognized that a new approach to international health was necessary, one that was beyond OIHP's circumscribed mandate, tiny staff, and modest budget. During the Permanent Committee's first post-WWI meeting, the chairman remarked that international health cooperation needed to move away from a focus on erecting barriers against contagion and instead be directed toward the elimination of infection at their sites of origin.⁸

Health Organization of the League of Nations. The establishment of the League of Nations in 1919 called for a reorientation of international cooperation in all fields. In the health arena, the League's Covenant contained a broad and general mandate to “endeavour to take steps in matters of international concern for the prevention and

⁵ Statutes of Constitution of the International Office of Public Health, Article 11. Cited in *ibid*. According to Cooper, 150,000 francs was equivalent to USD 29,000 in 1989. Richard N. Cooper, 'International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation,' in *Can nations agree?: issues in international economic cooperation*, Richard N. Cooper, Barry Eichengreen, Gerald Holtham, Robert D. Putnam and Randall C. Hennings, eds. (Washington, DC: Brookings Institution, 1989), p. 215.

⁶ Quoting the French delegate at the inaugural meeting of the first session of the Permanent Committee. World Health Organization, *The First Ten Years of the World Health Organization: 1948-1957* (Geneva: World Health Organization, 1958), p. 18.

⁷ Norman Howard-Jones, *International public health between the two world wars: the organizational problems* (Geneva: World Health Organization, 1978), p. 17.

⁸ Howard-Jones, *The scientific background of the International Sanitary Conferences*, p. 93.

control of disease.”⁹ HOLN marked a departure from OIHP’s historic focus on blocking the spread of infections at national borders. A larger and better-resourced organization than OIHP, HOLN attended to a spectrum of medical subjects and became actively involved in channeling funds from developed to developing countries and providing technical assistance to those in need.¹⁰

HOLN’s work was extensive and wide-ranging. It collaborated with OIHP on work within the ambit of the International Sanitary Conventions, collected epidemiological information for diseases not covered by the conventions, and sent small technical commissions to intervene directly in countries at their request. Notably, HOLN helped reorganize the public health service in Greece, Bolivia, and China.¹¹ It helped fight epidemics in Greece, Albania, Romania and Yugoslavia,¹² and, in 1937, the League contributed £95,000 in special funds to help control epidemics in China arising from Japanese aggression.¹³ HOLN also conducted numerous technical studies, and established commissions on subjects as wide-ranging as cancer, drug addiction, nutrition, housing, physical education, and rural hygiene.

Health Division of the United Nations Relief and Rehabilitation Administration.

The Health Division of UNRAA was created as a temporary organization to address the widespread destruction of WWII. It was by far the largest and most active health IO at the time of its operation. Its health expenditure totaled US\$168 million (approximately £58.8 million at the 1950 exchange rate),¹⁴ and it had a professional staff of over 1000 doctors, nurses, sanitary engineers, and dentists in 1946.¹⁵

⁹ *The Covenant of the League of Nations* (Paris: League of Nations, 1919), Article 23(f).

¹⁰ Norman Howard-Jones, 'Origins of international health work,' *British Medical Journal*, vol. 1, no. 4661, 1950, p. 1036.

¹¹ Goodman, *International health organizations and their work*, p. 128.

¹² Yves Beigbeder, Mahyar Nashat, Marie-Antoinette Orsini and Jean-Francois Tiercy, *The World Health Organization* (The Hague: Martinus Nijhoff, 1998), p. 5.

¹³ Goodman, *International health organizations and their work*, p. 128.

¹⁴ *Ibid.*, p. 138.

¹⁵ *Ibid.*

The Health Division fought a number of war-engendered epidemics.¹⁶ It shipped and utilized thousands of tons of the pesticide dichlorodiphenyltrichloroethane (“DDT”) to fight typhus and malaria. It assisted China control outbreaks of cholera and the plague, and Italy control an outbreak of the plague. It also sent teams of experts, medicines, and x-ray equipment to Greece, China, and Poland to respond to the spread of tuberculosis and venereal diseases.

World Health Organization. The creation of a health organization after WWII was jointly proposed by Brazil and China—two countries that had received significant health assistance through HOLN and UNRAA’s Health Division. Harold Jacobson suggests that the role of Brazil and China in initiating the creation of WHO foreshadowed a shift in international health efforts away from activities, such as those related to the International Sanitary Conventions, that primarily addressed the concerns and protection of the northern hemisphere.¹⁷ The proposal for a health IO was unanimously approved in 1945 at the United Nations Conference on International Organization in San Francisco, and WHO was founded in 1946 when 61 countries signed its Constitution.

By its Constitution, the World Health Organization was to be the single “directing and co-ordinating authority on international health work.”¹⁸ It inherited, consolidated, and extended the work of OIHP, HOLN, and the Health Division—precursor organizations that passed on conflicting legacies. Whereas OIHP and the International Sanitary Conventions were designed to serve European interests and refrain from interference with domestic health administration, HOLN and UNRAA’s Health Division were actively involved in providing technical assistance to developing

¹⁶ Ibid., pp. 141-143.

¹⁷ Harold K. Jacobson, 'WHO: Medicine, Regionalism, and Managed Politics,' in *The anatomy of influence: decision making in international organization*, Robert W. Cox, Harold K. Jacobson and Gerard Curzon, eds. (New Haven, CT: Yale University Press, 1973), p. 175.

¹⁸ Constitution of the World Health Organization, Article 2(a).

countries and countries afflicted by the wars, including by assisting in the reorganization of domestic health services.

Subsequent developments in international infectious disease law thus occurred within an organization whose priorities had shifted in another direction. The first World Health Assembly outlined WHO's future focus, which prioritized work that was in tension with the International Sanitary Conventions. Malaria, maternal and child health, tuberculosis, venereal diseases, nutrition, and environmental sanitation were to be the most important programs, followed by public health administration.¹⁹

WHO's ambiguous mandate

The conflicting legacies inherited by WHO are reflected in the organization's complex and ambiguous mandate. At its founding, the World Health Organization was not given clear, concrete, or measurable responsibilities. Instead, its founders intended for the institution's purpose to be all encompassing, aspirational, and flexible enough to evolve with the changing needs of international health. As we will see, WHO was granted such vast authority in large part because the original member states—particularly powerful ones such as the United States—assumed they would have strong control over the organization, an assumption that proved misguided after WHO's first two decades.

Not only was WHO created with the open mandate of working towards the “attainment by all peoples of the highest possible level of health,”²⁰ but health is defined expansively as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”²¹ WHO's Constitution represents the

¹⁹ Beigbeder, Nashat, Orsini and Tiercy, *The World Health Organization*, p. 16.

²⁰ Constitution of the World Health Organization, Article 1.

²¹ Ibid., Preamble.

“broadest and most liberal concept of international responsibility for health ever officially promulgated.”²² Few IOs have been delegated “such far-reaching goals.”²³

Article 2 of WHO’s Constitution provides a catalogue of the organization’s 22 functions that is neither exhaustive nor determinative of actions. They vary in specificity, cut across one another, and create overlapping duties.²⁴ If anything had been left out in the first 21 functions, the final one authorizes WHO “generally to take

²² Charles E. Allen, 'World health and world politics,' *International Organization*, vol. 4, no. 1, 1950, p. 30.

²³ Jacobson, 'WHO: Medicine, Regionalism, and Managed Politics,' p. 175.

²⁴ Article 2 provides that “In order to achieve its objectives, the functions of the Organization shall be:

- (a) to act as the directing and co-ordinating authority on international health work;
- (b) to establish and maintain effective collaboration with the United Nations, specialized agencies, governmental health administrations, professional groups and such other organizations as may be deemed appropriate;
- (c) to assist Governments, upon request in strengthening health services;
- (d) to furnish appropriate technical assistance and, in emergencies, necessary aid upon the request or acceptance of Governments;
- (e) to provide or assist in providing, upon the request of the United Nations, health services and facilities to special groups, such as the peoples of trust territories;
- (f) to establish and maintain such administrative and technical services as may be required, including epidemiological and statistical services;
- (g) to stimulate and advance work to eradicate epidemic, endemic and other diseases;
- (h) to promote, in co-operation with other specialized agencies where necessary, the prevention of accidental injuries;
- (i) to promote, in co-operation with other specialized agencies where necessary, the improvement of nutrition, housing, sanitation, recreation, economic or working conditions and other aspects of environmental hygiene;
- (j) to promote co-operation among scientific and professional groups which contribute to the advancement of health;
- (k) to propose conventions, agreements and regulations, and make recommendations with respect to international health matters and to perform such duties as may be assigned thereby to the Organization and are consistent with its objective;
- (l) to promote maternal and child health and welfare and to foster the ability to live harmoniously in a changing total environment;
- (m) to foster activities in the field of mental health, especially those affecting the harmony of human relations;
- (n) to promote and conduct research in the field of health;
- (o) to promote improved standards of teaching and training in the health, medical and related professions;
- (p) to study and report on, in co-operation with other specialized agencies where necessary, administrative and social techniques affecting public health and medical care from preventive and curative points of view, including hospital services and social security;
- (q) to provide information, counsel and assistance in the field of health;
- (r) to assist in developing an informed public opinion among all peoples on matters of health;
- (s) to establish and revise as necessary international nomenclatures of diseases, of causes of death and of public health practices;
- (t) to standardize diagnostic procedures as necessary;
- (u) to develop, establish and promote international standards with respect to food, biological, pharmaceutical and similar products;
- (v) generally to take all necessary action to attain the objective of the Organization.”

all necessary action to attain the objective of the Organization.”²⁵ This directive has enabled WHO’s activities to shift over time.

WHO’s infectious disease mandate is equally open-ended and internally inconsistent. Many of WHO’s general Article 2 responsibilities in coordination, standardization, providing assistance to governments, promoting research, and informing public opinion are relevant to infectious disease control.²⁶ Article 2 also includes specific infectious disease duties, including “furnish[ing] appropriate technical assistance and, in emergencies, necessary aid upon the request or acceptance of Governments”; “establish[ing] and maintain[ing]...administrative and technical services...including epidemiological and statistical services”; “stimulat[ing] and advanc[ing] work to eradicate epidemic, endemic and other diseases”; and “propos[ing] conventions, agreements and regulations, and mak[ing] recommendations with respect to international health matters.”²⁷

Thus, WHO’s role in the international management of infectious disease includes both comprehensive general goals and narrow specific functions, as well as both antiquated endeavors that privileged European interests and modern commitments to assist countries in need. WHO was effectively delegated nested, overlapping, parallel, and conflicting infectious disease objectives with varying levels of discretion. These features enable those in control of the organization’s activities to “forum pick” the specific mandate in which to situate its work.

One manifestation of this complex mandate is WHO’s pursuit of work that is closely connected to but not authorized by the International Sanitary Conventions. For example, though the conventions only required the reporting of a handful of specific diseases, HOLN had begun collecting data on other diseases and publishing it alongside

²⁵ Constitution of the World Health Organization, Article 2(v).

²⁶ Ibid., Article 2(a), (t), (c), (n), (q), and (r).

²⁷ Ibid., Article 2(d), (f), (g), and (k).

data reported under the conventions in its Weekly Epidemiological Record, a publication WHO continued to produce. Another example is WHO's influenza work. While the thirteenth International Sanitary Conference in 1926 concluded that influenza could not be addressed through the International Sanitary Conventions, WHO's Interim Committee—established to maintain essential international health functions while awaiting WHO's Constitution to come into force—organized the first influenza center in 1948, which became a global surveillance network that operates to this day.²⁸

Both WHO's organization-wide and infectious disease-specific mandates exhibit the key attributes of what Tamar Gutner terms "antinomic delegation"—the assignment of expansive, complex, and ambiguous mission statements to large public organizations.²⁹ Focusing on the dilemmas faced by multilateral development banks that are assigned the complex and conflicting roles of both financial institution and development agency, Gutner argues that antinomic delegation, combined with insufficient funding to effectuate wide mandates, can contribute to agent performance problems.³⁰ WHO's infectious disease mandate is malleable, invites interpretation, and defies evaluation because it is impossible to achieve within the limits of the organization's financial resources. These attributes make it difficult to measure WHO's performance, creating room for agent slack as the organization translates poorly defined goals into operable practice.

Member states' control over WHO

The potential for agent slack due to an unclear mandate would be less significant if member states had strong control over the organization, as was the case in OIHP.

²⁸ M. E. Kitler, P. Gavinio and D. Lavanchy, 'Influenza and the work of the World Health Organization,' *Vaccine*, vol. 20, 2002, p. S5.

²⁹ Tamar Gutner, 'Explaining the gaps between mandate and performance: agency theory and World Bank environmental reform,' *Global Environmental Politics*, vol. 5, no. 2, 2005, p. 11.

³⁰ Ibid.

Recall that member states controlled OIHP through its Permanent Committee, consisting of one technical representative from each member state. The Permanent Committee met twice a year in Paris for approximately ten days, and was governed by a weighted voting system that gave the biggest contributors of OIHP's annual budget six times the voting power of the smallest contributors, thereby allowing the organization's primary funders to dictate its work. Additionally, since the Permanent Committee's members were national representatives, they had little incentive to stray from their states' preferences. The members were thus conservative in their actions, recommending only necessary changes to the conventions while treating outbreak information with great sensitivity and declining to take a position against any particular country in a dispute.

In WHO's case, the World Health Assembly does not offer member states the same degree of control as OIHP's Permanent Committee. The Health Assembly exhibits very different dynamics, and it is but one of three entities that carries out the organization's work. The overarching result is an uneasy relationship between member states and WHO. Given WHO's broad spectrum of activities with unclear boundaries and complex interconnections, I assess member states' control over the organization as a whole rather than their control over international infectious disease law alone.

WHO is composed of three organs: the World Health Assembly, the Executive Board, and the Secretariat. The Health Assembly is WHO's policy-making body and consists of the Ministers of Health or equivalent representatives from all member states. The Board acts as the "executive organ" of the Health Assembly.³¹ Its role is to submit a general program of work to the Health Assembly for its consideration, to advise the Health Assembly on any questions referred to the Board, to "give effect" to the Health

³¹ Constitution of the World Health Organization, Article 28.

Assembly's policies,³² and to nominate the Director-General,³³ who leads the Secretariat. The Secretariat, in turn, is composed of technical and administrative staff who carry out the day-to-day activities of the organization. It is the Secretariat's duty to prepare and submit the organization's financial statements and budget estimates to the Health Assembly for approval.³⁴

In theory, authority flows from the Health Assembly to the Board to the Secretariat. In practice, largely due to historic developments after the organization's founding, WHO's intended mechanisms of accountability have become ineffective. Instead, a core group of wealthy member states have sought alternative mechanisms outside WHO's original institutional design to exert greater control over the organization.

Member states—WHO's principals—have three key mechanisms for influencing the organization's work: they can dictate the content of the work through the Health Assembly; they can select a Director-General with similar preferences to lead the Secretariat; and they can give or withhold voluntary funds outside the regular budget. Each of these mechanisms have been deployed in a way that departs from WHO's original institutional design to restore influence to a core group of wealthy states, leaving the Secretariat some discretion to maneuver in areas where these countries do not have strong preferences or are themselves divided.

Dictating the content of WHO's work

The most obvious way to control WHO's work is to dictate it through the World Health Assembly's command of regulatory and non-regulatory matters. On the regulatory front, WHO was intended to play an important legal role at its founding, and its Constitution provides for two ways of making hard international law. The Health

³² Ibid.

³³ Ibid., Article 30.

³⁴ Ibid., Article 34.

Assembly may adopt, by two-thirds vote, “conventions or agreements”³⁵ with respect to any matter within WHO’s competence.³⁶ Member states must decide within 18 months whether to accept such agreements, which then come into force for those member states that accept in accordance with their national constitutional processes.³⁷ Alternatively, the Health Assembly may adopt, by majority vote, “regulations” concerning five specific topics, one of which is “sanitary and quarantine requirements and other procedures designed to prevent the international spread of disease.”³⁸ “Regulations” adopted pursuant to this provision automatically come into force after a given period of time for all member states except those that reject or submit reservations within that time period.³⁹ This latter “contracting-out” provision was originally proposed by the US Senate Foreign Relations Committee, which sought to overcome the difficulty of achieving ratification of duly signed agreements.⁴⁰ The provision was adopted, over considerable opposition, at the insistence of the United States, during a time when it expected to have significant influence over WHO.⁴¹

In addition to hard international law, the Health Assembly may also adopt non-binding recommendations to member states on any matter within the organization’s competence by a simple majority.⁴² On the non-regulatory front, WHO’s Constitution provides that the Health Assembly must review and approve reports and activities of the

³⁵ Note that WHO’s Constitution uses the terms “convention” and “agreement” to mean a different type of legal instrument than a “regulation,” whereas I have used all three terms synonymously throughout the remainder of this thesis.

³⁶ Constitution of the World Health Organization, Article 19.

³⁷ Ibid., Article 20.

³⁸ The four other topics on which the World Health Assembly may adopt “regulations” are (1) nomenclatures with respect to diseases, causes of death and public health practices, (2) standards with respect to diagnostic procedures for international use, (3) standards with respect to the safety, purity and potency of biological, pharmaceutical and similar products moving in international commerce, and (4) advertising and labelling of biological, pharmaceutical and similar products moving in international commerce. Ibid., Article 21.

³⁹ Ibid., Article 22.

⁴⁰ David M. Leive, *International regulatory regimes: Case studies in health, meteorology, and food* (Lexington, MA: Lexington Books, 1976), p. 25.

⁴¹ Ibid., p. 26.

⁴² Constitution of the World Health Organization, Article 23.

Board and the Director-General,⁴³ as well as the organization's program of work⁴⁴ and its budget,⁴⁵ which consists of membership fees levied on states on a sliding scale.⁴⁶

Dictating the content of WHO's regulatory and non-regulatory work through the Health Assembly's decision-making processes has been complicated by the admission of a large number of new states after the organization's founding, rendering the Health Assembly sharply divided and too unwieldy for effective policy-making. As scholars of principal agent theory note, where there are multiple agents, as in the case of IOs, an agent's ability to engage in slack depends on the extent of agreement amongst the principals.⁴⁷ Divergent preferences and collective action problems amongst member states tend to make it easier for an IO's staff to pursue autonomous preferences.⁴⁸

WHO's membership rose from 74 states in 1950 to 126 in 1967, and currently stands at 194 states.⁴⁹ The expansion in membership was most rapid during the decades of decolonization when newly independent countries were immediately admitted to the United Nations and its specialized agencies. In particular, the number of African member states increased swiftly during the 1960s—from three states in 1957 to 29 in 1967.⁵⁰ After the 1960s, over two-thirds of member states were poor developing countries that were net recipients of WHO's aid and resources, while a minority of wealthy states were net donors that funded WHO's work.⁵¹

⁴³ Ibid., Article 18(d).

⁴⁴ Ibid., Article 28(g).

⁴⁵ Ibid., Article 18(f).

⁴⁶ This sliding scale is based on a formula of population size and gross national product.

⁴⁷ Andrew P. Cortell and Susan Peterson, 'Dutiful agents, rogue actors, or both? Staffing, voting rules, and slack in the WHO and WTO,' in *Delegation and Agency in International Organizations*, Darren G. Hawkins, David A. Lake, Daniel L. Nielson and Michael J. Tierney, eds. (Cambridge: Cambridge University Press, 2006), p. 256.

⁴⁸ D. Roderick Kiewiet and Mathew D. McCubbins, *The logic of delegation* (Chicago, IL: University of Chicago Press, 1991), pp. 26-27.

⁴⁹ World Health Organization, 'Countries' [website].

⁵⁰ Goodman, *International health organizations and their work*, p. 202.

⁵¹ This dichotomy is not a strict one, as there are also middle-income countries that serve as both donors and recipients. Gill Walt, 'WHO under stress: implications for health policy,' *Health policy*, vol. 24, no. 2, 1993, p. 128.

This configuration dramatically altered the politics of the Health Assembly, which operates on a one-state one-vote basis—a voting rule that empowers numerous states and enhances collective action difficulties.⁵² Developing states called for greater levels of technical assistance⁵³ and drew attention to systemic issues related to underdevelopment such as inadequate food, lack of basic health services, parasitic disease, and insufficient medical personnel. By contrast, developed member states were concerned about problems such as cardiovascular disease and environmental pollution, and they were uneasy about further expansions in WHO’s work for which they were the primary funders. By the mid-1970s, it became increasingly difficult to find political consensus within a bifurcated Health Assembly.

Member states’ divergent and conflicting visions of WHO’s goals and strategies, combined with the Health Assembly’s sheer size, have resulted in member states relinquishing their power to collectively set priorities and to make long-term and organization-wide policy.⁵⁴ Instead, the Health Assembly serves as a “political forum”⁵⁵ that reviews and acts on recommendations coming from WHO’s other organs.⁵⁶

The Health Assembly is convened annually in Geneva in May for a short period that has only decreased over time as the size of the organization has expanded. For the

⁵² Cortell and Peterson, 'Dutiful agents, rogue actors, or both? Staffing, voting rules, and slack in the WHO and WTO,' p. 257.

⁵³ This movement has become popularly known as the “health for all” movement following a declaration adopted at the joint WHO-UNICEF International Conference on Primary Healthcare held at Alma-Ata, Union of Soviet Socialist Republics, in 1978. The declaration proclaimed that the main goal of governments and WHO should be the “attainment by all peoples of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life.” Along the same vein, developing countries successfully pushed for passage of a Health Assembly resolution in 1976 requesting the Director-General to ensure that at least 60%, in real terms, of the regular program budget go towards technical cooperation and provision of services by 1980. World Health Organization, World Health Assembly Resolution ‘Programme Budget Policy,’ WHA29.48, 17 May 1976.

⁵⁴ Bo Stenson and Goran Sterky, 'What future WHO?,' *Health policy*, vol. 28, no. 3, 1994, p. 250.

⁵⁵ Christopher J. L. Murray, *The Role of WHO as an Anchor Institution for Communicable Disease Global Public Goods* (Stockholm: International Task Force on Global Public Goods, 2005), p. 8.

⁵⁶ Charles S. Ascher, 'Current Problems in the World Health Organization's Program,' *International Organization*, vol. 6, no. 1, 1952, p. 37.

first 30 years, the average length of the Health Assembly was 17 days.⁵⁷ That figure was reduced by resolution to a maximum of 14 days in 1987.⁵⁸ Most recently, the Health Assembly met for an average of six days over the past six years.⁵⁹ With each member state sending up to three delegates,⁶⁰ the Health Assembly brings together hundreds of delegates for too brief a period to complete the grueling task of deciding WHO's policies.

Even during WHO's early years it was noted that those attending the Health Assembly—generally top technical civil servants with full-time medical occupations in their home countries—were often ill-equipped to discuss budgetary and program matters in a meaningful way:

[I]t is acknowledged that the debates in the Committee on Program of the Assembly have not been stimulating or profound, even under an able chairman. The delegates have not sufficiently mastered a 571-page volume of "Proposed Program and Budget Estimates" to discuss it with ease or certainty. The public health men who are assigned to the Committee on Administration, Finance and Legal Matters get even less satisfaction out of their harried weeks. Complaints are heard that the agenda of the Assembly comprises three pages of items on administration and finance and only a page or so on medical subjects.⁶¹

These difficulties have only grown with the subsequent expansion in membership and reductions in the length of the meeting, which have rendered the Health Assembly too large and too fleeting to be an effective deliberative body. Resolutions are often proposed and adopted without serious analysis of their relationship with the organization's other on-going activities or their budgetary

⁵⁷ Gian Luca Burci and Claude-Henri Vignes, *World Health Organization* (London: Kluwer Law International, 2004), p. 40.

⁵⁸ World Health Organization, Executive Board Resolution EB79/R14, 1987. Cited in Beigbeder, Nashat, Orsini and Tiercy, *The World Health Organization*, p. 41.

⁵⁹ This figure was calculated based on the number of days for which there were Health Assembly proceedings for the years 2008 through 2013. See World Health Organization, 'Media Centre: World Health Assembly' [website].

⁶⁰ Constitution of the World Health Organization, Article 11.

⁶¹ Ascher, 'Current Problems in the World Health Organization's Program,' p. 47.

implications.⁶² The geographic diversity of WHO's members and activities also limits substantive discussion, as health issues vary dramatically from region to region.⁶³

Because the Health Assembly is an ineffective decision-making body, it has, in practice, rarely used its treaty making powers to adopt traditional opt-in "conventions" under Article 19 or opt-out "regulations" under Article 21. During its very early years, the Health Assembly adopted two legal instruments—the Nomenclature Regulations, which standardized the statistical classification of morbidity and mortality, were adopted in 1948 under Article 21(b), and the International Sanitary Regulations, which consolidated and extended the historic International Sanitary Conventions, were adopted in 1951 under Article 21(a). Since then, the Health Assembly has only adopted two other legal instruments, one of which is the 2005 IHR.⁶⁴ For the most part, a divided Health Assembly has adapted to divergent member state preferences by favoring broadly worded, non-binding recommendations and resolutions over hard international law.

WHO's sponsoring members have also taken measures to regain some influence over the Health Assembly's decision-making processes. They have imposed financial sanctions through WHO's regular budget to punish the agent's undesired behavior, and they have shifted the Health Assembly from decision-making by majority vote to decision-making by consensus.⁶⁵

Following a number of outright confrontations during the 1970s between developing and developed member states that left many countries, especially the United

⁶² Stenson and Sterky, 'What future WHO?', p. 250.

⁶³ Ascher, 'Current Problems in the World Health Organization's Program,' p. 48.

⁶⁴ The other legal instrument is the Framework Convention on Tobacco Control, adopted under Article 19 in 2003.

⁶⁵ Beigbeder, Nashat, Orsini and Tiercy, *The World Health Organization*, p. 43.

States,⁶⁶ unsatisfied, WHO's primary sponsors adopted a policy of zero real growth in the organization's regular budget.⁶⁷ The United States imposed additional unilateral withholdings: the American Senate Foreign Relations Act of 1985 and the Kassebaum Amendment stipulated that the United States should reduce its contribution from the required 25% of the regular budget to 20% for any UN agency that does not adopt weighted voting procedures.⁶⁸ These sanctions led to a financial crisis within WHO and ultimately to an agreement in 1987 to adopt the Director-General's budget proposals by consensus.⁶⁹

This arrangement has been followed since the agreement, giving WHO's top budgetary contributors greater leverage than they would have through the voting process. Decision-making by consensus gives the core group of wealthy states veto power where they could otherwise be outvoted. Veto power is a blunt tool—it cannot be used to direct WHO's work, but it can prevent projects from going forward.

Selecting the Director-General

Another source of member states' influence over WHO's work is the selection of the Director-General, who is the chief technical and administrative officer of the Secretariat. The Director-General is appointed by the Health Assembly on the nomination of the Board.⁷⁰ So far, the Health Assembly has appointed every candidate nominated by the Board, making the Board the decisive body in the selection process.⁷¹

⁶⁶ There was strong disagreement over the marketing of infant formula foods in developing countries and the introduction of a program to achieve better supplies and lower costs for a set of essential medicines. In both battles, the United States, by far WHO's biggest financial backer, was outvoted.

⁶⁷ Walt, 'WHO under stress: implications for health policy,' p. 129.

⁶⁸ It was said informally that the US withholdings reflected the country's dissatisfaction with WHO's pursuit of the essential drugs policy, as discussed above. Ibid., pp. 129, 136.

⁶⁹ Consensus is required both in the Programme Committee of the Executive Board and in the Health Assembly. Beigbeder, Nashat, Orsini and Tiercy, *The World Health Organization*, p. 154.

⁷⁰ Constitution of the World Health Assembly, Article 31.

⁷¹ John W. Peabody, 'An organizational analysis of the World Health Organization: narrowing the gap between promise and performance,' *Social Science & Medicine*, vol. 40, no. 6, 1995, p. 733.

The Board operates through a system of “managed politics,” that minimizes open controversy and retains influence in a core group.⁷² The Board has grown over time, but at a slower rate than that of the Health Assembly,⁷³ and now comprises 34 members. Board members are elected by member states designated by the Health Assembly, with a minimum requirement for geographic distribution.⁷⁴ According to an informal arrangement, the Board includes representatives of the permanent members of the UN Security Council: China, France, Russia, United Kingdom and the United States.⁷⁵ The distribution of the remaining Board members is determined by the General Committee of the Health Assembly, which is in turn nominated by the Committee of Nominations, a group that reflects the same regional distribution as the prevailing Executive Board.⁷⁶ Because of the Board’s carefully managed politics, the Director-General usually shares the goals of the core group of wealthy countries and the Board typically “will go no further than friendly criticism” of the Director-General.⁷⁷

Giving and withholding voluntary funds

The third and most effective mechanism of member state influence is the provision of voluntary funds—known as extra-budgetary funds (“EBFs”)—outside the regular budget. The acceptance of gifts and bequests has always been permitted under Article 57 of WHO’s Constitution, but their quantity and significance have grown so rapidly since the Health Assembly’s freezing of the regular budget as to fundamentally alter the organization’s institutional dynamics.

⁷² Jacobson, 'WHO: Medicine, Regionalism, and Managed Politics,' p. 200.

⁷³ Originally comprised of 18 members, the Board too has grown over time, though at a slower rate than the Health Assembly. While the Health Assembly grew 70% from 1950 to 1967 and 54% from 1967 to the present, the Executive Board grew 33% during the first period and 42% during the second.

⁷⁴ At least three members must be elected from each of WHO’s regions. As will be discussed below, WHO’s Secretariat is divided into six regions, each with a regional office and a regional governance structure.

⁷⁵ Beigbeder, Nashat, Orsini and Tiercy, *The World Health Organization*, p. 33.

⁷⁶ Jacobson, 'WHO: Medicine, Regionalism, and Managed Politics,' p. 185.

⁷⁷ Ibid., p. 200.

At its founding, WHO relied almost exclusively on its regular budget,⁷⁸ which increased from US\$6 million in 1950 to US\$543 million for the 1986-1987 biannual period,⁷⁹ and recently stood at US\$944 million for the 2012-2013 biannual period.⁸⁰ EBFs were modest supplements to the regular budget in 1960. They caught up with and then surpassed the regular budget in the late 1980s,⁸¹ and now stand at over US\$3 billion for the 2012-2013 budget⁸²—more than three times the size of the regular budget.

The composition of EBFs has also changed over the years, shifting from multilateral agencies to national governments. In 1971 three-quarters of the approximately US\$25 million in EBFs came from the United Nations Development Programme and the United Nations Population Fund.⁸³ By 1996, national governments had contributed about 80% of cumulative EBFs since WHO's founding, compared to 6% from United Nations' funds and the World Bank.⁸⁴ Of the total EBFs donated bilaterally, about 90% now come from the top ten countries, which are, in descending order, United States, Sweden, United Kingdom, Netherlands, Norway, Denmark, Japan, Canada, Italy, and Switzerland.⁸⁵ There is considerable overlap between the top contributors to EBFs and the top contributors to the regular budget, which are, in decreasing order, United States, Japan, Germany, France, and the United Kingdom.⁸⁶

⁷⁸ J. Patrick Vaughan, Sigrun Møgedal, Gill Walt, Stein-Erik Kruse, Kelley Lee and Koen de Wilde, 'WHO and the effects of extrabudgetary funds: is the Organization donor driven?', *Health Policy and Planning*, vol. 11, no. 3, 1996, p. 254.

⁷⁹ Note that beginning in 1980, WHO switched from annual budgets to biannual budgets. Walt, 'WHO under stress: implications for health policy,' p. 128.

⁸⁰ World Health Organization, 'Proposed Programme Budget 2014-2015,' A66/7, 19 April 2013, p. 12.

⁸¹ Beigbeder, Nashat, Orsini and Tiercy, *The World Health Organization*, p. 165.

⁸² World Health Organization, 'Proposed Programme Budget 2014-2015,' A66/7, p. 12.

⁸³ Walt, 'WHO under stress: implications for health policy,' p. 128.

⁸⁴ Vaughan, Møgedal, Walt, Kruse, Lee and Wilde, 'WHO and the effects of extrabudgetary funds: is the Organization donor driven?', p. 254.

⁸⁵ Ibid., pp. 254-255.

⁸⁶ Meri Koivusalo and Eeva Ollila, *Making a Health World: Agencies, Actors & Policies in International Health* (London: Zed Books Ltd., 1997), p. 9.

WHO's increasing reliance on EBFs is yet another way by which the core group of wealthy nations has regained influence over the organization's activities. Unable to truly direct WHO's work through its regular budget, this core group has demanded greater accountability and transparency through EBFs, which are generally given for particular programs⁸⁷ and can be earmarked for highly specific activities or regions.⁸⁸ Whereas the regular budget is approved by the Health Assembly on a biannual basis, program staff are directly accountable to individual donors for EBFs through semi-formal mechanisms that are unregulated, poorly systematized, and largely dependent on donor requirements.⁸⁹

In return for their sponsorship, donors can be very demanding on WHO staff for management reviews and program evaluations.⁹⁰ One particularly important mechanism for planning and monitoring programs financed through EBFs is the "Meeting of Interested Parties."⁹¹ Outside of WHO's normal governance structure, these meetings facilitate interactions between program staff and EBF donors and are often dominated by discussions of financial issues and budgets.⁹² Additionally, donors may request the establishment of separate management structures that they dominate.⁹³

All WHO programs except the Health Assembly and the Board receive EBFs.⁹⁴ The bulk of EBFs has been deployed to support vertical programs—programs for specific health conditions—in the areas of disease control, health promotion, and human

⁸⁷ Walt, 'WHO under stress: implications for health policy,' p. 129.

⁸⁸ Vaughan, Møgedal, Walt, Kruse, Lee and Wilde, 'WHO and the effects of extrabudgetary funds: is the Organization donor driven?,' pp. 256-257.

⁸⁹ Ibid., p. 257.

⁹⁰ Ibid., p. 258.

⁹¹ Burci and Vignes, *World Health Organization*, p. 206.

⁹² Walt, 'WHO under stress: implications for health policy,' p. 130.

⁹³ Burci and Vignes, *World Health Organization*, p. 205.

⁹⁴ J Patrick Vaughan, Sigrun Møgedal, Stein-Erik Kruse, Kelley Lee, Gill Walt and Koen de Wilde, 'Financing the World Health Organisation: global importance of extrabudgetary funds,' *Health policy*, vol. 35, no. 3, 1996, p. 229.

reproduction.⁹⁵ By contrast, the bulk of regular budget funds supports the organization's administration and horizontal programs—programs for general services that implicate entire health systems.⁹⁶ Thus, by using EBFs, the core group of donor countries has ensured that the vertical programs they favor rather than the horizontal programs preferred by developing countries remain WHO's priority.

While donor states have gained direct control over the specific programs they sponsor, they have also confronted the challenges of incoherence across programs and within their own governmental departments. Different programs sometimes compete with each other for funds, creating overall inefficiencies in the organization.

Additionally, while member states are represented in the Health Assembly by their health departments, allocation of EBFs usually comes under the purview of the department of foreign affairs or the national aid or development agencies.⁹⁷

Departments within the same donor countries often do not share objectives, and there is even less coordination amongst donor departments of different countries.

The discretion exercised by the Secretariat

As we have seen, the Health Assembly as a whole does not effectively make policy or direct the organization's work. But a core group of wealthy states have found alternative avenues of influence outside the organization's original institutional design. These countries can obstruct activities they oppose through financial sanctions and decision-making by consensus; select a Director-General who is unlikely to push forward projects that would result in open controversy; and direct EBFs toward

⁹⁵ During the 1992-1993 biannual period, approximately three-quarters of all EBFs were allocated to nine programs: the Tropical Diseases Research Programme ("TDR"), the Onchocerciasis Control Programme ("OCP"), the Human Reproduction Programme ("HRP"), the Global Programme on AIDS ("GPA"), the Emergency and Humanitarian Action Programme ("EHA"), the Global Programme on Vaccines ("GPV"), the Division of Diarrhoeal and Acute Respiratory Disease Control ("CDR"), the Action Programme on Essential Drugs ("DAP"), and the Tuberculosis Programme ("TUB"). Ibid., p. 236.

⁹⁶ Vaughan, Møgedal, Walt, Kruse, Lee and Wilde, 'WHO and the effects of extrabudgetary funds: is the Organization donor driven?', pp. 255, 257.

⁹⁷ Ibid., p. 260.

particular projects that they favor. While effective, these mechanisms of influence leave the Secretariat some room for discretion. The Secretariat is unlikely to alienate its main sponsors where clear conflicts of interest occur, but a fragmented funding system, a complex web of accountability—sometimes to the Health Assembly and other times to specific donors—and the strength of the permanent staff’s technical expertise allow the Secretariat a degree of autonomy.

Whereas OIHP had a tiny staff that performed clearly defined tasks and exercised little influence over the Permanent Committee, WHO has an enormous staff that has grown dramatically over time. In 1950, WHO employed 706 staff members, which grew to 4,367 in 1967.⁹⁸ The Secretariat now consists of over 7,000 employees from 150 countries divided between WHO’s headquarters in Geneva, its six regional offices,⁹⁹ and its 150 country offices around the world¹⁰⁰—all under the leadership of the Director-General. WHO’s staff members fall into two categories: professional and general services. More than one-third of staff members are in the professional category,¹⁰¹ which includes medical doctors, public health specialists, scientists, and epidemiologists. The rest of the staff members are support personnel such as administrative assistants and guards.

The Secretariat’s professional staff members have authority by virtue of their training and experience. Their professional identity is a source of normative and technical judgments that give rise to independent opinions on what good policy entails. Though they are agents of WHO’s member states, professional staff members can and

⁹⁸ Jacobson, 'WHO: Medicine, Regionalism, and Managed Politics,' p. 179.

⁹⁹ WHO’s six regions and their respective regional offices are: the Regional Office for Africa (Brazzaville, Republic of Congo); the Regional Office for Europe (Copenhagen, Denmark); the Regional Office for Southeast Asia (New Delhi, India); the Regional Office for the Eastern Mediterranean (Cairo, Egypt); the Regional Office for the Americas, also known as the Pan American Health Organization (Washington D.C., USA); and the Regional Office for the Western Pacific (Manila, Philippines).

¹⁰⁰ World Health Organization, 'WHO—its people and offices' [website].

¹⁰¹ Burci and Vignes, *World Health Organization*, p. 51.

do use their medical expertise as well as their control over technical information, the day-to-day management of program implementation, and authorship of WHO's financial statements and budget estimates, to exert influence on both regulatory and non-regulatory matters.

Discretion in regulatory matters

As already mentioned, the Health Assembly rarely exercises its power to adopt hard international law. Instead, it has preferred to regulate through informal mechanisms such as non-binding recommendations and resolutions that allow the Secretariat significant input.¹⁰² Informal regulatory tools include non-binding recommendations under Article 23,¹⁰³ usually elaborated by the Secretariat on its own initiative, or at the request of the Health Assembly or the Board. They also include non-binding standards and recommendations, either developed by the Secretariat at the request of the Health Assembly or the Board but without approval by either body, or developed by expert bodies convened by the Secretariat and published without formal endorsement.¹⁰⁴

Informal regulatory mechanisms are advantageous because they give the Secretariat and member states more leeway in implementation and are easier to revise over time or adapt to local circumstances.¹⁰⁵ They also rely heavily on the Secretariat's technical findings and scientific credibility, giving the Secretariat considerable discretion to regulate informally in areas and ways that do not solicit strong opposition from the core group of wealthy countries.

¹⁰² Beigbeder, Nashat, Orsini and Tiercy, *The World Health Organization*, p. 43.

¹⁰³ Like conventions and regulations, recommendations under Article 23 technically require annual reporting by member states under Article 62. But this requirement has not been enforced with respect to recommendations.

¹⁰⁴ Burci and Vignes, *World Health Organization*, p. 142.

¹⁰⁵ F. Gutteridge, 'Notes on Decisions of the World Health Organization,' in *The Effectiveness of International Decisions*, Stephen M. Schwebel, ed. (Dobbs Ferry, NY: Oceana Publications, Inc., 1971), p. 282.

Discretion in non-regulatory matters

The Secretariat also has significant discretion in non-regulatory matters concerning WHO's practices and policies. Though new programmatic initiatives formally come from the Board and must be approved by the Health Assembly, their creation requires a consensus-building process that the Secretariat is well equipped to lead, given its medical expertise and knowledge of the ins and outs of the organization. The Secretariat is able to influence WHO's priorities precisely because the Health Assembly is divided and unable to arrive at a policy consensus unaided.

To take off, a new initiative must appeal to member state demand, align with donor preferences, and be in accord with the opinion of the international scientific community—a triad that does not always coincide.¹⁰⁶ The Secretariat often acts as a critical intermediary who selects new initiatives that are in tune with the policy preferences of the international medical community, seeks out demand from member states (perhaps in the form of an invitation to operate in-country),¹⁰⁷ and campaigns for funding. This process of formally adopting a program can take from three to five years.

Where the new initiative involves providing technical support to developing countries, demand is not hard to come by. Developing member states are generally eager to request WHO's assistance for in-country projects and, since the 1960s, they have provided a "ready majority" in the Health Assembly for Secretariat proposals favoring the expansion of WHO's work.¹⁰⁸ Thus, a new initiative that provides assistance to developing countries will go forward so long as it is not opposed by the core group of wealthy member states, and provided that the Secretariat can either allocate funding from the regular budget or raise additional funding from voluntary

¹⁰⁶ Peabody, 'An organizational analysis of the World Health Organization: narrowing the gap between promise and performance,' p. 734.

¹⁰⁷ WHO is limited by its doctrine that the organization only conducts in-country projects when governments request them.

¹⁰⁸ Jacobson, 'WHO: Medicine, Regionalism, and Managed Politics,' p. 215.

contributions. A common pattern for new approved programs is to initially rely primarily on the regular budget until donor support becomes established.¹⁰⁹

The Secretariat has significant control over the regular budget, which is prepared by the Director-General through a cumbersome process that operates on a five-year cycle.¹¹⁰ Although the proposed budget must be reviewed by the Board and then approved by the Health Assembly, neither body exercises tight budgetary control. The Board may make comments but not alterations, and in practice the Board rarely recommends significant changes to the Director-General's proposal.¹¹¹ The Health Assembly, as discussed above, is too large, too brief, and attended primarily by medical experts who are ill equipped to effectively analyze budgetary matters.

Budgetary control is also difficult because the Director-General's proposed budget and financial statements accounting for expenditures after the fact are not easily scrutinized. Both the budget and the financial statements are long, detailed, and complex. Due to non-payment of member states' assessed contributions, the proposed regular budget uses inflated estimates that do not reflect actual expected expenditure. Certain figures are systematically included in the proposed budget but excluded from expenditure tables in the audited financial statements, making it difficult to link data from the proposed and approved budget with expenses incurred.¹¹² The five-year cycle makes it impossible to draw lessons for one budgetary period from the immediately prior period. In short, effective budgetary oversight is a tall order for those not

¹⁰⁹ Vaughan, Møgedal, Walt, Kruse, Lee and Wilde, 'WHO and the effects of extrabudgetary funds: is the Organization donor driven?', p. 259.

¹¹⁰ The first three years are for drafting, planning, and approval of the budget; the next two years are for utilization of approved funds; and the final five months are for audits of the Secretariat's expenditures.

¹¹¹ Jacobson, 'WHO: Medicine, Regionalism, and Managed Politics,' p. 200.

¹¹² Funds designated to the Pan American Health Organization—one of WHO's regional offices—and the International Agency for Research into Cancer are included in the biannual program budget under "other sources" but excluded from expenditure tables. Vaughan, Møgedal, Kruse, Lee, Walt and de Wilde, 'Financing the World Health Organisation: global importance of extrabudgetary funds,' p. 232.

intimately familiar with WHO's activities, which is precisely why WHO's top contributors have turned to EBFs.

But budgetary oversight via EBFs poses its own challenges. The relatively unregulated nature of EBFs allows WHO's program staff to lobby for their programs and obtain EBFs from "virtually any donor, at short notice, for any amount, and for undefined periods of time."¹¹³ Success in attracting EBFs depends heavily on the ability of program staff to negotiate, and staff members are then directly responsible to donors for the funds obtained.¹¹⁴ Program staff within the Secretariat do not, in practice, differentiate between regular budget and extra-budgetary funds when implementing programs.¹¹⁵ Nearly all programs receive a combination of funds, and the Secretariat has shifted regular budget funding to protect those programs that are less likely to attract EBFs.¹¹⁶

Many new initiatives in fact originate from the Secretariat. A study funded by the national governments of Australia, Norway, and the United Kingdom found that "the direction of policy development and implementation" of WHO programs "mainly reflects and is influenced by the initiatives of the staff, supported by the technical advisory bodies and the scientific community."¹¹⁷

Once a new project is initiated, WHO's professional staff members engage in a variety of activities that further invoke their medical authority. EBF donors may require more elaborate planning and evaluation systems, but staff members remain in control of day-to-day activities such as gathering information, convening expert

¹¹³ Vaughan, Møgedal, Walt, Kruse, Lee and Wilde, 'WHO and the effects of extrabudgetary funds: is the Organization donor driven?', p. 257.

¹¹⁴ Ibid., pp. 257-258.

¹¹⁵ Ibid., p. 257.

¹¹⁶ Ibid.

¹¹⁷ J. Patrick Vaughan, Sigrun Møgedal, Stein-Erik Kruse, Kelley Lee, Gill Walt and Koen de Wilde, *Cooperation for Health Development: Extrabudgetary Funds in the World Health Organization* (London: Overseas Development Administration, 1995), p. 56.

committees, and providing technical advice on an array of health topics.¹¹⁸ These daily outputs, like less formal WHO documents, have little direct oversight and require only the Director-General's approval before they are published, distributed to medical professionals around the world, and often reported on in the media, thereby reaching a wider audience.¹¹⁹ In this way, WHO's professional staff utilize expert committees and reports to formulate programs and work plans.¹²⁰

Program staff members also frequently work in collaboration with other scientific and medical institutions—whether international, regional, national, or sub-national—creating a further hurdle to member state oversight. WHO has a global database of collaborating centers that provide a wide range of services.¹²¹ In the area of research, for instance, WHO works with a network of 750 reference centers and collaborating laboratories that bear the bulk of expenses while the WHO provides modest “seed” grants.¹²² These relationships with external partners not only allow the Secretariat to speak with an authority that extends beyond its own institutional walls, but also enables Secretariat members to have a hand in projects that may be too politically contested or otherwise cannot fit within WHO's own work agenda.

How autonomy is exercised internally

The Secretariat is characterized by a high degree of bureaucratization and the proliferation of internal rules and procedures, which, in practice, means that autonomy is likely to be exercised only by the top echelon of professional staff with the support of the Director-General. Due to staffing regulations and procedures, the professional segment of the Secretariat consists of a homogenous work force of technically trained

¹¹⁸ Cortell and Peterson, 'Dutiful agents, rogue actors, or both? Staffing, voting rules, and slack in the WHO and WTO,' p. 264.

¹¹⁹ Ibid.

¹²⁰ Ascher, 'Current Problems in the World Health Organization's Program,' p. 37.

¹²¹ For details, see World Health Organization, 'WHO Collaborating Centres: Global database' [website].

¹²² Martin Kaplan, 'Science's role in the World Health Organization,' *Science*, vol. 180, no. 4090, 1973, p. 1028.

professionals, arranged in a rigid structure¹²³ that can “[limit] staff creativity,” “[discourage] professional excellence,” and “[encourage] ‘minimal standards’ to define work performance.”¹²⁴ For most of WHO’s professional staff, the “seemingly limitless number of hierarchical levels” means “a clearance procedure that can only be described as labyrinthine.”¹²⁵ The incentive structure surrounding the Secretariat’s day-to-day work does not encourage staff to initiate change.

The same is not true for the Secretariat’s leaders. Precisely because WHO’s mandate is vague, its mission impossible, and its governance structures weak, the Secretariat’s leadership is critical. Most important are the seven elected Directors—the Director-General and the six Regional Directors appointed by the Executive Board in agreement with the respective regional committees—as well as the senior management immediately below them. All senior-level posts serve at the pleasure of the seven Directors, who can regularly reorganize and shuffle staff, approve short-term consultants, and circumvent regulations under exceptional circumstances.¹²⁶ The Director-General has absolute power to make all appointments within headquarters and plays a central role in formulating the budget. It is usually with the Director-General’s support that new figures and activities are added to the budget.¹²⁷ Due to the “interlacing of various roles in the organization,” senior staff members are likely to have served in multiple capacities and be socialized into the organization,¹²⁸ thereby allowing them to negotiate its working methods and to secure the Director-General’s approval.

¹²³ Peabody, 'An organizational analysis of the World Health Organization: narrowing the gap between promise and performance,' p. 737.

¹²⁴ Ibid., p. 739.

¹²⁵ Ibid., p. 738.

¹²⁶ Ibid., p. 737.

¹²⁷ Jacobson, 'WHO: Medicine, Regionalism, and Managed Politics,' pp. 188, 191.

¹²⁸ Ibid., p. 200.

Concluding thoughts

Focusing on international infectious disease law alone, WHO does not seem that different of an institution from OIHP. OIHP's Permanent Committee proposed conservative updates to the International Sanitary Conferences, while WHO's Health Assembly has very rarely used its authority to adopt hard international law. Additionally, the legal function of both organizations is limited by the fact that member states ultimately have the final say as to which legal obligations bind them. Based on this information alone, one might conclude that WHO's capacity to influence the treaty making process is similar to that of OIHP.

I have argued in this chapter that it is imperative to look beyond international infectious disease law to fully understand WHO's impact on treaty making. This is so because WHO's mandate is broad and complex, and the scope of its infectious disease work is unclear. Once we look beyond infectious disease regulation, it is evident that WHO is a very different institution than OIHP—one governed by fragmented accountability mechanisms to member states and in which the Secretariat has some discretion. That discretion is generally exercised by the Secretariat's leading staff members in informal regulatory matters and in non-regulatory policy matters, where the Secretariat can pursue its preferred initiatives by invoking technical expertise, locating demand, and soliciting funding—so long as its favored initiatives are not opposed by the core group of wealthy member states.

Though the Secretariat's autonomy is limited, scholars have noted that the effects of an organization's independent epistemic and bureaucratic preferences tend to accumulate over time and in response to evolving circumstances. IOs may formulate new tasks, policies, procedures, or even missions to address unpredictable challenges or

other exigencies unforeseen by member states.¹²⁹ Writing primarily about domestic institutions, Paul Pierson points out that viewing an organization at a frozen moment in time may emphasize dominance by principals, while viewing an organization as an evolving entity across time may reveal greater bureaucratic autonomy.¹³⁰

These findings regarding WHO's internal dynamics leave an important question unanswered: how did the Secretariat's discretion with respect to informal regulatory matters and non-regulatory policy matters translate into formal changes in hard international law? It remains to be seen how the Secretariat's limited discretion in WHO's non-legal activities led to the enactment of the 2005 IHR—a binding regulatory mechanism of the type rarely adopted by the World Health Assembly. The next three chapters address this puzzle.

¹²⁹ Michael Barnett and Martha Finnemore, *Rules for the world: International organizations in global politics* (Cornell University Press, 2004), pp. 5, 9.

¹³⁰ Paul Pierson, *Politics in time: History, institutions, and social analysis* (Princeton, NJ: Princeton University Press, 2004), pp. 2-3.

Chapter 4

UNDER THE POLITICAL RADAR: INFORMAL EVOLUTION OF WHO'S APPROACH TO INFECTIOUS DISEASE CONTROL

After World War II, the duties and functions related to administering and revising international infectious disease law were transferred from OIHP to WHO—an organization with a broad and complex mandate, universal but fractured membership, a large technical permanent staff with some autonomy, and institutional longevity over which that autonomy could take on greater effect. This chapter examines how infectious disease law evolved under WHO's auspices from 1946, when WHO was established, to 1995, when the World Health Assembly passed a resolution requesting the Director-General to prepare what eventually became the 2005 IHR. I explore whether the relationship between WHO and infectious disease regulation remained essentially the same as that between OIHP and the International Sanitary Conventions or whether that relationship changed, as suggested by WHO's distinctive institutional characteristics. One possibility is that WHO simply carried forward the treaty making functions previously fulfilled by OIHP, with the World Health Assembly providing a regular forum for intergovernmental dialogue between national health administrations and proposing conservative changes to the law.

This chapter begins by examining post-1946 changes to the International Sanitary Conventions and the barrier approach. As we will see, infectious disease law remained formally relatively stable. Acting through the World Health Assembly, WHO's member states adopted conservative legal revisions proposed by the Secretariat. But proposals now originated from the permanent staff rather than member state representatives, as had been the case under OIHP. These revisions thus represented a

shift in the relationship between IO and international infectious disease law, albeit a small one, as the Secretariat's proposals remained modest and stayed within the confines of the historic barrier approach.

More importantly, formal stability can mask underlying instability. The remainder of the chapter looks at developments below the surface of formal legal change—developments initiated by the Secretariat in the absence of member state demand that were fundamentally at odds with the barrier approach. These informal changes suggest a new relationship between an international health organization and international infectious disease law.

Development of the barrier approach post-1946

Prior to being displaced, the barrier approach underwent two modest amendments as well as other even more minor modifications under WHO's supervision. The amendments occurred early in WHO's lifespan—in 1951, prior to the influx of developing member states and the expansion of the Secretariat, and in 1969, before the onset of divisive conflict within the Health Assembly in the mid-1970s. In 1951, WHO combined the various sanitary conventions it inherited from earlier IOs into a unified code called the International Sanitary Regulations ("ISR"), which was adopted by the Health Assembly via the opt-out scheme under Article 21 of WHO's Constitution. In 1969, WHO amended the 1951 law and renamed it the International Health Regulations. Unlike OIHP's permanent staff, WHO's Secretariat played a significant role applying and updating the law, but it did so within the basic architecture of the barrier approach, which continued to reflect the historic priorities of powerful European countries during the nineteenth and early twentieth century.

1951 International Sanitary Regulations

One of WHO's first tasks, even before its Constitution came into force in 1948, was to make preparations for revising, unifying, and strengthening the then existing International Sanitary Conventions. Recall from Chapter 2 that, at the end of World War II, there was a patchwork of conventions, each incompletely replacing its predecessor. The 1926 International Sanitary Convention, covering maritime and land quarantine, was partially revised in 1938 and revised again in 1944. The 1933 International Sanitary Convention for Aerial Navigation, covering air quarantine, was sparsely ratified and then modified in 1944. Both 1944 conventions were due to expire in 1946, when protocols prolonging them came into force by the signature of ten states.¹ The result was a splintered and confusing system of infectious disease regulation, with some countries adhering to older agreements, some to later amendments, and some not bound by any agreement at all.

WHO's Interim Commission convened an expert group including the president of OIHP's Permanent Committee to conduct preliminary studies on how to combine the multiplicity of conventions into a single legal text.² In 1948, the first World Health Assembly named the group the Expert Committee on International Epidemiology and modified its structure so that it performed both the function of administering the conventions and the function of formulating new regulations. Parallel divisions for administering and revising the conventions were created within the Secretariat to work alongside the Expert Committee.³

¹ Neville M. Goodman, *International health organizations and their work* (London: Churchill Livingstone, 1971), p. 76.

² David M. Leive, *International regulatory regimes: Case studies in health, meteorology, and food* (Lexington, MA: Lexington Books, 1976), p. 28; World Health Organization, *The First Ten Years of the World Health Organization: 1948-1957* (Geneva: World Health Organization, 1958), p. 260.

³ Leive, *International regulatory regimes: Case studies in health, meteorology, and food*, p. 29.

At its first session in 1948, the Expert Committee adopted a series of principles based on the existing sanitary conventions to guide the revision. These principles included that measures taken at borders should be the minimum necessary, that each country should develop its internal measures for countering infectious disease rather than relying on measures taken at borders—an idea frequently expressed by developed member states—and that WHO should be careful not to interfere with the internal work of national health authorities in resolving infectious disease problems.⁴ Thus, even as other departments within WHO became increasingly involved in providing technical assistance to national health authorities, infectious disease law retained its historic emphasis on protecting trade interests and its traditional disengagement from health assistance.

The Expert Committee worked through three drafts of a unified text and then circulated it to member states for two rounds of comments in 1950. In this process, several far-reaching legal changes were discussed but not adopted. The United States, Britain, and the Netherlands, proposed to broaden the scope of the regulations to include more specific diseases or all communicable diseases.⁵ The United States, at the time holding strong influence over WHO, also suggested giving the Director-General authority to declare an area infected, suspect, or free from infection either based on notifications received under the regulations or based on other information if a government fails to satisfy its notification requirements.⁶ While these proposals were not taken up, a number of resolutions were adopted by the Health Assembly to meet the criticism that important diseases were not regulated and that the law focused on antiquated methods of disease control. One resolution requested the Executive Board to

⁴ Ibid., pp. 29-31.

⁵ Ibid., pp. 31, 35.

⁶ Leive notes that the United States anticipated that the Director-General would not exercise the proposed power in the United States. Ibid., p. 33.

continue work on diseases outside the scope of the law and another recommended additional measures to be taken by national administrations to prevent the spread of the covered diseases.⁷

A further proposal from the United States for a formal mechanism of dispute resolution led to the establishment of the Committee on International Quarantine, composed of experts appointed by the Director-General, to which disputes could be referred if the Director-General could not settle them through informal means.⁸ The Committee was also responsible for reviewing and updating the law and had the authority to adopt advisory material to supplement the regulations.⁹ In practice, the Committee met too infrequently—once a year for approximately one week during the 1950s and once every two years during the 1960s—to fulfill the day-to-day duty of application and interpretation.¹⁰ Instead, the Director-General and the Secretariat assumed these responsibilities while the Committee became an advisory body that met to ratify and approve the Director-General's actions and to make recommendations on especially contentious problems.¹¹ Interpretations were typically articulated by the Director-General, approved by the Committee and then the Health Assembly, and incorporated into the Regulations as non-binding but authoritative footnotes.¹² Disputes concerning the regulations—often challenging the right of states to adopt protective measures more stringent than those outlined in the regulations—were almost exclusively resolved informally through the Secretariat's mediation efforts.¹³ The formal dispute

⁷ World Health Organization, World Health Assembly Resolutions WHA4.78 and 4.80, 1951. Cited in *Ibid.*

⁸ *Ibid.*, pp. 40-41.

⁹ *Ibid.*, p. 41.

¹⁰ *Ibid.*, p. 42.

¹¹ *Ibid.*

¹² *Ibid.*, pp. 50-54.

¹³ *Ibid.*, pp. 54-58.

resolution mechanism was employed only once in a 1970 controversy involving Turkey, Romania, and Bulgaria.¹⁴

Ultimately, the 1951 International Sanitary Regulations consolidated and unified infectious disease law but did not depart significantly in substance from its predecessor agreements. The diseases covered increased from five—cholera, plague, yellow fever, smallpox, and typhus—to six, with the addition of relapsing fever.¹⁵ The regulations stipulated sanitary conditions to be maintained and maximum permissible measures that could be taken on arrival and departure at seaports and airports open to international traffic.¹⁶ In addition to general provisions at borders, the regulations contained special provisions for each of the quarantinable diseases and for the Mecca pilgrimage.

Most provisions related to the pilgrimage were subsequently removed in a 1956 modification.¹⁷ Based on the recommendations of the Committee on International Quarantine, the Health Assembly adopted further modifications in 1960, 1963, and 1965, to, among other things, simplify the application of the regulations and require the notification to WHO of imported cases of quarantinable diseases.¹⁸ A second annotated edition of the 1951 International Sanitary Regulations was issued in 1961 and a third in 1966, containing the amended text as well as the interpretations and recommendations prepared by the Secretariat and approved by the Committee.

1969 International Health Regulations

The International Sanitary Regulations was modestly revised again in 1969. Proposed changes were drawn up at two meetings of the Committee on International

¹⁴ Ibid., pp. 62-64.

¹⁵ Ibid., p. 35.

¹⁶ World Health Organization, *The First Ten Years of the World Health Organization: 1948-1957*, p. 261.

¹⁷ Gian Luca Burci and Claude-Henri Vignes, *World Health Organization* (London: Kluwer Law International, 2004), p. 135; Mark W. Zacher and Tania J. Keefe, *The Politics of Global Health Governance: United by Contagion* (New York, NY: Palgrave Macmillan, 2008), p. 39.

¹⁸ World Health Organization, *The Second Ten Years of the World Health Organization: 1958-1967* (Geneva: World Health Organization, 1968), pp. 98-99.

Quarantine in 1967, sent to member states for comments, and then adopted by the Health Assembly in 1969. The revision changed the name of the law from International Sanitary Regulations to International Health Regulations, and the Committee on International Quarantine was renamed the Committee on International Surveillance of Communicable Diseases. Typhus and relapsing fever were removed from the list of reportable diseases.¹⁹ Though never employed in practice, a voluntary procedure was created by which states could request that the Secretariat certify that an airport within its territory satisfied the legal requirements for sanitary conditions.²⁰ The procedure originated with proposals from the Director-General for an extensive series of certifications to ensure member state compliance with numerous provisions of the law, but most of these proposals were not accepted by member states and the voluntary procedure was adopted instead.²¹

After 1969, the law was slightly modified twice but with increasing irregularity. In 1973, some changes were made to the provisions for cholera. In 1981, smallpox was removed from the list of reportable diseases due to its eradication. From 1981 onwards, the 1969 IHR only applied to three diseases—cholera, plague, and yellow fever. Like its predecessor agreements, the 1969 IHR contained general provisions applicable to all covered diseases and special provisions for each specific disease. It required reporting with respect to the three covered diseases and outlined maximum permissible protective measures that could be applied to international traffic.

How formalized rules evolve

Based on formal legal changes to the barrier approach from 1946 until 1995, it appears that the development of international infectious disease law slowed under

¹⁹ Zacher and Keefe, *The Politics of Global Health Governance: United by Contagion*, p. 38.

²⁰ Leive, *International regulatory regimes: Case studies in health, meteorology, and food*, pp. 64-67.

²¹ *Ibid.*, p. 65.

WHO's auspices. International conferences were convened at close intervals from the first International Sanitary Conference in 1851 to the fourteenth conference in 1938, and infectious disease law was frequently revised and updated within the confines of the barrier approach prior to WHO's establishment. This trend continued during the early years of WHO's existence, but after the 1960s, evolution of infectious disease law decelerated to a near halt. Though the Secretariat played an important role in the day-to-day application and interpretation of the law, its role in formal legal revision remained insignificant until 1995. Where the Secretariat suggested deeper legal changes, such as certifications to ensure compliance, the proposals were rejected by member states.

Taking into consideration only formal legal changes, the evolution of infectious disease law looks to be consistent with the punctuated equilibrium model of institutional change, which proposes that institutions go through moments of dramatic, overt institutional innovation brought on by exogenous shocks, followed by periods of stability.²² Thus, one might characterize the initial genesis of the barrier approach during the late nineteenth and early twentieth century as a time of institutional transformation spurred by outbreaks of cholera and plague, followed by nearly a century of stability, and then another cycle of dramatic innovation prompted by the SARS outbreak that led to the genesis of the 2005 IHR and the epidemiological approach.

But the apparent formal stability of infectious disease law under WHO's auspices—and the Secretariat's seemingly modest role in formal legal revision—can be deceptive. Examining domestic institutional change, where “institution” is defined as

²² For more on the punctuated equilibrium model of institutional change, see, e.g., Stephen D. Krasner, 'Sovereignty: an institutional perspective,' *Comparative Political Studies*, vol. 21, no. 1, 1988.

formalized rules,²³ authors such as Kathleen Thelen, James Mahoney, and Paul Pierson have observed that transformation can take a myriad of forms—formal and informal, abrupt and gradual, radical and subtle. They argue that it is imperative to look beyond formal authoritative developments to fully capture how formalized rules change. Emphasizing radical reconfigurations and exogenous shocks can overlook or discount the significance of subtle endogenous shifts that occur beneath the surface of stable formal arrangements and that may accumulate and become consequential over time.²⁴

The source of informal change may be endogenous, arising from shifts in the balance between an institution's power holders²⁵ or from behavior generated by an organization's institutional dynamics²⁶ such as its bureaucratic tendencies or principal agent problems as discussed in Chapters 1 and 3. Informal change may also originate from exogenous shifts in external circumstances that confound or alter the significance of existing rules without replacing them altogether.²⁷ Either way, informal change results when shifts occur that are insufficient to break away from prevailing institutional arrangements, leading the proponents of change to instead operate within the space and ambiguity of existing rules.

Wolfgang Streeck and Thelen identify three key modes of gradual, informal institutional change in addition to the explicit, formal displacement of one set of rules

²³ "Institution" is defined as "formalized rules that may be enforced by calling upon a third party." Wolfgang Streeck and Kathleen Thelen, 'Introduction: Institutional Change in Advanced Political Economies,' in *Beyond Continuity: Institutional Change in Advanced Political Economies*, Wolfgang Streeck and Kathleen Thelen, eds. (Oxford: Oxford University Press, 2005), p. 10.

²⁴ James Mahoney and Kathleen Thelen, 'A Theory of Gradual Institutional Change,' in *Explaining Institutional Change: Ambiguity, Agency, and Power*, James Mahoney and Kathleen Thelen, eds. (Cambridge: Cambridge University Press, 2010), pp. 1-3; Kathleen Thelen, 'How Institutions Evolve: Insights from Comparative Historical Analysis,' in *Comparative Historical Analysis in the Social Sciences*, James Mahoney and Dietrich Rueschemeyer, eds. (Cambridge: Cambridge University Press, 2003), pp. 210-213.

²⁵ Thelen notes that institutions continue to be the object of on-going contestation and conflict after their establishment as actors struggle over their form and functions. Kathleen Thelen, *How Institutions Evolve: The Political Economy of Skills in Germany, Britain, the United States, and Japan* (Cambridge: Cambridge University Press, 2004), p. 32.

²⁶ Streeck and Thelen, 'Introduction: Institutional Change in Advanced Political Economies,' p. 19.

²⁷ Mahoney and Thelen, 'A Theory of Gradual Institutional Change,' p. 11.

by another that has been the focus of traditional institutional theorists.²⁸ One mode of informal change is drift—when rules remain formally the same but their meaning, function, and impact fluctuates due to a combination of shifting external conditions and a failure to keep up with those conditions. The driving force behind institutional drift is inaction and neglect. Second, informal change may occur through layering—the introduction of new rules on top of or alongside existing ones. Layering is driven by the active sponsorship of additions to existing rules that may eventually crowd out or supplant the old system. Third, informal change may occur through conversion—the strategic exploitation of ambiguities within existing rules so as to reinterpret and redirect them toward new purposes. Mahoney and Thelen contend that drift and layering occur when the proponents of change have at least some discretion but are not able to effect formal alterations to the rules because other actors have the ability to block or veto formal change.²⁹

In light of these insights, I next delve below the surface of formal legal revisions to examine informal changes in infectious disease management during the period from 1946 to 1995. As we will see, a combination of exogenous and endogenous shifts led to considerable informal changes in WHO's approach to infectious disease. Though the 1969 IHR and the barrier approach remained in place on the books, the existing rules drifted due to shifting circumstances that resulted in their marginalization and purposeful neglect. Additionally, the Secretariat, operating within its limited discretion, informally created a new epidemiological approach and layered it on top of the existing barrier approach.

²⁸ Streeck and Thelen, 'Introduction: Institutional Change in Advance Political Economies,' pp. 18-30.

²⁹ Mahoney and Thelen, 'A Theory of Gradual Institutional Change,' pp. 19-20.

“Drift” of the barrier approach

As Streeck and Thelen observe, formalized rules require active maintenance.³⁰ They need to be refocused and recalibrated from time to time in response to changes in the environment that may alter the scope, meaning, or function of the rules. During the first two decades of WHO’s existence, it became increasingly obvious that international infectious disease law needed considerable maintenance. Though it had been frequently revised, it retained the basic architecture of a set of rules created in the late nineteenth century despite immense changes in infectious disease patterns, the international political arena, and WHO itself as developing countries emerged as political players. But the European countries responsible for the initial creation of the barrier approach were no longer interested in infectious disease regulation. And the Secretariat, though it recognized the need for recalibration and had an autonomous interest in a new approach to infectious disease governance, chose strategically not to pursue formalized legal change.

Loss of interest in the barrier approach

The barrier approach was historically driven by the desire of major European states to balance economic interests with domestic public health protection. The regulations thus focused on addressing “Asiatic” diseases coming to Europe from the Near, Middle, and Far East. But during the two decades after WHO’s establishment, powerful countries began perceiving their interests differently. Domestic public health reforms, improvements in water sanitation, and developments in medical technology such as antibiotics and vaccines reduced the human and economic costs of infectious disease in industrialized countries,³¹ making them less vulnerable to disease

³⁰ Streeck and Thelen, 'Introduction: Institutional Change in Advance Political Economies,' pp. 24-25.

³¹ David P. Fidler, 'Microbialpolitik: infectious diseases and international relations,' *American University International Law Review*, vol. 14, 1998, p. 20; David P. Fidler, *SARS: Governance and the Globalization of Disease* (London: Palgrave Macmillan, 2004), p. 40.

importation, much like Britain during the nineteenth century. Infectious disease regulation thus lost political salience among developed countries, including those who created the barrier approach in the first place.

In 1967, American Surgeon General William H. Stewart famously declared that “the war against infectious diseases ha[d] been won,”³² and suggested that the country turn its attention and resources to chronic illnesses such as cancer and heart disease.³³ Novel medical technologies created such a sense of optimism in the developed world after WWII that the new infectious disease objective became outright eradication—“nothing less than pushing humanity through what was termed the ‘health transition,’ leaving the age of infectious disease permanently behind.”³⁴

While the interest of industrialized countries in the barrier approach specifically and in infectious disease regulation generally waned, most developing countries never truly benefited from the barrier approach at all. The particular diseases within the scope of the 1951 and 1969 regulations were already endemic in many developing countries, and those without sufficient domestic public health capacity to address the spread of epidemics had little to gain from reporting or receiving notice of outbreak information.

During the latter half of the twentieth century, developing countries continued to be vulnerable to endemic and epidemic infectious diseases due to basic deficiencies in healthcare capacity and sanitation. But while developing countries might have benefitted from a novel set of infectious disease regulations that addressed their needs, their public health concerns were far broader than infectious disease and they directed their political influence within the Health Assembly toward demands for greater technical assistance generally, as discussed in Chapter 3. In the spirit of the movement

³² David M. Morens, Gregory K. Folkers and Anthony S. Fauci, 'The challenge of emerging and re-emerging infectious diseases,' *Nature*, vol. 430, no. 6996, 2004, p. 242.

³³ Anthony S. Fauci, 'Infectious diseases: considerations for the 21st century,' *Clinical Infectious Diseases*, vol. 32, no. 5, 2001, p. 675.

³⁴ Laurie Garrett, 'The return of infectious disease,' *Foreign Affairs*, vol. 75, no. 1, 1996, p. 66.

for a New International Economic Order during the 1970s,³⁵ developing countries banded together within the Health Assembly to press for greater equality and to emphasize the importance of improving entire health systems. It was increasingly perceived that improving the situation for specific diseases “would translate into few if any gains in regions that lacked sewage systems, potable water, adequate food, health clinics, and rudimentary knowledge of illness and treatment.”³⁶

In short, the barrier approach quickly lost traction with both the minority of industrialized donor member states and the majority of developing member states. Neither of these sets of actors was likely to advocate a recalibration of international infectious disease law.

Changing exogenous environment

While WHO’s member states had no incentive to maintain infectious disease law, exogenous factors continued to shift, making the existing regulations even more irrelevant, ineffective, and dysfunctional. Systematic non-compliance with the 1951 and 1969 regulations and changing patterns of infectious disease spread during the early decades of WHO’s existence were two key ingredients for institutional drift.

The problem of non-compliance. The 1951 and 1969 regulations required states to report incidents of certain diseases and to abide by specified maximum permissible protective measures for those diseases. Member states had a poor record of compliance on both counts.

The barrier approach’s surveillance mechanism relied on state parties to notify WHO of outbreaks of cholera, plague, and yellow fever, as well as typhus, relapsing

³⁵ The New International Economic Order was a set of proposals advanced by developing countries during the 1970s through the United Nations Conference on Trade and Development. The goal was to promote developing country interests by improving their terms of trade and increasing development assistance, thus moving away from the Bretton Woods system, which was created by and benefited the victors of the Second World War, particularly the US.

³⁶ Alexandra Minna Stern and Howard Markel, 'International efforts to control infectious diseases, 1851 to the present,' *Journal of the American Medical Association*, vol. 292, no. 12, 2004, p. 1477.

fever, and smallpox, until they were removed from the regulations. But such reports were delayed or withheld on a regular basis.³⁷ The problem of non-compliance was noted by WHO's Deputy Director-General Pierre Dorolle as early as 1968, months before the regulations were renamed the International Health Regulations:

In normal times fairly regular notifications are received in areas where certain diseases regularly occur. But when a severe outbreak of a disease occurs in a new area the system of notifications breaks down far too often.³⁸

Indeed, typhus was removed from the regulations in 1969 in part because many countries did not report its occurrence.³⁹

By the beginning of the 1980s, medical experts within the Secretariat recognized that the 1969 law was no longer operative. In a 1981 internal correspondence between leading members of the Secretariat, WHO's Chief of Epidemiological Surveillance of Communicable Diseases expressed that "[t]here are some people, with whom I sincerely agree in principle, who believe the IHR could be abolished and that it would reflect favourably upon the Organization to do away with regulations that have outlived their usefulness."⁴⁰ A 1986 booklet on the functioning of the IHR described considerable difficulties enforcing the annual reporting requirement:⁴¹

Regrettably, the number of countries providing such reports dropped substantially from 1981 to 1984.... Fewer than half of the countries sent in a report for the year 1985. Twenty of the 167 Member States and Associate Member States did not forward any report during the last 5

³⁷ Pierre J. Delon, *The international health regulations: a practical guide* (Geneva: World Health Organization, 1975), p. 24; Pierre Dorolle, 'Old plagues in the jet age: International aspects of present and future control of communicable disease,' *British Medical Journal*, vol. 4, no. 5634, 1968, p. 789.

³⁸ Dorolle, 'Old plagues in the jet age: International aspects of present and future control of communicable disease,' p. 789.

³⁹ World Health Organization, *The Third Ten Years of the World Health Organization: 1968-1977* (Geneva: World Health Organization, 2008), p. 176.

⁴⁰ Ian D. Carter, Chief of Epidemiological Surveillance of Communicable Diseases, letter to Jacobo Finkelman, Chief of Epidemiological Surveillance for the Regional Office of the Americas, 10 February 1981, from Archives for the International Health Regulations (1969), World Health Organization, Geneva.

⁴¹ Article 13 of the 1969 IHR stipulates that "[e]ach State shall forward annually to the Organization, in accordance with Article 62 of the Constitution of the Organization, information concerning the occurrence of any case of a disease subject to the Regulations due to or carried by international traffic, as well as on the action taken under these Regulations or bearing upon their application."

years. Of the remainder, 81 sent in 3 reports or less for these years. Nevertheless several of the countries that failed to report were known to have difficulties concerning their territories or their nationals traveling to other countries; many of them could have contributed to a better knowledge of the epidemiological situation....⁴²

Even when reports were submitted, they varied widely in level of detail, with some being purely perfunctory in nature. An examination of WHO's archives showed that national annual reports, particularly those from developing countries, often cited no cases of any reportable diseases under the IHR and no difficulties applying the law.⁴³

The reasons for inadequate reporting were twofold. Sometimes, countries did not have the capacity to detect outbreaks due to the lack of or inadequate epidemiological surveillance.⁴⁴ Other times, countries refused to report outbreaks of which they were aware due to the fear of excessive reactions by other countries.⁴⁵ Indeed, state parties frequently exceeded the maximum permissible measures that could be applied to travel and trade under the regulations. In 1968, Deputy Director-General Dorolle wrote that the objective of avoiding "excessive and unnecessary quarantine measures....ha[d]...failed."⁴⁶ This observation was echoed by a 1975 WHO publication noting that "[i]nstances of excessive and useless measures have been numerous in the history of the application of the [International Sanitary and Health] Regulations since 1951."⁴⁷ WHO's archives on the 1969 IHR confirms that there were

⁴² World Health Organization, 'Functioning of the International Health Regulations for the Period 1 January to 31 December 1985,' *Weekly Epidemiological Record*, vol. 61, no. 50, 1986, p. 385.

⁴³ This is a general observation based on examinations of WHO's historical archives for the 1969 IHR. For example, in 1984, Tongo, Jordan, and the Bahamas each reported no cases and no difficulties in applying the law.

⁴⁴ World Health Organization, 'Functioning of the International Health Regulations for the Period 1 January to 31 December 1985,' p. 386.

⁴⁵ Ibid.

⁴⁶ Dorolle, 'Old plagues in the jet age: International aspects of present and future control of communicable disease,' p. 789.

⁴⁷ Delon, *The international health regulations: a practical guide*, p. 24.

many written complaints to the organization concerning the application of overly restrictive measures.⁴⁸

Inadequate reporting and the application of excessive measures were mutually perpetuating problems—countries experiencing outbreaks were unlikely to report unless they were assured that others would not overreact, and susceptible countries were unlikely to abide by the maximum measures if they suspected they had incomplete information. Contributing to both of these compliance problems was WHO's lack of any enforcement mechanism. Legally, neither WHO's Constitution nor the 1969 IHR gave the organization any power against member states violating binding rules of international law.⁴⁹ The Constitution allows the Health Assembly to suspend a member state's voting privileges and services under exceptional circumstances,⁵⁰ but this is a politically costly option, requiring a majority vote in the Health Assembly. The 1969 IHR established a dispute settlement procedure of limited effectiveness. Member states could bring attention to the lack of notifications or the use of excessive measures, and could refer a question or dispute to the Director-General,⁵¹ but this procedure was seldom used,⁵² and neither the Director-General nor any WHO organ could settle disputes in a compulsory manner.⁵³

⁴⁸ To provide a few examples: the Deputy Director of Epidemiology of Burma wrote to WHO on 23 December 1980 regarding Egypt's imposition of quarantine measures on goods and passengers due to plague in Burma; the International Air Transport Association wrote to WHO on 14 June 1982 regarding excessive costs to airlines imposed by national health administrations; the Thai Ministry of Public Health wrote to WHO's Regional Office of Southeast Asia on 27 May 1982 regarding Saudi Arabia's ban on food imports due to a cholera epidemic in Thailand notified by WHO; and the US Department of Health and Human Services wrote to WHO on 23 July 1982 inquiring about a Wall Street Journal newspaper article stating that travellers arriving in Nigeria without a smallpox certificate were required to make a payment or else were quarantined or denied entry.

⁴⁹ David P. Fidler, 'Return of the fourth horseman: emerging infectious diseases and international law,' *Minnesota Law Review*, vol. 81, 1996, pp. 847-849; Walter R. Sharp, 'The New World Health Organization,' *American Journal of International Law*, vol. 41, no. 3, 1947, pp. 526-527.

⁵⁰ Constitution of the World Health Organization, Article 7.

⁵¹ 1969 IHR, Article 93.

⁵² David P. Fidler, 'Future of the World Health Organization: What Role for International Law, The,' *Vanderbilt Journal of Transnational Law*, vol. 31, no. 5, 1998, p. 1090.

⁵³ David P. Fidler, *International law and infectious diseases* (Oxford: Clarendon Press, 1999), p. 69.

Without an independent surveillance mechanism, WHO also did not have the capacity to detect non-compliance. In a 1979 policy memorandum to the Director-General, the Chief of Epidemiological Surveillance of Communicable Diseases wrote, “[t]he one thing that [the department of Epidemiological Surveillance of Communicable Diseases] does not do in the true sense of the word is the surveillance of communicable disease.”⁵⁴ Even if the organization was aware of an outbreak threatening other countries, it did not have any authority under the 1951 or 1969 regulations to disseminate that information unless the country affected reported it.⁵⁵ Only once in the Secretariat’s history did it publish disease information that did not come from the member state concerned.⁵⁶ In 1970, the Secretariat publicized information regarding a cholera outbreak in Guinea, which had not been reported under the 1969 IHR.⁵⁷ In that case, the Director-General admitted that he had acted outside the IHR.⁵⁸

Thus, beginning in the 1960s, the barrier approach became dysfunctional. It failed to control the international spread of cholera and smallpox,⁵⁹ and it was “highly questionable” whether it had contributed to improvements in reducing the spread of the plague.⁶⁰ Dorolle noted in 1968 that the regulations were “very often a dead letter just

⁵⁴ Ian D. Carter, Chief of Epidemiological Surveillance of Communicable Diseases, memorandum to Halfdan T. Mahler, Director-General, 13 December 1979, from Archives for the International Health Regulations (1969), World Health Organization, Geneva.

⁵⁵ Johan Giesecke, 'International health regulations and epidemic control,' in *Global Public Goods for Health: Health, Economic and Public Health Perspectives*, Richard Smith and Robert Beaglehole, eds. (Oxford: Oxford University Press, 2003), p. 203.

⁵⁶ David P. Fidler, 'From international sanitary conventions to global health security: the new International Health Regulations,' *Chinese Journal of International Law*, vol. 4, no. 2, 2005, p. 345.

⁵⁷ Reported in World Health Organization, 'Cholera: Situation in the Eastern Mediterranean and Africa,' *Weekly Epidemiological Record*, vol. 45, no. 36, 1970, p. 377.

⁵⁸ For more details, see Leive, *International regulatory regimes: Case studies in health, meteorology, and food*, pp. 82-85.

⁵⁹ Dorolle, 'Old plagues in the jet age: International aspects of present and future control of communicable disease,' pp. 790-791.

⁶⁰ According to Roelsgaard, head of WHO’s Department of Epidemiology, there were sufficient economic incentives for applying rodent control measures in ships and at ports irrespective of the 1969 IHR. Erik Roelsgaard, 'Health regulations and international travel,' *Chronicle of the World Health Organization*, vol. 28, 1974, p. 267.

when they should be strictly applied.”⁶¹ Boris Velimirovic, WHO’s Communicable Disease Officer in the European Regional Office, asked in 1976, “is there much sense in the maintenance of rules if they are not observed—if they are disregarded or more or less systematically broken—without any consequences for those who deviate?”⁶²

Changing patterns in infectious disease. In addition to the problem of non-compliance, the optimism of developed countries with respect to infectious disease proved to be misguided. The view that infectious disease was essentially conquered was based on the assumptions that microbes are stationary targets and that diseases can be geographically sequestered.⁶³ During the latter half of the twentieth century, both of these assumptions turned out to be unfounded as the infectious disease threat departed from previous patterns of epidemiology, drug susceptibility, geographic distribution, and severity.⁶⁴

Beginning in the late 1950s, new pathogens, previously unknown in the human population, emerged, and old pathogens re-emerged with increased incidence.⁶⁵ Over thirty new diseases were detected for the first time in the late twentieth century,⁶⁶ emerging at the unprecedented rate of one per year.⁶⁷ Acquired Immunodeficiency Syndrome (“AIDS”), caused by the Human Immunodeficiency Virus (“HIV”), was first identified in the early 1980s, and was reported to infect over 33 million people globally

⁶¹ Dorolle, 'Old plagues in the jet age: International aspects of present and future control of communicable disease,' p. 790.

⁶² Boris Velimirovic, 'Do We Still Need the International Health Regulations?,' *Journal of Infectious Diseases*, vol. 133, 1976, p. 481.

⁶³ Garrett, 'The return of infectious disease,' p. 66.

⁶⁴ See Joshua Lederberg, Robert E. Shope and Stanley C. Oaks Jr, *Emerging infections: microbial threats to health in the United States* (Washington, DC: National Academy Press, 1992).

⁶⁵ Mark E. J. Woolhouse, Daniel T. Haydon and Rustom Antia, 'Emerging pathogens: the epidemiology and evolution of species jumps,' *Trends in Ecology and Evolution*, vol. 20, no. 5, 2005, p. 238.

⁶⁶ David L. Heymann, 'Infectious Agents,' in *Oxford Textbook of Public Health*, Roger Detels, James McEwen, Robert Beaglehole and Heizo Tanaka, eds. (Oxford: Oxford University Press, 2004), p. 172.

⁶⁷ Mark E. J. Woolhouse and Christopher Dye, 'Population biology of emerging and re-emerging pathogens,' *Philosophical Transactions of the Royal Society for Biological Sciences*, vol. 356, 2001, pp. 981-982.

by 2007.⁶⁸ The Marburg virus was first recognized in 1967, and Ebola, which has caused at least five severe epidemics and numerous smaller outbreaks,⁶⁹ was identified in 1976. In the United States, the first epidemic of Hantavirus pulmonary syndrome was detected in 1993, resulting from population booms of deer mouse.⁷⁰ Legionnaires' disease, first recognized in Philadelphia in 1976, remains a threat to those exposed to poorly maintained air-conditioning systems.⁷¹ In 1997, the H5N1 strain of influenza A was identified in Hong Kong. Additionally, Hepatitis C, Nipah virus encephalitis, Rift Valley fever, Lyme disease, Lassa hemorrhagic fever, and Creutzfeldt-Jakob disease are all examples of recently emerging infections. By the turn of the twenty-first century, over a quarter, or 15 of 57 million annual deaths worldwide were directly linked to infectious diseases,⁷² and one epidemiologist predicted in 2004 that the frequency of emergence of new pathogens would increase.⁷³

These changing patterns of infectious disease were caused by modern human activities, which created unprecedented opportunities for disease spread. Infections were increasingly difficult to contain geographically due to globalization and the resulting increase in mobility. Between 1950 and 2001, the number of international airline passengers grew from two million per year to over 1.4 billion per year.⁷⁴ These passengers or insects stowed away on planes could traverse the globe in a matter of hours, and airborne diseases could spread rapidly in crowded airports, on the aircraft, or after arrival at the destination. Mobility also affected food production and distribution:

⁶⁸ Joint United Nations Programme on HIV/AIDS and World Health Organization, *AIDS Epidemic Update: December 2007* (Geneva: UNAIDS, 2007), p. 1.

⁶⁹ Heymann, 'Infectious Agents,' p. 174.

⁷⁰ Morens, Folkers and Fauci, 'The challenge of emerging and re-emerging infectious diseases,' p. 243.

⁷¹ Robin A. Weiss and Anthony J. McMichael, 'Social and environmental risk factors in the emergence of infectious diseases,' *Nature medicine*, vol. 10, no. 12, 2004, p. S71.

⁷² Morens, Folkers and Fauci, 'The challenge of emerging and re-emerging infectious diseases,' p. 242.

⁷³ Roy Anderson, 'A serial killer still lurking in shadows,' *Times Higher Education Supplement*, 9 January 2004.

⁷⁴ David L. Heymann, 'The Fall and Rise of Infectious Diseases,' *Georgetown Journal of International Affairs*, vol. 2, 2001, p. 8.

an infectious agent present in raw ingredients could end up in large quantities of the final product, as occurred with the contamination of hamburger meat by *E. coli* in the United States in the early 1990s.⁷⁵

Additionally, changing interactions between humans and the environment have resulted in people venturing into uninhabited ecological zones, where they came into contact with unfamiliar pathogens against which they had no immunity. Diseases previously confined to animals were able to breach the species barrier and make the leap to humans. Deforestation and changing weather patterns disrupted natural habitats and displaced animal species, bringing them closer to human settlements. More than two thirds of emerging diseases detected during the 1990s originated in animals.⁷⁶

Changes in demography and human behavior resulted in social conditions that facilitated the spread of infections. The world population grew rapidly from 1 billion at the beginning of the previous century to 6 billion at the beginning of this century.⁷⁷ Within the human population, there was an increasing proportion of the very young, the very elderly, and the immuno-compromised, who are more susceptible to disease. There was also massive rural to urban migration, resulting in the appearance of mega cities surrounded by marginalized communities. The number of urban areas with populations greater than seven million rose from two in 1950 to 23 in 1990.⁷⁸ Crowding and close living quarters in urban centers increased the chances of acquiring certain airborne communicable diseases.⁷⁹

⁷⁵ Centers for Disease Control and Prevention, 'Update: multistate outbreak of Escherichia coli O157:H7 infections from hamburgers—western United States, 1992-1993,' *Morbidity and Mortality Weekly Report*, vol. 42, no. 12, 1993, pp. 258-263.

⁷⁶ Heymann, 'The Fall and Rise of Infectious Diseases,' p. 9.

⁷⁷ Luc Montagnier, 'What Will We Suffer from in the Twenty-First Century,' in *Keys to the 21st Century*, Jerome Bindé, ed. (Oxford: Berghahn books, 2001), p. 64.

⁷⁸ David L. Heymann, 'Non-medical aspects of emerging and re-emerging infectious diseases: Maximum protection with minimal disruption,' in *The politics of emerging and resurgent infectious diseases*, Jim Whitman, ed. (Basingstoke, NH: Macmillan Press, 2000), p. 174.

⁷⁹ Felissa R. Lashley, 'Factors contributing to the occurrence of emerging infectious diseases,' *Biological research for nursing*, vol. 4, no. 4, 2003, p. 259.

Another factor in re-emergence was the dwindling number of effective first line antimicrobial drugs. Drug resistance was fuelled by the inappropriate use of medicines, creating evolutionary selection pressures for microbes against which existing therapies were ineffective. In the developed world, antibiotics were over- and inappropriately prescribed,⁸⁰ while the problem in developing countries was under-use in the form of insufficient dosage or courses of treatment that were too short. The excessive use of antibiotics in farms, aquaculture, and livestock production also contributed to drug resistance.⁸¹ As a result, there was an increasing need to resort to more costly and hazardous alternative drugs, if they were available.

The above factors increased the burdens on public health systems. Yet, at the same time, poverty and complacency regarding infectious diseases resulting from the optimism of previous decades led to the collapse of health infrastructures around the world, particularly in developing countries and the inner cities of developed countries. Many previously active public health measures were allowed to lapse, leading to the breakdown of sanitation and water systems in large coastal cities as well as the lack of mosquito control in Latin America and Asia.⁸² The consequence was the resurgence of old diseases in new ways. After an absence of nearly a century, cholera returned to Latin America in 1991, with 400,000 cases and 4,000 deaths reported from eleven countries within one year.⁸³ WHO received more reports of cholera cases during the 1990s than in any other decade since official reporting began.⁸⁴ Urban epidemics of

⁸⁰ Ibid., p. 264.

⁸¹ World Health Organization, *Global defence against the infectious disease threat* (Geneva: World Health Organization, 2002), p. 98.

⁸² Heymann, 'Non-medical aspects of emerging and re-emerging infectious diseases: Maximum protection with minimal disruption,' p. 174.

⁸³ Robert V. Tauxe, Eric D. Mintz and Robert E. Quick, 'Epidemic cholera in the new world: translating field epidemiology into new prevention strategies,' *Emerging Infectious Diseases*, vol. 1, no. 4, 1995, p. 142.

⁸⁴ World Health Organization, *Global defence against the infectious disease threat*, p. 77.

yellow fever became a significant threat in sub-Saharan Africa and Latin America.⁸⁵ In 2001, the first urban outbreak of yellow fever in a decade occurred in Africa, necessitating the emergency immunization of 2.9 million people in less than two weeks.⁸⁶ Other examples of resurgent diseases include tuberculosis, malaria, pneumonia, bacterial diarrheas, and bacterial meningitis.

Changing endogenous circumstances

In the face of non-compliance and immense external fluctuations in the infectious disease threat, the barrier approach desperately needed to be updated. While neither developing nor developed member states had an interest in proposing such change, endogenous shifts within WHO gave rise to another actor—the Secretariat. As argued in Chapter 3, the rapid expansion of WHO's membership resulted in a fragmented and sometimes deadlocked Health Assembly. Though donor states subsequently regained control through mechanisms outside WHO's original institutional design, these mechanisms left the Secretariat some discretion in informal regulatory matters and non-regulatory policy matters. During the decades after WHO's establishment, professionals within the Secretariat both perceived the changing infectious disease threat and connected it with the need for a new set of rules.

While it took several decades for developed member states to react to the new infectious disease challenge, a few influential medical experts and scholars recognized early on that the post-war optimism was not warranted. In 1976, only a few years after the American Surgeon General declared victory over infectious diseases, American academic William McNeill warned that pathogens were a perpetual threat against which continued vigilance was necessary:

⁸⁵ David L. Heymann, 'Infectious Disease Threats to National and Global Security,' in *Human insecurity in a global world*, Lincoln C. Chen, Sakiko Fukuda-Parr and Ellen Seidensticker, eds. (London: Harvard University Press, 2003), p. 197.

⁸⁶ World Health Organization, *Global defence against the infectious disease threat*, p. 93.

Ingenuity, knowledge and organization alter but cannot cancel humanity's vulnerability to invasion by parasitic forms of life. Infectious disease which antedated the emergence of humankind will last as long as humanity itself, and will surely remain, as it has been hitherto, one of the fundamental parameters and determinants of human history.⁸⁷

Within WHO's Secretariat, there was a keen awareness of the ongoing infectious disease situation. A WHO publication regarding the organization's first ten years of operation from 1948 to 1957 noted significant improvements on all six diseases that were then covered under the 1951 International Sanitary Regulations, and concluded that the law had "come into action remarkably readily and well."⁸⁸ The same report published a decade later in 1968 described very different trends and demonstrated the Secretariat's recognition of the threat posed by diseases not covered under the existing legal regime:

In planning the control of communicable diseases, account must be taken of many factors—the increase in world population and cultivation of virgin lands, rapid and sometimes uncontrolled urbanization, the expansion of international travel and of commerce (including trade in food products of animal origin and animal foodstuffs), as well as disturbed conditions in some areas—all of which have an impact on the ecological situation and on the epidemiological aspects of diseases in many countries. The last ten years have provided a warning of the persisting and dangerous potentialities of cholera, plague and yellow fever. In addition, new diseases or syndromes have appeared (for example, mosquito-borne haemorrhagic fever), the natural history of some diseases, such as salmonellosis, has changed, and the importance of others has increased (for example, arbovirus infections).⁸⁹

Thus, by the 1960s, WHO's staff had basic information and knowledge about the contemporary threat of infectious disease. This knowledge formed the basis for the

⁸⁷ William H. McNeill, *Plagues and Peoples* (Garden City: Anchor Press/Doubleday, 1976), p. 291.

⁸⁸ The report cited a "marked decline in the amount of cholera in the world," declared that plague had been reduced to "essentially an animal infection," stated that "no country [with] good sanitary standards...need fear the importation of typhus," affirmed that the incidence of relapsing fever had "[fallen] off rapidly", and noted that the "importance of smallpox is much decreased" and that the "importance of yellow fever has much diminished." World Health Organization, *The First Ten Years of the World Health Organization: 1948-1957*, pp. 265-274.

⁸⁹ World Health Organization, *The Second Ten Years of the World Health Organization: 1958-1967*, p. 94.

Secretariat's independent epistemic preferences—preferences that cannot be traced to the demands of member states.

The novel threat was not only understood, but also linked to two key weaknesses in the barrier approach. The first weakness was its limited coverage to a few specific pathogens. In 1968, Deputy Director-General Dorolle wrote that “[m]any other diseases not considered as ‘quarantinable’ are nevertheless apt to be transmitted internationally.”⁹⁰ He cited influenza, typhoid, salmonellosis, diphtheria, whooping-cough, dengue-type viruses and malaria as examples of important infectious diseases beyond the scope of the regulations. Erik Roelsgaard, head of WHO's Department of Epidemiology, argued in 1974 that the traditional three infections subject to the 1969 IHR were “pestilential diseases of the past.”⁹¹ Similarly, in 1981, Ian Carter, WHO's Chief of Epidemiological Surveillance of Communicable Diseases, advocated for “the surveillance of a disease and interchange of relevant information not on the basis that it is included in a list but because it is of public health importance.”⁹²

The second recognized weakness concerned the lack of a functional surveillance system and the resulting difficulties in enforcing notification requirements. It was acknowledged that the information coming from many member states was not “a reflection of meaningful surveillance,”⁹³ a problem compounded by the restriction that WHO must rely solely on official information. An account of the IHR's functioning in 1985 noted that because “only official information supplied by national health authorities can be taken into account and disseminated,” one often does not “find the

⁹⁰ Dorolle, 'Old plagues in the jet age: International aspects of present and future control of communicable disease,' p. 791.

⁹¹ Roelsgaard, 'Health regulations and international travel,' p. 267.

⁹² Carter letter to Finkelman, 10 February 1981.

⁹³ Carter memorandum to Mahler, 13 December 1979.

expected information, even though it has been reported in the media for several days.”⁹⁴

As a result, WHO was often unable to “respond objectively to the...avalanche of requests for information.”⁹⁵

The inadequacy of and need to update the old regulations was apparent to the Secretariat decades before the revision process began. The 1968 report on the second decade of WHO’s operations concluded that the existing regulations “require continuous attention on account of the problems arising from their application by individual countries and of new developments that make revisions necessary.”⁹⁶

Deputy Director-General Dorolle came to a similar conclusion that year:

It seems evident that the system of protection based on the existing international sanitary regulations is no longer adequate.... [I]n this jet age...a thorough and unbiased examination of the causes of failure of the present system and the possible remedies is not only timely but long overdue.⁹⁷

Strategic neglect by the Secretariat

Based on its epistemic preferences and judgment of what good policy entailed, the Secretariat had an autonomous interest in creating a new and better system for infectious disease regulation. But during the decades after the 1969 IHR’s adoption, the Secretariat made a strategic decision not to push for legal revision because it lacked the resources and political support to do so successfully.

This decision was especially evident after the global eradication of smallpox in 1979, when an obvious opportunity arose to revise the law. Anticipating that proposals for modifying the IHR might be made at the following Health Assembly in May 1980, Carter prepared a policy memorandum for then Director-General Mahler in which he

⁹⁴ World Health Organization, 'Functioning of the International Health Regulations for the Period 1 January to 31 December 1985,' p. 388.

⁹⁵ Ibid.

⁹⁶ World Health Organization, *The Second Ten Years of the World Health Organization: 1958-1967*, p. 98.

⁹⁷ Dorolle, 'Old plagues in the jet age: International aspects of present and future control of communicable disease,' p. 792.

argued forcefully against any suggestion for a complete revision of the regulations, though he admitted the idea “warrant[ed] serious reflection.”⁹⁸ Carter emphasized the immense costs such a revision would entail, citing evidence from the previous revision that gave rise to the 1969 IHR, a process that was expensive and failed to produce significant changes:

Between 1966 and 1969 a serious attempt was made to revise the International Sanitary Regulations (Third annotated edition, Geneva 1966). Taking into account consultant time, three meetings of the Committee on International Surveillance of Communicable Diseases, two meetings of legal experts and conservatively 12 meetings of sub-committees of the 1967, 68 and 69 Assemblies it is estimated that such a revision today would cost approximately \$250 000 to \$300 000. Apart from the removal of Typhus and Relapsing Fever (Articles 88 to 94) there was no significant modification in the resultant International Health Regulations (1969) (First annotated edition, Geneva 1971). This statement will withstand any objective comparison of the two publications. Certainly the revision has had no effect on the day to day administration of the IHR.⁹⁹

Carter also asserted that it was unlikely for the international community to agree on a set of formal rules that would meet the demands of the contemporary infectious disease threat. He predicted that “a formal discussion of these proposals [for revision] could only lead to a compromise which would not be satisfactory to any.”¹⁰⁰

Leading members of the Secretariat were aware of the political infeasibility of an entirely new approach to infectious disease control in 1980 and the unwillingness of governments to relinquish aspects of their sovereignty through a commitment to a meaningful revision. In a 1981 letter to the Regional Office of the Americas, Carter pointed out the lack of political interest in updating the law: “I do not believe the majority of countries are ready to think this way and to try to force the issue could result either in anarchy with respect to the establishment of different individual

⁹⁸ Carter memorandum to Mahler, 13 December 1979.

⁹⁹ Ibid.

¹⁰⁰ Ibid.

requirements or a compromise with which nobody would be happy.”¹⁰¹ Even in 1989, when the emergence of the AIDS epidemic made it impossible to overlook the irrelevance of the 1969 IHR, WHO’s Legal Counsel maintained that “no one today seems to seriously contemplate increasing the number of ‘diseases subject to the Regulations.’”¹⁰²

The Secretariat’s belief that a revision would have been infeasible in 1980 was not without basis. Two years earlier, in anticipation of the possibility of revision, a draft of the IHR’s long-term future had been prepared and distributed for comment. The draft was a skeletal version of a proposed new set of regulations embodying what the Secretariat envisioned as a contemporary response to the challenge of infectious disease. It suggested a shift from a “barrier” approach to disease control that focused on preventing infections from crossing borders to an “epidemiological” approach that aimed to detect and contain diseases at their source:

It is clear that measures commonly practiced at points of entry will not prevent importation of disease; thus the main defenses against the international spread of disease are, on the one hand, detection and reduction or elimination of sources from which the disease spreads and, on the other, improvement in epidemiological and disease control activities on the national level so that there is little risk of imported diseases becoming established.¹⁰³

The draft proposed a new agreement of wider scope and greater flexibility that defines general principles rather than specific prescriptions for particular pathogens because “today’s developing technologies will continue to uncover diseases which are at present unknown.”¹⁰⁴

¹⁰¹ Carter letter to Finkelman, 10 February 1981.

¹⁰² Claude-Henri Vignes, 'The Future of International Health Law: WHO Perspectives,' *International Digest of Health Legislation*, vol. 40, 1989, p. 18.

¹⁰³ World Health Organization, 'The long-term future of the International Health Regulations,' *Chronicle of the World Health Organization*, vol. 32, 1978, p. 441.

¹⁰⁴ *Ibid.*, pp. 440-441.

But the idea of a regulatory regime of far broader scope—a key innovation in the 2005 IHR—received uneven responses in 1978. Some member states accepted the proposed new approach, some were firmly against it, and some took the intermediary position of approving the suggestions in theory but “inferring that the time was not yet ripe.”¹⁰⁵ As a result, leading members of the Secretariat chose not to pursue a formal revision of the 1969 IHR.

“Layering” of the epidemiological approach

Though the Secretariat did not push for a displacement of existing rules with new ones, neither did it completely neglect the new infectious disease problem it perceived. While members of the Secretariat warned against legal revision, they were also proponents of informal change in practice. A 1980 memorandum from Velimirovic to Carter stated that although he recognized the inadequacy of the old law, “one should avoid rushing [toward revision] and instead, in the meantime, prepare the ground for a change by educational efforts, training and drawing the attention of the health officials to the need for an epidemiological approach to the control of the spread of diseases internationally.”¹⁰⁶

As the barrier approach remained on the books but drifted toward increasing irrelevance, the Secretariat began to pursue its autonomous interest in the epidemiological approach by operating within the ambiguity of existing rules. Because of WHO’s broad mandate as well as its overlapping and nested infectious disease functions, the Secretariat was able to utilize not only the ambiguity within the 1951 ISR and 1969 IHR, but also the much greater ambiguity in WHO’s infectious disease work

¹⁰⁵ Carter memorandum to Mahler, 13 December 1979.

¹⁰⁶ Boris Velimirovic, Regional Officer for Communicable Diseases for the Regional Office of Europe, memorandum to Ian D. Carter, Chief of Epidemiological Surveillance of Communicable Diseases, 7 February 1980, from Archives for the International Health Regulations (1969), World Health Organization, Geneva.

generally. As discussed in Chapter 3, administration of the barrier approach was never WHO's sole activity relating to infectious disease. From the time of its establishment, the Secretariat addressed the health impacts of pathogens other than those subject to regulation, and it collaborated with national governments and external partners to provide local infectious disease assistance. These various infectious disease projects were performed simultaneously without a clear articulation of how the Secretariat's narrower mandate under the IHR related to its wider mandate under WHO's Constitution—whether one is subsidiary to the other, or how conflicts between them should be adjudicated. This ambiguity gave the Secretariat room for new pursuits. If a new practice could not fit within the narrow boundaries of the 1969 IHR, then it was housed in and funded through another area of the Secretariat's infectious disease work or advanced with the aid of resources from an external partner.

New practices in epidemic response

According to Carter, “[t]he fundamental purpose of disease notification must be to implement preventive/control action as soon as possible.”¹⁰⁷ WHO's top infectious disease personnel thus sought to create “an effective surveillance system [leading] to rapid control.”¹⁰⁸ They envisioned the Secretariat playing a much greater role in containing outbreaks through close collaboration with domestic health authorities and active participation in the verification of and response to international public health crises, regardless of the disease in question and the location of the outbreak. I first examine developments in rapid epidemic control, then those in surveillance.

The deeper and broader interactions with member states that a system of rapid epidemic control entailed grew out of WHO's in-country work that it inherited from the League of Nation's Health Organization and UNRRA's Health Division. During

¹⁰⁷ Carter letter to Finkelman, 10 February 1981.

¹⁰⁸ Ibid.

WHO's first two decades of operation, the Secretariat was engaged in mass eradication campaigns against specific infectious diseases, such as malaria and tuberculosis.

WHO's Interim Committee set up an expert committee on malaria in 1947, that investigated the relevant scientific and technical developments and outlined recommendations for malaria control. Working with the United Nations Children's Fund ("UNICEF"), the Secretariat began sending demonstration teams to countries requesting assistance, and by 1951 was involved in 22 malaria projects, mainly in Asia.¹⁰⁹

That same year, the organization became the coordinator of a global tuberculosis campaign funded by UNICEF.¹¹⁰ To control tuberculosis, the Secretariat dispatched teams, typically consisting of a medical officer, a statistician, a laboratory technician, and a public health nurse, to work within countries for a period of two to four years. By 1960, the campaign had reached 64 countries and territories with 265 million tested for tuberculin and 106 million vaccinated.¹¹¹

The Secretariat launched several successful eradication campaigns, including one against yaws, a tropical bacterial infection that could be cured with shots of penicillin. WHO medical teams went from house to house, treating 1.6 million patients in Haiti by 1953, and 3 million in Indonesia in 1957.¹¹² Most notably, the Secretariat launched its smallpox eradication program in 1958. The organization committed to an all-out eradication effort in 1966¹¹³ that led dozens of experts across the globe in search of outbreaks of the virus and resulted in eradication in 1980.

¹⁰⁹ Glen Williams, 'WHO—The Days of the Mass Campaigns,' *World Health Forum*, vol. 9, no. 1, 1988, p. 14.

¹¹⁰ According to Williams, UNICEF provided most of the funds for vehicles, medical supplies, vaccines, equipment and salaries of WHO staff. *Ibid.*, p. 12.

¹¹¹ *Ibid.*

¹¹² *Ibid.*, pp. 11-12.

¹¹³ *Ibid.*, p. 17.

The Secretariat additionally sent experts on onchocerciasis, also known as river blindness, to areas where the disease was endemic in Sudan in 1956, and provided leprosy consultants to Burma (now Myanmar) and Ceylon (now Sri Lanka) in 1951, and to Ethiopia in 1952. By 1953, countries could request joint UNICEF/WHO assistance for leprosy. Overall, communicable diseases demanded a large proportion of available resources during the second decade of WHO's operation, especially in Southeast Asia where 40% to 50% of total expenditure was devoted to the cause.¹¹⁴ Thus, throughout the first two decades of its existence, the Secretariat became increasingly involved in the control and eradication of infectious diseases—both those covered by the 1969 IHR and those beyond its reach.

Mass eradication campaigns fell out of fashion by the 1970s, but communicable disease remained a key area of the Secretariat's work. The Expanded Programme on Immunization was created in 1974 to immunize the world's children against diphtheria, measles, poliomyelitis, tetanus, tuberculosis, and whooping cough. Since 1974, coverage of children under one year of age in developing countries rose from below 5% to 50% in 1987, and 80% in 1994.¹¹⁵ The Special Programme in Research and Training in Tropical Diseases was established in 1975 as a collaborative venture between UNICEF, the United Nations Development Programme ("UNDP"), the World Bank, and WHO. The program's mission was to improve and develop new approaches for preventing, diagnosing, treating, and controlling neglected infectious diseases.

Although the Secretariat had a legal mandate under the 1969 IHR that was distinct from its work under other infectious disease programs, these projects were hard to keep separate from each other in practice. Tasks carried out under the regulations

¹¹⁴ World Health Organization, *The Second Ten Years of the World Health Organization: 1958-1967*, p. 17.

¹¹⁵ These figures are for all vaccines except measles. Yves Beigbeder, 'Challenges to the World Health Organization,' in *The Politics of Emerging and Resurgent Infectious Diseases* (New York, NY: St. Martin's Press, 2000), p. 183.

and those performed outside the regulations overlapped in issue area and disease, required the same expertise and resources, and yet conflicted in methodology and objective. The Secretariat's overlapping and nested infectious disease work thus enabled the organization to build the capacities, experience, and knowledge for a new approach to infectious disease control—one fundamentally at odds with the narrow mandate and approach of the 1969 IHR.

The decades of mass campaigns afforded the Secretariat learning opportunities in assembling and dispatching mobile teams of international experts as well as setting up special clinics in remote areas around the world. The Secretariat also built up an extensive network of collaborating centers that provided technical expertise and resources for diagnosis, research, and epidemic response. This system of collaborating centers originated from WHO's founding, and now consists of over 800 institutions in more than 80 member states supporting WHO programs.¹¹⁶ Specifically, the global network for communicable diseases consists of over 150 public health, medical, and academic institutions worldwide.¹¹⁷ The growth of this network meant that there were human, medical and laboratory resources that the Secretariat could call upon and a history of working relationships on which to build future pursuits.

These early activities were crucial to later developments, but they were not initially aimed at replacing the barrier approach. Most of the eradication and control campaigns were long-term ongoing projects that addressed endemic infectious diseases rather than swiftly formed operations responding to emergency situations. Additionally, technical assistance typically had to be applied for by national governments, and required the navigation of lengthy bureaucratic processes in order to access a limited pool of resources—a process not suitable for responding to acute crises.

¹¹⁶ World Health Organization, 'Collaborating Centres Fact Sheet' [website].

¹¹⁷ World Health Organization, 'Networks of WHO Collaborating Centres: Communicable Diseases' [website].

But this began to change in 1976 with the emergence of the previously unknown viral disease, Ebola hemorrhagic fever, in Zaire (now Democratic Republic of the Congo).¹¹⁸

The 1976 Ebola outbreak in Zaire

The first recognized case of Ebola viral hemorrhagic fever occurred in Yambuku village, Zaire, and began showing symptoms on 1 September 1976. News of the outbreak reached the international community through informal contacts. According to Laurie Garrett, Zaire's Minister of Health reached out to an American physician who in turn notified the US Centers for Disease Control requesting laboratory support, and international agencies also became involved.¹¹⁹

An International Commission composed of specialists from WHO's Secretariat, the United States, Canada, Belgium, France and South Africa was formed on 18 October. The Commission was directed by Zaire's Minister of Health, Dr. Nguété Kikhela, and its mission was to aid local authorities investigate the cause, clinical manifestations, and epidemiology of the disease as well as to advise and assist with measures for control. A survey team was sent to Zaire on 19 October and mobile teams were airlifted to the site of the epidemic to search for cases.¹²⁰ By 2 November, convalescent plasma from patients in Kinshasa who had survived the infection was obtained for treatment. The last patient died on 5 November and the emergency officially ended on 16 December.

This international response was coordinated by the Secretariat, which drew on the support of its collaborating centers and enlisted high-security laboratories around the world to determine the cause of the outbreak. Even as the International

¹¹⁸ Zaire is now the Democratic Republic of the Congo.

¹¹⁹ Laurie Garrett, *The coming plague: newly emerging diseases in a world out of balance* (New York, NY: Farrar, Straus and Giroux, 1994), p. 107.

¹²⁰ All dates are from a chronology of events found in a report of the International Commission published by WHO. World Health Organization, 'Ebola haemorrhagic fever in Zaire, 1976,' *Bulletin of the World Health Organization*, vol. 56, no. 2, 1978, p. 273.

Commission was being formed, blood and tissue samples from patients were sent to laboratories in the United States, the United Kingdom, Belgium, West Germany and France for investigation.¹²¹ By mid-October, the cause of the outbreak was identified as a previously unknown virus.

The magnitude of this response was unprecedented: in a matter of days, over 500 skilled investigators became involved in the response effort, with resources coming from numerous European and American institutions and at an indirect cost of over US\$10 million.¹²² 1976 marked the first time the Secretariat led a rapid international response to an acute epidemic emergency.

The incident in Zaire subsequently gained wider implications as the Secretariat drew lessons from the experience. In January 1977, the Secretariat sponsored a consultation of the members of the International Commission. The members had become intimately familiar with the challenges of mounting a rapid international response and put forward a series of concrete recommendations. Chief among them was the suggestion that the Secretariat undertake the responsibility of playing a central and proactive role in controlling acute crises. The Commission proposed that, in response to requests for assistance from the country experiencing an outbreak, WHO should identify the resources necessary to combat the epidemic and coordinate international efforts.¹²³ The Commission named three categories of resources—personnel, equipment and supplies, and funds—and formulated suggestions for WHO's role in managing each. Since such a response would “require coordination of efforts by numerous countries,” members of the International Commission advised that “[i]n anticipation of the occurrence of future episodes, WHO should prepare specific and

¹²¹ Garrett, *The coming plague: newly emerging diseases in a world out of balance*, p. 109.

¹²² *Ibid.*, p. 116.

¹²³ World Health Organization, 'Viral Haemorrhagic Fever,' *Weekly Epidemiological Record*, vol. 52, no. 22, 1977, pp. 185-186.

detailed operational plans for undertaking surveillance, epidemiological studies, laboratory support, logistics and communications, dissemination of...information and identification and efficient utilization of resources existing in Member countries which might be called upon in the future.”¹²⁴

After the 1976 Ebola outbreak was contained, a preliminary program was set up to facilitate a rapid response in case Ebola resurfaced.¹²⁵ The program was short-lived and was subsequently dismantled when the virus seemed to disappear,¹²⁶ but the new epidemiological approach persisted in other ways. In Carter’s 1979 memorandum recommending against a revision of the 1969 IHR, he noted that the Committee on International Surveillance of Communicable Diseases had conducted that same year a series of informal consultations on subjects such as the management of emergencies caused by “unusual” diseases and the “preparation of a document explaining how WHO responds to emergencies caused by epidemic diseases including respiratory diseases, shock and haemorrhagic syndromes, hepatitis, diarrhoeal diseases including cholera and paralytic and neurological conditions.”¹²⁷ Thus, beginning with the 1976 Ebola outbreak, the Secretariat worked to build an epidemiological approach alongside the barrier approach through more active involvement in responding to an array of epidemic emergencies.

During the following two decades, the epidemiological approach to managing infectious disease outbreaks was increasingly applied and became gradually systematized. With many emerging and re-emerging outbreaks occurring in developing countries during that period, there was no shortage of opportunities for the Secretariat to assume international leadership in offering assistance. The Secretariat took active part

¹²⁴ Ibid., p. 186.

¹²⁵ Author personal communications with Mary Kay Kindhauser, Policy Analyst/Writer, World Health Organization, February 2008.

¹²⁶ Ibid.

¹²⁷ Carter memorandum to Mahler, 13 December 1979.

in containing epidemics of yellow fever in Kenya in 1992 and 1993, Ebola in Zaire in 1993, Ebola in Côte d'Ivoire in 1994, plague in India in 1994 and Ebola in Zaire once again in 1995. In 1993, the Secretariat also held a meeting of the directors of WHO collaborating centers for arboviruses and hemorrhagic fevers to discuss available technologies and resources for addressing emerging and re-emerging diseases.¹²⁸

Throughout this time, there was evidence of a changing understanding of the role of the barrier approach. In a number of documents and official publications, the 1969 IHR was increasingly framed not as an independent mandate that stands on its own, but as one aspect of a larger strategy for infectious disease control. The WHO report on the functioning of the IHR in 1985 documented not only the status of cholera, plague, and yellow fever, but also included a section on “other diseases,” including influenza, malaria, and poliomyelitis.¹²⁹ Notifications under the barrier approach gradually occupied a smaller and smaller part of the Weekly Epidemiological Record, constituting only one small paragraph at the end of a lengthy report by the early 1980s.

New tools for infectious disease surveillance

An epidemiological approach to disease control required not only a system for quickly responding to epidemic emergencies but also an “open and rapid interchange of information.”¹³⁰ The development of the Secretariat’s capacity for surveillance paralleled that for rapid epidemic response. Surveillance efforts initially grew from the Secretariat’s other infectious disease work that existed alongside the barrier approach. Those efforts led the Secretariat to perceive a need for comprehensive surveillance instruments and then to create them.

¹²⁸ World Health Organization, ‘Report of a Meeting of the Directors of WHO Collaborating Centres for Arboviruses and Haemorrhagic Fevers: Atlanta, Georgia, USA, 28-29 October 1993,’ WHO/CDS/MIM/93.1, 1993.

¹²⁹ This section was omitted in the reprint of the report in volume 61, number 50 of the Weekly Epidemiological Report, but is in the original report located in the WHO Archives for the 1969 IHR.

¹³⁰ World Health Organization, ‘The long-term future of the International Health Regulations,’ p. 440.

WHO's early history saw the Secretariat engage in two programs that influenced the subsequent development of surveillance schemes. The first was the influenza program, which had been administered by the Secretariat since WHO's establishment. Under that program, the Secretariat began coordinating an on-going process of vaccine development by collecting information on viral strains and epidemiological trends through an informal network and then communicating recommendations for the content of vaccines to manufacturers.¹³¹ By 1967, the network consisted of about thirty international and regional reference centers.¹³²

The influenza network operated as an early warning system for the emergence of influenza variants and novel strains. According to a WHO report, the network is "reliable and sufficiently sensitive to pick up any new influenza virus with pandemic potential and any outbreak of unusually severe illness and rapid spread."¹³³ Until the 2005 IHR came into effect, this surveillance system operated for decades on a voluntary basis, with participation primarily from developed countries.¹³⁴ Information and viral samples collected by national laboratories were willingly shared, and private companies used the samples to manufacture vaccines for which there was a predictable market in the developed world.

Another significant program was the smallpox eradication campaign of the 1960s and 1970s. To achieve eradication, surveillance was crucial in identifying and then controlling remaining cases. According to a WHO publication, the "[c]oncept of simple surveillance has been a legacy...from the smallpox eradication program in

¹³¹ The primary measure for preventing and controlling influenza epidemics was and still is vaccination. But because the influenza virus is constantly changing, vaccines must be modified each year to be effective against the currently circulating strain.

¹³² World Health Organization, *The Second Ten Years of the World Health Organization: 1958-1967*, pp. 112-113. By 2003, the network consisted of more than 100 national influenza centers in 83 countries and four WHO Collaborating Centres. World Health Organization, *Global defence against the infectious disease threat*, p. 70.

¹³³ World Health Organization, *Global defence against the infectious disease threat*, p. 70.

¹³⁴ Author interview with David Nabarro, UN Senior Coordinator for Avian and Human Influenza, Oxford, 3 March 2008.

which it was so effective that the initial cases of monkeypox and outbreaks of Lassa fever and Ebola fever were detected by this method.”¹³⁵

Surveillance of particular diseases also became an aspect of innumerable other programs. For instance, surveillance of hemorrhagic fever began in 1964, with a program in WHO’s South East Asia and Western Pacific Regions based on a network of hospitals and laboratories.¹³⁶ In 1965, a European network of national reference centers was developed to survey salmonellosis.¹³⁷ The Secretariat subsequently started disseminating data on salmonellosis through reports in 1967.

One consequence of these efforts to survey diseases beyond the scope of the regulations was the gradual formation of an informal global network through which “experts [received] calls from foreign colleagues requesting advice and assistance when an unusual outbreak [occurred].”¹³⁸ Composed of WHO collaborating centers, national governments and agencies, and non-governmental organizations, this network incidentally picked up news of diseases covered by the regulations as well as information about epidemics of emerging and re-emerging diseases that in turn allowed response activities to be initiated.

These surveillance efforts also led the Secretariat to recognize the importance of actively collecting disease information rather than relying on member states to report it. During the 1960s, the Secretariat replaced the principle of epidemiological intelligence, which was the cornerstone of the barrier approach, with the idea of epidemiological surveillance as “part of a strategy designed to move away from the concept that disease

¹³⁵ World Health Organization, 'The long-term future of the International Health Regulations,' p. 440.

¹³⁶ World Health Organization, *The Second Ten Years of the World Health Organization: 1958-1967*, p. 97.

¹³⁷ Ibid.

¹³⁸ National Science and Technology Council, Committee on Science, Engineering, and Technology, *Infectious Disease—A Global Health Threat* (Washington, DC: U.S. Government Printing Office, 1995).

prevention could be accomplished only by quarantine measures.”¹³⁹ Epidemiological surveillance was defined as the “continuous scrutiny of the distribution and spread of infections, prediction of the development of potentially dangerous situations, and the collection of data of sufficient accuracy and completeness to be pertinent to effective control.”¹⁴⁰ According to the Secretariat, epidemiological surveillance was a more effective way to address infectious disease:

On a worldwide basis, the International Sanitary Regulations deal mainly with the quarantinable diseases (plague, cholera, yellow fever, smallpox, typhus, relapsing fever). A new approach, that of epidemiological surveillance, has been introduced; it aims at providing a broader and more reliable basis for an understanding of the epidemiological situation, for decisions on public health matters and for the planning, implementation and evaluation of control measures, and a more complete indication of changing patterns in communicable disease, forecasting epidemic development.¹⁴¹

As a result of this reorientation, the Secretariat established a Unit of Epidemiological Surveillance, which in 1968 was merged with the Unit of Quarantine¹⁴² that housed infectious disease law. For this reason, the Committee on International Quarantine, which was established under the 1951 International Sanitary Regulations to settle disputes and update the law, was renamed the Committee on International Surveillance of Communicable Diseases in the 1969 revision. The combined program, called Epidemiological Surveillance, worked to strengthen national surveillance programs. The Secretariat prepared manuals on the surveillance of nine diseases in 1971—four under the regulations and five beyond the regulations—as well as a general guide on surveillance of communicable diseases in 1975.¹⁴³ The

¹³⁹ World Health Organization, *The Second Ten Years of the World Health Organization: 1958-1967*, p. 96; World Health Organization, *The Third Ten Years of the World Health Organization: 1968-1977*, pp. 175-176.

¹⁴⁰ World Health Organization, *The Second Ten Years of the World Health Organization: 1958-1967*, p. 95.

¹⁴¹ *Ibid.*, p. 94.

¹⁴² World Health Organization, *The Third Ten Years of the World Health Organization: 1968-1977*, pp. 175-176.

¹⁴³ *Ibid.*, pp. 176-177.

Secretariat also provided training for epidemiologists from developing countries through fellowships and gave international and regional seminars on methods of surveillance.¹⁴⁴ Infectious disease regulation was thus effectively subsumed under a larger and—according to the Secretariat—superior infectious disease agenda.

Relegation of the 1969 IHR to a lower status is evident in Director-General Candau's 1970 decision to publicize information regarding an outbreak of cholera in Guinea despite the lack of reporting from the member state.¹⁴⁵ The Secretariat justified this unprecedented—and unauthorized under the 1969 IHR—act of reporting by reference to a broader mandate: “in order to fulfil the Organization's obligations under Article 2 of the WHO Constitution, the presence of cholera should be disclosed in the absence of notification when reliable technical evidence is available.”¹⁴⁶ The implication was that the Secretariat's wider and more ambiguous mandate under WHO's Constitution took priority over its narrower mandate under the 1969 IHR. This argument had little legal or historical basis.

The report on the 1969 IHR's functioning in 1985 argued that surveillance should not be considered a legal obligation but rather a part of a greater infectious disease control strategy:

The annual report requested from each country should not be regarded as a procedure whereby the organization checks up on the way Member States fulfil their obligations in accordance with the commitments they made when agreeing to be bound by the IHR. This report represents one of the ways in which epidemiological information circulates among countries, with the assistance of the Organization's Secretariat.... It goes without saying that submission of an annual report would not be

¹⁴⁴ World Health Organization, *The Second Ten Years of the World Health Organization: 1958-1967*, p. 95; World Health Organization, *The Third Ten Years of the World Health Organization: 1968-1977*, p. 176.

¹⁴⁵ The Secretariat reported, “[i]t is known to the Organization that a serious outbreak of cholera...with at least 2000 cases and more than 60 deaths has occurred” in Guinea. World Health Organization, 'Cholera: Situation in the Eastern Mediterranean and Africa,' p. 377.

¹⁴⁶ Ibid.

sufficient in isolation, because unusual events need to be detected and brought to the notice of other countries as and when they happen.¹⁴⁷

The report further stated that “[p]riority is given to diseases or risk factors known to threaten international health,” which could “range from diseases requiring official notification under the International Health Regulations...through the major communicable and noncommunicable diseases to ill health linked to occupations, foods, or life-style and behavior.”¹⁴⁸ This increasing emphasis of surveillance beyond the diseases regulated by the 1969 IHR paved the way for the Secretariat to undertake more extensive, proactive, and comprehensive surveillance.

With the popularization of the internet in the 1990s, the Secretariat saw new possibilities and played a key role in developing two global surveillance tools: the Program for Monitoring Emerging Diseases (“ProMED”), and the Global Public Health Information Network (“GPHIN”). By the 1990s, there was a growing number of medical professionals outside of the Secretariat concerned with emerging and re-emerging infectious diseases, and they served as collaborating partners for the Secretariat’s efforts.

ProMED was created in 1993 by attendees at a conference co-sponsored by WHO’s Secretariat and the Federation of American Scientists. It is an e-mail based system for providing early warnings of emerging epidemics involving humans, animals, and plants. ProMED began as an e-mail list that allowed conference attendees to stay in touch and share news in their field of work. Its initial 40 subscribers grew to hundreds within a few months as other colleagues joined. In November 1994, ProMED opened to the public at no subscription cost, and the number of subscribers continued to rise hitting 11,000 by the end of 1997. By April 2004, ProMED reached 34,025 direct

¹⁴⁷ World Health Organization, 'Functioning of the International Health Regulations for the Period 1 January to 31 December 1985,' pp. 385-386.

¹⁴⁸ Ibid.

subscribers in over 180 countries in addition to secondary disseminators, and its website was receiving approximately 40,000 visits per month.¹⁴⁹ Its subscribers include WHO personnel, UN humanitarian agencies, the Federation of International Red Cross, the American Centers of Disease Control, the Canadian Laboratory Centres for Disease Control, the British Public Health Laboratory Service, the Japanese National Institute of Health, as well as national health ministries worldwide and interested members of the public.

ProMED multiplied the sources of information by empowering individual doctors and experts to report their experiences, and increased the number of recipients of information. Over the years, it has posted various notable reports including the 1995 Ebola outbreak in Zaire, the 1996 cholera outbreak in the Philippines, and the Ebola outbreak in Gabon that same year. The two latter cases were publicized on ProMED before WHO was authorized to report the events on its electronic bulletin.

GPHIN was developed in the mid-1990s as a cooperative venture between Health Canada and the Secretariat. Like ProMED, GPHIN serves as a surveillance mechanism for detecting early warnings of disease outbreaks. It gathers information by monitoring global media sources 24 hours a day, seven days a week. Using news aggregators such as Factiva,¹⁵⁰ GPHIN filters items first through an automated scanning system that identifies a custom-built taxonomy of keywords, and then by human analysts working in multiple languages. GPHIN's subscription is restricted to organizations with an established public health mandate. By 2007, GPHIN had approximately 200 subscribers that included the public health community—for example, WHO, the American Centers of Disease Control, and the European

¹⁴⁹ Lawrence C. Madoff and John P. Woodall, 'The internet and the global monitoring of emerging diseases: lessons from the first 10 years of ProMED-mail,' *Archives of medical research*, vol. 36, no. 6, 2005, p. 728.

¹⁵⁰ Factiva aggregates thousands of news sources in 28 languages from nearly 200 countries. Factiva, 'Sources' [website].

Commission Centre for Disease Prevention and Control—military agencies, and private entities such as insurance companies and oil rigs.¹⁵¹

WHO officials used both ProMED and GPHIN during the 1990s to identify outbreaks occurring around the world. The Secretariat reported that between July 1998 and August 2001, it verified 578 outbreaks in 132 countries, 56% of which were initially picked up by GPHIN.¹⁵² Many of the most frequently reported outbreaks were diseases outside of the 1969 IHR, including meningitis, hemorrhagic fever, anthrax, and viral encephalitis.¹⁵³

The use of informal sources of disease information became routine during the 1990s as a result of these new electronic surveillance mechanisms. The effect was to “break down the traditional reluctance of countries to report outbreaks due to fear of the negative impact on trade and tourism.”¹⁵⁴ Moreover, the Secretariat had by this time begun systematically offering technical assistance to help contain acute epidemics, thereby providing some incentive for countries, particularly developing ones, to verify outbreak rumors.

The steps of treaty making

Given its development up until 1995, the epidemiological approach seemed poised to crowd out the barrier approach, which had already been subsumed as a part of a larger epidemiological strategy. But we know that that did not happen because a 1995 Health Assembly resolution requesting the Director-General to prepare a revision of the 1969 IHR eventually led to the formal displacement of the 1969 IHR by the 2005 IHR ten years later. In other words, the move from the barrier to the epidemiological

¹⁵¹ Author interview with Abba Mawudeku, Chief of Global Public Health Information Network, Centre for Emergency Preparedness and Response, Public Health Agency of Canada, Ottawa, 5 January 2007.

¹⁵² World Health Organization, *Global defence against the infectious disease threat*, p. 60.

¹⁵³ Ibid.

¹⁵⁴ Ibid.

approach initially occurred through a combination of drift and layering, but was ultimately completed through displacement.

The analysis in this chapter makes clear that the Secretariat began developing the architecture of the 2005 IHR and the epidemiological approach decades before the formal revision process began in 1995. The Secretariat's gradual work building effective systems for rapid epidemic response and surveillance maps directly onto the content of the 2005 IHR. Under the 2005 IHR, in addition to receiving notifications from member states, WHO must actively collect information regarding infectious disease events through its own surveillance activities and assess the potential of such events to cause international disease spread and to interfere with international traffic.¹⁵⁵ Unlike the 1969 IHR, the 2005 IHR allows WHO to take into account infectious disease reports from any source.¹⁵⁶ When WHO uncovers epidemic information from sources other than the country in which the outbreak is occurring, it must consult with and try to verify the reports with that country.¹⁵⁷ Additionally, WHO must, at the request of a state party, collaborate with that state to respond to public health risks, which may include the mobilization of international teams for on-site assistance.¹⁵⁸ The Secretariat performed each of these tasks as early as the 1970s and with increasing regularity thereafter.

Viewed from a treaty making perspective, the Secretariat's informal and autonomous work creating the epidemiological approach within the ambiguity of existing rules also constituted early steps in the treaty making process. Recall from Chapter 2 that the earliest phase of treaty making is characterized by confusion, diagnosis of the problem, development of a common body of knowledge, search for

¹⁵⁵ 2005 IHR, Article 5, ¶ 4.

¹⁵⁶ Ibid., Article 9.

¹⁵⁷ Ibid., Article 10.

¹⁵⁸ Ibid., Article 13, ¶ 3.

possible solutions, and the conception of a framework for later agreement. Each of these steps was well underway before formal revision was initiated in 1995.

The genesis of the epidemiological approach began in the mid-twentieth century with confusion about the continued significance of infectious disease as a threat to public health. While many western medical professionals believed infectious disease to be essentially conquered after WWII, others were more cautious. In particular, Deputy Director-General Dorolle expressed concern about the rise of air travel, contributing to the reality of a “world on the move,” and warned about the continued risk posed by smallpox, cholera, yellow fever, influenza, typhoid, and other infectious diseases particularly for developing countries.¹⁵⁹ These concerns were echoed by American Nobel Prize winner Joshua Lederberg, who, in 1970 wrote to Dorolle concerning his above admonitions: “I had not before seen such a frank discussion of the possibilities of renewed outbreaks of pandemic disease, an issue whose neglect has troubled me for some time.”¹⁶⁰

Amidst this confusion, members of WHO’s Secretariat began recognizing, diagnosing, and characterizing a new problem. Based on WHO’s day-to-day operations, the Secretariat observed that a novel challenge was emerging, and explored the issue in mutual correspondence and technical publications. The Secretariat linked the contemporary infectious disease challenge to the failure of the barrier approach, and, consequently, the need for a new order.

Once the challenge of emerging and re-emerging infectious diseases was defined and the inadequacy of the barrier approach diagnosed, the Secretariat began exploring both the substance and form of new solutions. In 1968, Dorolle suggested

¹⁵⁹ Dorolle, 'Old plagues in the jet age: International aspects of present and future control of communicable disease,' pp. 789-792.

¹⁶⁰ Joshua Lederberg, Professor of Genetics, Stanford University, letter to Pierre Dorolle, Deputy Director-General, World Health Organization, 28 January 1970, from Profiles in Science: The Joshua Lederberg Papers, National Library of Medicine.

that the best way to control the international spread of disease was to survey, detect, record, and notify all communicable diseases—tasks for which domestic and international bodies should be jointly responsible.¹⁶¹ For WHO this meant significant changes. The organization needed to create a surveillance system and build the capacity to provide “economic and technical assistance...to the less-favoured countries.”¹⁶²

This framework for a new solution was then experimented with in practice. The Secretariat’s role in the 1976 international response to Ebola hemorrhagic fever in Zaire led to the recommendation that WHO should continue to play a proactive role in coordinating the response to acute infectious disease crises. Over the next two decades, the Secretariat continued to devise solutions and test them through application. By 1996, the Secretariat reported that it could “mobilize staff and place teams on site within 24 hours of notification of an outbreak, together with the supplies and equipment required to implement epidemic control measures.”¹⁶³

In the course of defining the issue and devising solutions, the Secretariat also gathered a significant body of knowledge about the nature of the contemporary infectious disease threat and the effectiveness of its new approach. By the mid-1990s, the Secretariat had persuasive data showing the growing impact of communicable disease on human health and an evidentiary basis for recommending its epidemiological solution.

Three key reports summarized the Secretariat’s knowledge and experience accumulated over the previous decades. A 1993 report of a meeting of the directors of WHO collaborating centers for arboviruses and haemorrhagic fevers described the

¹⁶¹ Dorolle, 'Old plagues in the jet age: International aspects of present and future control of communicable disease,' p. 792.

¹⁶² Ibid.

¹⁶³ World Health Organization, *The World Health Report 1996: Fighting disease, Fostering development* (Geneva: World Health Organization, 1996), p. 64.

consequences of epidemics, including outbreaks of dengue hemorrhagic fever, pandemic cholera, diphtheria, yellow fever, Rift Valley fever, and hantavirus.¹⁶⁴ A 1994 report of a meeting that convened international experts on emerging and re-emerging infectious diseases discussed ways of responding to the problem and reviewed WHO's role and activities in the area.¹⁶⁵ At the meeting, Director-General Ralph Henderson remarked: "We have for many years played a key role in responding to emerging microbial threats to health."¹⁶⁶ The 1996 World Health Report, WHO's leading annual publication, recounted the struggle to control numerous infectious agents, analyzed background factors—such as migration, education, population growth, and urbanization—contributing to the crisis, examined individual infectious diseases by mode of transmission, and provided a region-by-region summary of the infectious disease threat.¹⁶⁷ The report warned that infectious disease "remains the world's leading cause of death, accounting for at least 17 million (about 33%) of the 52 million people who die each year," and declared that "we...stand on the brink of a global crisis in infectious diseases."¹⁶⁸

These publications also commented on the pervasive attitude of complacency towards infectious disease, and the inadequacy of existing infrastructure and resources. They noted an overall diminution of communicable disease programs, a deterioration of laboratory capacity and surveillance efforts, and a loss of technical expertise in traditional infectious disease. The conclusion across the three reports was clear: "we must concentrate first on rebuilding our foundations in communicable diseases, if we are to have the capability to address new challenges of emerging and re-emerging

¹⁶⁴ World Health Organization, 'Report of a Meeting of the Directors of WHO Collaborating Centres for Arboviruses and Haemorrhagic Fevers,' WHO/CDS/MIM/93.1.

¹⁶⁵ World Health Organization, 'Report of WHO Meeting on Emerging Infectious Diseases: Geneva, Switzerland, 25–26 April 1994,' CDS/BVI/94.2, 1994.

¹⁶⁶ *Ibid.*, p. 13.

¹⁶⁷ World Health Organization, *The World Health Report 1996: Fighting disease, Fostering development*.

¹⁶⁸ *Ibid.*, pp. v, 1.

infections.”¹⁶⁹ The 1994 report concluded with four broad goals for the international community that were in line with the epidemiological approach: (1) strengthen global surveillance, (2) strengthen the international infrastructure for recognizing, reporting and responding to emerging infectious diseases, (3) create an applied research program, and (4) strengthen the international capacity for infectious disease prevention and control.¹⁷⁰

The Secretariat’s infectious disease activities from the 1960s to the 1990s effectively narrowed the parameters of future negotiation and developed a framework within which a potential agreement might be reached. During these three decades of defining the issue, exploring solutions, and developing a body of knowledge, the Secretariat formulated a general vision of what a new IHR might look like: the Secretariat would conduct independent surveillance; reporting would be based on public health significance rather than a closed list of notifiable diseases; and the Secretariat would coordinate international efforts to help control epidemics at their source.

Concluding thoughts

This chapter has argued that, by the time of WHO’s establishment, developed and developing member states alike had little interest in maintaining an antiquated system of infectious disease management. While developed countries no longer perceived infectious diseases as a meaningful threat and developing countries focused on their broader health systems needs, the Secretariat, based on the medical judgments of its top professional staff members, formulated its independent idea of what good infectious disease policy entailed. But due to the lack of political support amongst member states for a new set of infectious disease regulations, the Secretariat

¹⁶⁹ World Health Organization, ‘Report of WHO Meeting on Emerging Infectious Diseases,’ CDS/BVI/94.2, p. 1.

¹⁷⁰ Ibid., pp. 8-11.

strategically allowed the barrier approach to drift into irrelevance while taking the decisive first move to build a new approach.

During the decades prior to 1995, the Secretariat pursued its autonomous vision of how infectious disease should be addressed by operating within the ambiguity of existing rules. Instead of effecting any formal change, it navigated WHO's broad mandate, nested and overlapping infectious disease programs, complex web of external partners, and fractured funding base. Not only did the Secretariat eschew a legal revision of the 1969 IHR, but its pre-1995 work on the epidemiological approach also lacked programmatic approval from the Health Assembly, meaning that it was not set up as an independent program that could be designated its own funding in the budget. In this way, the Secretariat's early work on the epidemiological approach was funded through the budgetary allocations of existing programs and through the support of external partners.

Because the Secretariat pursued the epidemiological approach informally and without member state demand, it faced financial and political constraints. To successfully operate within the ambiguity of existing rules, the Secretariat's informal work on the epidemiological approach had to remain small in scale and politically uncontroversial. The epidemiological approach thus grew from voluntary interactions with member states and external partners, as in the 1976 response to the Ebola outbreak in Zaire. By appealing to developing countries' need for technical assistance to control epidemic crises for which domestic capabilities were insufficient, and working with external collaborators to develop internet tools, the Secretariat was able to build its capacity for rapid epidemic control and surveillance in a politically low-profile way. In all of these activities, incursions into national sovereignty were not an issue and the Secretariat did not face opposition from the core group of donor states.

In gradually building the epidemiological approach, the Secretariat was also undertaking the early steps of treaty making for a future revision of the barrier approach. The Secretariat confronted confusion, diagnosed a new problem, devised and experimented with a new solution, gathered a body of knowledge, and narrowed the parameters of future negotiation. In Chapter 2, I concluded that the negotiation process for the barrier approach was characterized by long and frequent formal intergovernmental negotiations in part because these difficult early steps of treaty making were undertaken at the formal negotiating table and in the aftermath of politically contentious infectious disease crises. By contrast, the early steps of creating the 2005 IHR occurred informally and in areas where no member state opposed. Some of the difficulties associated with negotiating a new law were thus circumvented through the low-profile, advanced testing of practices on the ground. By building a body of knowledge about the infectious disease problem and collecting evidence on the effectiveness of a new solution outside of politically sensitive settings, the Secretariat lowered the cost and length of subsequent formal negotiations and reduced the uncertainty surrounding the impact of a new agreement.

Additionally, unlike the barrier approach, which was created by powerful European countries for their own protection, the epidemiological approach was initially formulated through interactions with developing member states and premised on their need for technical assistance. By creating a framework for agreement that offered something of value to developing countries, the Secretariat fostered a different power dynamic than might have otherwise prevailed had member states sought to create a new infectious disease law through direct intergovernmental interactions and without WHO's assistance.

This chapter has charted the Secretariat's discretionary creation of the epidemiological approach on an informal basis. The next chapter addresses the question of how the Secretariat's informal, low-profile work became the subject of a high-profile intergovernmental negotiation.

Chapter 5

IN THE POLITICAL SPOTLIGHT: WHO RESPONDS TO BIOTERRORISM AND SARS

In the previous chapter, I argued that long before the Health Assembly requested the Director-General to revise the 1969 IHR in 1995,¹ the Secretariat had informally started building a new way of managing infectious disease. During the decades prior to 1995, the barrier approach drifted toward irrelevance as the Secretariat autonomously created the epidemiological approach alongside it. These underlying shifts occurred despite an outward appearance of stability, and signified an unmooring of agent goals from principal interests. Though member states never demanded a new system for infectious disease regulation, the Secretariat perceived a medical need for such a system and proceeded to devise it within the ambiguous spaces of existing rules and to implement it in developing countries that needed technical assistance.

On the eve of 1995, the epidemiological approach seemed on a trajectory to crowd out the barrier approach by default. But instead, ten years later, the 2005 IHR formally displaced the 1969 IHR. This chapter examines how the processes of drift and layering turned into formal displacement during the intervening decade—in other words, what prompted and enabled the Secretariat to change course after having decided, due to lack of member state political interest, to build the capacity for surveillance and rapid response on the ground rather than to rewrite the law.

I argue that the Secretariat changed course because it came upon opportunities to expand and attract more funding for the epidemiological approach, which, by 1995, was a fully operational solution to the contemporary infectious disease problem that had

¹ World Health Organization, World Health Assembly Resolution ‘Revision and updating of the International Health Regulations,’ WHA48.7, 12 May 1995.

been tested and shown to be effective. The Secretariat seized those opportunities, framing and “selling” the epidemiological approach so as to cultivate support amongst member states for its existing work. In so doing, the Secretariat exercised a different kind of autonomy than described in Chapter 4 and faced a different set of constraints. To induce member states to demand what the Secretariat had already created, it adapted the epidemiological approach to respond to the concerns of powerful member states and to meet the needs arising from pressing and controversial current events. In short, the Secretariat worked to narrow the gap between agent goals and principal interests both by adjusting the epidemiological approach and by managing and directing member state preferences and external events.

The transformation of a series of low-profile, informal practices residing within the ambiguity of existing rules into the basis for a high-profile international legal negotiation occurred in three steps. First, the Secretariat formalized the epidemiological approach and opened up new funding options by channeling the growing concern of medical experts within powerful countries about emerging infectious diseases during the early 1990s. The Secretariat convened an expert consultation, authored a technical report, and proposed a resolution to the 1995 Health Assembly that gave itself post hoc approval for and a mandate to further the work it had begun decades earlier.

Second, the Secretariat legalized the epidemiological approach by directing another 1995 Health Assembly resolution, this one jointly proposed by three countries and requesting the Director-General to prepare a revision to the 1969 IHR, toward codifying its existing practices. The Secretariat was able to do this because the resolution received little attention at the Health Assembly and did not specify how, when, or to what effect the 1969 law should be changed. To raise the political profile

of the revision process, the Secretariat cast the new law's scope as broadly as possible, explicitly including in its ambit the intentional or accidental release of biological agents—a subject of known interest to the United States.

Third, the Secretariat took controversial and unprecedented actions for which it had no legal authority during the 2003 SARS epidemic, making a new set of infectious disease regulations urgently necessary. Faced with the pressure of a rapidly spreading disease, the majority of member states welcomed the Secretariat's assumption of the role of global coordinator, enabling it to take contentious actions that were actively opposed by a minority of states in order to bring the epidemic under control. By making its own actions in regulating the SARS crisis the subject of political contestation, the Secretariat drew member states to the negotiating table to create a new international law on the basis of an approach the Secretariat had designed and a negotiating text the Secretariat had drafted.

Formalizing the epidemiological approach

Though still low on the political agenda, the topic of emerging and re-emerging infectious diseases was, by the early 1990s, gathering attention in the medical communities of developed countries, including the United States. In 1992, the Institute of Medicine of the United States National Academy of Science published a book entitled *Emerging Infections: Microbial Threats to Health in the United States*.² This influential book was co-authored by American Nobel Prize winner and co-chair of the Institute of Medicine's Committee on Emerging Microbial Threats to Health, Joshua Lederberg, who had been concerned about the infectious disease threat for several decades and had corresponded with Deputy Director-General Dorolle on the subject

² Joshua Lederberg, Robert E. Shope and Stanley C. Oaks Jr, *Emerging infections: microbial threats to health in the United States* (Washington, DC: National Academy Press, 1992).

back in 1970.³ The book warned that the threat of infectious diseases to human life may intensify in coming years and recommended that the United States become better prepared to recognize and respond to this risk.⁴ Its publication led to the development of programs for addressing emerging infectious diseases within the American and Canadian health departments. These national initiatives noted the global nature of the threat of emerging diseases and the need to work with the World Health Organization.⁵

The 1995 infectious disease resolution

As the subject of emerging infectious diseases gained more traction amongst national medical experts, the Secretariat took steps to direct their attention and influence toward gaining formal approval for the epidemiological approach. The Secretariat repeatedly engaged in a pattern of conduct whereby it convened expert consultations, invoked its medical expertise to acquire post hoc approval for existing practices that were being carried out on a small scale and a voluntary basis, and then formalized and expanded the practices through institutional restructuring.

As mentioned in Chapter 4, the Secretariat convened a meeting in 1994 of “experts currently dealing with the concept of emerging diseases.”⁶ The meeting assembled 22 national experts from around the world, including 11 from the United States, to present and discuss their efforts and accomplishments with each other and with members of the Secretariat.⁷ As a result of the conference and the accord expressed by national experts, the Secretariat concluded that its existing efforts should

³ Joshua Lederberg, Professor of Genetics, Stanford University, letter to Pierre Dorolle, Deputy Director-General, World Health Organization, 28 January 1970, from Profiles in Science: The Joshua Lederberg Papers, National Library of Medicine.

⁴ Lederberg, Shope and Oaks Jr, *Emerging infections: microbial threats to health in the United States*, p. 1.

⁵ World Health Organization, ‘Report of WHO Meeting on Emerging Infectious Diseases: Geneva, Switzerland, 25–26 April 1994,’ CDS/BVI/94.2, 1994, p. 2.

⁶ Ibid., p. 2.

⁷ Ibid., pp. ii-iv, 2. The other participants were from India, Thailand, Japan, two from Italy, France, Sweden, Switzerland, Canada, Ghana, and Kenya. Three of the participants (American, Italian, and Swedish) were unable to attend.

be formally presented and approved by the Health Assembly so that regular budget funding could be used to support them.⁸

In January 1995, the Secretariat submitted to the Executive Board a report on emerging and re-emerging diseases⁹ and a proposed resolution delegating the Secretariat to work on the subject matter.¹⁰ The report cited evidence of a new threat, mentioning epidemics of tuberculosis, new strains of cholera, pneumonic plague, hantavirus pulmonary syndrome, dengue hemorrhagic fever and Rift Valley fever, many of which the Secretariat already had considerable experience with in the field. The report also referenced the 1994 consultation of international experts and concluded that “[n]ew, emerging and re-emerging diseases....represent a global threat that will require a coordinated, global response.”¹¹

The report proposed four goals as a foundation for a new global strategy: (1) strengthening global surveillance, (2) furthering development of applied research, (3) strengthening international capacity for infectious disease prevention and control, and (4) establishing a national and international infrastructure to recognize, report and respond to new disease threats.¹² These goals, by no coincidence, both reflected the Secretariat’s existing work on the epidemiological approach and mirrored the rhetoric employed by the Deputy Director of the US Centers for Disease Control’s (“CDC”) National Center for Infectious Diseases when she described, at the 1994 meeting, the CDC’s objectives on infectious diseases to be (1) surveillance, (2) applied research,

⁸ “[T]here was strong sentiment that regular budget funding should be appropriated to this effort, as it was perceived to be extremely important and clearly central to the mandate of WHO. There was also discussion on the need for a specific resolution to be presented to the World Health Assembly in support of this initiative.” Ibid., p. 7.

⁹ World Health Organization, Report by the Director-General to the Executive Board, ‘Communicable disease prevention and control: new, emerging, and re-emerging infectious diseases,’ EB95/61, 12 January 1995.

¹⁰ World Health Organization, Executive Board Resolution, ‘Communicable diseases prevention and control: new, emerging, and re-emerging infectious diseases,’ EB95.R12, 26 January 1995.

¹¹ World Health Organization, Report by the Director-General to the Executive Board, ‘Communicable disease prevention and control: new, emerging, and re-emerging infectious diseases,’ EB95/61, p. 2.

¹² Ibid., p. 3.

(3) prevention and control, and (4) infrastructure.¹³ The Secretariat thus aligned its infectious disease work with that of the medical community in its most powerful member state.

The Executive Board adopted the proposed resolution following some discussion and amendment, and submitted it to the Health Assembly, which adopted it in May 1995 after discussion but without amendment. The resolution requested the Director-General to “establish...strategies to improve recognition and response to new, emerging and re-emerging infectious diseases,” to “draw up plans for improved national and international surveillance of infectious diseases,” to “increase WHO’s capacity...for directing and strengthening research,” and to “coordinate WHO’s initiative...in cooperation with other...agencies and organizations.”¹⁴ The resolution also urged member states to “enhance, and to participate actively in, communications between national and international services involved in disease detection, surveillance, control and response.”¹⁵ The effect of the resolution was to give the Secretariat post hoc approval and independent funding for work it had begun decades earlier. By framing the tasks delegated to the Director-General in general and imprecise terms—“establish strategies,” “draw up plans,” “increase capacity”—the resolution also left room for further dynamism in the Secretariat’s work.

The Secretariat thus made the critical decision of whether, when, and how to submit the matter of emerging infectious diseases to the Health Assembly. By

¹³ Dr. Ruth Berkelman, Deputy Director of the National Center for Infectious Diseases, described CDC’s goals and objectives as (1) Surveillance: detect, promptly investigate, and monitor emerging pathogens, the diseases they cause, and the factors influencing their emergence; (2) Applied Research: integrating laboratory science and epidemiology to optimize public health practice; (3) Prevention and Control: efforts to enhance communication of public health information about emerging diseases and ensure prompt implementation of prevention strategies; and (4) Infrastructure: strengthening local, state, and federal public health infrastructures to support surveillance and implement prevention and control programmes. WHO, ‘Report of WHO Meeting on Emerging Infectious Diseases,’ CDS/BVI/94.2, p. 3.

¹⁴ World Health Organization, World Health Assembly Resolution, ‘Communicable diseases prevention and control: new, emerging, and re-emerging infectious diseases,’ WHA48.13, 12 May 1995.

¹⁵ Ibid.

proposing the resolution in 1995, the Secretariat was able to cite evidence it had gathered through its previous informal work that demonstrated a growing infectious disease problem and the need for a new solution. The Secretariat was also able to initiate a conversation among member states at a time when the subject matter was building momentum amongst experts outside WHO.

The conversation that took place at the 1995 Health Assembly evinced general support for work on emerging infectious diseases as well as apprehension about the availability of resources. The British delegate “suggested that [the proposals] be looked at carefully in the context of the available resources”;¹⁶ the Italian delegate expressed “deep concern about the lack of detail in the proposed programme budget”;¹⁷ and the Egyptian delegate regretted that no long-term suggestions had been made for measures that would “ensure [infectious diseases] did not recur within a particular region.”¹⁸

While there was no direct conflict of interest, the subject of infectious disease nevertheless drew out the long-standing divide between WHO’s developing member states, which sought increased technical assistance and systemic solutions for its lack of public health capacity, and developed member states, which sought to limit and control WHO’s spending. As the epidemiological approach rose in prominence, the Secretariat worked to address the concerns of both sets of member states by emphasizing the need for surveillance and response capacities in all countries and building a broad funding base.

Internal bureaucratic reorganization

With approval from the Health Assembly, the Secretariat began formalizing and institutionalizing its capacity to rapidly diagnose and respond to epidemics. During the

¹⁶ Dr. Key, representative for the United Kingdom of Great Britain and Northern Ireland, in World Health Organization, Forty-Eighth World Health Assembly, ‘Provisional Summary Records for the tenth meeting, Committee A,’ A48/A/SR/10, 1995, p. 17.

¹⁷ Dr. Cicogna, representative for Italy, in *ibid.*, p. 18.

¹⁸ Dr. Marey, representative for Egypt, in *ibid.*, p. 17.

years after 1995, the Secretariat initiated several institutional rearrangements and established external partnerships to expand funding options. On the surface, this period appears to be one of great dynamism and innovation, but in fact institutional arrangements were catching up with gradual changes in the Secretariat's work that had been accumulating for decades.

A few months after the adoption of the 1995 infectious disease resolution, the Secretariat convened a meeting of national and international experts who had previously been involved in the Secretariat's outbreak operations to draw lessons from past experience for moving forward. The group recommended that the Secretariat develop "standard lists of equipment, supplies and expertise for response to disease outbreaks according to different scenarios," establish "criteria and mechanisms for reporting emerging or unusual occurrences of disease," and create "[a]n emergency press room...in Geneva headquarters with capacity for round-the-clock coverage."¹⁹ These suggestions bore a remarkable resemblance to those of the international team that had responded to the 1976 outbreak of Ebola in Zaire. At the 1977 follow-up consultation, the team recommended that WHO "develop[] check lists" for resources needed to combat epidemics in the categories of "personnel, equipment and supplies, and funds," and that WHO develop "mechanisms for identification of cases and/or outbreaks as early as possible and for prompt reporting."²⁰

Following the meeting, the Secretariat reorganized its internal structure in October 1995 to establish the Division of Emerging and Other Communicable Diseases Surveillance and Control ("EMC"). EMC drew its staff from the former Division of Communicable Diseases, which was eliminated at the same time as EMC's

¹⁹ World Health Organization, 'Report of a WHO Meeting to Review Epidemic Control and Research in Outbreak Situations, Geneva, Switzerland, 25–27 September 1995,' WHO/EMC/95.4, 1995, pp. 17, 20, 22.

²⁰ World Health Organization, 'Viral Haemorrhagic Fever,' *Weekly Epidemiological Record*, vol. 52, no. 22, 1977, pp. 185-186.

establishment, the Division of Health Situation and Trend Assessment, and the Division of Diarrhoeal and Acute Respiratory Diseases Control.²¹ Formal bureaucratic restructuring thus masked underlying continuities in staff and slowly shifting work priorities within the Secretariat's various infectious disease-related programs.

EMC's mission statement was to "strengthen national and international capacity in the surveillance and control of communicable diseases."²² Its disease coverage was broader than the 1969 IHR, prioritizing cholera, yellow fever, and plague, as well as dengue fever, Ebola haemorrhagic fever, and others.²³ David Heymann, a former member of the international commission that had responded to the 1976 Ebola outbreak in Zaire, became EMC's director. At the time of the 1976 outbreak, Heymann was working for the US Centers for Disease Control, and he subsequently became a leading member of WHO's Secretariat. Heymann coordinated a second international response to Ebola in Zaire in 1995, led the global response to the SARS outbreak in 2003, and was appointed WHO's Assistant Director-General of Communicable Disease in 2007. Many of the key ideas for advancing the epidemiological approach were spearheaded by Heymann and his colleagues, with the support of their superiors, particularly the Director-General. This is one example of the "interlacing of various roles" within WHO, allowing its senior staff members, who have often served in multiple capacities, to exert significant influence.²⁴

Through EMC, the Secretariat's work on outbreak surveillance and response was refined and extended. In its first five-year strategic plan for the period 1996 to 2000, EMC committed to "[responding] within 24 hours to outbreaks of communicable

²¹ World Health Organization, 'Emerging and other Communicable Diseases: Strategic Plan 1996-2000,' WHO/EMC/96.1, 1996, pp. 2-3.

²² Ibid., p. 3.

²³ Ibid.

²⁴ Harold K. Jacobson, 'WHO: Medicine, Regionalism, and Managed Politics,' in *The anatomy of influence: decision making in international organization*, Robert W. Cox, Harold K. Jacobson and Gerard Curzon, eds. (New Haven, CT: Yale University Press, 1973), p. 200.

diseases of major global public health importance”²⁵—a task for which the Secretariat had already built the necessary capacity.²⁶ In 1997, the Secretariat formalized its outbreak verification system through which the Secretariat surveyed for outbreak rumors using its internet tools and other sources, assessed whether the rumors had potential international public health importance, verified those rumors considered to have such potential with the country concerned through WHO’s regional and country offices, and offered technical assistance for investigating and controlling the event.²⁷

Information about rumored outbreaks thought to have potential international importance was routinely disseminated through the Outbreak Verification List—a closed list distributed on a weekly basis to hundreds of subscribers in UN agencies, national health departments, and non-governmental organizations.²⁸ Information about officially confirmed outbreaks was also made available to the public on WHO’s website and the Weekly Epidemiological Record. The Secretariat reported that between July 1997 and July 1999, it identified 246 outbreak reports of potential importance for international health and disseminated related information through its Outbreak Verification List.²⁹ Of those outbreaks, nearly half occurred in WHO’s African region, and 71% of the initial reports came from informal or unofficial sources.³⁰ The epidemiological approach, developed predominantly through interactions with developing countries, had thus become WHO’s primary defense mechanism against the international spread of infectious disease.

²⁵ World Health Organization, ‘Emerging and other Communicable Diseases: Strategic Plan 1996-2000,’ WHO/EMC/96.1, p. 8.

²⁶ According to the 1996 World Health Report, the Secretariat could “mobilize staff and place teams on site within 24 hours of notification of an outbreak, together with the supplies and equipment required to implement epidemic control measures.” World Health Organization, *The World Health Report 1996: Fighting disease, Fostering development* (Geneva: World Health Organization, 1996), p. 64.

²⁷ Thomas W. Grein, K. B. Kamara, Guénaél Rodier, Aileen J. Plant, Patrick Bovier, Michael J. Ryan, Takaaki Ohyama and David L. Heymann, ‘Rumors of disease in the global village: outbreak verification,’ *Emerging Infectious Diseases*, vol. 6, no. 2, 2000, pp. 97-100.

²⁸ *Ibid.*, p. 99.

²⁹ *Ibid.*, p. 100.

³⁰ *Ibid.*

EMC also continued the Secretariat's work collaborating with developing country governments to assess and strengthen national surveillance and response systems. Under EMC, the Secretariat provided technical assistance in planning, implementing, and evaluating national surveillance systems, assembled educational materials and guidelines on epidemiology and laboratory diagnosis, and facilitated bilateral agreements for donor-funded programs to train field epidemiologists.³¹

The epidemiological approach was broadened again when a new Director-General, Gro Harlem Bruntland, was appointed in 1998. Under her direction and with her support, EMC grew by merging five former divisions and creating the new Programme on Communicable Diseases ("CDS").³² From the 1998-1999 biannual budget to the 2000-2001 biannual budget, the total funding allocated to communicable diseases from both regular and extra-budgetary funds increased by 37% for headquarters and by 29% for the regional offices.³³ Director-General Bruntland's support for the epidemiological approach was critical to its development.

The 1998 antimicrobial resistance resolution

By the time the outbreak verification system was formalized in 1997, the Secretariat had been routinely relying on unofficial sources of outbreak information for years, but did not have formal or legal authority to act upon that information. In 1998, the Secretariat sought and received partial post hoc approval for that practice. The Director-General submitted a report and proposed a resolution on antimicrobial resistance first to the Executive Board and then to the 1998 Health Assembly. The report described the rapid emergence and spread of drug-resistant pathogens worldwide, noting that while data was lacking from developing countries, an estimated 60% of

³¹ World Health Organization, 'Emerging and other Communicable Diseases: Strategic Plan 1996-2000,' WHO/EMC/96.1, pp. 6-8.

³² David L. Heymann and Joan Dzenowagis, 'Commentary: Emerging and other communicable diseases,' *Bulletin of the World Health Organization*, vol. 76, no. 6, 1998, p. 545.

³³ World Health Organization, 'Proposed programme budget 2000-2001,' 1998 [website], pp. 12, 15.

hospital infections in developed countries were due to drug-resistant bacteria.³⁴ It outlined several solutions needed to address the complex problem of drug resistance, one of which was surveillance to define the extent of resistance in different pathogens and different populations.³⁵ Based on this report, the Executive Board and the Health Assembly adopted the proposed resolution, allowing the Secretariat to “devise means for the gathering and sharing of information by countries and regions concerning resistance in certain pathogens.”³⁶ Once again, the Secretariat invoked its medical expertise and cited evidence gathered from its low-profile unauthorized practices to gain approval for those activities after the fact.

The Secretariat gained further authorization for its use of unofficial sources in a 2001 Health Assembly resolution it proposed entitled “Global Health Security—Epidemic Alert and Response.”³⁷ That resolution will be discussed below in the context of the Secretariat’s securitization of the infectious disease threat.

External partnerships

Some of EMC and CDS’s work was subsequently reorganized as external partnerships. The outbreak verification system, initially formalized within EMC, was launched as the Global Outbreak Alert and Response Network (“GOARN”) in April 2000. GOARN was deliberately set up outside WHO as a technical partnership rather than an intergovernmental operation³⁸ to draw more collaborating partners and greater financial support. This technical network functioned according to an operational framework that was modeled after the outbreak verification system. The Secretariat

³⁴ World Health Organization, Report by the Director-General to the Executive Board, ‘Emerging and other communicable diseases: antimicrobial resistance,’ EB101/13, 22 October 1997, p. 2.

³⁵ Ibid., p. 3.

³⁶ World Health Organization, World Health Assembly Resolution, ‘Emerging and other communicable diseases: antimicrobial resistance,’ WHA51.17, 16 May 1998.

³⁷ World Health Organization, World Health Assembly Resolution ‘Global health security: epidemic alert and response,’ WHA54.14, 21 May 2001.

³⁸ Author interview with Pat Drury, Manager, Global Outbreak Alert and Response Network, World Health Organization, Geneva, 19 July 2007.

continued to collect information on public health risks through sources such as ProMED and GPHIN, verify information confidentially with member states, and then coordinate containment measures through collaboration with partners in the network. Those participating in and making their resources available to GOARN include national scientific institutes, medical and surveillance initiatives, regional technical networks, networks of laboratories, United Nations agencies, the Red Cross, and international non-governmental organizations such as Médecins Sans Frontières (Doctors Without Borders) and the International Rescue Committee.³⁹ Together, these organizations have much of the data, expertise, and skills necessary for quickly assembling working teams to confirm and respond to outbreaks anywhere in the world.

Funding for GOARN came from WHO's regular and extra-budgetary funds, most prominently from the United States, Canada, Australia, United Kingdom, and the European Union.⁴⁰ Network partners also sponsored GOARN's work through activity support and staff secondments.⁴¹ Additionally, the Secretariat sought support from corporate sponsors.⁴² According to Guénaél Rodier, director of WHO's department of Communicable Disease Surveillance and Response, the Secretariat appealed to the private interests of businesses, arguing that GOARN can "limit the disruption from outbreaks," which is "very bad for business."⁴³

The Secretariat also acquired additional funding for its national capacity building work by setting up a partnership with the French government and various French entities in February 2001. Through the partnership, an office was established in Lyon to assist developing countries to strengthen national public health capacities for

³⁹ World Health Organization, 'Global Outbreak Alert & Response Network' [website].

⁴⁰ Sara E. Davies, 'Securitizing infectious disease,' *International Affairs*, vol. 84, no. 2, 2008, p. 311.

⁴¹ World Health Organization, 'Global Outbreak Alert and Response. Report of a WHO meeting: Geneva, Switzerland, 26–28 April 2000,' WHO/CDS/CSR/2000.3, 2000, p. 2.

⁴² Martin Enserink, 'A global fire brigade responds to disease outbreaks,' *Science*, vol. 303, no. 5664, 2004, p. 1606.

⁴³ Quoted in *ibid.*

disease surveillance and response. In particular, the Lyon Office helps developing countries improve their national laboratory systems, and provides educational tools and training for public health epidemiology.⁴⁴ The Secretariat was thus able to navigate WHO's fractured funding base and external partnerships to expand support for its work.

Legalizing the epidemiological approach

The 1995 revision resolution

In addition to the growing interest of American medical experts in the subject of emerging infectious diseases during the 1990s, a handful of countries also began perceiving a need to revise the 1969 IHR. In May 1995, Canada, Saudi Arabia, and the United Arab Emirates jointly proposed a resolution requesting the Director-General to prepare a revision of the 1969 IHR.⁴⁵ The resolution did not go through the Executive Board and was proposed directly to the Health Assembly, where it received little attention. Recall from Chapter 3 that, due to the brevity and intense demands of the Health Assembly, resolutions are often adopted without deliberation or in-depth analysis. In this case, the resolution was adopted without any discussion or amendment.⁴⁶

Just one page long, the resolution did not provide much by way of detail or concrete commitments. It did not commit member states to intergovernmental negotiations, set a timeline for the revision, or give any guidance as to how or to what effect the old law was to be changed. Instead, it simply noted the “continuous evolution in the public health threat posed by infectious disease” and the need for regulations to

⁴⁴ World Health Organization, ‘WHO Lyon Office’ [website].

⁴⁵ World Health Organization, World Health Assembly Resolution ‘Revision and updating of the International Health Regulations,’ WHA 48.7, 12 May 1995.

⁴⁶ World Health Organization, Forth-Eighth World Health Assembly, ‘Provisional Verbatim Records for the twelfth plenary meeting,’ A48/VR/12, 1995, p. 219.

be “based on sound epidemiological and public health expertise.”⁴⁷ It requested the Director-General to “take steps to prepare a revision of the International Health Regulations and to submit it to the Health Assembly in accordance with Article 21 of the Constitution.”⁴⁸ And it urged member states to participate in the revision process.

On the one hand, the resolution gave the Secretariat an open mandate, allowing it considerable discretion in implementation. On the other hand, the lack of any discussion in the Health Assembly reflected low political interest and commitment to the revision—the very reason the Secretariat chose not to pursue a revision back in 1980. In December 1995, the Secretariat held an informal consultation “to consider...whether revision of the IHR would now be appropriate.”⁴⁹ The consultation brought together 16 public health experts from 15 countries,⁵⁰ some of whom were candidly disinterested in a new law. The American participant expressed satisfaction with the status quo—“[t]he [Foreign Quarantine Regulations]⁵¹ and [the 1969] IHR have provided and continue to provide a useful framework for the U.S. response to emergencies linked to imported disease.”⁵² The British participant remarked that factors such as increased travel, growing population, and environmental changes “make it difficult to develop adequate [new] IHR.”⁵³ While the Secretariat nevertheless moved forward with drafting a new legal text, it also made active efforts in subsequent years to generate the political willpower to create a new treaty.

⁴⁷ World Health Organization, World Health Assembly Resolution ‘Revision and updating of the International Health Regulations,’ WHA 48.7.

⁴⁸ Ibid.

⁴⁹ World Health Organization, ‘The International Response to Epidemics and Applications of the International Health Regulations, Report of a WHO Informal Consultation, Geneva, Switzerland, 11–14 December 1995,’ WHO/EMC/IHR/96.1, 1996, p. 1.

⁵⁰ World Health Organization, ‘Emerging and other Communicable Diseases, Summary of Programme Activities and Budget, 1996-1997,’ WHO/EMC/96.2, 1996, p. 7.

⁵¹ The Foreign Quarantine Regulations are domestic American regulations concerning quarantine. See United States Foreign Quarantine Regulations, 42 C.F.R. §§ 71.1-71.56 (2011).

⁵² World Health Organization, ‘The International Response to Epidemics and Applications of the International Health Regulations: Report of a WHO Informal Consultation,’ WHO/EMC/IHR/96.1, p. 5.

⁵³ Ibid.

Drafting a single negotiating text

The Secretariat directed the Health Assembly's open mandate to revise the 1969 IHR toward legalizing its existing practices under the epidemiological approach. To do so, it placed the task of preparing a negotiating text within the newly established EMC division alongside its operational work on the epidemiological approach. This institutional arrangement ensured that there would be a lively relationship between EMC's policy developments and the drafting of the drafting process. At the opening session of the December 1995 informal consultation regarding the IHR's revision, EMC's Director, Heymann, emphasized the division's work priorities—"the newly emerging diseases, the old re-emerging ones, and the increase in antibiotic resistance."⁵⁴ Heymann recommended that the revision "be integrated with ongoing activities designed to strengthen epidemic disease preparedness, epidemic control and research in outbreak situations, as defined by the recent WHO/EMC consultations."⁵⁵

The Secretariat's existing work on the epidemiological approach shaped the drafting process from the very beginning. The informal consultation resulted in a report recommending revisions along the lines of practices the Secretariat had already employed. It suggested that the scope of the IHR be broadened, that a new surveillance system be established taking into account reports from non-governmental sources, and that the Secretariat be allowed to disseminate infectious disease information whether obtained from member states or the Secretariat's own surveillance program.⁵⁶

One matter on which there was no existing practice to model a new law was the contours of a reporting requirement. Thus far, outbreaks had been detected predominantly through the Secretariat's own surveillance activities, and any information sharing not required under the 1969 IHR occurred on a voluntary basis. A

⁵⁴ Ibid., p. 4.

⁵⁵ Ibid., p. 14.

⁵⁶ Ibid., pp. 9, 14, 15.

primary task in drafting the negotiating text was devising a reporting requirement that would be both technically workable and politically acceptable to member states.

The December 1995 informal consultation proposed that notification requirements be based on defined clinical syndromes—in other words, based on the clinical symptoms manifested by patients rather than the cause of the disease, so that reporting could occur before the cause of a disease is known.⁵⁷ Following this proposal, an informal revision team consisting of international experts and Secretariat members⁵⁸ prepared a provisional draft text in January 1998. The provisional draft required member states to report six types of syndromic events “of urgent international public health importance.”⁵⁹ The six types of notifiable syndromes were acute haemorrhagic fever, acute respiratory syndrome, acute diarrhoeal syndrome, acute jaundice syndrome, acute neurological syndrome, and other notifiable syndromes.⁶⁰ To determine whether a syndromic event was of “urgent international public health importance,” five criteria were proposed: rapid transmission in the community; unexpectedly high case fatality rate; the syndrome is newly recognized; the event has a high political or media profile; and the event results in trade and travel restrictions.⁶¹

The revision team circulated the text to member states, interested non-governmental organizations, and the Committee on International Surveillance of Communicable Diseases, composed of seven members selected by the Director-General from all WHO regions and representing different areas of public health expertise.⁶² Based on the comments received, the revision team prepared a second draft by August

⁵⁷ Ibid., p. 14.

⁵⁸ World Health Organization, 'Revision of the International Health Regulations: Progress report, December 1996,' *Weekly Epidemiological Record*, vol. 72, no. 3, 1997, p. 10.

⁵⁹ World Health Organization, 'International Health Regulations: Provisional Draft,' January 1998, Article 1 and Annex III (further defining the syndromes subject to the IHR).

⁶⁰ Ibid.

⁶¹ Ibid.

⁶² World Health Organization, 'Revision of the International Health Regulations: Progress report, January 1999,' *Weekly Epidemiological Record*, vol. 74, no. 4, 1999, p. 26.

1998,⁶³ which was discussed at a November 1998 meeting attended by scientific and legal advisors. A third draft was prepared by July 2000.⁶⁴

Despite the team's movement through multiple drafts, by 2000 the revision's progress had stalled. For one thing, the Secretariat concluded that syndromic reporting was technically unworkable based on field tests conducted between 1997 and 1999 in 22 countries.⁶⁵ So the revision team began exploring a new set of criteria for defining urgent international public health events that must be reported.⁶⁶

A second reason for the revision's slow progress was the continued lack of member state interest. The Secretariat's efforts to seek participation from states in the drafting process were largely unsuccessful. Member states were asked to designate a domestic official who would be kept informed about the revision and invited to provide comments. The Secretariat set up an electronic discussion forum between the revision team and designated domestic officials to facilitate the gathering of feedback.⁶⁷ Fifty countries appointed officials by August 1996,⁶⁸ and 80 by July 1997,⁶⁹ but in 2000 the Secretariat reported that "[t]he majority of Member States have still not made use of this opportunity of influencing the IHR revision process."⁷⁰ More member state interest was needed to move the revision process forward.

⁶³ Ibid., p. 25.

⁶⁴ World Health Organization, 'Revision of the International Health Regulations: Progress report, July 2000,' *Weekly Epidemiological Record*, vol. 75, no. 29, 2000, p. 234.

⁶⁵ World Health Organization, Report by the Secretariat to the World Health Assembly, 'Global health security—epidemic alert and response,' A54/9, 2 April 2001, p. 3.

⁶⁶ World Health Organization, 'Revision of the International Health Regulations: Progress report, January 2000,' *Weekly Epidemiological Record*, vol. 75, no. 4, 2000, p. 36.

⁶⁷ Ibid.

⁶⁸ World Health Organization, 'The revision of the International Health Regulations,' *Weekly Epidemiological Record*, vol. 71, no. 31, 1996, p. 235.

⁶⁹ World Health Organization, 'Revision of the International Health Regulations: Progress report, July 1997,' *Weekly Epidemiological Record*, vol. 72, no. 29, 1997, p. 215.

⁷⁰ World Health Organization, 'Revision of the International Health Regulations: Progress report, July 2000,' p. 236.

Securitizing the infectious disease threat

To raise the political profile of the epidemiological approach and the IHR revision, the Secretariat made a strategic decision to emphasize the national security consequences of infectious disease, and to frame the revised IHR as a defense mechanism against bioterrorism. In so doing, the Secretariat appealed to its most powerful member state, the United States, which had become increasingly concerned about biological weapons during the 1990s owing to its growing fear about the scope of Iraq's biological weapons program after the Gulf War and the possibility that materials or designs from the former Soviet Union's sophisticated biological weapons program might make their way to other countries or terrorist groups.⁷¹

The Secretariat's decision to securitize infectious disease regulation represented a departure from WHO's traditional division of labor, which dealt with the intentional use of biological agents separately from naturally occurring infectious diseases. When the old IHR was adopted in 1969, a different resolution was passed independently addressing the challenge of biological and chemical weapons.⁷² A 1970 WHO guidance report on the health effects of biological and chemical weapons made no mention of the 1969 IHR.⁷³ Additionally, the epidemiological approach itself and its operational tools—GOARN, GPHIN, and Pro-MED—were not originally intended to protect against security threats nor did the Secretariat have experience using them to that end.

⁷¹ Thomas V. Inglesby, Tara O'Toole and Donald A. Henderson, 'Preventing the use of biological weapons: improving response should prevention fail,' *Clinical Infectious Diseases*, vol. 30, no. 6, 2000, p. 927.

⁷² World Health Organization, World Health Assembly Resolution, 'Question of General and Complete Disarmament: Chemical and Bacteriological (Biological) Weapons and the Consequences of their Possible Use,' WHA22.58, 25 July 1969.

⁷³ World Health Organization, *Health aspects of chemical and biological weapons, 1st edition* (Geneva: World Health Organization, 1970).

But in November 2000, the Secretariat authored a report entitled “Global health security—epidemic alert and response” that was first submitted to the Executive Board⁷⁴ and then revised and submitted to the Health Assembly in May 2001.⁷⁵ The report noted the “increasingly possible intentional use of infectious agents,” and emphasized that naturally occurring epidemics and those due to the intentional or accidental release of biological agents “present in the same manner.”⁷⁶ The report also remarked that GOARN’s surveillance mechanism could provide information about bioterrorism or even “environmental, chemical or nuclear risks.”⁷⁷

The effect of this new framing was not only to raise the political profile of the epidemiological approach and the IHR revision, but also to open new channels of funding and to gain further post hoc approval for the Secretariat’s reliance on unofficial sources of information. The report added that the Secretariat had conducted a survey to pinpoint military laboratories that would be willing to participate in its global surveillance activities, and that the Secretariat would identify and catalogue military resources that could “enhance” its existing surveillance program and “facilitate” responses to epidemics.⁷⁸

The report was also accompanied by a proposed resolution that supported the inclusion of intergovernmental organizations, non-governmental organizations, and the private sector in the Secretariat’s epidemic alert and response activities.⁷⁹ Arguing for the use of unofficial information sources, Heymann had reported at the January 2001 Executive Board meeting that “[o]nly 23% of [outbreak] reports to WHO were provided

⁷⁴ World Health Organization, Report by the Secretariat to the Executive Board, ‘Global health security—epidemic alert and response,’ EB107/5, 28 November 2000.

⁷⁵ World Health Organization, Report by the Secretariat to the World Health Assembly, ‘Global health security—epidemic alert and response,’ A54/9.

⁷⁶ *Ibid.*, p. 1.

⁷⁷ *Ibid.*, p. 3.

⁷⁸ *Ibid.*

⁷⁹ World Health Organization, World Health Assembly Resolution ‘Global health security: epidemic alert and response,’ WHA54.14.

by countries, while the rest originated from other sources, the most significant being the Global Public Health Information Network.”⁸⁰ The resolution that was adopted by the May 2001 Health Assembly urged member states to “participate actively” in the verification of surveillance information gathered by the Secretariat concerning health emergencies of international concern, and to designate domestic officials to participate in the revision process.⁸¹ After the adoption of the resolution, the Secretariat was on firm ground to utilize unofficial sources of information, and it entered into an official agreement with GPHIN. The agreement formalized GPHIN’s role as a monitoring tool in WHO’s surveillance strategy.

Securitizing the revision of the IHR was a calculated political move and an act of political accommodation that earned the support of the United States while incurring the resistance of other member states. During discussions of the global health security resolution, the American delegate expressed support for revising the IHR, noting that “[t]he current Regulations were clearly insufficient in view of the speed and extent of migration, emerging infections and the possible threat of bioterrorism.”⁸² This was a marked change in position compared to the lack of interest and satisfaction with the status quo articulated by the American representative at the December 1995 informal consultation. By contrast, the Canadian delegate conveyed some concern about the inclusion of bioterrorism within the scope of the IHR, urging the Secretariat to “ensure that, in the revision of the International Health Regulations, steps were taken to ensure their compatibility with other relevant regulatory instruments.”⁸³

⁸⁰ Dr. Heymann, Executive Director, in World Health Organization, 107th session of the Executive Board, ‘Summary Records for the third meeting,’ EB/107/SR/3, 2001, p. 2.

⁸¹ World Health Organization, World Health Assembly Resolution ‘Global health security: epidemic alert and response,’ WHA54.14.

⁸² Dr. Novotny, representative for the United States, in World Health Organization, Fifty-Fourth World Health Assembly, ‘Provisional Summary Records for the eighth meeting, Committee A,’ A54/A/SR/8, 2001, p. 26.

⁸³ Dr. Larivière, representative for Canada, in *ibid.*, p. 25.

The Secretariat's inclusion of bioterrorism within the proposed law's scope also raised member states' concerns about the new IHR's reporting requirement and its process for verifying epidemic information. At the time, the Secretariat had recently formulated a new definition for those infectious disease events that would require notification. Working in partnership with the Swedish Institute of Infectious Diseases, the revision team developed a "decision tree" to identify events that may constitute "public health emergencies of international concern."⁸⁴ The decision tree asked four questions to determine if an event should be reported: "Is the event serious? Is the event unexpected? Is it likely that there will be international spread? And is it likely that the event will result in international restrictions to trade or travel?"⁸⁵

The Japanese delegate asserted that "the definition of an urgent event of international public health importance should be examined closely."⁸⁶ The Chinese delegate pointed out that the "broadening process" for infectious disease regulation "should not be unlimited," asked for "a clearer definition of what was to be reported, namely, the types of disease, the extent of spread and the content of the reporting," and requested more information about the procedures for verification and validation of data.⁸⁷ Likewise, the representative from the Democratic People's Republic of Korea advised that WHO's "methods and...practical response process should be described more precisely," and inquired about the "relationship between WHO, the regions and Member States in obtaining the necessary information."⁸⁸

⁸⁴ World Health Organization, 'Revision of the International Health Regulations: Progress report, May 2002,' *Weekly Epidemiological Record*, vol. 77, no. 19, 2002, p. 158.

⁸⁵ *Ibid.*, pp. 158-159.

⁸⁶ Dr. Shinozaki, representative for Japan, in World Health Organization, 107th Session of the Executive Board, 'Summary Records for the third meeting,' EB/107/SR/3, 2001, p. 4.

⁸⁷ Mr. Liu Peilong, representative for China, in *ibid.*, p. 9.

⁸⁸ Mr. Choe Il, advisor to Dr. Kim Won Ho, representative for the Democratic People's Republic of Korea, in *ibid.*, p. 5.

The 2001 anthrax attacks

The Secretariat's move to securitize the IHR revision was prescient. Just months after the adoption of the 2001 resolution, the United States was faced with anthrax attacks. Letters laced with anthrax began appearing in the US mail soon after 9/11, targeting several news media offices and two Democratic Senators. The letters led to five deaths and 17 infections.⁸⁹ They were “the worst biological attacks in U.S. history” and led to an investigation that was “one of the largest and most complex in the history of law enforcement.”⁹⁰

The Secretariat channeled the momentum of these events toward the IHR revision, and expanded its infectious disease mandate further into the realm of bioterrorism. It submitted a report on the deliberate use of biological and chemical agents to the 2002 Health Assembly, again framing the problem of bioterrorism as a call to “[i]ncrease[] [the] preparedness of the public health system” generally.⁹¹ The report reiterated the similarities between man-made and naturally occurring public health emergencies: “A deliberate release of a biological, chemical, or radiological agent would likely be considered initially as a natural event, unless the agent had been spread overtly or on a massive scale.”⁹² This time, the Secretariat additionally emphasized that it could be requested to play a role in the United Nations' investigatory

⁸⁹ The Federal Bureau of Investigation, ‘Famous Cases & Criminals: Amerithrax or Anthrax Investigation’ [website].

⁹⁰ Ibid.

⁹¹ World Health Organization, Report by the Secretariat to the World Health Assembly, ‘Deliberate use of biological and chemical agents to cause harm,’ A55/20, 16 April 2002, ¶ 2.

⁹² Ibid., ¶ 4.

capacity under international law on biological and chemical warfare,⁹³ and that it would provide technical expertise and resources if such a request were made.⁹⁴

The Executive Board and Health Assembly approved the Secretariat's proposed resolution on the deliberate release of biological, chemical, or radiological agents, which requested the Secretariat to continue revising the IHR and strengthening the global surveillance of infectious disease.⁹⁵ But the resolution received mixed responses. On the one hand, American support for the IHR revision was stronger than ever. The American representative at the 2002 Health Assembly applauded WHO's "useful work in [the] area" of biological and chemical agents,⁹⁶ including its redrafting of its 1970 guidance report on responding to biological and chemical weapons.⁹⁷ Still in pre-publication form at the time, the 2004 second edition—in contrast to the 1970 edition, which made no mention of the IHR—counseled member states to bear in mind the provisions of the IHR when the use of biological and chemical weapons threaten to spread human diseases across borders.⁹⁸

On the other hand, several member states expressed concern about the Secretariat's further expansion of its infectious disease mandate to include bioterrorism and the corresponding implications for national sovereignty. The Iranian representative warned that WHO "should not deviate from its humanitarian mandate by becoming

⁹³ Under United Nations Security Council Resolution 620 and United Nations General Assembly Resolution 44/115B, the UN Secretary-General has a mandate to investigate allegations by any member state concerning the possible use of chemical and biological weapons. Such investigations are also governed by the Chemical Weapons Convention of 1993 and the Biological and Toxin Weapons Convention of 1972.

⁹⁴ World Health Organization, Report by the Secretariat to the World Health Assembly, 'Deliberate use of biological and chemical agents to cause harm,' A55/20, ¶ 11.

⁹⁵ World Health Organization, World Health Assembly Resolution 'Global public health response to natural occurrence, accidental release or deliberate use of biological and chemical agents or radionuclear material that affect health,' WHA55.16, 18 May 2002.

⁹⁶ Dr. Bernard, representative for the United States, in World Health Organization, Fifty-Fifth World Health Assembly, 'Provisional Summary Records for the eighth meeting, Committee A,' A55/A/SR/8, 2002, p. 134.

⁹⁷ World Health Organization, *Public health response to biological and chemical weapons: WHO guidance* (Geneva: World Health Organization, 2004).

⁹⁸ *Ibid.*, p. 73.

involved in verification and subsequent inspection procedures” for bioterrorism, which “should be addressed by the relevant organizations and agencies such as the United Nations, [the International Atomic Energy Agency] and the Organization for the Prohibition of Chemical Weapons.”⁹⁹ The Brazilian representative also criticized the Secretariat for interpreting WHO’s mandate “too loosely” in its proposed involvement in bioterrorism investigations.¹⁰⁰

Overall, the move to securitize the IHR was a successful political strategy for pushing the revision forward. In December 2002, the Secretariat submitted a report regarding the revision’s progress to the Executive Board. The report indicated that the Secretariat had already tested the criteria for public health emergencies of international concern internally in its own outbreak alert and response activities, and announced that the first “technical composite draft” would be completed by the end of 2002, at which point the revision process needed to move “from the technical, to the political, level.”¹⁰¹ The Secretariat proposed a resolution approving of a plan for completing the revision, which consisted of extensive consultations for building an international consensus on the new regulations, followed by an open-ended working group of interested member states to finalize the draft revised regulations for submission to the 2005 Health Assembly.¹⁰²

The Executive Board approved the resolution in January 2003 with forceful support from the United States. The American representative declared that “the current regulations [are] obviously insufficient in view of the current rapid, high-volume

⁹⁹ Dr. Sadrizadeh, representative for the Islamic Republic of Iran, in World Health Organization, Fifty-Fifth World Health Assembly, ‘Provisional Summary Records for the seventh meeting, Committee A,’ A55/A/SR/7, 2002, p. 29.

¹⁰⁰ Mr. Costi Santarosa, representative for Brazil, in *ibid.*, p. 28.

¹⁰¹ World Health Organization, Report by the Secretariat to the Executive Board, ‘Revision of the International Health Regulations,’ EB111/34, 15 December 2002, ¶¶ 13-14.

¹⁰² World Health Organization, Executive Board Resolution, ‘Revision of the International Health Regulations,’ EB111.R13, 24 January 2003.

international migration, emerging infections and threats of bioterrorism.”¹⁰³ He “strongly endorsed the development of a surveillance and response strategy that would identify public health risks of international importance” and “strongly supported WHO’s efforts to revise the International Health Regulations.”¹⁰⁴

By January 2003, the Secretariat had already formulated a detailed draft text. The draft proposed that all public health emergencies of international concern must be reported and defined such events using the decision tree; that member states be required to build the core public health capacity to detect, evaluate, and respond to notifiable events; that the Secretariat may utilize unofficial sources of information in its surveillance; that the Secretariat must provide technical assistance to investigate, control, and contain notified emergencies at the request of member states; and that WHO be authorized to recommend to member states time-limited measures for effectively responding to public health emergencies of international concern while minimizing interference with international travel and trade.¹⁰⁵

The Secretariat had also begun proactively campaigning for the proposed new law. Members of the revision team traveled extensively, holding workshops and meetings at the national, regional, and international levels. A briefing took place in Thailand in June 2001, and meetings were held with several Indian health agencies. A three-day workshop on the IHR revision was held in Montevideo in October 2001, and a consultant for the IHR revision project was sent to Burkina Faso the next month.¹⁰⁶ In

¹⁰³ Dr. Steiger, representative for the United States of America, in World Health Organization, 111th session of the Executive Board, ‘Summary Records for the eighth meeting,’ EB111/SR/8, 2003, p. 5.

¹⁰⁴ Ibid.

¹⁰⁵ World Health Organization, ‘Revision of the International Health Regulations: Progress report, May 2002,’ pp. 158-159. See also David P. Fidler, ‘From international sanitary conventions to global health security: the new International Health Regulations,’ *Chinese Journal of International Law*, vol. 4, no. 2, 2005, pp. 352-354.

¹⁰⁶ World Health Organization, ‘Global Crisis—Global Solutions: Managing public health emergencies of international concern through the revised International Health Regulations,’ WHO/CDS/CSR/GAR/2002.4, 2002, p. 17.

2002, the Secretariat held workshops in 12 countries¹⁰⁷ and in-country meetings in 12 countries.¹⁰⁸ Meetings were also held in Geneva for the Russian Federation, Turkey, and the European Commission, and the revision proposal was presented at numerous professional venues.¹⁰⁹ The workshops were opportunities for the Secretariat to foster member state buy-in by informing them of the contents of the proposed negotiating text, cultivating a shared understanding of its core requirements, and determining likely areas of disagreement. At the January 2003 Executive Board meeting, Heymann noted that an additional US\$500,000 had been allocated from the regular budget to the consensus-building process for the 2004-2005 biannual period as the IHR revision entered its final phase.¹¹⁰

Operating outside the 1969 IHR during SARS

The IHR's revision was projected to reach completion by May 2005 when SARS emerged in late 2002 and early 2003. Though, at the time, there were no legally binding rules mandating cooperation for diseases other than those covered by the 1969 IHR, the Secretariat, relying on tools and protocols it had already built, took bold

¹⁰⁷ These 2002 workshops were held in Peru (5-6 March for the Andean countries of Peru, Bolivia, Venezuela, Columbia, Chile, and Equador), Argentina (30-31 May for the MERCOSUR countries of Chile, Brazil, Argentina, Uruguay, and Paraguay), Slovenia (20-22 June), Thailand (22-23 July), Norway (13-14 August for the Baltic States of Russia, Poland, Norway, Sweden, and Finland), Russian Federation (5-6 September), Burkina Faso (17-19 September), Sri Lanka (4-6 October), India (14-15 November), Zambia (3-5 December), Philippines (9-10 December), and Senegal (17-19 December). World Health Organization, 'Alert, response, and capacity building under the International Health Regulations (IHR): Activities—Building an international consensus' [website].

¹⁰⁸ In-country meetings were held in Australia, Canada, China, France, Japan, Morocco, Senegal, South Africa, Spain, United Kingdom, United States, and Zambia. Ibid.

¹⁰⁹ Presentations were given at professional venues including the American Bar Association study tour, Geneva, Switzerland (January 2002); Pacific Public Health Surveillance Network, Epinet Workshop, Noumea, New Caledonia, (March 2002); International Conference on Travel Medicine, Riyadh, Saudi Arabia (April 2002); 3rd European Conference on Travel Medicine, Florence, Italy (May 2002); Committee of the Network for the Epidemiological Surveillance and Control of Communicable Diseases in the European Community, Luxembourg (June 2002); Norwegian civil servants' visit to WHO, Geneva, Switzerland (June 2002); IATA Cabin Health Conference, Geneva, Switzerland (June 2002); 4th Meeting of Caribbean National Epidemiologists & Laboratory Directors, Port of Spain, Trinidad & Tobago (July 2002); Inter-country Consultation on Development of a Regional Strategy for Integrated Disease Surveillance, Yangon, Myanmar (September 2002); and 4th Asia Pacific Travel Health Conference, Shanghai, China (October 2002). Ibid.

¹¹⁰ Dr. Heymann, Executive Director, in World Health Organization, 111th session of the Executive Board, 'Summary Records for the eighth meeting,' EB111/SR/8, p. 7.

regulatory actions that were clearly unauthorized under existing international infectious disease law. Some of these actions were in line with and some even beyond the authorities the Secretariat was proposing for itself under the draft new IHR. But in the face of a global crisis for which the international community was ill-prepared, the Secretariat's unauthorized regulatory actions were accepted by most member states. They were also the center of political contestation, making it urgently necessary after SARS to define member state obligations and place clear limits on the Secretariat's powers by negotiating a new law.

An unprecedented crisis

By 2003, the Secretariat had at the ready a set of effective operational tools to facilitate rapid responses to epidemics and had utilized them to help contain numerous localized outbreaks in developing countries. But SARS was unlike any epidemic the Secretariat had responded to before. Although many new diseases of unknown origin had emerged during the last decades of the twentieth century, SARS was caused by a newly emerging virus¹¹¹ that was unique in its transmissibility. Whereas other microbes had failed to establish efficient human-to-human transmission,¹¹² had relied on food or insects as a vehicle of transmission,¹¹³ or had limited geographical impact,¹¹⁴ the SARS virus required no vector¹¹⁵ and was readily transmissible from person to

¹¹¹ In March 2003, the causative agent of SARS was identified as a novel coronavirus and dubbed SARS-associated coronavirus. Thijs Kuiken, Ron A. M. Fouchier, Martin Schutten, Guus F. Rimmelzwaan, Geert Van Amerongen, Debby Van Riel, Jon D. Laman, Ton De Jong, Gerard van Doornum, Wilina Lim, Ai Ee Ling, Paul K. S. Chan, John S. Tam, Maria C. Zambon, Robin Gopal, Christin Drosten, Sylvia van der Werf, Nicolas Escriou, Jean-Claude Manugerra, Klaus Stöhr, Malik J. S. Peiris and Albert D. M. E. Osterhaus, 'Newly discovered coronavirus as the primary cause of severe acute respiratory syndrome,' *The Lancet*, vol. 362, no. 9380, 2003.

¹¹² Examples include avian influenza, Nipah virus, Hendra virus, and Hanta virus.

¹¹³ Examples include *Escherichia coli* O 157:H7, variant Creutzfeldt-Jakob disease, West Nile fever, and Rift Valley fever.

¹¹⁴ Examples include *Neisseria meningitidis* W135, and Ebola, Marburg, and Crimean-Congo hemorrhagic fevers.

¹¹⁵ David L. Heymann and Guénaél Rodier, 'SARS: A global response to an international threat,' *Brown Journal of World Affairs*, vol. 10, 2003, p. 186.

person by respiratory means.¹¹⁶ The maximum incubation period for SARS—the time from initial contact with the infectious agent to manifestation of disease symptoms—is approximately 10 days,¹¹⁷ allowing the virus to spread by air travel between any two cities in the world before the infected patient became noticeably sick.¹¹⁸ As a result of these properties, SARS rapidly became a worldwide pandemic,¹¹⁹ with local transmission in China, Hong Kong, Taiwan, Mongolia, Vietnam, Singapore, Canada, and the United States.

SARS was also different because it challenged even well developed healthcare systems. The disease was difficult to track and took its heaviest toll on hospital staff.¹²⁰ The initial symptoms shown by infected individuals—such as fever, chills, nonproductive cough, headache, and dizziness—resembled those of many other common illnesses, making diagnosis a challenge.¹²¹ Although laboratory diagnostic tests were developed part way through the epidemic, they had significant limitations.¹²² Attempts to isolate the virus lacked sensitivity. Many infected patients had such low levels of the virus that their tests yielded false negative results.¹²³ Attempts to detect antibodies produced in response to viral infection provided definitive results only late in

¹¹⁶ The SARS virus spreads primarily by droplet exposure shed from respiratory secretions. 'SARS: the struggle for containment,' *Canadian Medical Association Journal*, vol. 168, no. 10, 2003, p. 1229.

¹¹⁷ D. Fang, 'SARS: facts and considerations for the orthopaedic community,' *Journal of Orthopaedic Surgery*, vol. 11, no. 1, 2003, pp. 3-5.

¹¹⁸ World Health Organization, *Severe acute respiratory syndrome (SARS): Status of the outbreak and lessons for the immediate future* (Geneva: World Health Organization, 2003), p. 2.

¹¹⁹ *Ibid.*, p. 1.

¹²⁰ Heymann and Rodier, 'SARS: A global response to an international threat,' p. 187.

¹²¹ *Ibid.*

¹²² World Health Organization, *Severe acute respiratory syndrome (SARS): Status of the outbreak and lessons for the immediate future*, p. 2.

¹²³ Patrick Tang, Marie Louie, Susan E. Richardson, Marek Smieja, Andrew E. Simor, Frances Jamieson, Margaret Fearon, Susan M. Poutanen, Tony Mazzulli, Raymond Tellier, James Mahoney, Mark Loeb, Astrid Petrich, Max Chernesky, Allison McGeer, Donald E. Low, Elizabeth Phillips, Steven Jones, Nathalie Bastien, Yan Li, Daryl Dick, Allen Grolla, Lisa Fernando, Timothy F. Booth, Bonnie Henry, Anita R. Rachlis, Larissa M. Mutukas, David B. Rose, Reena Lovinsky, Sharon Walmsley, Wayne L. Gold and Sigmund Krajden, 'Interpretation of diagnostic laboratory tests for severe acute respiratory syndrome: the Toronto experience,' *Canadian Medical Association Journal*, vol. 170, no. 1, 2004.

the course of illness or after the illness had resolved.¹²⁴ Additionally, not all patients were equally infectious. Some “super-spreader” patients unpredictably transmitted the virus to an unusually large numbers of individuals. Super-spreader events were the driving force behind the early outbreaks of 2003, and in many cases, over a hundred people were infected in one hospital or housing estate within a short period of time.¹²⁵ A large proportion of patients needed intensive care, and SARS had a relatively high fatality rate, estimated at 14% to 15%.¹²⁶

The rapid spread of SARS across developed and developing countries alike and its impact on public health systems worldwide incited panic and gave rise to strong political and economic repercussions. SARS had a “remarkably powerful and negative psychological impact on many populations,”¹²⁷ leading to behavior that exacerbated the crisis. During the virus’s initial spread across Asia, “panic gripped the region” as pharmacies ran out of supplies, schools and universities were closed, offices were thinly attended, and shopping malls were deserted.¹²⁸ The Chief Economist for World Bank East Asia estimated that the direct effect of SARS would reduce growth in the region by 0.4% to 0.5% of GDP, and result in a cost of US\$20 to 25 billion.¹²⁹ The Asian Development Bank estimated a total loss of US\$20 billion for China, Hong Kong,

¹²⁴ Centers for Disease Control and Prevention, 'Severe acute respiratory syndrome (SARS) and coronavirus testing—United States, 2003,' *Morbidity and Mortality Weekly Report*, vol. 52, no. 14, 2003, p. 298.

¹²⁵ Steven Riley, Christophe Fraser, Christl A. Donnelly, Azra C. Ghani, Laith J. Abu-Raddad, Anthony J. Hedley, Gabriel M. Leung, Lai-Ming Ho, Tai-Hing Lam, Thuan Q. Thach, Patsy Chau, King-Pan Chan, Su-Vui Lo, Pak-Yin Leung, Thomas Tsang, William Ho, Koon-Hung Lee, Edith M. C. Lau, Neil M. Ferguson and Roy M. Anderson, 'Transmission dynamics of the etiological agent of SARS in Hong Kong: impact of public health interventions,' *Science*, vol. 300, no. 5627, 2003.

¹²⁶ Also called the case fatality ratio, the figure refers to the proportion of all people with a disease who will die from the disease. World Health Organization, 'Severe Acute Respiratory Syndrome (SARS)—multi-country outbreak—Update 49,' 7 May 2003 [website].

¹²⁷ Stacey Knobler, Adel Mahmoud, Stanley Lemon, Alison Mack, Laura Sivitz and Katherine Oberholtzer, *Learning from SARS: Preparing for the Next Disease Outbreak* (Washington DC: The National Academies Press, 2004), p. 3.

¹²⁸ Grace O. M. Lee and Malcolm Warner, *The political economy of the SARS epidemic: the impact on human resources in East Asia* (Abingdon: Routledge, 2008), p. 7.

¹²⁹ *Ibid.*, p. 42.

South Korea, and Taiwan combined.¹³⁰ In Canada, SARS cost tens of millions of dollars per day in lost economic activity.¹³¹ According to leading members of the Secretariat, the social and economic consequences stemming from SARS were “way out of proportion to the number of cases and deaths, and went well beyond the outbreak sites.”¹³²

Investigating the outbreak in China

The Secretariat initially learned of an outbreak in China through the existing machinery of the epidemiological approach. In November and early December 2002, GPHIN began picking up rumors of a “flu outbreak” that affected large numbers of school children in Mainland China.¹³³ A Secretariat member attending a Chinese national influenza workshop in November heard a participant from Guangdong province report a “serious outbreak with high mortality and involvement of health care staff.”¹³⁴ As it had done in many previous outbreaks, the Secretariat approached the government concerned, requesting further information. Chinese officials responded in mid-December by insisting that influenza activity in Beijing and Guangdong province was normal.¹³⁵

During the following months, the Secretariat received further information suggesting that an outbreak was underway in southern China, and it repeatedly asked the Chinese government for epidemiological information and offered assistance in investigating and responding to the outbreak. But China’s cooperation could not be secured with an offer of technical assistance. In February, Klaus Stöhr, head of WHO’s

¹³⁰ Ibid.

¹³¹ Jacques DeLisle, 'SARS, Greater China, and the pathologies of globalization and transition,' *Orbis*, vol. 47, no. 4, 2003, pp. 588-589.

¹³² David L. Heymann, Mary Kay Kindhauser and Guénaél Rodier, 'Coordinating the global response,' in *SARS: How a global epidemic was stopped* (Geneva: World Health Organization, 2006), p. 50.

¹³³ Ibid., p. 53.

¹³⁴ Heymann and Rodier, 'SARS: A global response to an international threat,' p. 190.

¹³⁵ Ibid.

Global Influenza Surveillance Network, and Henk Bekedam, head of WHO's China office in Beijing, both received reports of a possible avian flu outbreak in Guangdong province. Alan Schnur, the Communicable Disease Team Leader of WHO's China office, received an email inquiring about "the strange contagious disease (similar to pneumonia with invalidating effect on lung) which has already left more than 100 people dead in...Guangdong Province, in the space of 1 week."¹³⁶ Additionally, a ProMED post described an epidemic in Guangdong province rumored to have caused fatalities and hospital closings,¹³⁷ and GPHIN and other GOARN partners identified reports of a contagious respiratory disease in Guangdong, resulting in an urgent alert to GOARN members.¹³⁸

Schnur forwarded the email he received to the Chinese Ministry of Health, adding that similar rumors had been passed on by the American embassy.¹³⁹ His request for epidemiological information and his offer of assistance were answered with a statement that the outbreak was under control.¹⁴⁰ In late February, Shigeru Omi, WHO's regional director for the Western Pacific Regional Office, requested Chinese permission for a team—including Hitoshi Oshitani, a Japanese flu specialist, and Keiji Fukuda, an influenza expert at the US CDC—to embark on an investigatory mission in Guangdong and Fujian provinces. The Chinese government stalled for nearly two weeks as Fukuda and Oshitani arrived for their mission. They met with officials from the Ministry of Health and the Beijing CDC, but were not allowed to conduct

¹³⁶ Alan Schnur, 'The Role of the World Health Organization in Combating SARS, Focusing on the Efforts in China,' in *SARS in China: Prelude to Pandemic?*, Arthur Kleinman and James L. Watson, eds. (Stanford, CA: Stanford University Press, 2006), p. 75.

¹³⁷ David P. Fidler, *SARS: Governance and the Globalization of Disease* (London: Palgrave Macmillan, 2004), p. 116.

¹³⁸ Heymann and Rodier, 'SARS: A global response to an international threat,' p. 190.

¹³⁹ Schnur, 'The Role of the World Health Organization in Combating SARS, Focusing on the Efforts in China,' p. 75.

¹⁴⁰ That day, the Guangdong Health Bureau announced that there had been 305 cases and five deaths between 16 November 2002 and 9 February 2003. Those figures were accurate at that time, but the message that the epidemic was under control was not. Thomas Abraham, *Twenty-first century plague: the story of SARS* (Hong Kong: Hong Kong University Press, 2007), p. 25.

investigations. During the meetings, Chinese scientists maintained that the bacteria *Chlamydia* was the most likely cause and that the disease was no longer spreading.¹⁴¹

Fukuda and Oshitani were unconvinced, and left the meetings feeling that “the [Ministry of Health] wasn’t really engaged with [the disease situation].”¹⁴²

From China’s point of view, it had no legal obligation to share information with the Secretariat or to allow an international team to conduct investigations in its borders.¹⁴³ In addition to the general fear of other countries taking excessive protective measures, the Chinese government had several reasons for disfavoring reporting. First, China’s public healthcare system did not have the capacity to accurately identify and track a new emerging infectious disease. SARS initially appeared in southern China in November 2002.¹⁴⁴ It likely originated in animals¹⁴⁵ and crossed the species barrier to infect poor migrant workers through local husbandry practices and culinary habits that result in animals and humans living in close proximity.¹⁴⁶ Migrant workers were unlikely to have access to healthcare, and their illnesses unlikely to be well

¹⁴¹ Karl Taro Greenfeld, *China Syndrome: The True Story of the 21st Century's First Great Epidemic* (New York, NY: HarperCollins, 2006), p. 180.

¹⁴² Fukuda quoted in *ibid.*, p. 185.

¹⁴³ Such an obligation cannot be found in the 1969 IHR, the WHO Constitution, or customary international law. Fidler, *SARS: Governance and the Globalization of Disease*, pp. 109-110.

¹⁴⁴ Although epidemiological studies show that the disease emerged in the province of Guangdong in November 2002, scientists suspect that the virus existed in the human population before that. It is likely that a variety of SARS-like viruses may have circulated in animals for years, occasionally infecting people. Helen Pearson, 'Antibodies to SARS-like virus hint at repeated infections,' *Nature*, vol. 427, no. 6971, 2004, p. 185; N. S. Zhong, B. J. Zheng, Y. M. Li, L. L. M. Poon, Z. H. Xie, K. H. Chan, P. H. Li, S. Y. Tan, Q. Chang, J. P. Xie, X. Q. Liu, J. Xu, D. X. Li, K. Y. Yuen, J. S. M. Peiris and Y. Guan, 'Epidemiology and cause of severe acute respiratory syndrome (SARS) in Guangdong, People's Republic of China, in February, 2003,' *The Lancet*, vol. 362, no. 9393, 2003, p. 1353.

¹⁴⁵ Marco A. Marra, Steven J. M. Jones, Caroline R. Astell, Robert A. Holt, Angela Brooks-Wilson, Yaron S. N. Butterfield, Jaswinder Khattri, Jennifer K. Asano, Sarah A. Barber, Susanna Y. Chan, Alison Cloutier, Shaun M. Coughlin, Doug Freeman, Noreen Gern, Obi L. Griffith, Stephen R. Leach, Michael Mayo, Helen McDonald, Stephen B. Montgomery, Pawan K. Pandoh, Anca S. Petrescu, A. Gordon Robertson, Jacqueline E. Schein, Asim Siddiqui, Duane E. Smailus, Jeff M. Stott, George S. Yang, Francis Plummer, Anton Andonov, Harvey Artsob, Nathalie Bastien, Kathy Bernard, Timothy F. Booth, Donnie Bowness, Martin Czub, Michael Drebot, Lisa Fernando, Ramon Flick, Michael Garbutt, Michael Gray, Allen Grolla, Steven Jones, Heinz Felmann, Adrienne Meyers, Amin Kabani, Yan Li, Susan Normand, Ute Stroher, Graham A. Tipples, Shaun Tyler, Robert Vogrig, Diane Ward, Brynn Watson, Robert C. Brunham, Mel Krajden, Martin Petric, Danuta M. Skowronski, Chris Upton and Rachel L. Roper, 'The genome sequence of the SARS-associated coronavirus,' *Science*, vol. 300, no. 5624, 2003.

¹⁴⁶ Elisabeth Rosenthal, 'From China's Provinces, A Crafty Germ Spreads,' *New York Times Internet Edition*, 27 April 2003 [website].

documented.¹⁴⁷ Moreover, while official protocol required local medical staff to report certain illnesses up the chain of authority, no provisions were in place for previously unknown diseases.¹⁴⁸ Even when SARS reached Beijing in early March, the national capital's healthcare system could not keep accurate records of a previously unknown disease.¹⁴⁹

Second, cultural aversions dictated against reporting both within the government and to the domestic and international public. It is considered personally and professionally embarrassing for an employee to approach a superior with a difficulty. Thus, medical personnel who initially came in contact with SARS had little incentive to report an unknown disease to higher authorities, allowing three outbreaks to occur in Guangdong province—a community outbreak in the industrial town of Foshan in November, a hospital outbreak in the city of Heyuan in December, and community and hospital outbreaks in the city of Zhongshan in late December—before the provincial health department became involved and conducted an investigation in Heyuan in early January.¹⁵⁰ News of the infection did not reach the national government until mid-January, when a team was dispatched from the Beijing CDC to investigate the outbreak in Zhongshan.¹⁵¹

Once the centralized Chinese government became aware of the outbreak, it withheld information due to the historic perception of the Chinese Communist Party

¹⁴⁷ Although over 90% of rural citizens were covered by medical insurance under the former socialist system during the 1970s, post-Mao reforms during the 1980s and 1990s decentralized and commercialized healthcare, making it increasingly out of reach for the indigent. Rosenthal, 'From China's Provinces, A Crafty Germ Spreads.'

¹⁴⁸ Greenfeld, *China Syndrome: The True Story of the 21st Century's First Great Epidemic*, p. 76.

¹⁴⁹ No one really knew the exact number of SARS patients in Beijing hospitals on any particular day or when they were infected. Author interview with Hu Yonghua, Dean, School of Public Health, Peking University Health Science Center, Beijing, 23 June 2004.

¹⁵⁰ Greenfeld, *China Syndrome: The True Story of the 21st Century's First Great Epidemic*, p. 73.

¹⁵¹ The involvement of national health authorities in a local investigation was highly unusual. *Ibid.*, pp. 85-87.

that natural disasters and diseases reflect poorly on its legitimacy.¹⁵² A rigid hierarchy of communication within the government ensured that information could not be passed down the chain of command without approval from above.¹⁵³ Additionally, infectious disease information is officially considered to be state secret in China.¹⁵⁴ The report from the Heyuan investigation was thus never disseminated. The report from the Zhongshan investigation was shared in late January only with provincial authorities and senior management at major hospitals in Guangzhou, but not directly with healthcare workers. Provincial party leaders also barred the media from publishing about events in Heyuan and Foshan at the end of the first week of January. Traditionally distrustful of outsiders and protective of its sovereignty from international intrusion, the Chinese government was even less likely to share information about the disease internationally.

Finally, the Chinese government's censorship was enhanced by the simultaneous occurrence of sensitive political events. From November 2002 to March 2003, the third generation of Chinese Communist Party leaders, led by Jiang Zemin, was in the process of handing power over to their successors, led by Hu Jintao. During this time, the national government's priority was to maintain stability and ensure a smooth political transition. Signs of social disruption were quickly and effectively suppressed. When an article appeared on a Guangzhou newspaper on 6 March 2003 suggesting that the outbreak there was not under control, provincial Party Secretary Zhang threatened to shut the newspaper down.¹⁵⁵ Three days later, the Ministry of

¹⁵² Lynn T. White, 'SARS, Anti-Populism, and Elite Lies: Temporary Disorders in China,' in *The new global threat: severe acute respiratory syndrome and its impacts*, Tommy Koh, Aileen Plant and Eng Hin Lee, eds. (London: World Scientific Publishing Co. Pte. Ltd., 2003), p. 31.

¹⁵³ Greenfeld, *China Syndrome: The True Story of the 21st Century's First Great Epidemic*, p. 83.

¹⁵⁴ The 1996 regulations supplementing the 1988 State Secrets Law stipulates that widespread infectious diseases belong under the category of highest-level secret. Tony Saich, 'Is SARS China's Chernobyl or Much Ado About Nothing?,' in *SARS in China: Prelude to Pandemic?*, Arthur Kleinman and James L. Watson, eds. (Stanford, CA: Stanford University Press, 2006), p. 77.

¹⁵⁵ John Pomfret, 'Outbreak Gave China's Hu an Opening. President's Move on SARS Followed Immense Pressure at Home, Abroad,' *Washington Post*, 13 May 2003 [website].

Health ordered the heads of Beijing hospitals to report SARS cases up the chain of command on a confidential basis but not to the media.¹⁵⁶

China's strong disinterest in any type of cooperation with the Secretariat made SARS a distinctly challenging and politically delicate epidemic for the Secretariat to navigate. Unable to secure China's voluntary cooperation with the offer of technical assistance as it had previously done in many smaller developing countries, the Secretariat could have remained on the sidelines. But it did not. Instead, it maneuvered around the conflicting interests of member states, seeking out demand for its work and expertise, and pursuing any opportunity to contribute to the response to the spreading disease.

Disorganized demands for cooperation

From mid-February to mid-March, the Chinese government continually rejected the Secretariat's offer of assistance and blocked attempts to establish even very basic information. As the outbreak grew worse in southern China and news spread through informal channels, countries around the world reacted decisively to protect themselves from the mysterious disease. By mid-February, international European consulates in Guangdong province shut down and stopped issuing visas. Many countries developed national travel advisories, recommending that their nationals restrict travel to affected areas, or closed their borders altogether.¹⁵⁷ But these unilateral measures were not enough.

When the outbreak began to spread beyond China, overwhelming and disorganized demands for cooperative information sharing and a coordinated response came from member states, the media, and the general public. SARS had wider political

¹⁵⁶ Ibid.

¹⁵⁷ For example, on 29 March the US CDC warned Americans against non-essential travel to all of China, Singapore, Hanoi, and Hong Kong. Rob Stein, 'At CDC, Big Steps to Stem Epidemic; Warnings Cover Travel, Treatment,' *Washington Post*, 1 May 2003.

and economic implications than any of the outbreaks the Secretariat had previously helped to control, and drew support from the highest levels of government to contain the outbreak quickly.¹⁵⁸ With the international community in crisis and no globally accepted rules for cooperation, the Secretariat stepped into a vacuum of leadership to become the clearinghouse for information and the coordinator of the response to SARS.

In late February, an infected 64-year-old nephrologist traveled from southern China to Hong Kong, where he stayed at a hotel and transmitted the virus to at least sixteen other guests. The nephrologist triggered the outbreak in Hong Kong and the guests infected by him carried the disease to Singapore, Canada, Vietnam, and the United States. The governments of these other countries were more forthcoming with epidemiological information. The Vietnamese government notified the Secretariat the next day after a middle-aged businessman returning from Hong Kong was admitted to Hanoi-French Hospital on 26 February.¹⁵⁹ On 11 March, the Hong Kong government also informed the Secretariat of a local outbreak.¹⁶⁰

Around the same time, WHO's Western Pacific Regional Office formed an ad hoc team¹⁶¹ and began conducting daily teleconferences with country offices in outbreak sites and with WHO headquarters.¹⁶² As the epidemic worsened, many countries welcomed the Secretariat's assumption of leadership, looked to the Secretariat for guidance and information, and voluntarily reported epidemiological data. By this time, the Secretariat believed that the outbreak was not due to human influenza or H5N1 avian influenza, but rather a novel respiratory virus.¹⁶³

¹⁵⁸ Heymann, Kindhauser and Rodier, 'Coordinating the global response,' p. 50.

¹⁵⁹ Floyd Whaley and Osman David Mansoor, 'SARS chronology,' in *SARS: How a global epidemic was stopped* (Geneva: World Health Organization, 2006), p. 165.

¹⁶⁰ Mary Ann Benitez, 'Hong Kong (China): hospitals under siege,' in *SARS: How a global epidemic was stopped* (Geneva: World Health Organization, 2006), p. 87.

¹⁶¹ The team was initially composed of staff members recruited from the regional office's Combating Communicable Disease Division and later grew. Whaley and Mansoor, 'SARS chronology,' p. 11.

¹⁶² *Ibid.*, pp. 11-12.

¹⁶³ *Ibid.*, p. 14.

Demands for information sharing came not only from other countries, but also from China's domestic public. There were immense demands for information within China, and although newspapers were banned from reporting on the epidemic, information was difficult to control. Journalists skirted the regulations, oftentimes disseminating rumors under the guise of attempting to clear them up.¹⁶⁴ Aware of the government's systematic suppression of bad news, modern Chinese citizens recognize that "the truth is usually worse than the government will admit."¹⁶⁵ By early January, the city of Heyuan descended into panic despite official claims that "there [was] no epidemic in Heyuan" and that "people [didn't] need to panic and...buy preventive drugs."¹⁶⁶ A similar panic overtook Zhongshan and Guangzhou, where hyperbolic rumors were spread rapidly by SMS messages.¹⁶⁷

With little official information available and building domestic and international demands for information, the Secretariat began holding press conferences in Beijing, starting with an impromptu question and answer session on 19 February when 15 reporters refused to leave the reception area of WHO's Beijing office.¹⁶⁸ The Secretariat appointed media officers in Beijing,¹⁶⁹ and subsequently rented a space next to its office to hold further media sessions. By 17 March, more than 130 people and

¹⁶⁴ All media in China is state-controlled but as a result of the rapid liberalization of the Chinese economy, many newspapers are no longer state-funded, allowing for greater autonomy. With commercial media sources competing for readers and advertisers, there is strong incentive to report boldly, albeit within the limits set by authorities. Abraham, *Twenty-first century plague: the story of SARS*, p. 20.

¹⁶⁵ Dr. Deng Zide, director of infectious diseases at Guangzhou Number Three Hospital, quoted in Greenfeld, *China Syndrome: The True Story of the 21st Century's First Great Epidemic*, p. 67.

¹⁶⁶ These statements appeared in the *Heyuan Daily*, a small forty-thousand-circulation newspaper controlled by the Communist party, on 3 January 2003. Quoted in *ibid.*, p. xix.

¹⁶⁷ On 6 February 2003, a text message circulated stating that the disease had already infected 105 people and killed 44, and that the Number Three Hospital had been closed to the public. This was followed by a message reading "[t]here is a fatal flu in Guangzhou," which was sent 40 million times on 8 February, 41 million times on 9 February, and 45 million times on 10 February. Abraham, *Twenty-first century plague: the story of SARS* (p. 20; Saich, 'Is SARS China's Chernobyl or Much Ado About Nothing?', p. 76.

¹⁶⁸ Mangai Balasegaram and Alan Schnur, 'China: from denial to mass mobilization,' in *SARS: How a global epidemic was stopped* (Geneva: World Health Organization, 2006), p. 77.

¹⁶⁹ Robert Condon and Mohamed Patel, 'Response of the Western Pacific Regional Office,' in *SARS: How a global epidemic was stopped* (Geneva: World Health Organization, 2006), p. 65.

over 25 cameras from major news networks were in attendance.¹⁷⁰ The Secretariat's policy was to always consult with the Ministry of Health before holding these conferences, and to provide only data verified by the Chinese government.¹⁷¹

Issuing global alerts and travel advisories

By 11 March, the Secretariat was aware of similar outbreaks in Guangdong, Vietnam, and Hong Kong. It suspected and feared that the three outbreaks were linked, suggesting a rapidly escalating epidemic, but could not be certain without knowing the cause of the disease. Indeed, the Chinese government maintained that they were separate incidents.

In the face of a growing global crisis for which member states were unprepared, conflicting national interests, and disorganized and politically contested demands for information and coordination, the Secretariat took a chance and stepped into the political fray to pursue its idea of how the epidemic should be addressed. The Secretariat issued its first global alert on 12 March—an unprecedented and unauthorized regulatory act. The alert informed the public about cases of an acute respiratory syndrome with unknown cause, described the symptoms of the disease, disclosed the outbreaks in Hong Kong, Hanoi, and Guangdong province, and recommended that patients with atypical pneumonia who may be connected with these outbreaks be isolated.¹⁷²

There was considerable risk in issuing the alert. Remarkably little was known at the time, and Secretariat officials writing retrospectively emphasized that uncertainty:

Were the cases in Hanoi and Hong Kong linked? How were they related to the Guangdong outbreak...? What were the odds of three unrelated outbreaks of respiratory illness occurring at the same time in

¹⁷⁰ Balasegaram and Schnur, 'China: from denial to mass mobilization,' p. 77.

¹⁷¹ Author interview with David Heymann, Executive Director of Communicable Diseases, World Health Organization, Geneva, 26 July 2007.

¹⁷² World Health Organization, 'WHO issues a global alert about cases of atypical pneumonia: Cases of Severe Respiratory Illness May Spread to Hospital Staff,' 12 March 2003 [website].

neighbouring countries? Where would the disease strike next? Or could a genetically manipulated agent of biological warfare have been released, by chance or on purpose?¹⁷³

Recalling the decision to issue the first global alert, Mike Ryan, coordinator of WHO's division for Global Epidemic and Pandemic Alert and Response, said "We wondered: 'Are we mad? Are we going to panic the world?'"¹⁷⁴ Ultimately, the decision came from the Secretariat's highest echelon of leaders. David Heymann, then Executive Director of Communicable Diseases at WHO's headquarters, was certain that the situation merited swift and strong action, and he was backed by Director-General Brundtland.¹⁷⁵ The alert was drafted and issued within a few hours.

The 12 March alert provoked criticism. According to Denis Aitken, Director-General Brundtland's right-hand man, health ministries of several countries "asked...why [the Secretariat] hadn't informed them first."¹⁷⁶ But in spite of the protests, the international community acquiesced to the Secretariat's audacious assumption of authority, enabling it to become the definitive voice for SARS information. After the alert, the Secretariat received more voluntary reports of epidemiological information. Singapore's Ministry of Health reported three cases on 13 March, and Canada's Ontario Ministry of Health and Long-Term Care reported four cases and two deaths in Toronto on 14 March.¹⁷⁷ By 15 March the Secretariat was aware of more than 150 suspected cases in Canada, China, Hong Kong, Indonesia, Philippines, Singapore, Thailand, and Vietnam.¹⁷⁸

¹⁷³ Condon and Patel, 'Response of the Western Pacific Regional Office,' p. 60.

¹⁷⁴ Margot Cohen, Gautam Naik and Matt Pottinger, 'Spreading the Word: Inside the WHO As It Mobilized For War on SARS,' *Wall Street Journal*, 2 May 2003.

¹⁷⁵ Author interview with David Heymann, Executive Director of Communicable Diseases, World Health Organization, Geneva, 26 July 2007.

¹⁷⁶ Cohen, Naik, and Pottinger, 'Spreading the Word.'

¹⁷⁷ Whaley and Mansoor, 'SARS chronology,' p. 15.

¹⁷⁸ World Health Organization, 'World Health Organization issues emergency travel advisory,' 15 March 2003 [website].

On 15 March, the Secretariat also received an urgent notification from Singapore that a Singaporean physician with symptoms of atypical pneumonia was on board a flight returning from New York to Singapore with a stopover in Frankfurt.¹⁷⁹ The Secretariat worked with German officials to remove the physician and his family members, who were immediately isolated.¹⁸⁰ Meanwhile, a second flight that day from Hong Kong to Beijing resulted in widespread transmission,¹⁸¹ underscoring the importance of and need for a central body to coordinate the prevention of further spread.

Prompted by mounting evidence that the virus could be spread by air travel, the Secretariat issued a second alert on 15 March. This alert named the illness Severe Acute Respiratory Syndrome, provided standardized definitions for suspected and probable cases, declared the disease a “worldwide health threat,” and offered guidance to travelers and airlines.¹⁸² According to Secretariat officials, this second advisory was a critical turning point: “Before we were saying, ‘Be careful’ With the travel alert we were saying, ‘This is a crisis.’”¹⁸³

The second global alert was followed by on-going updates that listed “affected areas,” where health authorities reported local transmission. Beginning on 16 March, the Secretariat started publicly tracking the outbreak in real-time with daily updates of reported cases on its website.¹⁸⁴ Ninety-six updates were published between 16 March and 5 July, and intermittent updates thereafter whenever relevant events occurred. The list of affected areas started with Guangdong province, Hanoi, Hong Kong, Singapore,

¹⁷⁹ Whaley and Mansoor, ‘SARS chronology,’ p. 15.

¹⁸⁰ World Health Organization, *Severe acute respiratory syndrome (SARS): Status of the outbreak and lessons for the immediate future*, p. 3.

¹⁸¹ A man that was infected while visiting his brother in ward 8A of Prince of Wales Hospital gave the virus to at least 22 of the 119 passengers and two of the eight crewmembers on the flight.

¹⁸² World Health Organization, ‘World Health Organization issues emergency travel advisory.’

¹⁸³ Dr. Klaus Stöhr, head of WHO’s influenza project, quoted in Cohen, Naik, and Pottinger, ‘Spreading the Word.’

¹⁸⁴ World Health Organization, ‘Severe acute respiratory syndrome (SARS)’ [website].

Toronto, and Vancouver on 16 March and later also included other regions in China.

The Secretariat’s general approach was to issue advisories based only on information that had been verified by country governments.¹⁸⁵ It initially advised no restrictions on travel or trade in an attempt to reign in irrational measures. But as the epidemic unfolded, its advice grew bolder. On 27 March, the Secretariat recommended that passengers from affected areas—then consisting of Hong Kong, Singapore, Vietnam, and Canada—be screened for SARS symptoms or history of contact.¹⁸⁶ By early April, the Secretariat also took the unprecedented step of recommending that travelers postpone all but essential travel to SARS-affected areas. Hong Kong and Guangdong were the first areas for which the travel advisory was issued on 2 April,¹⁸⁷ and similar advisories were subsequently issued for areas in China and for Toronto.

Date	Travel recommendations to postpone all but essential travel
2 April 2003	Issued for Hong Kong and Guangdong, China
23 April 2003	Issued for Beijing and Shanxi, China and for Toronto, Canada
29 April 2003	Lifted for Toronto
8 May 2003	Issued for Tianjin and Inner Mongolia, China and Taipei, Taiwan
17 May 2003	Issued for Hubei Province, China
21 May 2003	Extended to all of Taiwan
23 May 2003	Lifted for Hong Kong and Guangdong Province
13 June 2003	Lifted for Hubei, Inner Mongolia, Shanxi, and Tianjin provinces, China
17 June 2003	Lifted for Taiwan
24 June 2003	Lifted for Beijing, the last area on the list

Table 5: Chronology of World Health Organization travel advisory notices.¹⁸⁸

The global alert of 15 March and subsequent region-specific travel advisories were even riskier and more contentious than the first 12 March alert. Some in the Secretariat objected to the second global alert—“What if we’re wrong?” Stöhr recalled

¹⁸⁵ Author interview with David Heymann, Executive Director of Communicable Diseases, World Health Organization, Geneva, 26 July 2007.

¹⁸⁶ World Health Organization, ‘Severe Acute Respiratory Syndrome (SARS) multi-country outbreak—Update 11: WHO recommends new measures to prevent travel-related spread of SARS,’ 27 March 2003 [website].

¹⁸⁷ World Health Organization, ‘Severe Acute Respiratory Syndrome (SARS) multi-country outbreak—Update 17: Travel advice—Hong Kong Special Administrative Region of China, and Guangdong Province, China,’ 2 April 2003 [website].

¹⁸⁸ Adapted from World Health Organization, ‘Update 92—Chronology of travel recommendations, areas with local transmission,’ 1 July 2003 [website].

one person asking—but Heymann again successfully pushed for its issuance.¹⁸⁹ The advisory of 2 April was the first time in WHO’s history that it had promulgated geographically-specific travel advice in response to an infectious disease outbreak.¹⁹⁰ The travel advisories threatened Canadian and Chinese commerce,¹⁹¹ and had huge implications for global business and tourism generally.¹⁹²

Additionally, the Secretariat did not have legal authority from WHO’s Constitution, the 1969 IHR, or any Health Assembly decision or recommendation to issue such recommendations.¹⁹³ In fact, the Secretariat acted “well beyond the authority it was proposing to write into the revised IHR.”¹⁹⁴ In a 2002 draft text, the Secretariat suggested that when there is imminent risk of an infection spreading internationally, WHO would issue recommendations “for action by Member States” after consulting with the countries potentially affected.¹⁹⁵ Such recommendations “could be directed at the affected country (containment and control measures), at other Member States, or at both.”¹⁹⁶ But the Secretariat’s region-specific advisories were directed at travelers, and they were issued without consulting the affected states.

The Chinese government complained of the advisories, and the Canadian government reacted swiftly and angrily.¹⁹⁷ A team of experts, led by Ontario’s health minister Tony Clement, traveled to Geneva to make their case in person. They argued that the travel advisory should be lifted because it had been over twenty days since a

¹⁸⁹ Cohen, Naik, and Pottinger, ‘Spreading the Word’.

¹⁹⁰ World Health Organization, ‘Severe Acute Respiratory Syndrome (SARS) multi-country outbreak—Update 19: China deepens its collaboration to contain SARS, WHO revises its advice to international travellers as new data come in,’ 2 April 2003 [website].

¹⁹¹ Fidler, *SARS: Governance and the Globalization of Disease*, p. 78.

¹⁹² Cohen, Naik, and Pottinger, ‘Spreading the Word’.

¹⁹³ Fidler, *SARS: Governance and the Globalization of Disease*, p. 137.

¹⁹⁴ *Ibid.*, p. 139.

¹⁹⁵ World Health Organization, *Global Crises—Global Solutions: Managing Public Health Emergencies of International Concern Through the Revised International Health Regulations* (Geneva: WHO, 2003), p. 9.

¹⁹⁶ *Ibid.*, pp. 9-10.

¹⁹⁷ National Advisory Committee, *Learning from SARS: Renewal of Public Health in Canada—A Report of the National Advisory Committee on SARS and Public Health* (Ottawa: Health Canada, 2003), p. 202.

new case had been reported outside the healthcare setting, indicating that SARS was coming under control.¹⁹⁸ Further, in a letter to the Secretariat, Canadian health authorities wrote: “there is no evidence of any casual transmission of SARS in Toronto and every case of SARS can be linked back to the original Canadian case.... Travel to any destination in Canada is safe.”¹⁹⁹ Faced with direct opposition from a member state, the Secretariat yielded. At the time of its issuance on 23 April, the Secretariat planned to revisit the advisory against Toronto in three weeks,²⁰⁰ but the advisory was lifted on 29 April.

In a subsequent Health Canada report published after the SARS epidemic was resolved, the Canadian government observed that the Secretariat’s travel advisories were issued “without explicit authorization by member states.”²⁰¹ But during the epidemic itself, the Canadian government made only medical appeals, and neither Canada nor any other member state fundamentally challenged the Secretariat’s authority to issue travel advisories. On the contrary, the international community embraced the Secretariat’s actions and its provision of much needed services, as evidenced by the record number of hits received by WHO’s website as the epidemic progressed. Officials within the Secretariat also responded to surging media interest. At the height of the epidemic, the three-person public information team at WHO’s Western Pacific Regional Office in Manila fielded hundreds of phone calls per day.²⁰² The Secretariat responded to live television and radio interviews from stations as far as

¹⁹⁸ ‘SARS-Related Travel Advisory for Toronto Lifted,’ *PBS*, 20 April 2003 [website].

¹⁹⁹ Whaley and Mansoor, ‘SARS chronology,’ p. 33.

²⁰⁰ Andrew P. Cortell and Susan Peterson, ‘Dutiful agents, rogue actors, or both? Staffing, voting rules, and slack in the WHO and WTO,’ in *Delegation and Agency in International Organizations*, Darren G. Hawkins, David A. Lake, Daniel L. Nielson and Michael J. Tierney, eds. (Cambridge: Cambridge University Press, 2006), p. 271.

²⁰¹ National Advisory Committee, *Learning from SARS: Renewal of Public Health in Canada—A Report of the National Advisory Committee on SARS and Public Health*, p. 199.

²⁰² Condon and Patel, ‘Response of the Western Pacific Regional Office,’ p. 65.

Bolivia and Croatia, and answered requests for information from embassies, businesses, schools, and the public.²⁰³

Providing technical assistance

The Secretariat also played a leadership role and helped control the epidemic in less controversial ways. Outside of China, the Secretariat sent field operation teams to Vietnam, Hong Kong, Philippines, and Singapore to investigate the outbreak situation, provide technical assistance, and bring the epidemic under control. Additionally, it worked with unaffected but vulnerable countries to prevent further spread.

As already mentioned, the Secretariat became immediately involved in the Vietnam outbreak in early March. Concerned about the possibility of an H5N1 avian influenza outbreak, the Vietnamese government informed WHO's country representative in Vietnam, Pascale Brudon, of the first SARS case just one day after the patient was admitted to Hanoi-French Hospital. WHO's parasitologist, Carlo Urbani, examined the index patient, sent a report to WHO's Western Pacific Regional Office, and arranged for serum and throat swabs to be dispatched to laboratories in Tokyo, Atlanta, and Hanoi for further examination.

When the disease spread to hospital staff over the next few days, Urbani pushed for stronger infection control measures at the hospital, and Brudon wrote to the Ministry of Health offering the Secretariat's assistance and requesting speedy visa approval for incoming international experts.²⁰⁴ Vietnam's Vice Minister of Health deployed its own investigatory team that same day and readily agreed to have the Secretariat send an international team, including Oshitani, to investigate the outbreak.²⁰⁵ In all, twenty-five international experts and six local staff members joined the Secretariat's Vietnam

²⁰³ Ibid.

²⁰⁴ Pascale Brudon and Maria Cheng, 'Viet Nam: tough decisions pay off,' in *SARS: How a global epidemic was stopped* (Geneva: World Health Organization, 2006), p. 94.

²⁰⁵ Ibid., p. 95.

SARS team.²⁰⁶ The team recommended to the Vice Minister of Health and the director of the National Institute of Hygiene and Epidemiology contact tracing and surveillance for new cases as well as control measures to prevent further transmission.²⁰⁷ Following this advice, the Ministry of Health formed a high-level Task Force that met daily, and the Vietnamese Prime Minister created an inter-ministerial steering committee. The infection came under control in early April. Vietnam was the first country with an outbreak to be removed from the Secretariat's list of affected areas.

The Secretariat also played smaller roles in the outbreaks in Hong Kong, Philippines, and Singapore. Such collaboration both lent authority to the Secretariat and credibility to local health authorities. The Secretariat praised Singapore's handling of its outbreak as exemplary from the start.²⁰⁸ Additionally, the Secretariat prepared guidelines and dispatched consultants to provide support for vulnerable countries that had not yet been affected, such as Cambodia and the Lao People's Democratic Republic. A Secretariat consultant travelled from one Pacific island to another for eight weeks, rapidly assessing the preparedness of ten areas considered at risk.²⁰⁹

The Secretariat was able to effectively play this role because it had set up GOARN years before and had extensive experience responding rapidly to epidemics. WHO's Western Pacific Regional Office hired a logistician to help find and recruit personnel, and the normal hiring process was fast-tracked so that consultants could complete the initial medical clearance and paperwork, and get on an airplane within a few days.²¹⁰ Through GOARN, the Secretariat drew human resources from existing networks, such as the Training Programs in Epidemiology and Public Health

²⁰⁶ Ibid., p. 96.

²⁰⁷ Ibid., p. 95.

²⁰⁸ 'WHO: At the Forefront of Combating SARS,' in *The new global threat: severe acute respiratory syndrome and its impacts*, Tommy Koh, Aileen Plant and Eng Hin Lee, eds. (London: World Scientific Publishing Co. Pte. Ltd., 2003), p. 6.

²⁰⁹ Condon and Patel, 'Response of the Western Pacific Regional Office,' p. 64.

²¹⁰ Ibid., p. 62.

Interventions Network (“TEPHINET”),²¹¹ the Field Epidemiology Training Programs, and academic institutions.²¹² The Secretariat also received ad hoc contributions from various governments and donors to support its efforts. The United States contributed personnel from its CDC, and the Japan International Cooperation Agency donated US\$3 million to WHO’s Western Pacific Regional Office for medical and laboratory supplies.²¹³

Coordinating scientific collaboration

The Secretariat also coordinated scientific research to resolve some of the basic unknowns about the disease—its cause, its clinical characteristics, and its transmission patterns. The Secretariat rapidly established three networks for laboratory, clinical, and epidemiological collaboration by drawing on the world’s top medical personnel through GOARN.

Researchers outside China did not have access to patient samples until March when the disease began spreading in other countries. Within China, Beijing’s Academy of Military Medical Sciences had identified a novel coronavirus from patient samples in late February but did not divulge this discovery. Instead, the Chinese government insisted that the outbreak in southern China was caused by Chlamydia.

The Secretariat was not convinced by this explanation, and on 17 March it established a network of laboratories to accelerate the identification of the SARS-causing pathogen and the development of diagnostic technologies. Setting up the network was a challenge as scientists are not accustomed to sharing results in the race to publish first. In addition to identifying and soliciting the participation of eleven laboratories in Hong Kong, Japan, Singapore, Canada, France, Germany, the

²¹¹ According to its website, TEPHINET is a professional network of field epidemiology training programs. TEPHINET, ‘TEPHINET: Training Programs in Epidemiology and Public Health Interventions Network,’ [website].

²¹² Condon and Patel, ‘Response of the Western Pacific Regional Office,’ p. 62.

²¹³ Ibid., pp. 63-64.

Netherlands, the United Kingdom, and the United States, the Secretariat also had to convince them to work cooperatively. The condition for participation was that all laboratories must only use shared information to advance the joint project. The network operated through daily phone conferences to assess research results and refine investigative strategies. Participating labs also shared virus isolates, samples from patients, electron pictures of viruses, and sequences of genetic material through a secure WHO website.²¹⁴

After some initial confusion,²¹⁵ a coronavirus was identified as a possible cause on 22 March. By 7 April, three diagnostic tests were available,²¹⁶ and by 16 April, the Secretariat confirmed that the causative agent is a coronavirus that has never before been seen in humans.²¹⁷ This level of cooperation, leading to the identification of an unknown agent within a month, was unprecedented. According to James Hughes, director of the US CDC's National Center for Infectious Diseases, the global collaboration was historic: "laboratories around the world—which at other times might be competing with each other to be first to sort this out—are sharing all their information on a daily basis as it's developing, and that's why we're able to make as rapid progress as we have made."²¹⁸

The Secretariat also established a network of clinicians on 20 March, which brought together clinical doctors from the most heavily affected areas in Asia, Europe and North America to share experiences in diagnosing, managing, and treating SARS.

²¹⁴ World Health Organization, 'WHO collaborative multi-centre research project on Severe Acute Respiratory Syndrome (SARS) diagnosis' [website].

²¹⁵ Preliminary findings inaccurately suggested the pathogen causing SARS was a virus from the paramyxoviridae family. World Health Organization, 'Severe Acute Respiratory Syndrome (SARS) multi-country outbreak—Update 3,' 18 March 2003 [website].

²¹⁶ World Health Organization, 'Severe Acute Respiratory Syndrome (SARS) multi-country outbreak—Update 23: Status of the main SARS outbreaks in different countries,' 7 April 2003 [website].

²¹⁷ World Health Organization, 'Severe Acute Respiratory Syndrome (SARS) multi-country outbreak—Update 31: Coronavirus never before seen in humans is the cause of SARS,' 16 April 2003 [website].

²¹⁸ Quoted in M. Chase, M. Pottinger, B. McKay, and V. Furhman, 'Labs Collaborate World-Wide to Identify Deadly Virus,' *Wall Street Journal*, 26 March 2003.

Clinicians from seven countries participated in two daily teleconferences, known as “virtual grand rounds,” to pool data on cases and share X-ray pictures, which were the primary tools for distinguishing between suspected and probable cases.²¹⁹ According to Mark Salter, the Secretariat official in charge of the network, “WHO has never brought together this many clinicians with such rapidity.... It’s groundbreaking.”²²⁰ The Secretariat was thus able to facilitate the rapid global dissemination of best practices for SARS diagnosis and treatment.

Lastly, the Secretariat established a network of epidemiologists on 28 March. The network, including health ministries and centers for disease control from nine countries as well as from WHO headquarters and regional offices in the Western Pacific and Europe, collaborated in real-time to review control measures and reach quick consensus on priorities, methods, and implementation of specialized investigations.²²¹

The work of these networks demonstrated that the Secretariat was an effective crisis leader, capable of producing results that were useful to and welcomed by member states. The Secretariat thus became the authoritative global standard-setter for SARS, publishing and then updating guidelines for handling SARS specimens, recommendations for laboratory diagnostic tests, and consensus documents on case management throughout the epidemic.²²²

China’s turnaround

Despite China’s initial intransigence, the Secretariat was ultimately able to secure its cooperation. A combination of domestic factors, international pressure, and the Secretariat’s own actions eventually led to a turn in China’s approach to SARS.

²¹⁹ World Health Organization, ‘Severe Acute Respiratory Syndrome (SARS) multi-country Outbreak—Update 5: Disease Outbreak Reported,’ 20 March 2003 [website].

²²⁰ Rob Stein, ‘Mystery Illness’s Mortality Rate 4%, WHO Official Says,’ *Washington Post*, 27 March 2003.

²²¹ World Health Organization, ‘The operational response to SARS,’ 16 April 2003 [website].

²²² World Health Organization, ‘Severe Acute Respiratory Syndrome (SARS): WHO guidelines/recommendations/descriptions’ [website].

In March, China continued to block cooperation because the domestic political costs of engagement were too high while the government was preparing for the National People's Congress, during which the handover of power was to occur.²²³ The Ministry of Health was told not to respond to the Secretariat's questions and requests,²²⁴ and the media was forbidden from reporting the Secretariat's second global alert of 15 March.²²⁵ After the National People's Congress ended on 19 March and the new leadership assumed power, China began shifting toward a different SARS policy.

The Secretariat noticed that Chinese officials were under pressure in late March and surmised that the Chinese government had begun internally addressing the outbreak in earnest. During a meeting with the Ministry of Health, Chinese officials repeatedly remarked that there had been a long delay and that they would act quickly.²²⁶ The Chinese government reported to the Secretariat on 27 March that there had been cumulatively 792 cases of and 31 deaths from atypical pneumonia—data that contradicted previous assurances that the epidemic had been resolved. It also admitted the next day that the outbreak in southern China was most likely caused by SARS, and agreed to provide to the Secretariat daily reports province-by-province starting in April.

Although the Chinese government was becoming more cooperative, it also continued to withhold and give inaccurate information on a selective basis. On 3 April, the Chinese Minister of Health, Zhang Wenkang, addressed the nation on television and

²²³ A former Chinese intelligence officer explained that the political implications of the transition in leadership were evident to all: "We wanted clear skies. No one had to come out and order party secretaries not to talk about this disease. This is one of those instances where party officials know how to think correctly." Quoted in Greenfeld, *China Syndrome: The True Story of the 21st Century's First Great Epidemic*, p. 208.

²²⁴ According to one Ministry of Health official, these instructions came from high up in the ministry: "[t]hat's why in our meetings with WHO we were emphatic that the outbreak was over but could not give them satisfactory scientific explanations...[w]e did not have that information, and once we were told that the outbreak was officially 'closed,' we could not secure cooperation at the provincial level." Quoted in *ibid.*

²²⁵ White, 'SARS, Anti-Populism, and Elite Lies: Temporary Disorders in China,' pp. 44-45.

²²⁶ Author interview with Alan Schnur, Team Leader for Communicable Diseases, World Health Organization Beijing Office, Geneva, 27 June 2006.

declared that there were only a dozen cases in Beijing. Doctors and public health officials working in the city knew the data was manifestly false.²²⁷ Domestic and international actors took the government to task for its deception.

On 4 April, Jiang Yanyong, chief physician at a Beijing military hospital, faxed a note to the government-controlled Chinese Central Television (CCTV-4) and Hong Kong's Phoenix TV saying that 60 SARS patients had been admitted at one Beijing hospital alone. The news was picked up immediately by media around the world. On the same day, American Secretary of Health, Tommy Thompson called Minister Zhang and urged him to cooperate with the international community. Two weeks later, Thompson criticized China publicly at a European Union meeting in Rome: "We've been very upset with the transparency of the Chinese government.... We think lives could have been saved. We could have controlled it."²²⁸

On the Secretariat's part, its relationship with the Chinese government had been cautious thus far and was showing some improvement as the government partook in superficial cooperation. The Secretariat was permitted to send an investigatory team to southern China in early April,²²⁹ where it found that the authorities had carried out detailed surveillance of cases, confirming the suspicion that the Chinese government had done its own investigations beforehand to ensure that the Secretariat team would find only positive results.²³⁰ The Secretariat was also permitted to visit some hospitals

²²⁷ Ray Yip at the US CDC office in Beijing later recalled being aware of a far larger number of cases through only a few of his personal contacts. Author interview with Ray Yip, Director, China Office, US Centers for Disease Control, Beijing, 30 January 2007.

²²⁸ Quoted in Jonathan Ansfield and Amran Abocar, 'China under fire over spread of SARS,' *The New Zealand Herald*, 18 April 2003.

²²⁹ The team arrived in China on 23 March. At the request of the Ministry of Health, the team spent the first week preparing PowerPoint presentations—an obvious diversion. Greenfeld, *China Syndrome: The True Story of the 21st Century's First Great Epidemic*, p. 269.

²³⁰ Schnur had submitted another request to go to Guangdong on 28 March, and felt that Chinese officials were stalling because they were doing their own investigations. Author interview with Alan Schnur, Team Leader for Communicable Diseases, World Health Organization Beijing Office, Geneva, 27 June 2006.

in Beijing, but it was later revealed in a press leak that patients had been moved during the visits to deceive Secretariat officials.²³¹

As rumors spread of hundreds of SARS cases in Beijing hospitals and the Secretariat too was increasingly pressed by media to verify official Chinese figures, the Secretariat began to exert pressure on the Chinese government. Director-General Bruntland publicly criticized China on 9 April, stating that “[i]t would have been better if the Chinese government had been more open in the early stages.”²³² A week later, the Secretariat, for the first time, divulged information that had not been confirmed by and was in conflict with the Chinese government’s official data. At a press conference in Beijing, under pressure to provide more information, Schnur estimated that there could be 100 to 200 probable cases, or three to six times more than had been reported by the government.²³³

Around mid-April, the Chinese government’s approach to SARS changed drastically. New President Hu Jintao initiated a personal anti-SARS campaign, which became a rallying point for his administration as he consolidated power. He travelled to Guanzhou making widely publicized appearances in hospitals and laboratories, and stated on state television that he was “very worried” about SARS.²³⁴ Premier Wen Jiabao conceded that the SARS outbreak in China was “grave” and pledged that the government would “speak the truth.”²³⁵ Chinese leaders warned local officials against covering up reports on the spread of SARS.

²³¹ At Sino-Japan Friendship Hospital, 31 infected healthcare workers were packed into ambulances and driven around Beijing while the Secretariat team visited. Similarly, at 309 Hospital, 40 SARS patients were transported into a separate long-stay facility. ‘China hid SARS patients—report,’ *CNN*, 18 April 2003 [website]; John Pomfret, ‘SARS cover-up official policy, say doctors,’ *The Washington Post*, 21 April 2003 [website].

²³² Abraham, *Twenty-first century plague: the story of SARS*, p. 101.

²³³ Author interview with Alan Schnur, Team Leader for Communicable Diseases, World Health Organization Beijing Office, Geneva, 27 June 2006.

²³⁴ Pomfret, ‘Outbreak Gave China’s Hu an Opening.’

²³⁵ *Ibid.*

Hu's campaign against SARS culminated in the dismissal of Health Minister Zhang and Beijing Mayor Meng Xuenong on 20 April. That same day, Deputy Health Minister Gao Xian held a press conference that was unprecedented in Chinese history. He announced that there were 339 probable cases and 402 suspected cases in Beijing, and estimated 2200 cases in all of China.²³⁶ He then spent nearly two hours answering the questions of reporters on live television.

Huge domestic changes were implemented in late April. Over 120 local officials were sacked for shortcomings in SARS work. The Chinese government established a central command center to contain SARS and endowed it with two billion RMB, which was used to fund new building projects and the provision of more healthcare services. All Beijing primary and secondary schools were closed, health officials sealed two hospitals and placed thousands of patients and medical workers under observation, and all public places of entertainment in Beijing, including theatres, cinemas and Internet cafes were required to shut.

China also engaged in more international collaboration. A Secretariat expert helped the Ministry of Health develop measures to prevent the spread of SARS during the May holidays, and a Secretariat consultant assisted with the development of a media center for SARS that opened in mid-May. A three-member Secretariat team was sent to Guangdong province to investigate the origins of the SARS virus. Secretariat members also joined Chinese experts on visits to Hebei, Henan, Anhui, and Shanxi provinces as well as Tianjin city, Guangxi Autonomous Region and Inner Mongolia Autonomous Region. After some controversy over Taiwan's request for technical assistance from the Secretariat in May, the Chinese government permitted a two-person Secretariat team

²³⁶ 'Beijing Mayor Fired Over Handling of SARS,' *PBS*, 21 April 2003 [website].

to visit while insisting that Taiwan need not change its status within WHO to gain the needed public health aid.²³⁷

In June 2003, Beijing, Taiwan, and four Chinese provinces were removed from the affected areas list, bringing the epidemic to a close. The Secretariat had successfully coordinated the response to the first severe and readily transmissible emerging disease of the twenty-first century.²³⁸ Despite the Secretariat's contested actions, overall member states commended the Secretariat for promptly and effectively leading the international response to SARS.²³⁹

Post hoc approval

Even before the SARS epidemic was resolved, the Secretariat began capturing the precedential value of the crisis by drawing lessons for the future and seeking formal authorization for its audacious actions. A May 2003 WHO publication emphasized the Secretariat's growing role in responding to epidemics.²⁴⁰ It stated that the Secretariat's activities during SARS helped prevent the epidemic's further spread and limited its consequences. It asserted that SARS is but one of many internationally important outbreaks, and that its political salience was "helping the public to understand" the value of the Secretariat's work as a global coordinator that "enable[s] rapid response[s]" and "save[s] lives."²⁴¹ It also argued that the SARS experience had demonstrated the need for "strong but politically neutral global leadership" and the importance of allowing the Secretariat "privileged access to all countries."²⁴² The Secretariat thus

²³⁷ 'Another Failure for Taiwanese Separatists,' *People's Daily*, 21 May 2003 [website].

²³⁸ World Health Organization, *Severe acute respiratory syndrome (SARS): Status of the outbreak and lessons for the immediate future*, p. 1.

²³⁹ See discussions regarding SARS and the IHR revision during the 2003 Health Assembly. World Health Organization, Fifty-Sixth World Health Assembly, 'Verbatim Records for the ninth meeting, Committee A,' A56/VR/9, 2003; World Health Organization, Fifty-Sixth World Health Assembly, 'Verbatim Records for the tenth meeting, Committee A,' A56/VR/10, 2003.

²⁴⁰ World Health Organization, *Severe acute respiratory syndrome (SARS): Status of the outbreak and lessons for the immediate future*, p. 9.

²⁴¹ Ibid.

²⁴² Ibid.

drew on international political pressure against China to better position itself for future epidemics.

During the May 2003 session of the Health Assembly, the Secretariat submitted two related reports and resolutions to member states, one on SARS and the other on the revision of the IHR. The SARS report emphasized that “prompt and open reporting of cases is vital,” and that “on-the-spot studies by a WHO team” may be required when “there is reason to be concerned about the effectiveness of containment measures in an individual country.”²⁴³ The report stated that the outbreak provided “firm evidence of the need for” both a revised IHR and its operational arm, GOARN.²⁴⁴ The report also attempted to pave the way for future global alerts, noting that “[e]xperience has...shown the ability of global alerts, widely supported by a responsible press and amplified by electronic communications, to improve global vigilance and awareness at all levels.”²⁴⁵

The SARS resolution proposed by the Secretariat received unusual scrutiny from member states. An informal working group with delegates from 37 countries considered the Secretariat’s draft and prepared a revision that was ultimately approved.²⁴⁶ There was some disagreement regarding the Secretariat’s ability to respond to requests for SARS support in light of the controversy over the Secretariat sending a team to Taiwan. Ultimately, China did not block a consensus but stated for the record that it understood the resolution to require the Secretariat to have consent

²⁴³ World Health Organization, Report by the Secretariat to the Health Assembly, ‘Revision of the International Health Regulations: Severe acute respiratory syndrome (SARS),’ A56/48, 17 May 2003, ¶ 19.

²⁴⁴ *Ibid.*, ¶ 18.

²⁴⁵ *Ibid.*, ¶ 21.

²⁴⁶ The revised resolution was presented by Wanchai Sattayawuthipong, the representative for Thailand. The revision was prepared based on recommendations made at special meetings of health ministers in Asia and the European Union and Asian aviation authorities. World Health Organization, Fifty-Sixth World Health Assembly, ‘Verbatim Records for the tenth meeting, Committee A,’ A56/VR/10, 2003.

from the national government concerned before responding to a request from a local health institution.²⁴⁷

The resolution that was adopted by the Health Assembly acknowledged that global collaboration is needed to control SARS and expressed appreciation for the Secretariat's "crucial role" in the campaign to end the epidemic.²⁴⁸ It removed the proposed resolution's expressed appreciation for specific aspects of the Secretariat's work, including its issuance of recommendations to international travelers.²⁴⁹ It urged member states to report cases promptly and transparently and to apply the Secretariat's recommended guidelines, including on international travel, but it also placed conditions on the way in which the Director-General formulates its SARS travel advisories. The Director-General must base her classification of "areas with recent local transmission" on epidemiological information provided by member states, and must review and update classifications "through close consultation with the Member States concerned."²⁵⁰ Finally, the adopted resolution requested the Director-General to take the experience of SARS into account when revising IHR.²⁵¹

The second report and resolution on the IHR revision were updated versions of documents already approved by the Executive Board in January 2003. Recall that the Executive Board had adopted a plan to complete the IHR revision by 2005 just as SARS emerged.²⁵² Those documents were revised in light of SARS and submitted to the Health Assembly. The resolution that was adopted emphasized that SARS had

²⁴⁷ Ibid.

²⁴⁸ World Health Organization, World Health Assembly Resolution, 'Severe acute respiratory syndrome (SARS),' WHA56.29, 28 May 2003.

²⁴⁹ World Health Organization, Report by the Secretariat to the Health Assembly, 'Revision of the International Health Regulations: Severe acute respiratory syndrome (SARS),' A56/48, 17 May 2003, p. 6.

²⁵⁰ World Health Organization, World Health Assembly Resolution, 'Severe acute respiratory syndrome (SARS),' WHA56.29.

²⁵¹ Ibid.

²⁵² World Health Organization, Executive Board Resolution, 'Revision of the International Health Regulations,' EB111.R13, 24 January 2003.

“given concrete expression” to the inadequacy of the old IHR and the “urgent need” for the Secretariat to “undertake specific actions not addressed by the Regulations”—in other words, to exceed its authority under the 1969 law.²⁵³ The resolution urged member states to give high priority to the revision of the IHR and to establish a national standing task force to work with the Secretariat during emergencies. It also requested the Director-General to alert the international community of serious public health threats based on criteria and procedures to be jointly developed with member states, and to collaborate with national authorities in assessing threats, including conducting on-site studies when necessary.

The passage of the two resolutions thus provided post hoc authorization for Secretariat actions that exceeded its then-existing delegated powers. The resolutions approved of the Secretariat’s insistence on reporting of a disease not covered by the 1969 IHR, its push to conduct local investigations, and its issuance of global alerts and travel advisories. After SARS, the 1969 IHR lost even the semblance of authority and a revision was inevitable. During the Health Assembly discussion of the IHR resolution, many member states expressed the urgent need for a new legal framework and their desire to participate in the revision process. The Chinese delegate expressed that the revision “should be speeded up,” the American delegate emphasized that the 1969 IHR was “obviously insufficient,” and the Japanese delegate urged that the revision process “should be streamlined and completed as early as possible.”²⁵⁴

The steps of treaty making

Viewed from a treaty making perspective, the Secretariat’s work formalizing and codifying the epidemiological approach and capturing the political momentum of

²⁵³ World Health Organization, World Health Assembly Resolution ‘Revision of the International Health Regulations,’ WHA56.28, 28 May 2003.

²⁵⁴ See World Health Organization, Fifty-Sixth World Health Assembly, ‘Verbatim Records for the ninth meeting, Committee A,’ A56/VR/9, pp. 161, 163-164.

current events constituted critical steps in the treaty making process. Recall from Chapter 4 that the early steps of diagnosing the problem, developing a common body of knowledge, searching for possible solutions, and conceiving of a framework for later agreement were each well underway by the time formal revision was initiated in 1995. During the years after 1995, the Secretariat's management of external events and member state preferences led to the drafting of a single negotiating text, the initiation of a learning and consensus building process, and the transformation of external crises into precipitating events that highlighted the problem of outdated infectious disease regulations.

As discussed in Chapter 2, scholars of multilateral negotiation have noted the critical importance of reaching and working collectively from a single negotiating text for managing complexity.²⁵⁵ Typically, the process of drafting provisions occurs after parties state their initial positions in a plenary setting and before the final bargaining phase.²⁵⁶ But in the case of the 2005 IHR, the negotiating text was drafted by the Secretariat on the basis of its existing practices before member states ever gathered in a plenary setting dedicated to the revision of the IHR.

In the place of plenary meetings, the Secretariat gradually learned about member states' negotiating positions and began building a consensus around the epidemiological approach through Health Assembly and Executive Board meetings as well as by conducting consultations and workshops. The Secretariat worked to foster both a technical consensus backed by evidence, experience, and experts outside WHO, as well as a political consensus by reaching out to member states and involving them in the

²⁵⁵ Pamela Chasek, 'A comparative analysis of multilateral environmental negotiations,' *Group Decision and Negotiation*, vol. 6, no. 5, 1997, p. 441; Howard Raiffa, *The art and science of negotiation* (Cambridge, MA: Belknap Press of Harvard University Press, 1982), p. 254; I. William Zartman, 'Introduction: Two's Company and More's a Crowd: The Complexities of Multilateral Negotiation,' in *International multilateral negotiation: approaches to the management of complexity*, I. William Zartman, ed. (San Francisco: Jossey-Bass, 1994), p. 3.

²⁵⁶ Chasek, 'A comparative analysis of multilateral environmental negotiations,' p. 441.

drafting process. When formal negotiations began in 2004, the Secretariat had an idea of where the likely areas of disagreement would be. Discussions during various Health Assemblies over the years suggested that the definition of the new IHR's reporting requirement, the relationship of the revised IHR to other legal instruments for addressing bioterrorism, the extent of the Secretariat's powers vis-à-vis member states, and the availability of resources to help developing countries improve their core capacities for surveillance and response were likely areas that would require further deliberation.

While precipitating events typically lead to the initiation of the treaty making process by bringing a particular problem to the attention of the international community, in the case of the revised IHR, precipitating events came much later. The Secretariat had perceived a new infectious disease problem decades earlier through its day-to-day operations and had informally begun the treaty making process before any high-profile crisis occurred. Once it had developed an effective system for detecting and rapidly responding to epidemics, it framed and treated the 2001 anthrax attacks and the 2003 SARS outbreak as precipitating events that demonstrated the urgent need for a new IHR. Thus, the anthrax attacks and the SARS epidemic served to cast a spotlight on international infectious disease regulation just as outbreaks of cholera and plague had done during the late nineteenth century.

Concluding thoughts

In this chapter, I have argued that the Secretariat transformed a set of informal practices developed during previous decades into the basis for a high-profile international legal negotiation. This transformation was achieved, on the one hand, by adapting the epidemiological approach, and, on the other hand, by managing and directing external events and member state preferences. The Secretariat channeled the

concern of American medical experts towards formalizing the epidemiological approach. It directed a low-profile open mandate to revise the 1969 IHR towards codifying its existing practices. It raised the prominence of the revision by modifying the epidemiological approach to encompass bioterrorism and capturing the political momentum of the 2001 anthrax attacks. And it turned SARS into a powerful precipitating event by taking leadership over a divisive crisis, demonstrating in a concrete and visible way the inadequacy of the 1969 IHR as well as the effectiveness of its preferred new approach. In each of these steps, the Secretariat exercised autonomy, in that it acted not upon the instructions of member states, but strategically, on its own initiative, and to further its own policy preferences. However, it also faced constraints, in that it had to reshape its policy preferences to appeal to powerful constituencies.

The Secretariat's strategies during this period differ markedly from those of the previous period examined in Chapter 4. Previously, the Secretariat informally developed new infectious disease practices despite a lack of demand from member states, by operating within financial and political constraints and ensuring that the epidemiological approach remained below the political radar. The epidemiological approach was thus initially formulated through uncontroversial and voluntary interactions with developing countries that responded in a small way to their need for technical assistance and avoided any incursions on state sovereignty. But once the epidemiological approach had been devised and shown to be effective, the Secretariat turned its energies toward raising its political profile, by navigating conflicting national interests, undertaking controversial actions, and appealing to the preferences of its most powerful member states.

The Secretariat thus framed its infectious disease priorities in the same terms as those of the US CDC and expanded the scope of the IHR to include bioterrorism despite

opposition from some member states. During the SARS epidemic, the Secretariat was able to press China for regular reporting and investigations, as well as issue global alerts and travel advisories—measures it had no authority to take—because it had the support of many member states, including the US. The Secretariat was, in other words, operating within the space created by a divided principal.

Its securitization of the IHR and its bold measures during SARS were strategic acts of political accommodation intended to gain the political willpower needed to advance the epidemiological approach and move the revision forward. Just as states worked to accommodate the commercial interests of Great Britain during the International Sanitary Conferences of the late nineteenth century because its participation was needed to make any system of infectious disease regulation work, the Secretariat accommodated the preferences of the United States during the 1990s and early 2000s, before the 2005 IHR's formal negotiations began.

But while the Secretariat's strategies shifted, its work during this period was only possible because it had previously built the tools, protocols, and capacity to implement the epidemiological approach on a small scale, and could quickly scale up its operations when political and funding opportunities arose. Most notably, the Secretariat was able to swiftly take charge when SARS emerged because it already had in place a system for responding to epidemics, whereas member states sought cooperation but did not have a well-developed idea of what a cooperative response would look like. Without the Secretariat's earlier work building and formalizing the epidemiological approach, the SARS epidemic might well have been dealt with unilaterally and then led to the calling of an international conference after the fact,

much like the cholera outbreaks of the mid-nineteenth century. Instead, SARS was the “tipping point”²⁵⁷ that led to the final bargaining phase.

After SARS, intergovernmental negotiations for a new international infectious disease law were imminent. The next chapter examines the 2005 IHR’s formal negotiation.

²⁵⁷ Fidler, *SARS: Governance and the Globalization of Disease*, p. 186.

Chapter 6

NEGOTIATING INFECTIOUS DISEASE LAW UNDER WHO'S AUSPICES

After the SARS epidemic, member states overwhelmingly demanded a new infectious disease law. Though the Secretariat's unprecedented actions during SARS were accepted by a majority of member states, and many of those actions were authorized after the fact by the World Health Assembly, they were also contested. Critically, the Secretariat's actions occurred outside of the 1969 IHR—the only infectious disease legal order in place at the time—leaving open questions about the obligations of states and the powers of WHO going forward.

This chapter delves into events after SARS, leading to the adoption of the revised IHR in May 2005, and the Secretariat's role during this period. By the time of the SARS outbreak in 2003, extensive preparatory work for a potential new infectious disease law had already been conducted. A novel infectious disease problem had been diagnosed, a common body of knowledge about emerging and re-emerging infectious diseases had been developed, possible solutions had been explored, and an epidemiological framework for future agreement had been devised—all autonomously at the Secretariat's initiative, while operating within financial and political constraints to keep the epidemiological approach uncontroversial and below the political radar. Additionally, several versions of a negotiating text had been drafted, the political profile of the infectious disease problem had been raised, the power of key precipitating events had been captured, and a consensus building process had begun—again autonomously at the Secretariat's initiative, while operating within the constraints that come with navigating politically contested issues and appealing to powerful member states.

After SARS, what remained to be completed was the “negotiation proper over the detailed terms of an agreement.”¹ But because the Secretariat had now induced member states to demand a new regulatory system for infectious disease control, and drawn them to the negotiating table with defined interests and agendas concerning the content of the revised law, one might expect that the Secretariat’s role would subsequently wane or be reduced to an instrumental one. Indeed, the last time countries gathered to create a system for infectious disease control during the late nineteenth century, the timing and procedure were determined by dominant European states and the content of the resulting agreements reflected their interests, particularly those of the most powerful and wealthy state, Britain. Here, too, powerful member states could have stepped into the driving seat and conducted negotiations on their own terms. They could have tightly controlled the process and content of formal negotiations, ensuring that the new law hewed closely to their preferences. They could have even disregarded the Secretariat’s preparatory work, many aspects of which had been shaped by offering technical assistance to developing countries. But they did not.

As we will see, having an already existing system for infectious disease management that had been tested and shown to be effective, as well as an existing group of experts who had become authorities in that system, were advantages states could not ignore. Rather than taking the reins of the negotiations, member states not only accepted the Secretariat’s preparatory efforts, but also looked to the Secretariat to expeditiously bring the revision to a close.

In delegating this task, member states gave the Secretariat wide latitude to shape the timeline, procedure, and content of the negotiations. The Secretariat exercised this discretion by putting in place procedural measures for including developing countries,

¹ Saadia Touval, 'Multilateral Negotiation - An Analytic Approach,' *Negotiation Journal*, vol. 5, no. 2, 1989, p. 162.

thus enabling it to mediate and balance national interests in a way that member states could not have done on their own. It also led the drafting process, allowing it to play the critical roles of consensus seeker and, where no consensus existed, political bargain striker. In each of these roles, the Secretariat considered not only the interests of the negotiating parties, but also its own vision of what the new IHR should be. Thus, even in this final, formal phase of the treaty making process, the Secretariat continued to play a substantive role, albeit a delegated one this time. From a short-term perspective, the Secretariat may seem less autonomous because it was acting at the direction of member states rather than at its own initiative. From a long-term perspective, the Secretariat had prompted member states to demand what it had already created, revealing greater autonomy.

The influential role played by the Secretariat throughout the treaty making process raises the possibility that the 2005 IHR represents the Secretariat's preferences rather than a true commitment by member states. In this chapter, I also examine events immediately after the 2005 IHR was adopted as well as developments after it entered into force in June 2007. I conclude that, while the revised law has encountered some obstacles in implementation, overall it has functioned as intended. For the most part, the obstacles encountered are in precisely those areas that member states had conflicting interests, resulting in a compromise during formal negotiations. They are thus a product of political accommodation rather than the Secretariat advancing its independent idea of good policy detached from national interests. In one minor area, the Secretariat may have overplayed its hand, resulting in the inclusion of a requirement in the 2005 IHR to which member states are not prepared to adhere.

The Secretariat set the timeline and procedure for negotiations

Immediately after SARS, there were numerous calls for the negotiation and adoption of a new infectious disease law as quickly as possible. The representatives from China² and Vietnam³ asked that the revision be accelerated, while the representative from Japan urged that the process be “streamlined” and completed at the earliest possible date.⁴ Canada noted that there should be one or two negotiating sessions at the most,⁵ and the United States requested that bureaucratic and resource intensive activities be kept to a minimum by convening negotiations “only when necessary to take the revision to the final stage.”⁶ Russia was in the minority in expressing a need for a more detailed and protracted consideration of underlying issues by member states.⁷ For the most part, states did not want to take the time or effort to formulate a new law from scratch or to conduct extensive intergovernmental talks. They sought to swiftly reach a workable agreement and they left it to the Secretariat to determine how that end could be achieved.

The Secretariat thus performed two central tasks with relatively little guidance from member states. First, it set the schedule for the negotiation. Shortly after May 2003, when member states committed to formal negotiations in the form of an Intergovernmental Working Group (“IGWG”),⁸ the Secretariat proposed a schedule, laying out the timing for preparing negotiating texts, conducting preparatory

² Mr. Liu Peilong, representative for China, in World Health Organization, Fifty-Sixth World Health Assembly, ‘Summary Records for the ninth meeting, Committee A,’ A56/A/SR/9, 2003, p. 161.

³ Professor Dang Duc Trach, representative for Viet Nam, in World Health Organization, 113th Session of the Executive Board, ‘Summary Records for the second meeting,’ EB113/SR/2, 2004, p. 2

⁴ Dr. Fukuda, representative for Japan, in World Health Organization, Fifty-Sixth World Health Assembly, ‘Summary Records for the ninth meeting, Committee A,’ A56/A/SR/9, p. 164.

⁵ Dr. Aiston, representative for Canada, in World Health Organization, 113th Session of the Executive Board, ‘Summary Records for the second meeting,’ EB113/SR/2, p. 3.

⁶ Mr. Hohman, representative for the United States of America, in World Health Organization, Fifty-Sixth World Health Assembly, ‘Summary Records for the ninth meeting, Committee A,’ A56/A/SR/9, p. 163.

⁷ Professor Furgal, representative for the Russian Federation, in World Health Organization, 113th Session of the Executive Board, ‘Summary Records for the second meeting,’ EB113/SR/2, p. 3.

⁸ World Health Organization, World Health Assembly Resolution ‘Revision of the International Health Regulations,’ WHA56.28, 28 May 2003.

consultations, and completing the revision. According to the schedule, the Secretariat would disseminate a draft negotiating text to all member states in early 2004, hold consultations in the six WHO regions between March and June, formulate and circulate a new draft between July and August on the basis of those consultations, convene the IGWG in Geneva in November, and submit a final revised IHR to the Health Assembly in May 2005.⁹ Member states accepted this schedule and it was followed for the most part, though an additional IGWG was needed.

Second, the Secretariat set out procedures to foster broad participation and buy-in. Recall from Chapter 5 that, in 2001, the Secretariat began conducting workshops around the world to keep diverse constituents apprised of IHR developments and to determine likely areas of disagreement. Additional funds were also allocated from the regular budget to the consensus-building process as the IHR revision entered its final stage.¹⁰ In 2004, prior to the first IGWG, the Secretariat solicited written comments and organized regional consultations to determine member state reactions to the January negotiating text it drafted. The Secretariat conducted 12 regional and sub-regional consultations during which Secretariat members met with member states, reviewed the text's key proposals, and discussed areas of disagreement with the draft.¹¹ Between the first and second IGWG, the Director-General's special envoy on the IHR, former European Union Commissioner David Byrne, travelled to member states to ensure continued political engagement, and further regional and sub-regional meetings took place.¹² The Secretariat had considerable access to privileged information about

⁹ World Health Organization, Report by the Secretariat to the Executive Board, 'Revision of the International Health Regulations,' EB111/3 Rev. 1, 15 January 2004.

¹⁰ Dr. Heymann, Executive Director, in World Health Organization, 111th session of the Executive Board, 'Summary Records for the eighth meeting,' EB111/SR/8, 2003, p. 7.

¹¹ World health organization, 'Updates on recent developments in the international Health Regulations revision process,' 14 December 2004 [website].

¹² Mary Whelan, *Negotiating the International Health Regulations*, Global Health Programme Working Paper No. 1 (Geneva: The Graduate Institute, 2008), p. 13.

the negotiating positions of member states during these consultations. One WHO official attended three regional consultations and was able to sit in on all but 30 minutes of discussion.¹³

Unlike the negotiations for the barrier approach during the late nineteenth and early twentieth centuries when weaker countries were intentionally excluded, developing countries were invited to participate in the negotiations for the 2005 IHR, but they were concerned about their capacity to participate meaningfully. In discussing the IHR revision at the May 2003 World Health Assembly, Botswana asked the Secretariat to ensure the involvement of developing countries whose budgetary constraints might otherwise limit participation,¹⁴ and China emphasized the importance of listening to developing country views, so that the standards adopted would be operational and realistic.¹⁵ The regional consultations were a procedural mechanism that enabled the Secretariat to reach out to developing countries and to facilitate their inclusion in the negotiation process. By convening regional meetings and authoring regional reports, the Secretariat actively sought to determine and bring to light the concerns and preferences of less visible countries.

The vast majority of the Secretariat's 12 consultations prior to the first IGWG targeted developing countries. Two consultations were held in Southeast Asia, two in Africa, two in the Eastern Mediterranean, and one each in the Western Pacific, South America, Central America, and the Caribbean.¹⁶ Between the two IGWGs, a third

¹³ Author interview with Bruce Plotkin, IHR Legal Officer, World Health Organization, Geneva, 17 July 2007.

¹⁴ Mr. Chakalisa, representative for Botswana, in World Health Organization, Fifty-Sixth World Health Assembly, 'Summary Records for the ninth meeting, Committee A,' A56/A/SR/9, 2003, p. 161.

¹⁵ Mr. Liu Peilong, representative for China, in *ibid*.

¹⁶ Regional consultations were held for the Southeast Asia Region in New Delhi, India on 13–14 April 2004 (attended by all Member States of the region but D.P.R. Korea and Bhutan) and 29 June–1 July 2004 (attended by all Member States of the region but D.P.R. Korea and Timor-Leste); the Eastern Mediterranean Region in Cairo, Egypt on 1–2 March 2004 and Damascus, Syria on 20–22 June 2004; the African Region in Johannesburg, South Africa on 5–6 April 2004 and in Harare, Zimbabwe on 1–3 June 2004; the Western Pacific Region in Manila, Philippines on 28–30 April 2004; and the European Region

consultation was held in Southeast Asia, during which attending member states agreed on a set of proposed revisions to the chair's draft.¹⁷ Several South American countries also gathered in Montevideo, Uruguay, prior to the second IGWG to create the Montevideo document, which summarized, article-by-article, their positions on the chair's draft.¹⁸ Though wealthy countries with more resources were still able to participate to a greater extent than developing countries by submitting more detailed written comments¹⁹ and sending larger delegations to the IGWGs,²⁰ the Secretariat's work convening developing countries, and aggregating and articulating their interests, suggests that the Secretariat enhanced their participation to some degree.

There is limited publicly available information about the procedure followed during the IGWGs, which were attended by approximately 150 member states,²¹ making it difficult to assess the role the Secretariat played during the negotiations. We know that the Secretariat prepared agendas and timetables for both IGWGs,²² that

in Copenhagen, Denmark on 9–11 June 2004. Additionally, sub-regional consultations were held for South America in Rio de Janeiro, Brazil on 5–7 April, 2004; the English speaking Caribbean in St. George's, Grenada on 19–20 April 2004; Central America and the Spanish-speaking Caribbean in Santo Domingo, Dominican Republic on 27–29 April; and North America in Ottawa, Canada on 2–3 June 2004.

¹⁷ World Health Organization, Regional Office for South-East Asia, 'Revision of the International Health Regulations: Report of the Third Regional Consultation, New Delhi, 27–29 January 2005,' SEA-CD-140, May 2005 [hereinafter Report of the Third Regional Consultation for South-East Asia], p. 17.

¹⁸ '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,' January 2005 [website].

¹⁹ The United States commented twice, first outlining its overarching concerns and then providing an article-by-article line edit of the entire proposed text. See World Health Organization, 'WHO proposals for the revision of the International Health Regulations: other comments received' [website].

²⁰ Most countries were represented by one to three delegates, but a few countries brought over ten delegates. For example, including alternates and advisors, Canada brought 13 delegates, China 12, the United States 12, France 11, the Netherlands 15, and the United Kingdom 13 to the first IGWG. See World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, First Session, 'List of Participants,' A/IHR/IGWG/DIV/3 Rev. 1, 4 November 2004; World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, Second Session, 'List of Participants,' A/IHR/IGWG/2/DIV/3 Rev. 2, 12 May 2005.

²¹ World Health Organization, 'Update on recent developments in the International Health Regulations revision process,' 14 December 2004 [website].

²² See World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, First Session, 'Provisional agenda,' A/IHR/IGWG/1, 2 September 2004; World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, First Session, 'Provisional daily timetable,' A/IHR/IGWG/DIV/1, 16

prepared speeches were read during plenary sessions open to the public while controversial topics were negotiated in confidential sessions;²³ that smaller informal groups were increasingly used to work through specific issues of difficulty as negotiations progressed;²⁴ and that key negotiators often did not know their counterparts in other delegations and instead discussed matters directly with the chair, Mary Whelan from Ireland.²⁵

The second IGWG was adjourned in the early morning of 27 February and reconvened on 12 May for two final days of negotiation prior to the start of the 2005 Health Assembly on 16 May. The chair declared that a consensus had been reached in the early morning of 14 May, and the proposed text was presented to and adopted by the Health Assembly a few days later.

The Secretariat drafted the key documents for negotiations

At the January 2004 Executive Board meeting, the representative of Ireland, Mary Whelan, who subsequently chaired the IGWGs, spoke on behalf of the European Union and underscored the Secretariat's "heavy onus" to make draft negotiating texts available to member states in a timely manner.²⁶ Member states did not provide instructions on what should or should not be included in the texts, instead relying on the Secretariat's discretion to craft negotiating texts that would be accepted and used as the starting point of final bargaining.

September 2004; World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, Second Session, 'Provisional agenda,' A/IHR/IGWG/2/1, 7 January 2005; World Health Organization, Intergovernmental Working Group on Revision of the International Health Regulations, Second Session, 'Provisional daily timetable,' A/IHR/IGWG/2/DIV/1 Rev.1, 18 February 2005.

²³ Author interview with Adam Kamradt-Scott, Research Fellow, Department of Global Health & Development, London School of Hygiene & Tropical Medicine, phone interview, 2 December 2010.

²⁴ Whelan, *Negotiating the International Health Regulations*, pp. 7, 14.

²⁵ *Ibid.*, p. 10.

²⁶ Ms. Whelan, representative for Ireland, speaking on behalf of the member states of the European Union, in World Health Organization, 113th Session of the Executive Board, 'Summary Records for the second meeting,' EB113/SR/2, 2004, p. 4.

Between the end of the SARS epidemic and the adoption of the 2005 IHR, the Secretariat drafted three sequential working versions of the legal text, along with explanatory and technical supporting documents, to advance the negotiations. The first draft was circulated to member states in January 2004,²⁷ and was the basis for regional and sub-regional consultations organized by the Secretariat as well as written comments from member states and other interested parties. The Secretariat then interpreted the comments and the results of the consultations, and prepared another draft text in September 2004,²⁸ which became the basis for the first IGWG held in Geneva from 1 to 12 November 2004. Anticipating that the inclusion of bioterrorism within the scope of the new law and the relationship between the new law and other legal instruments would be issues of dispute, the Secretariat additionally authored a document reviewing the potential for conflict between the revised IHR and other international agreements on trade, food, transportation, environment, accidental releases, terrorism, as well as chemical, biological, and nuclear weapons.²⁹ At the November IGWG, member states had before them the September 2004 draft, a summary report of the comments and suggestions received during the consultation process,³⁰ an explanatory document outlining the changes made since the January 2004 draft,³¹ and a review of the

²⁷ World Health Organization, 'International Health Regulations: Working paper for regional consultations,' IGWG/IHR/Working paper/12.2003, 12 January 2004 [hereinafter January 2004 draft].

²⁸ World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, First Session, 'Review and approval of proposed amendments to the International Health Regulations: draft revision,' A/IHR/IGWG/3, 30 September 2004 [hereinafter September 2004 draft].

²⁹ World Health Organization, World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, First Session, 'Review and approval of proposed amendments to the International Health Regulations: relations with other international instruments,' A/IHR/IGWG/INF.DOC./1, 30 September 2004.

³⁰ World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, First Session, 'Summary report of regional consultations,' A/IHR/IGWG/2, 14 September 2004.

³¹ World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, First Session, 'Review and approval of proposed amendments to the International Health Regulations: explanatory notes,' A/IHR/IGWG/4, 7 October 2004.

relationship between the revised IHR and other international legal instruments—all supplied by the Secretariat.

During the first IGWG, member states divided into three sub-groups, each working on a subset of articles from the September 2004 draft. One group worked on articles related to surveillance for and response to public health emergencies, a second group on articles related to health measures at points of entry, and a third group on articles related to human rights, institutional, and legal issues.³² The Secretariat's draft text thus shaped the organization and flow of negotiations. Member states were not able to reach a consensus by the close of the first IGWG—the three sub-groups had advanced at differing rates, producing, by the end of the two weeks, a draft text that was close to agreement in some places and “littered with square brackets” in others³³—so a second IGWG was held from 21 to 26 February 2005.

In advance of the second IGWG, Whelan worked with Secretariat members to produce a third draft text—“the chair's draft”³⁴—based on their opinion of where consensus lay.³⁵ The chair and Secretariat members removed provisions on which they felt a consensus was unlikely and reduced the number of square brackets to a minimum.³⁶ The Secretariat also prepared background reports on its existing alert and response operations to help member states understand how the new law would be implemented in practice,³⁷ on the draft's provision for reservations to explain why the

³² Whelan, *Negotiating the International Health Regulations*, pp. 7-8.

³³ *Ibid.*, p. 8.

³⁴ World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, Second Session, ‘Review and approval of proposed amendments to the International Health Regulations: Proposal by the Chair,’ A/IHR/IGWG/2/2, 24 January 2005 [hereinafter Chair's draft].

³⁵ Whelan, *Negotiating the International Health Regulations*, pp. 10-11.

³⁶ *Ibid.*

³⁷ World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, Second Session, ‘Review and approval of proposed amendments to the International Health Regulations: Alert and response operations, Report by the Secretariat,’ A/IHR/IGWG/2/INF.DOC./1, 27 January 2005.

provision was in conformity with WHO's Constitution,³⁸ and on capacity building requirements and the application of health measures at ground crossings.³⁹ To address the question of what diseases should be reported, the Secretariat convened an ad hoc expert panel, which presented its recommendations in a February 2005 report.⁴⁰ All of these reports, along with the chair's draft, informed the second IGWG, which opened in February with various regional groups indicating that the chair's text was an acceptable working document.⁴¹

The Secretariat shaped the outcome of negotiations within constraints

Because the Secretariat was given such wide latitude in setting the schedule, determining the procedure, and formulating the draft negotiating texts, it was able to preserve much of its vision for a new system of infectious disease control. As already noted, member states wanted to complete the new law as quickly as possible, and so they did not reconsider its basic features such as a far broader reporting requirement or a bigger role for WHO in conducting surveillance and providing technical assistance for rapid outbreak control. Although most member states had yet to play an active role in the revision process, they supported the Secretariat's existing work on the new law and understood the IGWGs to be the "final step" in a longer treaty making process.⁴²

³⁸ World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, Second Session, 'Review and approval of proposed amendments to the International Health Regulations: Reservations to the International Health Regulations, report by the Secretariat,' A/IHR/IGWG/2/INF.DOC./2, 27 January 2005.

³⁹ World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, Second Session, 'Review and approval of proposed amendments to the International Health Regulations: Ground crossings and ground transport conveyances in the International Health Regulations, Note by the Secretariat,' A/IHR/IGWG/2/INF.DOC./3, 27 January 2005.

⁴⁰ World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, Second Session, 'Decision instrument for the assessment and notification of events that may constitute a public health emergency of international concern, Report of the Ad Hoc Expert Group on Annex 2,' A/IHR/IGWG/2/INF.DOC./4, 22 February 2005.

⁴¹ Whelan, *Negotiating the International Health Regulations*, p. 13.

⁴² The Italian government "endorsed the proposed plan for completing the revision process, including the establishment of an intergovernmental working group.... Such a working group should be regarded as the final step in the process." Mr. Cicogna, alternate to Dr. Di Gennaro, representative for Italy, in World

Much of the content of the Secretariat's January 2004 draft, written before any consultations or IGWGs took place, remains in the final adopted 2005 IHR. The January 2004 draft, consisting of 55 articles organized into nine parts and followed by 10 annexes, bore a significant resemblance to the adopted 2005 IHR, consisting of 66 articles organized into 10 parts and followed by nine annexes. Some of the material in the annexes was moved into the body of the text, but the policies underlying the two versions are largely the same.

Instead of reexamining the basic tenets of the epidemiological approach, member states utilized the consultations and two IGWGs to hone in on specific areas where they had strong disagreements with the Secretariat's proposed text. In particular, they worked through four key issues of dispute: the inclusion of bioterrorism in the scope of the new regulations; the requirement that all countries develop the core public health capacity necessary to implement the new law; the balance between national sovereignty and WHO authority; and the precise configuration of the reporting obligation.

Given member states' strong preferences on these issues, the Secretariat's discretion was accordingly constrained, but not eliminated. On two of these issues—bioterrorism and capacity constraints—member states themselves had divergent interests, which were ultimately resolved through compromise, suggesting that the Secretariat's work conducting regional consultations, collecting comments, and crafting successive negotiating texts enabled it to mediate and balance national preferences. On the other two issues—sovereignty and the precise details of the reporting requirement—member states more or less uniformly disagreed with certain aspects of the Secretariat's proposals, leading to alterations to the draft text and a curtailment of the Secretariat's

Health Organization, 111th Session of the Executive Board, 'Summary Records for the eighth meeting,' EB111/SR/8, 2003, pp. 5-6.

proposed authorities. Yet, even in these two areas, the Secretariat's initial proposals nevertheless shaped the content of discussions, and ultimately left an imprint on the outcome of negotiations.

Inclusion of bioterrorism

As described in Chapter 5, the Secretariat's move to securitize the IHR was a politically calculated and controversial decision that ultimately achieved the result of bringing the United States on board the IHR revision. Recall that the United States was disinterested in creating a new infectious disease law when the World Health Assembly first resolved to revise the 1969 IHR in 1995, but that the proposed inclusion of non-naturally occurring outbreaks—a subject of considerable interest to the country—within the scope of the revised IHR gained its support while incurring the resistance of other countries. Member states were thus left to decide whether and how to address intentional and accidental releases during formal negotiations.

The Secretariat's January 2004 draft explicitly maintained the wide scope resulting from securitizing the regulations. It defined "disease" to mean "an illness that presents a risk of significant harm to humans caused by biological, chemical or radio-nuclear sources."⁴³ It included intentional releases in the decision instrument for determining when an event potentially constituting a public health emergency of international concern is occurring and must be reported.⁴⁴ And it required signatory states experiencing a "suspected intentional release of a biological, chemical or

⁴³ January 2004 draft, Article 1.

⁴⁴ The decision instrument outlined in Annex 2 of the January 2004 draft set out four criteria for evaluating public health events—Is the public health impact of the event serious? Is the event unusual or unexpected? Is there significant risk of international spread? Is there a significant risk of travel or trade restrictions? The decision instrument required signatory states to report those events that met two of the four criteria. Intentional releases were built into these criteria in several ways. Annex 2 stipulated that the public health impact of an event is serious if a chemical or radiological agent has been released into the environment and has contaminated or has the potential to contaminate a population or large geographical area. An event is unusual if it was caused by an unknown agent, whether biological, chemical, or nuclear. An event is unexpected if it is known or suspected to be the result of an intentional or accidental release of a chemical, radiological, or biological agent.

radionuclear agent” to “immediately provide to WHO all relevant public health information, materials and samples, for verification and response purposes.”⁴⁵

The United States supported this formulation of the IHR’s scope and pushed for further clarification and extension of WHO’s role in the event of intentional releases. In its first written comment, submitted in March 2004, the United States noted the law enforcement and national security concerns arising from a suspected intentional release situation, and suggested that the topic of intentional releases be treated in more detail, perhaps in an additional annex. The US proposed that the revised IHR provide an operational definition of “suspected intentional release”; that it elaborate on the criteria, process, and content of reporting for suspected intentional releases; and that it establish a “consultative or facilitative role” for WHO to assist member states in recognizing, investigating, and responding to such releases.⁴⁶

In its second written comment submitted in April 2004, the United States emphasized that information-sharing during a suspected act of bioterrorism is “crucial,” and remarked that the reporting algorithm was too vague in certain areas and could allow states to avoid reporting suspected intentional releases that are easily contained or do not result in mass casualties.⁴⁷ It suggested that the algorithm be revised, perhaps by stipulating that, because an intentional release by a state actor or terrorist organization could be repeated elsewhere, it always poses a risk of international spread and thus must be reported even when a suspected release is easily contained.

Despite the United States’ strong support for the explicit inclusion of intentional releases in the scope of the new law, the provisions relating to biological, chemical, and

⁴⁵ January 2004 draft, Article 41.

⁴⁶ United States, ‘Initial U.S. Government Comments on the First Draft of the Proposed Revision of the International Health Regulations (IHRs),’ 5 March 2004 [hereinafter First Comment from the United States], pp. 6-7.

⁴⁷ United States, ‘Second U.S. Government Comments on the First Draft of the Proposed Revision of the International Health Regulations (IHRs),’ 27 April 2004 [hereinafter Second Comment from the United States], pp. 3, 38.

radionuclear agents were not elaborated in subsequent drafts but instead heavily diluted. The comments solicited and the consultations conducted by the Secretariat prior to the first IGWG made clear that most countries took issue with WHO having an explicit role in accidental or deliberate releases. Reports authored by the Secretariat on the regional consultations held in Southeast Asia, the Western Pacific, and Europe, all indicate that the inclusion of intentional releases caused disagreement.⁴⁸ In its September 2004 report to the first IGWG summarizing the overall results of the regional consultations, the Secretariat noted that “[b]roadening the scope to cover chemical and radiological events or those caused by deliberate release would need further discussion.”⁴⁹

Individual member states also observed in their comments the potential for conflict with other international agreements and duplication of work done by other agencies.⁵⁰ Switzerland, Norway, Japan, and the European Community recommended a two-step approach whereby the IHR’s scope would be broad at the outset, applying to public health events independent of cause—until the cause is determined.⁵¹ Once determined, events within the purview of other international agreements should be

⁴⁸ World Health Organization, Regional Office for South-East Asia, ‘Second Regional Consultation on the Proposed Revised International Health Regulations, WHO-SEARO, 29 June–1 July 2004,’ SEA-CD-135, September 2004 [hereinafter Report of the Second Regional Consultation for South-East Asia], p. 5; World Health Organization, Regional Office for the Western Pacific, ‘Report: Consultation on the Revision of the International Health Regulations (IHR) in the Western Pacific Region, Manila, Philippines, 28–30 April 2004,’ (WP) ICP/CSR/1.1/001, June 2004 [hereinafter Report of the Regional Consultation for the Western Pacific], p. 2; World Health Organization, Regional Office for Europe, ‘European Regional Consultation on Revision of the International Health Regulations, Copenhagen, Denmark, 9–11 June 2004,’ 31 August 2004 [hereinafter Report of the Regional Consultation for Europe], p. 4.

⁴⁹ World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, First Session, ‘Summary report of regional consultations,’ A/IHR/IGWG/2, p. 2.

⁵⁰ See, e.g., Samoa, ‘Comments from the Attorney General’s Office,’ 24 October 2004 [hereinafter Comment from Samoa]; European Community, ‘Preliminary comments of the European Community and its member States on the draft-revised International Health Regulations (IHRs),’ 27 May 2004 [hereinafter Comment from the European Community]; Report of the Regional Consultation for Europe, p. 4.

⁵¹ See Switzerland, ‘Revision of the International Health Regulations: Comments by the Swiss Government,’ 3 June 2004 [hereinafter Comment from Switzerland], p. 2; Norway, ‘The Royal Ministry of Health,’ 31 August 2004 [hereinafter Comment from Norway], p. 1; Japan, ‘Japanese MHLW comments on the draft of the proposed revision of the international health regulations (IHRs),’ 30 April 2004 [hereinafter First Comment from Japan], pp. 1-3; Comment from the European Community, pp. 1-3.

surrendered to other relevant agencies, and all other public health emergencies of international concern should fall within the scope of the IHR.

As a result of these objections and subsequent negotiations during the IGWGs, the provisions with respect to accidental and intentional releases were gradually whittled down. The Secretariat's September 2004 draft retained explicit references to biological, chemical, and radionuclear agents, but conditioned the requirement that states experiencing a suspected intentional release "immediately provide to WHO all relevant public health information, materials and samples, for verification and response purposes" on consistency with national security and law enforcement requirements.⁵² Additional articles were inserted to ensure that the new IHR would not conflict with other international legal instruments. The September 2004 draft required WHO to cooperate and coordinate its activities with other competent international organizations,⁵³ to consider international standards and the activities undertaken by other relevant agencies when making recommendations,⁵⁴ and to interpret the IHR so as to reduce conflict with other international instruments.⁵⁵

The chair's January 2005 draft bracketed the definition of disease and the article requiring information and sample sharing during a suspected intentional release to indicate continued controversy surrounding the subject. Four months later, explicit references to accidental or intentional releases of biological, chemical, or radionuclear agents were eliminated in the final adopted 2005 IHR. The definition of disease remained broad to encompass all illnesses and medical conditions "irrespective of origin or source, that presents or could present significant harm to humans."⁵⁶ But signatory states were no longer required to share information during suspected

⁵² September 2004 draft, Article 45.

⁵³ Ibid., Article 12.

⁵⁴ Ibid., Article 15.

⁵⁵ Ibid., Article 58.

⁵⁶ Ibid., Article 1.

intentional releases. Specific references to intentional releases were also removed from the decision instrument in Annex 2. The only remaining allusion is a provision in Annex 2 noting that the public health impact of an event is serious—one of the four criteria for determining if an event may constitute a public health event of international concern—if “toxic, infectious or otherwise hazardous materials,” “occurring naturally or otherwise,” is spreading and has contaminated or has the potential to contaminate a population or a large geographical area.

As a result of this compromise, which left ambiguous the application of the new IHR to incidents involving accidental or deliberate releases, the United States submitted a formal understanding that state parties to the revised IHR “have assumed an obligation to notify to WHO potential public health emergencies of international concern, irrespective of origin or source, whether they involve the natural, accidental or deliberate release of biological, chemical or radionuclear materials.”⁵⁷ In response, Iran submitted an objection, arguing that member states participating in the IHR negotiations had “categorically rejected” the United States’ interpretation.

The ambiguity of the legal text has persisted in practice. On the one hand, the Secretariat has included non-naturally occurring public health emergencies within the scope of its IHR work by offering technical support to countries facing non-naturally occurring public health emergencies. For example, the Secretariat assisted with the response to a mass lead poisoning affecting approximately 2000 children,⁵⁸ and worked closely with the International Atomic Energy Agency (“IAEA”) to help Japan respond to the crisis at the Fukushima nuclear plant after it sustained severe damage during an

⁵⁷ 2005 IHR, Appendix 2, Reservations and Other State Party Communications in Connection with the International Health Regulations (2005).

⁵⁸ World Health Organization, Report by the Director-General to the World Health Assembly, ‘Implementation of the International Health Regulations (2005),’ A64/9, 17 March 2011, p. 6.

earthquake in March 2011.⁵⁹ On the other hand, reporting of non-naturally occurring public health events has not been a priority. In a 2013 self-assessment that elicited 127 responses, state parties reported “relatively low capacities” for chemical events and radiological events.⁶⁰ This substantive outcome suggests that the Secretariat’s involvement and its employment of procedural mechanisms that organized and aggregated national interests tempered American power and facilitated a compromise even in an area of strong interest to WHO’s most wealthy and influential member state.

⁵⁹ World Health Organization, Report by the Director-General to the World Health Assembly, ‘Implementation of the International Health Regulations (2005),’ A65/17, 11 March 2012, pp. 5-6.

⁶⁰ World Health Organization, Report by the Director-General to the World Health Assembly, ‘Implementation of the International Health Regulations (2005),’ A66/16, 5 April 2013, p. 9.

ISSUE	SECRETARIAT'S JANUARY 2004 DRAFT	ADOPTED 2005 IHR	OUTCOME
Definition of "disease"	"Disease" means an illness that presents a risk of significant harm to humans caused by biological, chemical or radio-nuclear sources.	"Disease" means a medical condition, regardless of origin, that presents or could present significant harm to humans.	Compromise, leaving it ambiguous whether intentional and accidental releases of biological, chemical, or radio-nuclear agents are covered by the 2005 IHR.
Sharing of information and materials	In the case of a suspected intentional release, states must provide to WHO all public health information, materials, and samples.	Deleted.	
Reporting requirement	Release of biological, chemical and radiological agents explicitly referenced.	Explicit references removed, but notes that spread of toxic, infectious, or other hazardous materials, whether occurring naturally or otherwise, constitutes a public health event with serious impact—one of the four factors for determining if an event must be reported.	
Relationship with other agreements	No provisions regarding relationship with other IOs or other agreements.	WHO must coordinate activities with other IOs; Director-General must consider other standards and instruments in making recommendations; IHR should be interpreted to be compatible with other agreements.	

Table 6: Evolution of contested provisions concerning bioterrorism.

Public health capacity constraints in developing countries

A second area where member states had differing interests was with respect to the Secretariat's proposal that state parties be required to develop the core public health capacity necessary for satisfying the new law's reporting and response requirements. This was a significant legal innovation, requiring state parties, particularly developing ones, to make considerable domestic institutional changes to their public health systems, whereas the 1969 law only imposed capacity obligations at points of national entry and exit. Recall from the previous chapter that member states had expressed

concern about the availability of resources for creating a new system of infectious disease surveillance and response as early as 1995, when the Secretariat first presented the matter of emerging infectious diseases to the Health Assembly. The subject of public health capacity building is closely tied to that of resource constraints, and both remained central issues in the final stages of treaty making.

The Secretariat's January 2004 draft required signatory states to develop and maintain the domestic core capacity needed to detect, report, and respond promptly to public health emergencies of international concern.⁶¹ This mandate was elaborated in Annex 1, which set out specific requirements for surveillance and response capacity at community, intermediate, and national levels, including that national public health agencies must be able to assess reports of urgent events within 24 hours.⁶² Annex 1 also outlined capacity requirements for airports, ports, and ground crossings, during regular times and when public health emergencies of international concern are ongoing.⁶³ The January 2004 draft did not provide a timeline for these developments, implying that member states were required to meet the requirements immediately upon the revised law going into effect.

Numerous member states expressed concerns about these capacity building requirements at regional consultations and through individual comments. On the one hand, there were requests that the requirements be adjusted to make them more feasible. Member states at the Southeast Asia, Western Pacific, and Central America regional consultations asked that implementation be delayed or phased so that countries would have time to gather resources and pass any necessary domestic legislation.⁶⁴ Member

⁶¹ January 2004 draft, Articles 4 and 10.

⁶² Ibid., Annex 1, A—Core Capacity Requirements for Surveillance and Response.

⁶³ Ibid., Annex 1, B—Core Capacity Requirements for Designated Airports, Ports and Ground Crossings.

⁶⁴ Report of the Regional Consultation for the Western Pacific, p. 2; Report of the Second Regional Consultation for South-East Asia, p. 7; World Health Organization, Pan American Health Organization, 'Report of the Consultation Meeting on the Revision of the International Health Regulations (IHR) for

states at the Southeast Asia regional consultation also requested that the revised IHR's date of entry into force be delayed.⁶⁵ Samoa's comment more generally noted that some of the capacities specified in Annex 1, such as the capacity to assess reports of urgent events within 24 hours, "appear very onerous."⁶⁶ It suggested that while the spirit of the core capacity requirements be retained, the details and time allowances be modified.⁶⁷

On the other hand, developing countries demanded greater financial and technical assistance in reaching core capacity goals, both from WHO and from wealthier member states. There were overwhelming calls for global resources to be mobilized⁶⁸—not only in the form of financial support, but also through the provision of training, workplace development, guidelines, and standards.⁶⁹ Countries in the Western Pacific, African, and South American regions called for WHO's support and guidance in a systematic assessment of existing surveillance and response capacities and the gaps needed to be filled for implementation of the revised IHR.⁷⁰ Algeria emphasized that it is essential for WHO to provide technical and material assistance for achieving core capacity requirements to those member states that request it.⁷¹ Countries in Central and

Central America, Cuba, and the Dominican Republic, 27-29 April 2004, Santo Domingo, Dominican Republic,' 6 September 2004 [Report of the Regional Consultation for Central America], p. 1.

⁶⁵ Report of the Second Regional Consultation for South-East Asia, p. 7.

⁶⁶ Comment from Samoa, p. 1.

⁶⁷ Ibid.

⁶⁸ See, e.g., World Health Organization, Regional Office for South-East Asia, 'Report of the First Regional Consultation of National IHR Focal Points on the Revision of International Health Regulations, New Delhi, 13-14 April 2004,' SEA-CD-133, June 2004 [hereinafter Report of the First Regional Consultation for South-East Asia], p. 23; World Health Organization, Pan American Health Organization, 'Regional Consultation Meeting for the English Speaking Caribbean Countries for the Revision of the International Health Regulations (IHR), 19-20 April 2004—St. George's Grenada,' 6 September 2004 [hereinafter Report of the Regional Consultation for the English Speaking Caribbean Countries], pp. 1-2.

⁶⁹ See, e.g., Report of the Second Regional Consultation for South-East Asia, p. 8.

⁷⁰ Report of the Regional Consultation for the Western Pacific, p. 3; World Health Organization, Regional Office for Africa, 'Regional Consultation on the Revised International Health Regulations, Harare-Zimbabwe, 1-3 June 2004,' 14 September 2004 [hereinafter Report of the Regional Consultation for Africa], p. 5; World Health Organization, Pan American Health Organization, 'Report of the Consultation Meeting of the Revised International Health Regulations (IHR) for South American Countries, Rio de Janeiro, Brazil—5-7 April 2004,' 6 September 2004 [hereinafter Report of the Regional Consultation for South America], p. 1.

⁷¹ Algeria, 'Comments and suggestions,' 28 March 2004 [hereinafter Comment from Algeria], p. 1.

South America demanded a commitment by other member states to identify and transfer resources to the poorest countries.⁷²

The preferences of developing and developed member states did not directly conflict on this subject⁷³—after all, improving the capacity of developing countries to implement the revised law facilitates infectious disease control for all countries—but they were divergent, given the contrasting implications of resource transfers. The issue of building core public health capacity thus required member states to revisit the long-standing divide between developing countries seeking increased technical assistance and developed countries seeking to limit and control spending. As a result of the regional consultations, comment making processes, and IGWGs, this divide was ultimately resolved through compromise.

As countries worked through successive versions of the legal text, the capacity requirements were adjusted while provisions for technical assistance were strengthened, as requested by many developing countries. The Secretariat's September 2004 draft pushed back the date of the new law's entry into force from 1 January 2006, as proposed in the January 2004 draft, to 12 months after its anticipated May 2005 adoption.⁷⁴ Whereas the January 2004 draft did not provide a grace period during which member states could work towards achieving the public health capacity requirements, the September 2004 draft allowed a five-year period from the revised law entering into force for doing so.⁷⁵ Annex 1 was elaborated to require states to assess, within two years of the new IHR entering into force, the ability of existing national

⁷² Report of the Regional Consultation for South America, p. 2; Report of the Regional Consultation for South America, p. 1; Mexico, 'General Comments by Mexico on the Draft International Health Regulations,' 30 June 2004 [hereinafter Comment from Mexico], p. 2.

⁷³ Indeed, some developed countries also expressed concern about whether the 2005 IHR could be effectively implemented given the resource constraints of developing member states. See, e.g., comments from Switzerland and the European Community urging that the capacity building requirements be modulated in time, detail, or obligation to ensure their acceptance. Comment from Switzerland, p. 4; Comment from the European Community, p. 5.

⁷⁴ January 2004 draft, Article 52; September 2004 draft, Article 60.

⁷⁵ September 2004 draft, Articles 4 and 11.

structures to meet the capacity requirements, and to develop implementation plans on the basis of the assessment.⁷⁶ Additionally, the September 2004 draft inserted requirements that WHO must provide, at the request of member states and “subject to the availability of resources,” technical assistance and training to facilitate the strengthening of public health capacities for surveillance;⁷⁷ that WHO must provide technical assistance, at the request of a state party, in responding to public health threats;⁷⁸ that member states “should provide,” at the request of WHO and within their available resources, support to WHO-coordinated activities responding to public health threats;⁷⁹ and that member states and WHO must generally, “within [] available resources,” collaborate to address public health events, strengthen capacities in developing countries, and mobilize financial resources for effective implementation of the revised law.⁸⁰

These amendments were preserved with slight alterations in the adopted 2005 IHR. The revised law’s date of entry into force was further pushed back to two years after the date of adoption. Two two-year extensions were added to the five-year deadline for attaining the core capacity requirements for those countries that needed it based on their assessment of existing resources and implementation plans.⁸¹ There was some discussion about whether member states should be required to report public health information about a potential public health emergency of international concern within 24 or 48 hours of having that information, but the 2005 IHR ultimately retained the 24 hour requirement.⁸² Finally, the adopted law requires WHO to assist state parties, upon

⁷⁶ Ibid., Annex 1.

⁷⁷ Ibid., Article 4, ¶ 2.

⁷⁸ Ibid., Article 11, ¶ 2.

⁷⁹ Ibid., Article 11, ¶ 4.

⁸⁰ Ibid., Article 41.

⁸¹ 2005 IHR, Article 5, ¶ 2 and Article 13, ¶ 2.

⁸² Ibid., Article 6.

request, to develop surveillance capacities, removing the September 2004 draft's caveat, "subject to the availability of resources."⁸³

While the revised IHR does not go so far as to make specific quantitative commitments of funding, it does contain considerable compromises with respect to its capacity building requirements. Most notably, WHO's funding member states made resource commitments to developing countries through WHO's obligation to assist states attain the underlying public health capacities needed to comply with the new law. Less forcefully, the revised law imposes non-binding requirements on member states to mobilize financial resources and contribute directly to capacity building and coordinated international efforts to respond to public health threats in other countries. These substantive outcomes suggest that the Secretariat's work drafting negotiating texts and organizing regional consultations highlighted the capacity needs of developing countries, strengthened their voices, and facilitated a compromise in light of their concerns.

⁸³ Ibid., Article 5, ¶ 3.

ISSUE	SECRETARIAT'S JANUARY 2004 DRAFT	ADOPTED 2005 IHR	OUTCOME
Timeline	State must immediately develop and maintain the capacity to detect, report, and respond to public health risks according to Annex 1.	States must develop within 5 years from date of entry into force, with the possibility of two two-year extensions, the capacity to detect, report, and respond, according to Annex 1.	Compromise, giving state parties more time to develop core public health capacity, obligating WHO to provide financial and technical assistance to developing countries, and creating weaker non-binding obligations for developed member states to provide support to developing countries.
Entry into force	1 January 2006.	24 months after date of adoption.	
Assistance to countries in need	None.	<u>Assistance from WHO</u> WHO must help states develop capacities for surveillance; WHO must help states respond to public health risks; WHO must, "to the extent possible," help states evaluate existing capacities and mobilize resources to support developing countries' work on Annex 1. <u>Assistance from states</u> States "should," "to the extent possible," support WHO coordinated response activities; states must "undertake to collaborate with each other, to the extent possible," in addressing public health events, building capacities, and mobilizing financial resources for general implementation.	

Table 7: Evolution of contested provisions concerning capacity building.

Balancing state sovereignty with WHO authority

The third area of contention was the proper balance between state sovereignty and WHO authority. On this issue, member states generally agreed that a number of the Secretariat's proposals went too far in restricting sovereign choice. Until the SARS epidemic, the Secretariat's efforts to develop a new approach to infectious disease control did not impinge on member states' sovereignty, as it worked with developing

countries that needed assistance to contain acute infectious disease outbreaks. During the SARS epidemic, the Secretariat, for the first time, demanded reporting from and access to countries that did not accept its help, and issued unauthorized region-specific travel recommendations to the global public that affected the commercial interests of member states.

The Secretariat then recommended that some of these and other authorities be incorporated into the revised IHR, leaving member states to determine how much sovereignty to cede. The January 2004 draft proposed substantially more power for the Secretariat than it had exercised under the 1969 IHR. Some of these powers, such as the authority to consider reports from non-official sources⁸⁴ and to conduct independent surveillance,⁸⁵ had already been exercised in practice by the Secretariat for years and were no longer controversial. Other proposed powers were new and contested.

The January 2004 draft required member states to collaborate with WHO in verifying and responding to public health emergencies of international concern, including allowing WHO to conduct in-country investigations.⁸⁶ It authorized the Director-General, with the assistance of an Emergency Committee appointed by the Director-General, to make final determinations as to when a public health emergency of international concern is occurring and what health measures to recommend to signatory states so as to control the spread of disease while minimizing interference with international traffic.⁸⁷ It limited the authority of member states to take certain actions in the absence of a WHO recommendation.⁸⁸ And it gave the Director-General, along with a Review Committee established by the Director-General, significant authority to

⁸⁴ January 2004 draft, Article 7, ¶ 3.

⁸⁵ Ibid., Article 4, ¶ 2.

⁸⁶ Ibid., Articles 8, ¶ 3(b) and 10, ¶ 3.

⁸⁷ Ibid., Articles 9 and 11 and Annex 3.

⁸⁸ Ibid., Articles 19, 21, 23, 24, and 34.

settle disputes concerning the interpretation and application of the new IHR.⁸⁹ The Secretariat's authority in each of these areas was subsequently curtailed during the final steps of treaty making. But, in most cases, even as member states pushed back against these proposals, the Secretariat's formulation of the negotiating text nevertheless set the course of debate and shaped the ultimate outcome.

Conducting on-site investigations. On the issue of WHO conducting on-the-spot investigations within the country in which a potential or confirmed public health emergency of international concern is occurring, member states uniformly objected. Reports from the regional consultations in Africa, Europe, North America, Southeast Asia, and the Western Pacific all emphasized member states' conviction that WHO should only be permitted to enter countries upon invitation.⁹⁰ This sentiment was echoed in the comments submitted by the United States, Norway, Russia, South Korea, Switzerland, Samoa, and Japan.⁹¹

The provisions concerning WHO sending teams for in-country investigations were thus rewritten according to a compromise proposed by Shigeru Omi, WHO's regional director for the Western Pacific. At the regional consultation for the Western Pacific, Omi suggested that member states may reject WHO's offer of assistance, including the deployment of a team for local investigations, but that there would be

⁸⁹ Ibid., Article 47 and Annex 10.

⁹⁰ Report of the Regional Consultation for Africa, p. 7; Report of the Regional Consultation for Europe, pp. 4-5; World Health Organization, Pan American Health Organization, 'Report of the North American Consultation Meeting of the Revision of the International Health Regulations (IHR), Ottawa, Canada—June 2-3, 2004,' 6 September 2004 [hereinafter Report of the Regional Consultation for North America], p. 1; Report of the Second Regional Consultation for South-East Asia, p. 2; Report of the Regional Consultation for the Western Pacific, p. 6.

⁹¹ First Comment from the United States, p. 7; Comment from Norway, p. 2; Comment from Switzerland, p. 3-4; Comment from Samoa, p. 3; Russian Federation, 'Professional Opinion of the Russian Federation Concerning the International Health Regulations (IHR) Working Paper for Regional Consultations Developed by the Secretariat of the World Health Organization (WHO) and Presented for Consideration and Discussion by the WHO Agencies at the National and Regional Levels,' 18 June 2004 [hereinafter Comment from Russian Federation], p. 4; Republic of Korea, 'Comments on IHR working paper for regional consultations,' 14 October 2004 [hereinafter Comment from South Korea], p. 4; Japan, 'Japan's comments on the first draft of the proposed revision of the International Health Regulations (IHR),' 9 July 2004 [hereinafter Second Comment from Japan], pp. 2-3.

some consequence for such a rejection—namely, that WHO may make publicly available the information it has received regarding the event that may constitute a public health emergency and the nature of the assistance it has offered.⁹² The Secretariat proposed this approach in the September 2004 draft,⁹³ and it was later adopted in the 2005 IHR. Under the new law, WHO must offer collaboration when it receives information about an event that may constitute a public health emergency of international concern, including conducting on-site assessments.⁹⁴ If the country concerned rejects the offer of collaboration, WHO may, “when justified by the magnitude of the public health risk,” share the information it has about the underlying event with other member states while encouraging the country concerned to accept the offer of collaboration.⁹⁵

Declaring public health emergencies and recommending health measures. On the issue of the Director-General’s authority to determine when a public health emergency of international concern is occurring and what health measures to recommend, member states expressed many apprehensions. Recall from Chapter 3 that the Executive Board is the decisive body in selecting the Director-General, and that the Board operates through a system of carefully managed politics that usually results in a choice of Director-General who shares the goals of the core group of powerful countries and avoids open controversy. These expectations, however, proved to be misleading during the SARS epidemic. The Secretariat’s declaration of a “worldwide health threat” and its issuance of region specific travel advisories against some of its most influential member states had been highly controversial, and countries across all regions

⁹² Comment from South Korea, p. 3.

⁹³ September 2004 draft, Articles 8 and 11.

⁹⁴ 2005 IHR, Article 10, ¶ 3.

⁹⁵ Ibid., Article 10, ¶ 4.

sought greater transparency, more accountability, and clearer procedures for these decisions.

The procedures set out in the January 2004 draft required the Director-General to consult an Emergency Committee on the question of whether a public health emergency of international concern is occurring if the Director-General and the country concerned do not come to a consensus on that point in a timely manner, and on the question of what health measures to recommend to state parties regardless of whether there is disagreement.⁹⁶ The Director-General was not bound by the views of the Emergency Committee, which was to consist of experts selected by the Director-General in accordance with WHO's regulations on expert panels and committees.⁹⁷ Ultimately, the declaration of public health emergencies and the prescription of temporary recommendations was the Director-General's decision.⁹⁸

Member States in North America, South America, Central America, Europe, and Southeast Asia, all requested clarification about the role and composition of the Emergency Committee and demanded greater involvement of the country concerned, requesting in particular that the country concerned be represented on the Emergency Committee.⁹⁹ Member states in Central America, Southeast Asia, and the Western Pacific, also asked that the new law include a non-exhaustive list of potential temporary

⁹⁶ January 2004 draft, Article 9 and Annex 3.

⁹⁷ See World Health Organization, 'Regulations for Expert Advisory Panels and Committees,' in *Basic Documents*, 47th ed. (Geneva: World Health Organization, 2009). This basic WHO governance document sets out, among other things, how experts are to be selected—primarily for their technical ability and experience, but also on the basis of equitable geographical representation, gender balance, and a balance of experts from developed and developing countries—and the rules of procedure for expert committees.

⁹⁸ January 2004 draft, Annex 3.

⁹⁹ Report of the Regional Consultation for North America, pp. 1-2; Report of the Regional Consultation for South America, p. 1; Report of the Regional Consultation for Central America, p. 2; Report of the Regional Consultation for the English Speaking Caribbean Countries, pp. 4, 7; Report of the Third Regional Consultation for South-East Asia, p. 11; Comment from the European Community, pp. 4-5.

recommendations.¹⁰⁰ Additionally, member states in the Western Pacific expressed a need for a predetermined end date for or built-in periodic review of temporary recommendations.¹⁰¹

Subsequent drafts responded to these concerns but did not fundamentally re-imagine the process of decision-making or remove from the Director-General the final authority to make determinations. But new provisions were introduced by the Secretariat in the September 2004 draft and adopted by member states in the 2005 IHR specifying the criteria to be considered by the Director-General when determining whether an event constitutes a public health emergency of international concern,¹⁰² detailing the criteria for issuing, modifying, or terminating recommendations for health measures,¹⁰³ and providing examples of health measures that might be recommended to state parties with respect to conveyances, containers, cargo, and persons.¹⁰⁴ As requested by member states, the adopted law provides the country concerned greater opportunities to participate at various points of the decision-making process. The Director-General must consult with the country concerned in determining when a public health emergency is occurring and has terminated, and in issuing, modifying, or terminating temporary recommendations.¹⁰⁵ At least one expert on the Emergency

¹⁰⁰ Report of the Regional Consultation for Central America, p. 2; Report of the First Regional Consultation for South-East Asia, p. 23; Report of the Regional Consultation for the Western Pacific, p. 6.

¹⁰¹ Report of the Regional Consultation for the Western Pacific, p. 9.

¹⁰² In determining whether an event constitutes a public health emergency of international concern, the Director-General must consider information provided by the state party, the decision instrument contained in Annex 2, the advice of the Emergency Committee, scientific principles and evidence, and an assessment of the risks to human health and international traffic. 2005 IHR, Article 12, ¶ 4.

¹⁰³ In issuing, modifying, or terminating temporary recommendations, the Director-General must consider, among other things, the views of the state parties directly concerned, the advice of the Emergency Committee, scientific principles and evidence, and less restrictive alternatives that would achieve the appropriate level of health protection. *Ibid.*, Article 17.

¹⁰⁴ For example, recommendations that might be issued by WHO to state parties with respect to persons include that state parties take no specific health measures be taken, review travel history in affected areas, review proof of medical examination and laboratory analysis, or require medical examinations, vaccinations, or other prophylaxis. *Ibid.*, Article 18.

¹⁰⁵ *Ibid.*, Articles 12 and 17.

Committee must be nominated by the country concerned.¹⁰⁶ And the country concerned must be invited to present its views to the Emergency Committee.¹⁰⁷ Additionally, the 2005 IHR elaborated on the composition of the Emergency Committee, noting that the members will be drawn from a larger roster consisting of experts appointed by the Director-General, including one expert at the request of each state party,¹⁰⁸ and imposed an autonomic three-month expiration date for recommended health measures, after which they may be modified or extended.¹⁰⁹ Despite these changes, and the movement of many of these provisions from Annex 3 in the January 2004 draft to the main body of the 2005 IHR to raise their prominence, the Secretariat's basic proposal that the Director-General, with the advice of a committee of technical experts, have the authority to declare emergencies and recommend health measures, remains in place in the adopted law.

Imposing additional health measures. On the issue of whether states could take public health measures beyond those recommended by WHO, member states overwhelmingly preferred flexibility. The Secretariat's January 2004 draft limited the health measures state parties could take with respect to ships in transit not coming from an affected area,¹¹⁰ conveyances at points of entry,¹¹¹ and travelers seeking admission to a state¹¹²—unless otherwise provided for under the revised law or recommended by WHO. The January 2004 draft also more generally provided that states “should make every effort not to impose measures exceeding those recommended by WHO.”¹¹³

¹⁰⁶ Ibid., Article 48, ¶ 2.

¹⁰⁷ Ibid., Article 49, ¶ 4.

¹⁰⁸ Ibid., Article 47.

¹⁰⁹ Ibid., Article 15, ¶ 3.

¹¹⁰ January 2004 draft, Article 19.

¹¹¹ Ibid., Article 21.

¹¹² Ibid., Article 23.

¹¹³ Ibid., Article 34.

Member states perceived these provisions as unacceptable restrictions on their sovereignty. Reports from regional consultations in Europe, North America, and the Western Pacific as well as comments from the United States, the European Community, and Samoa, inquired about the legal status of WHO's recommendations and asserted that it is a member state's prerogative to apply additional measures.¹¹⁴ Norway also noted that a prohibition on additional measures would simply lead to non-compliance during threats of serious epidemics.¹¹⁵

Reports from regional consultations in North America and the Western Pacific recommended allowing signatory states to exceed WHO's recommended measures where there is an appropriate rationale for doing so and suggested requiring member states to justify additional measures from a scientific point of view to WHO.¹¹⁶ Ultimately, this is the compromise that was adopted. The 2005 IHR stipulates that member states are not precluded from implementing health measures that achieve the same or greater level of health protection than WHO recommendations provided that the measures are based on scientific evidence.¹¹⁷ If a state party implements health measures that both exceed those recommended by WHO and significantly interfere with international traffic, it must disclose to WHO its underlying public health rationale.¹¹⁸

Settling disputes. On the issue of the revised IHR's dispute settlement mechanism, the Secretariat's proposals were heavily circumscribed and the Director-General's authority was reduced to a level below that exercised under the 1969 IHR. The Secretariat's January 2004 draft envisioned a complex process for resolving

¹¹⁴ Report of the Regional Consultation for Europe, p. 5; Report of the Regional Consultation for North America, p. 1; Report of the Regional Consultation for the Western Pacific, p. 2; First Comment from the United States, p. 7; Comment from the European Community, p. 4; Comment from Samoa, p. 4.

¹¹⁵ Comment from Norway, p. 2.

¹¹⁶ Report of the Regional Consultation for North America, p. 1; Report of the Regional Consultation for the Western Pacific, p. 2.

¹¹⁷ 2005 IHR, Article 43.

¹¹⁸ Ibid.

disputes that gave the Director-General significant authority. Under that proposal, any state party could refer a dispute over the interpretation or application of the new law to the Director-General, who would either settle the dispute on his own initiative or seek the advice of a Review Committee, consisting of experts selected by the Director-General in accordance with WHO's regulations on expert panels and committees.¹¹⁹ Though not binding on state parties unless they so choose, the advice of the Review Committee must be publicized and the parties must report to the Director-General on actions taken to implement the advice.¹²⁰ The parties may also accept compulsory arbitration in accordance with the Permanent Court of Arbitration's Optional Rules for Arbitrating Disputes,¹²¹ in which case they are again obligated to report to the Director-General on actions taken to implement the arbitral award.¹²²

Member states across various regions expressed concern about these dispute settlement provisions,¹²³ and the European Community in particular noted that the provisions would interfere with existing dispute resolution arrangements under the World Trade Organization.¹²⁴ Additionally, member states in South America, Southeast Asia, and the Western Pacific demanded a mechanism for resolving disputes between WHO and member states regarding the interpretation or implementation of the revised IHR.¹²⁵ Most of the dispute settlement provisions from the January 2004 draft were deleted in the chair's draft because consensus seemed unlikely on the subject.

¹¹⁹ January 2004 draft, Article 47 and Annex 10.

¹²⁰ Ibid., Article 47, ¶¶ 2 and 4.

¹²¹ The Permanent Court of Arbitration was established by treaty in 1899 at the First Hague Peace Conference. It is the oldest global institution for the settlement of international disputes. The Optional Rules for Arbitrating Disputes Between Two States are for arbitrating disputes arising under agreements between two states or in connection with multilateral treaties.

¹²² January 2004 draft, Article 47, ¶¶ 3 and 4.

¹²³ See, e.g., Report of the First Regional Consultation for South-East Asia, p. 23.

¹²⁴ Comment from the European Community, pp. 6-7.

¹²⁵ Report of the Regional Consultation for South America, p. 2; Report of the Second Regional Consultation for South-East Asia, p. 7; Report of the Regional Consultation for the Western Pacific, p. 12.

The 2005 IHR provides that state parties should first seek to settle their disputes through negotiation or any other peaceful means of their choice, and may then refer the dispute to the Director-General if their efforts are unsuccessful and if all parties to the dispute agree to do so.¹²⁶ Arbitration in accordance with the Permanent Court of Arbitration's Optional Rules for Arbitrating Disputes remains an option.¹²⁷ The 2005 IHR also stipulates that disputes between WHO and a state party must be submitted to the Health Assembly.¹²⁸

Dispute settlement is one area where the Secretariat's proposals had little effect on the adopted law. Indeed, the Director-General's authority to resolve disputes under the 2005 IHR is more restricted than it had been under the 1969 IHR. Whereas the old law allowed the Director-General to attempt to settle any dispute referred to it by any state party, and to refer the dispute to an appropriate WHO committee if she did not succeed,¹²⁹ the new law makes dispute settlement by the Director-General less accessible and does not provide for referral to a WHO committee. Additionally, the revised law includes a mechanism for member states to override the Director-General's interpretation of the 2005 IHR.

¹²⁶ 2005 IHR, Article 56.

¹²⁷ Ibid., Article 56, ¶ 3.

¹²⁸ Ibid., Article 56, ¶ 5.

¹²⁹ 1969 IHR, Article 93.

ISSUE	SECRETARIAT'S JANUARY 2004 DRAFT	ADOPTED 2005 IHR	OUTCOME
WHO conducting on-site investigations	State in which a rumored or confirmed public health emergency is occurring must allow WHO to conduct on-site investigations.	WHO may offer to conduct on-site investigations, and can publicize information about the underlying event if the state concerned declines.	Compromise, somewhat curtailing the Director-General's authority in declaring public health emergencies and recommending public health measures, significantly curtailing the Secretariat's ability to conduct on-site investigations and the Director-General's authority to settle disputes, and significantly expanding member states' ability to take protective measures in excess of those recommended by WHO.
WHO declaring public health emergencies	The Director-General, with the advice of the Emergency Committee, determines if a public health emergency is occurring.	Same, but stipulating criteria for the decision and opportunities for the country concerned to participate in the decision process.	
WHO recommending health measures	The Director-General, with the advice of the Emergency Committee, recommends measures during a public health emergency.	Same, but stipulating criteria for the decision and opportunities for the country concerned to participate in the decision process.	
States imposing additional health measures	States prohibited from taking certain protective measures unless recommended by WHO.	States may take protective measures in addition to those recommended but must justify them to WHO.	
Settling disputes	Any state may refer dispute to Director-General, who may seek the advice of the Review Committee; states must report to Director-General on implementation of Review Committee's advice or any arbitral award if states pursue compulsory arbitration.	After attempting to settle dispute through negotiation, states may refer dispute to Director-General if all parties to the dispute agree to do so; states may pursue compulsory arbitration; disputes between WHO and member states must be submitted to the Health Assembly.	

Table 8: Evolution of contested provisions concerning sovereignty.

Defining the reporting requirement

A final area of disagreement concerned the new IHR's reporting requirement. Recall from the previous chapter that defining the contours of a broader reporting requirement that encompassed previously unknown diseases—as opposed to a closed list of known diseases as under the 1969 IHR—had been a central challenge for the Secretariat since 1995. The Secretariat initially proposed that notification requirements be based on defined clinical syndromes, but subsequently concluded that syndromic

reporting was technically unworkable after conducting field tests during the late 1990s. The Secretariat then created the reporting algorithm found in Annex 2 of the January 2004 draft for identifying events that may constitute public health emergencies of international concern and thus require notification. The algorithm asked four questions—whether the public health impact of the event is serious, whether the event is unusual or unexpected, whether there is a significant risk of international spread, and whether there is a risk of international restrictions—and required the notification of events for which the answer to two of the questions is positive.¹³⁰ Each question was accompanied with guidelines and examples of when the answer should be affirmative.

Overall, member states supported the use of the algorithm. South Korea described the “new paradigm” as “practical and advantageous”;¹³¹ New Zealand noted the desirability of the decision instrument’s flexibility;¹³² Switzerland described the algorithm as “paramount” for creating an effective system for early detection and response;¹³³ and the European Community called the decision instrument “a helpful scheme for identifying an international threat.”¹³⁴ A majority of countries attending the second regional consultation in Southeast Asia also favored using the decision instrument as the central mechanism for determining which events should be notified.¹³⁵

But many states recommended supplementing the algorithm with a list of specific reportable diseases, so that the subjectivity of the decision instrument could be balanced with the clarity of a concrete list. This sentiment was expressed by the United States, Mexico, Russia, New Zealand, Switzerland, the Republic of Korea, Japan, and Samoa in their submitted comments as well as by member states at the regional

¹³⁰ January 2004 draft, Annex 2.

¹³¹ Comment from South Korea, p. 2.

¹³² New Zealand, ‘General Comment to WHO on the Draft of the Revised International Health Regulations,’ 14 April 2004 [hereinafter Comment from New Zealand], p. 1.

¹³³ Comment from Switzerland, p. 2.

¹³⁴ Comment from the European Community, p. 5.

¹³⁵ Report of the Second Regional Consultation for South-East Asia, p. 23.

consultations for Africa, South America, Europe, Western Pacific, Southeast Asia, and North America.¹³⁶ Member states at the African regional consultation as well as Japan in its written comment suggested a specific list of diseases to be appended.¹³⁷

Based on this feedback, the Secretariat added three diseases for mandatory notification in its September 2004 draft—smallpox, poliomyelitis, and SARS.¹³⁸ But member states continued to disagree on the reporting requirement at the first IGWG, so the chair convened an ad hoc expert group to take up the question, thus deploying WHO's technical know-how and procedural mechanisms. The expert group, organized by the Secretariat and consisting of members nominated by countries in each WHO region, met in Geneva for two days between the first and second IGWG to review and propose changes to Annex 2. The expert group's proposal to utilize a three-part test for identifying notifiable events was presented to member states at the second IGWG,¹³⁹ and then adopted in the 2005 IHR. The test requires that four specific diseases always be reported, even if only a single case occurs,¹⁴⁰ that a longer list of diseases always trigger an assessment using the algorithm,¹⁴¹ and that any event that yields two positive

¹³⁶ First Comment from the United States, pp. 5-6; Comment from Mexico, p. 1; Comment from the Russian Federation, p. 4; Comment from New Zealand, p. 1; Comment from Switzerland, pp. 2-3; Comment from South Korea, p. 2; First Comment from Japan, pp. 3-4; Comment from Samoa, p. 2; Report of the Regional Consultation for Africa, p. 7; Report of the Regional Consultation for South America, p. 1; Report of the Regional Consultation for Europe, p. 5; Report of the Regional Consultation for the Western Pacific, p. 2; Report of the First Regional Consultation for South-East Asia, p. 23; Report of the Regional Consultation for North America, p. 3.

¹³⁷ Report of the Regional Consultation for Africa, p. 5 (suggesting that cholera, plague, yellow fever, anthrax, Ebola viral hemorrhagic fever, SARS, and influenza be on a list of reportable diseases); First Comment from Japan, pp. 3-4 (suggesting that cholera, plague, SARS, smallpox, viral hemorrhagic fevers, and yellow fever be on a list of reportable diseases).

¹³⁸ September 2004 draft, Annex 2.

¹³⁹ World Health Organization, Intergovernmental Working Group on the Revision of the International Health Regulations, Second Session, 'Decision instrument for the assessment and notification of events that may constitute a public health emergency of international concern: Report of the Ad Hoc Expert Group on Annex 2,' A/IHR/IGWG/2/INF.DOC./4.

¹⁴⁰ These four diseases are smallpox, poliomyelitis due to wild-type poliovirus, human influenza caused by a new subtype, and SARS.

¹⁴¹ These algorithm triggering diseases are cholera, pneumonic plague, yellow fever, viral haemorrhagic fevers (Ebola, Lassa, Marburg), West Nile fever, and other diseases that are of special national or regional concern, such as dengue fever, Rift Valley fever, and meningococcal disease.

answers using the algorithm must be reported.¹⁴² The Secretariat thus played a role both in devising the algorithm, which forms the core of the reporting requirement, and in mediating the process by which member states arrived at an agreeable version of Annex 2 that contains a list of specific reportable diseases.

ISSUE	SECRETARIAT'S JANUARY 2004 DRAFT	ADOPTED 2005 IHR	OUTCOME
Algorithm	States must answer four questions to determine if an event must be reported— Is the public health impact of the event serious? Is the event unusual/unexpected? Is there a significant risk of international spread? Is there a risk of international restrictions?	Same, with minimal changes aside from those concerning bioterrorism discussed above.	Elaboration on the Secretariat's proposal through a process lead by the Secretariat.
List of specific reportable diseases	None.	Addition of a list of four diseases, the occurrence of which must always be reported; addition of a list of diseases, the occurrence of which requires assessment using the algorithm.	

Table 9: Evolution of the reporting requirement.

Are member states genuinely committed to the 2005 IHR?

The Secretariat's involvement in the 2005 IHR's treaty making process made formal negotiations easier and shorter. Member states arrived at the negotiating table with a fully developed negotiating text before them, which had already been circulated amongst the negotiating parties and discussed at regional consultations. Member states were thus able to quickly hone in on narrow issues of contention, and arrive at a final legal text after merely three weeks of formal negotiations.

¹⁴² 2005 IHR, Annex 2.

But the Secretariat's heavy influence also raises the question of whether the 2005 IHR embodies the aspirations of the Secretariat's leading members rather than the commitment of member states. Recall from Chapter 1 that scholars have identified some negative consequences that can result from the involvement of international organizations in treaty making. Notably, bureaucrats who run IOs may pursue their own regulatory goals separate from those of member states, may propose treaties that are too ambitious and do not reflect cessions of sovereignty that states are actually willing to make, and may ultimately contribute to the creation of weak treaties that countries are not truly prepared to be bound by. The upshot is an accumulation of international agreements, made too hastily and without genuine political accommodation, that states ultimately refrain from signing, sign with numerous and significant reservations, or delay in ratifying.

In the case of the 2005 IHR, the Secretariat's involvement made formal negotiations easier and shorter, but it did not do so by advancing ambitious treaty proposals in the absence of political interest, or by papering over disagreements with superficial accord. Indeed, while the formal negotiations were brief, the 2005 IHR's treaty making process as a whole was far longer, indicating that the overall effect of the Secretariat's involvement was not to make treaty making easier, but rather to alter its means and method. Based on the limited record of its performance after adoption, the 2005 IHR overall does not appear to represent a false commitment, nor has it encountered the obstacles of few signatory parties, numerous and significant reservations, and sparse or delayed ratification.

Signatures and reservations

After its adoption in May 2005, member states had until December 2006 to reject or submit reservations to the law.¹⁴³ Recall that the revised IHR was adopted by the Health Assembly under Article 22 of WHO's Constitution, which provides that regulations on certain subject matters, including the prevention of the international spread of infectious disease, automatically come into force for all member states after a designated period of time unless states opt out by notifying the Director-General. Two member states—India and the United States—submitted reservations, and no state opted out. The revised IHR came into force for 191 signatory parties in June 2007, and, as of April 2013, binds 196 parties, making it one of the most widely applicable instruments of international law.¹⁴⁴

Of the two countries that submitted reservations, only that of the United States was controversial, though it was ultimately deemed to be permissible based on procedures set out under the 2005 IHR.¹⁴⁵ The United States reserved the right to assume obligations under the agreement “in a manner consistent with its fundamental principles of federalism.”¹⁴⁶ In particular, it noted that the capacity building obligations under Annex 1 may come under the legal jurisdiction of state governments, in which case the federal government will “bring such obligations with a favorable recommendation to the notice of the appropriate state authorities.”¹⁴⁷

Iran objected to this reservation on the basis that it is “incompatible with the object and purpose” of the 2005 IHR.¹⁴⁸ Iran asserted that “by giving more prominence

¹⁴³ Ibid., Article 59.

¹⁴⁴ World Health Organization, ‘State Parties to the International Health Regulations (2005)’ [website].

¹⁴⁵ States may make reservations to the 2005 IHR so long as they are not “incompatible with the object and purpose of these Regulations.” States that have not opted out of the regulations have six months to object to any reservations that are timely made. 2005 IHR, Article 62.

¹⁴⁶ Ibid., Appendix 2.

¹⁴⁷ Ibid.

¹⁴⁸ Ibid.

to federalism than its obligations under the IHR,” the United States was “attempt[ing] to evade its...responsibilities” and giving state governments “the option of exempting themselves from full compliance.”¹⁴⁹ But the requisite number of objections was not received to trigger a request from the Director-General that the United States withdraw the reservation or to initiate proceedings before the Health Assembly.¹⁵⁰ The 2005 IHR thus entered into force for the United States in July 2007.¹⁵¹

As written, the American reservation could have been the type of which scholars complain when they discuss IO dysfunction and treaty making. It is a reservation significant enough to be able to undermine the agreement and made by a country on whose participation the success of the agreement relies. But an examination of the available evidence suggests that the United States did not make the reservation with the intention of evading its obligations, particularly those related to capacity building.

A 2010 study assessing reporting capacities and compliance with the 2005 IHR in the 50 US states and Washington, D.C., found that overall reporting capacity was high and that most states have systems in place to ensure compliance with the new law.¹⁵² Though disease reporting is mandated at the state level and state notification to the national CDC is voluntary, 90% of the 47 jurisdictions that responded reported requiring suspected or probable cases of the four immediately notifiable diseases under Annex 2—smallpox, poliomyelitis caused by wild-type poliovirus, human influenza

¹⁴⁹ Ibid.

¹⁵⁰ Unless one-third of states that have not opted out of the 2005 IHR object, a reservation is accepted and the regulations enter into force for the reserving state, subject to the reservation. If at least one-third of these states object, the Director-General must give the reserving state three months to withdraw the reservation. If not withdrawn, the Director-General must submit the reservation to the Health Assembly, which may, by majority vote, object to the reservation, in which case the reservation will not be accepted and the regulations will only enter into force for the reserving state if the reservation is withdrawn. Ibid., Article 62.

¹⁵¹ World Health Organization, ‘State Parties to the International Health Regulations (2005)’ [website].

¹⁵² Kia E. Armstrong, Scott J. N. McNabb, Lisa D. Ferland, Tim Stephens, Anna Muldoon, Jose A. Fernandez and Stephen Ostroff, ‘Capacity of Public Health Surveillance to Comply with Revised International Health Regulations, USA,’ *Emerging Infectious Disease*, vol. 16, no. 5, 2010.

caused by a new subtype and SARS—to be notified within 24 hours of diagnosis.¹⁵³ Additionally, 81% of respondents reported being able to transmit notifications about unknown or unexpected events to the CDC daily, 96% reported that they would notify CDC of conditions reportable under the 2005 IHR within 24 hours, and 20% of state epidemiologists reported using the algorithm in Annex 2 to determine whether notification to CDC is necessary.¹⁵⁴ While noting that additional efforts are necessary for full compliance, the study concluded that data collection and transmission capacity at the state level “has improved substantially in recent years.”¹⁵⁵ This finding is supported by incidents of actual reporting by the United States after the 2005 IHR entered into force for the country, as discussed below.

India submitted a reservation concerning yellow fever based on a similar reservation it had submitted under the 1969 IHR.¹⁵⁶ It reserved the right to treat yellow fever as a public health emergency of international concern, to consider an entire country infected with yellow fever whenever yellow fever is reported, and to continue to regard an area as infected with yellow fever until there is definite evidence that the infection has been completely eradicated from the area. Given the narrowly circumscribed nature of this reservation, it is not likely to undermine the revised law and does not signify India’s lack of commitment to it. No member state objected to the reservation, and the 2005 IHR entered into force for India in August 2007.¹⁵⁷

Implementation after entry into force

Because there were no opt-outs, the 2005 IHR automatically entered into force for all WHO member states. The law does not contain provisions for ratification and different countries have implemented it domestically in their own way. For the vast

¹⁵³ Ibid.

¹⁵⁴ Ibid.

¹⁵⁵ Ibid., p. 807.

¹⁵⁶ 1969 IHR, Annex II.

¹⁵⁷ World Health Organization, ‘State Parties to the International Health Regulations (2005)’ [website].

majority of signatory parties, the revised law has now been in force for nearly seven years. During that time, the 2005 IHR has passed a number of milestones, including the first declaration of a public health emergency of international concern in 2009, the law's first review in 2010, and the initial deadline for building surveillance and response capacities, which, for most countries, was 2012. Based on this limited record of implementation, the 2005 IHR has encountered difficulty in two areas, but overall has proven to be an agreement to which member states are committed. Many countries voluntarily began implementing the law before it came into force; a high proportion of signatory states have changed their domestic legislation to carry out their obligations under the IHR; and the revised law has generally functioned the way it was intended, resulting in the gathering and vetting of information about hundreds of public health events. Of the two areas of difficulty, one was the result of a compromise between conflicting member state interests, and thus represents an underlying political bargain rather than a false consensus. The other area of difficulty was the result of a compromise between the Secretariat's preferences and member state interests, and thus may be a result of the Secretariat overplaying its hand.

The first test for the new law came in 2006, after it was adopted but before its entry into force for any country. During the first six months of 2006, the Secretariat received reports of events of possible avian H5N1 influenza virus in humans.¹⁵⁸ Due to the immediate risk posed by avian influenza at the time, the Secretariat proposed and the 2006 Health Assembly approved a resolution urging member states to immediately comply, on a voluntary basis, with certain provisions of the 2005 IHR—including those on the designation of national contacts for communication of IHR-related information with WHO, notification, support to countries requesting assistance in investigating and

¹⁵⁸ World Health Organization, Report by the Secretariat to the World Health Assembly, 'Avian and pandemic influenza: application of the International Health Regulations,' A60/8, 22 March 2007, p. 2.

controlling outbreaks, and recommendations for control measures.¹⁵⁹ The resolution also requested the Director-General to immediately start working with states to support compliance.¹⁶⁰

As opposed to delayed ratification, member states and the Secretariat began implementing the 2005 IHR on an accelerated basis. One of the first obligations under the new law was to designate “national focal points” within member states and “IHR contact points” within WHO so that IHR-related communications could occur quickly and reach the right channels.¹⁶¹ By March 2007, over half of all signatory parties had done so, and WHO had designated IHR contact points at headquarters and in its six regional offices.¹⁶² Additionally, by 2007, the Secretariat had followed up on reports of avian influenza in humans in 45 countries, sent 10 missions to help respond to confirmed outbreaks of avian influenza in humans, and conducted 30 missions to assess existing national health capacities for early warning and verification, laboratory diagnosis, clinical management, and containment measures, as specifically relevant to influenza viruses.¹⁶³ The Secretariat also issued guidelines and recommendations on developing the public health response capacities for avian influenza and held training

¹⁵⁹ World Health Organization, World Health Assembly Resolution ‘Application of the International Health Regulations (2005),’ WHA59.2, 26 May 2006. See also World Health Organization, Report by the Secretariat to the World Health Assembly, ‘Strengthening pandemic-influenza preparedness and response, including application of the International Health Regulations (2005),’ A59/4, 24 April 2006; World Health Organization, Report by the Secretariat to the World Health Assembly, ‘Strengthening pandemic-influenza preparedness and response, including application of the International Health Regulations (2005),’ A59/5, 24 April 2006; World Health Organization, Executive Board resolution ‘Application of the International Health Regulations (2005),’ EB117.R7, 26 January 2006.

¹⁶⁰ World Health Organization, World Health Assembly Resolution ‘Application of the International Health Regulations (2005),’ WHA59.2.

¹⁶¹ The 2005 IHR requires each state party to designate or establish a “National IHR Focal Point” and the WHO to designate “IHR Contact Points.” These designated officials must be accessible at all times for communications with each other. 2005 IHR, Article 4.

¹⁶² World Health Organization, Report by the Secretariat to the World Health Assembly, ‘Avian and pandemic influenza: application of the International Health Regulations (2005),’ A60/8, p. 1.

¹⁶³ *Ibid.*, p. 2.

courses in all WHO regions on avian influenza and the implementation of the 2005 IHR.¹⁶⁴

The revised law's implementation continued to advance during the years after its 2007 entry into force. By 2008, 188 countries had designated national focal points,¹⁶⁵ and by 2010 that figure rose to all state parties but one.¹⁶⁶ The Secretariat launched a restricted-access website in June 2007 that facilitates information sharing amongst national focal points and WHO's IHR contact points. The site was utilized by 157 states by 2009¹⁶⁷ and 182 states by 2011.¹⁶⁸ In response to surveys conducted by the Secretariat, 58% of 144 respondents in 2008 reported participating in regional arrangements that covered implementation of the 2005 IHR.¹⁶⁹ These regional arrangements include the European Union's Early Warning and Response System, the Pacific Public Health Surveillance Network, the Middle East Consortium of Infectious Diseases Surveillance, and the Mercado Común del Sur.¹⁷⁰ All of 119 respondents to the Secretariat's 2009 survey reported undertaking activities to promote awareness of the 2005 IHR's requirements, primarily targeting health sector personnel and policy-makers.¹⁷¹

¹⁶⁴ Ibid., pp. 3-4.

¹⁶⁵ World Health Organization, Report by the Secretariat to the World Health Assembly, 'Implementation of the International Health Regulations (2005),' A61/7, 3 April 2008, p. 3.

¹⁶⁶ World Health Organization, Report by the Director-General to the World Health Assembly, 'Implementation of the International Health Regulations (2005): Report of the Review Committee on the Functioning of the International Health Regulations (2005) in relation to Pandemic (H1N1) 2009,' A64/10, 5 May 2011, p. 66.

¹⁶⁷ World Health Organization, Report by the Director-General to the World Health Assembly, 'Implementation of the International Health Regulations (2005),' A62/6, 9 April 2009, p. 4.

¹⁶⁸ World Health Organization, Report by the Director-General to the World Health Assembly, 'Implementation of the International Health Regulations (2005),' A64/9, p. 5.

¹⁶⁹ World Health Organization, Report by the Director-General to the World Health Assembly, 'Implementation of the International Health Regulations (2005),' A62/6, p. 1.

¹⁷⁰ World Health Organization, Report by the Director-General to the World Health Assembly, 'Implementation of the International Health Regulations (2005): Report of the Review Committee on the Functioning of the International Health Regulations (2005) in relation to Pandemic (H1N1) 2009,' A64/10, p. 67.

¹⁷¹ World Health Organization, Report by the Director-General to the World Health Assembly, 'Implementation of the International Health Regulations (2005),' A63/5, 15 April 2010, p. 3.

Though the 2005 IHR does not require states to integrate the law into national legislation, approximately half of state parties expressed an intention to do so in 2008,¹⁷² and subsequently did, including countries with federalist systems of government. As of 2010, a total of 25 member states had passed new or amended national legislation to address one or more of its obligations under the 2005 IHR, and at least one state had legislation pending.¹⁷³ Of these, seven states—Belgium, Costa Rica, Finland, France, Germany, Portugal, and Spain—had reproduced the text of the 2005 IHR in full in its domestic legislation.¹⁷⁴ By May 2011, about half of signatory states had made changes to their domestic law.¹⁷⁵

Federalist countries, in particular, have utilized innovative strategies for implementing the agreement. For example, Australia passed the National Health Security Bill in 2007, which made the 2005 IHR legally enforceable, updated the Quarantine Act in 2008 in accordance to the revised law's requirements for health measures related to travelers, and created the National Health Security Agreement, a non-binding accord signed by officials of the Commonwealth, states, and territories, to increase information exchange about communicable diseases.¹⁷⁶ Canada started the Pan-Canadian Public Health Network in 2005 to integrate data sharing between federal, provincial, and territorial health ministries, and passed legislation in 2006 creating the

¹⁷² World Health Organization, Report by the Director-General to the World Health Assembly, 'Implementation of the International Health Regulations (2005),' A62/6, p. 1.

¹⁷³ These 26 countries are Argentina, Australia, Belgium, Brazil, Cameroon, Canada, Colombia, Costa Rica, Ecuador, Finland, France, Georgia, Germany, China, Iceland, India, Ireland, Netherlands, Norway, Oman, Peru, Portugal, Spain, Sweden, Syria, and the United Kingdom. Rebecca Katz and Sarah Komblet, 'National Models for International Health Regulations, Comparative Analysis of National Legislation in Support of the Revised International Health Regulations: Potential Models for Implementation in the United States,' *American Journal of Public Health*, vol. 100, no. 12, 2010, p. 2348.

¹⁷⁴ Ibid.

¹⁷⁵ World Health Organization, Report by the Director-General to the World Health Assembly, 'Implementation of the International Health Regulations (2005): Report of the Review Committee on the Functioning of the International Health Regulations (2005) in relation to Pandemic (H1N1) 2009,' A64/10, p. 67.

¹⁷⁶ Katz and Komblet, 'National Models for International Health Regulations, Comparative Analysis of National Legislation in Support of the Revised International Health Regulations: Potential Models for Implementation in the United States,' pp. 2349-2350.

Public Health Agency of Canada, which was tasked with completing a plan for meeting the 2005 IHR's requirements by the end of 2009.¹⁷⁷ India has proposed new legislation giving the central government authority over public health matters when WHO declares a public health emergency of international concern.¹⁷⁸

Since June 2007, the Secretariat has followed and responded to a plethora of reports about public health events through the 2005 IHR's mechanisms. Over time, an increasing proportion of those reports have initially come from member state self-reporting as opposed to other sources, as national focal points became established and their roles clarified.¹⁷⁹ From June 2007 to April 2008, 231 public health events were entered into the Secretariat's event management system, about 10% of which were first communicated to the Secretariat through national focal points.¹⁸⁰ From June 2007 to January 2009, 684 events were entered into the system, 16% of which initially came from national focal points, 29% of which the Secretariat verified with the state party concerned, and 12% of which resulted in the Secretariat providing assistance to the member state concerned for responding to the event.¹⁸¹ In 2009, the proportion of events initially notified by national focal points rose to 33% and an additional 7% coming from other governmental sources in the affected country.¹⁸² Based on this data, the Secretariat concluded in 2011 that though national focal points are not yet the predominant source of initial, early information on events that might constitute a public

¹⁷⁷ Ibid., p. 2350.

¹⁷⁸ Ibid., p. 2351.

¹⁷⁹ World Health Organization, Report by the Director-General to the World Health Assembly, 'Implementation of the International Health Regulations (2005): Report of the Review Committee on the Functioning of the International Health Regulations (2005) in relation to Pandemic (H1N1) 2009,' A64/10, pp. 70-71.

¹⁸⁰ World Health Organization, Report by the Secretariat to the World Health Assembly, 'Implementation of the International Health Regulations (2005),' A61/7, p. 3.

¹⁸¹ World Health Organization, Report by the Director-General to the World Health Assembly, 'Implementation of the International Health Regulations (2005): Report of the Review Committee on the Functioning of the International Health Regulations (2005) in relation to Pandemic (H1N1) 2009,' A64/10, p. 70.

¹⁸² Ibid., p. 72.

health emergency, they have been important for verification and follow-up information.¹⁸³ The median interval between the Secretariat's verification request and the response by the state party concerned was less than one day in 2007 and 2008.¹⁸⁴

A further 318 events were tracked by the Secretariat from April 2009 to February 2010, not including events related to pandemic influenza in 2009 discussed below,¹⁸⁵ and 137 events were tracked from October 2010 to February 2011.¹⁸⁶ The 2005 IHR has now been applied to avian influenza in 2006, to the travel of patients with drug-resistant tuberculosis in 2007,¹⁸⁷ to epidemics of Marburg and Ebola hemorrhagic fevers in 2006 and 2007,¹⁸⁸ and, most notably, to pandemic influenza in 2009 when the Director-General declared the first public health emergency of international concern.

In February and early March of 2009, the earliest cases of a newly emergent H1N1 influenza A virus occurred in Mexico.¹⁸⁹ These outbreaks were initially thought to be part of the end of the usual flu season in Mexico, but when WHO's Regional Office for the Americas inquired in mid-April about media reports of hundreds of cases in a rural pig-farming community, the national focal point for Mexico confirmed the event and reported that it might constitute a public health emergency of international concern based on a risk assessment using the reporting algorithm in Annex 2.¹⁹⁰ In mid-April, the national focal point for the United States also reported to WHO the

¹⁸³ Ibid.

¹⁸⁴ Ibid.

¹⁸⁵ World Health Organization, Report by the Director-General to the World Health Assembly, 'Implementation of the International Health Regulations (2005),' A63/5, pp. 4-5.

¹⁸⁶ World Health Organization, Report by the Director-General to the World Health Assembly, 'Implementation of the International Health Regulations (2005),' A64/9, p. 5.

¹⁸⁷ See David P. Fidler, Lawrence O. Gostin and Howard Markel, 'Through the Quarantine Looking Glass: Drug-Resistant Tuberculosis and Public Health Governance, Law, and Ethics,' *Global Health Law, Ethics, and Policy*, vol. 35, no. 4, 2007.

¹⁸⁸ World Health Organization, Report by the Secretariat to the World Health Assembly, 'Implementation of the International Health Regulations (2005),' A61/7, p. 3.

¹⁸⁹ World Health Organization, Report by the Director-General to the World Health Assembly, 'Implementation of the International Health Regulations (2005): Report of the Review Committee on the Functioning of the International Health Regulations (2005) in relation to Pandemic (H1N1) 2009,' A64/10, p. 51.

¹⁹⁰ Ibid.

American CDC's finding in two patients of a new influenza A subtype that had not previously been identified in humans or animals.¹⁹¹ The Director-General convened an Emergency Committee for the first time on 25 April, 2009, and, after consulting with both Mexico and the United States, declared a public health emergency of international concern that day, which lasted until August 10, 2010.¹⁹² By the end of that period, WHO had recorded 240 pandemic influenza-related events,¹⁹³ approximately 18,500 deaths from the H1N1 flu virus had been confirmed by laboratory diagnostics, and modeling estimates placed the global burden of the pandemic at between several tens of millions to 200 million cases.¹⁹⁴

Over the course of the first public health emergency, WHO deployed personnel to Mexico to assist in responding to the outbreak; issued temporary recommendations that countries intensify surveillance for unusual outbreaks of influenza-like illness but that no travel or trade restrictions be imposed; worked with the International Civil Aviation Organization and the International Air Transport Association to produce guidance for the management of H1N1 influenza in air transport; and coordinated the global distribution of diagnostic kits as well as the global donation and distribution of 200 million doses of vaccine to 95 low- and middle-income countries.¹⁹⁵ Scholars writing about the pandemic have noted that while the first public health emergency of international concern revealed some systemic weaknesses in the 2005 IHR, overall, the law was employed “exactly as spelled out in the text of the agreement,” resulting in

¹⁹¹ Ibid., p. 53.

¹⁹² Ibid., pp. 53-54, 61-62.

¹⁹³ World Health Organization, Report by the Director-General to the World Health Assembly, ‘Implementation of the International Health Regulations (2005),’ A63/5, p. 2.

¹⁹⁴ World Health Organization, Report by the Director-General to the World Health Assembly, ‘Implementation of the International Health Regulations (2005): Report of the Review Committee on the Functioning of the International Health Regulations (2005) in relation to Pandemic (H1N1) 2009,’ A64/10, p. 49.

¹⁹⁵ Rebecca Katz and Julie Fischer, ‘The Revised International Health Regulations: A Framework for Global Pandemic Response,’ *Global Health Governance*, vol. 3, no. 2, 2010, pp. 4-5.

“unprecedented efficiency in international communications and cooperation.”¹⁹⁶ The Secretariat reported to the Health Assembly in 2010 that the network of designated national focal points had acted as an “efficient conduit” for information sharing and dissemination between national governments and WHO.¹⁹⁷ Most countries conscientiously reported cases of H1N1,¹⁹⁸ and though Mexico was criticized by some for not detecting the virus fast enough, the Mexican government reported transparently once the nature of the outbreak became clear and followed WHO’s recommendations, including social distancing measures such as school closures and the cancellation of large events.¹⁹⁹

In 2011, the revised IHR also resulted in the reporting of *E. coli* outbreaks by European countries as events that may constitute a public health emergency.²⁰⁰ Twelve European countries cumulatively notified the Secretariat of 2266 cases by June 2011.²⁰¹ In response, the Director-General did not convene an Emergency Committee or declare a public health emergency, but the Secretariat offered assistance to affected countries.

Between 2012 and 2014, the Secretariat received reports of a new virus known as Middle East respiratory syndrome coronavirus (“MERS-CoV”) from countries including the Saudi Arabia, United Arab Emirates, Kuwait, Jordan, Oman, Qatar, and Tunisia. By September 2012, the Secretariat had been informed of a total of 198 laboratory-confirmed cases of infection, including 84 deaths.²⁰² In response to MERS-CoV, the Director-General convened an Emergency Committee, which met on four

¹⁹⁶ Ibid., pp. 1, 4.

¹⁹⁷ World Health Organization, Report by the Director-General to the World Health Assembly, ‘Implementation of the International Health Regulations (2005),’ A63/5, p. 2.

¹⁹⁸ Lawrence O. Gostin, ‘Influenza A(H1N1) and Pandemic Preparedness Under the Rule of International Law,’ *Journal of the American Medical Association*, vol. 301, no. 22, 2009, p. 2377.

¹⁹⁹ Katz and Fischer, ‘The Revised International Health Regulations: A Framework for Global Pandemic Response,’ p. 5.

²⁰⁰ David P. Fidler, ‘International Law and the E. coli Outbreaks in Europe,’ *The American Society of International Law Insights*, vol. 15, no. 14, 2011.

²⁰¹ Ibid.

²⁰² World Health Organization, ‘Middle East respiratory syndrome coronavirus (MERS-CoV)—update,’ 20 March 2014 [website].

occasions, each time determining that the conditions of a public health emergency had not been met.²⁰³

Based on the 2005 IHR's limited record of performance, the law has, for the most part, functioned as it was intended to. Member states have generally carried through with their obligations, providing no indication that signatory states are not committed to the agreement as a whole. But the limited experience of detecting and responding to public health events has also exposed systemic weaknesses stemming from the legal agreement itself. Despite significant efforts, numerous countries are not on track to meet the 2005 IHR's capacity building requirements in a timely manner, and there have been repeated incidents of countries applying public health measures in excess of those recommended by the Secretariat without providing justification.

Resources for capacity building. As already discussed, the 2005 IHR's provisions on capacity building embody a compromise between developing countries that demanded the mobilization of global funds on the one hand and developed countries that are WHO's key funders on the other. The revised law placed obligations of varying strengths on all countries and the Secretariat. Ultimately, it is the responsibility of every state to assess its existing capacities and develop an implementation plan for meeting Annex I's requirements within two years, and then to meet those requirements within five years, with the possibility of two two-year extensions. When requested, WHO must assist states to develop capacities related to surveillance, and both WHO and member states must, to the extent possible, mobilize financial resources to help developing countries fulfill their capacity building

²⁰³ See World Health Organization, 'Middle East respiratory syndrome coronavirus (MERS-CoV): Statement by WHO Director-General, Dr Margaret Chan,' 9 July 2013 [website]; World Health Organization, 'WHO Statement on the Second Meeting of the IHR Emergency Committee concerning MERS-CoV,' 17 March 2013 [website]; World Health Organization, 'WHO Statement on the Third Meeting of the IHR Emergency Committee concerning MERS-CoV,' 25 September 2013 [website]; World Health Organization, 'WHO Statement on the Fourth Meeting of the IHR Emergency Committee concerning MERS-CoV,' 4 December 2013 [website].

obligations. The 2005 IHR does not contain any quantitative commitment of resources to developing countries.

Even before the 2005 IHR entered into force, scholars pointed out the “most pressing question” of whether the necessary resources would be available to improve national core capacities, particularly in developing and least developed countries.²⁰⁴ In 2006, David Fidler and Lawrence Gostin asserted that the revised law’s weak and non-binding stipulations on the provision of financial and technical resources are “a serious problem.”²⁰⁵ After the H1N1 influenza pandemic in 2009, scholars continued to note the “significant gaps” in resources,²⁰⁶ and identified capacity building in the absence of a standing financial commitment as the 2005 IHR’s “greatest operational challenge.”²⁰⁷

Since the law’s entry into force, member states and the Secretariat, particularly regional offices, have made considerable efforts and progress in capacity building, but continue to struggle with mobilizing resources and remain behind schedule. By February 2008, 76 state parties had carried out assessments of their national capacities,²⁰⁸ and a 2008 Health Assembly resolution requested the Director-General to support member states with the most vulnerable health systems to strengthen core capacity for surveillance and response, paying special attention to the laboratory network in sub-Saharan Africa.²⁰⁹ As a result, the Secretariat carried out programs for epidemic-prone diseases at 76 reference laboratories in 46 countries in the African region and 21 countries in the Eastern Mediterranean region, and conducted laboratory

²⁰⁴ David P. Fidler and Lawrence O. Gostin, 'The new International Health Regulations: an historic development for international law and public health,' *Journal of Law, Medicine & Ethics*, vol. 34, no. 1, 2006, p. 88.

²⁰⁵ Ibid.

²⁰⁶ Gostin, 'Influenza A(H1N1) and Pandemic Preparedness Under the Rule of International Law,' p. 2377.

²⁰⁷ Katz and Fischer, 'The Revised International Health Regulations: A Framework for Global Pandemic Response,' p. 9.

²⁰⁸ World Health Organization, Report by the Secretariat to the World Health Assembly, 'Implementation of the International Health Regulations (2005),' A61/7, p. 2.

²⁰⁹ World Health Organization, World Health Assembly Resolution 'Implementation of the International Health Regulations (2005),' WHA61.2, 23 May 2008.

training programs in the African, Southeast Asian, and Western Pacific regions.²¹⁰ The Secretariat has also provided training in intervention epidemiology and risk communications, and in March 2010, launched an on-the-job training course that includes three basic modules on (1) surveillance, early warning and response, (2) health management, and (3) international relations and law.²¹¹ In 2012, the Secretariat reported that surveillance systems had improved and response capacities increased across the African region, and that member states in the Western Pacific region had made good progress in the areas of surveillance, response, coordination, and risk communication.²¹²

Self-reporting by signatory parties in 2010 indicated that about half of responding states had assessed their capacities, about one third had made national plans, and 30% had met the core capacities requirements.²¹³ By this time, it was evident that numerous member states were not on pace to reach the initial 2012 deadline. The first review of the functioning of the 2005 IHR in 2010 noted that although states reported a willingness to comply with capacity building requirements, and the revised law had indeed stimulated capacity building for surveillance and response, there was nevertheless “wide variation in the degree of fulfillment” in part due to limited resources.²¹⁴ The review’s first recommendation was to accelerate implementation of

²¹⁰ World Health Organization, Report by the Director-General to the World Health Assembly, ‘Implementation of the International Health Regulations (2005),’ A62/6, p. 3.

²¹¹ World Health Organization, Report by the Director-General to the World Health Assembly, ‘Implementation of the International Health Regulations (2005),’ A63/5, p. 4.

²¹² World Health Organization, Report by the Director-General to the World Health Assembly, ‘Implementation of the International Health Regulations (2005): Report on development of national core capacities required under the Regulations,’ A65/17 Add.1, 15 May 2012, pp. 5, 8.

²¹³ World Health Organization, Report by the Director-General to the World Health Assembly, ‘Implementation of the International Health Regulations (2005),’ A64/9, p. 2; World Health Organization, Report by the Director-General to the World Health Assembly, ‘Implementation of the International Health Regulations (2005): Report of the Review Committee on the Functioning of the International Health Regulations (2005) in relation to Pandemic (H1N1) 2009,’ A64/10, p. 66.

²¹⁴ World Health Organization, Report by the Director-General to the World Health Assembly, ‘Implementation of the International Health Regulations (2005): Report of the Review Committee on the Functioning of the International Health Regulations (2005) in relation to Pandemic (H1N1) 2009,’ A64/10, p. 66.

core capacities by mobilizing agencies willing to provide technical assistance and urging donor countries to make public health capacity building a priority for development support.²¹⁵

Under the 2005 IHR, states reporting to WHO with a justified need and an implementation plan may obtain a two-year extension to the 2012 deadline.²¹⁶ By March 2013, 110 (57%) of a total of the then 194 state parties had applied for and received extensions to the 2012 deadline, and a further 13 states (7%) had submitted requests but not yet provided the requisite implementation plan for obtaining an extension.²¹⁷ Of the remaining 71 countries (37%) that did not request an extension, 42 (22%) had indicated that they did not need an extension, while 29 (15%) had not reported either way, and the Secretariat was working to ensure that they did not miss the deadline by oversight.²¹⁸ Those countries that obtained a two-year extension may request a further two-year extension to their 2014 deadline by demonstrating “exceptional circumstances” and preparing a new implementation plan.²¹⁹ While it is unlikely that all member states will be able to meet this 2016 deadline, member states’ and WHO’s ongoing efforts to strengthen public health capacities suggests that countries are committed to the 2005 IHR’s capacity building goals and that they are working towards them in the face of resource constraints. The 2005 IHR’s capacity building provisions, thus, do not represent a false consensus, but rather a political and financial compromise that was struck during the course of treaty making, precisely because member states utilized the negotiation process to ensure that the 2005 IHR did not contain provisions by which they were not willing to be bound.

²¹⁵ Ibid., p. 129.

²¹⁶ 2005 IHR, Articles 5, ¶ 2 and 13, ¶ 2.

²¹⁷ World Health Organization, Report by the Director-General to the World Health Assembly, ‘Implementation of the International Health Regulations (2005),’ A66/16, p. 10.

²¹⁸ Ibid.

²¹⁹ 2005 IHR, Articles 5, ¶ 2 and 13, ¶ 2.

Application of additional protective measures. A second area of difficulty has been the application of protective public health measures in excess of those recommended by the Secretariat without the justification required by the 2005 IHR. As discussed above, the Secretariat's January 2004 draft proposed that member states be prohibited from applying measures beyond the Secretariat's recommendations. Due to the protests of member states, that prohibition was removed during the course of negotiations, and replaced with the stipulation that the revised law "does not preclude" states from implementing additional measures, so long as they provide WHO with the public health rationale for doing so when the additional measures result in significant interference with international traffic.²²⁰

During the 2009 H1N1 influenza pandemic, many countries applied travel and trade restrictions without providing a public health rationale in spite of WHO's recommendation against such restrictions. For example, 20 countries banned the importation of pork products from Mexico, Canada, and the United States; China and Singapore quarantined travelers based on nationality regardless of their potential exposure to the H1N1 virus; several countries suspended flights to North America; and the United States advised against all nonessential travel to Mexico.²²¹ Excessive measures were particularly an issue early on in the pandemic when the situation was not well understood, and many countries gradually converged toward WHO's recommendations as the pandemic progressed.²²²

That member states have imposed additional measures at all is not a sign of a false consensus since the 2005 IHR explicitly allows state parties to do so. Indeed,

²²⁰ Ibid., Article 43.

²²¹ Gostin, 'Influenza A(H1N1) and Pandemic Preparedness Under the Rule of International Law,' p. 2378; Katz and Fischer, 'The Revised International Health Regulations: A Framework for Global Pandemic Response,' p. 6.

²²² Katz and Fischer, 'The Revised International Health Regulations: A Framework for Global Pandemic Response,' p. 7.

member states used the negotiation process to push back on the Secretariat's proposed prohibition on additional measures and instead replaced it with a much weaker provision. That member states have imposed additional measures without providing the requisite justification in contravention of the 2005 IHR may be the result of the Secretariat's influence on the negotiation process. After all, the middle ground of allowing additional measures but requiring a public health explanation was a compromise suggested in reaction to the Secretariat's ambitious proposal that additional measures not be permitted at all.

WHO's 2010 review of the 2005 IHR concluded that the law's most important structural shortcoming is "the lack of enforceable sanctions," as a result of which countries that fail to explain why it has adopted more restrictive measures than those recommended by WHO face no legal consequences.²²³ Scholars have also criticized the 2005 IHR for not containing mechanisms that could deliver timely relief to parties harmed by unjustified trade restrictions.²²⁴ While the revised law could have contained stronger provisions, it is clear from the negotiations that member states were not willing to cede the sovereign power to impose protective public health measures of their choosing, a preference that is reflected in the 2005 IHR.

Concluding thoughts

In this chapter, I have examined whether the Secretariat continued to play a substantive autonomous role during the final stages of negotiation, and, if so, whether its influence ultimately led to an agreement to which member states are committed to comply. I argue that the Secretariat's role was indeed autonomous, and that that

²²³ World Health Organization, Report by the Director-General to the World Health Assembly, 'Implementation of the International Health Regulations (2005): Report of the Review Committee on the Functioning of the International Health Regulations (2005) in relation to Pandemic (H1N1) 2009,' A64/10, p. 13.

²²⁴ Fidler, 'International Law and the E. coli Outbreaks in Europe.'

autonomy derived from the wide discretion delegated to it by member states wishing to quickly complete the revision process. Member states allowed the Secretariat to set the schedule, determine the procedure, and exert significant influence over the content of three successive negotiating texts. Ultimately, the Secretariat's involvement led to compromises in key areas of dispute between member states and left an imprint on issues even though member states disagreed with the Secretariat's initial proposals.

I also argue that the resulting agreement is, overall, an accurate reflection of member states' commitment. For the most part, the agreement has functioned as it was intended, with member states enacting domestic legislation and conscientiously reporting, and with WHO vetting information and coordinating the response to public health events. Though many member states are behind on developing the required domestic surveillance and response capacities, they are making efforts and progress within resource constraints. Additionally, member states made clear during the negotiation process that they are unwilling to limit the protective public health measures they take to those recommended by WHO, though the requirement that member states justify public health measures in excess of WHO recommendations may be one minor area where the Secretariat overplayed its hand.

The Secretariat's influence and autonomy during the final steps of the treaty making process is directly related to its earlier work experimenting with and refining new practices. Member states accepted the basic features of the new epidemiological approach without question because it was a well-developed and readily available solution that had already been tested and demonstrated to be effective. Moreover, member states looked to the Secretariat to coordinate the expeditious negotiation of a new agreement because the Secretariat was the authority on the new approach. Negotiation scholars have noted that the informal pre-negotiation phase is useful

“because it promises lower exit costs than do formal negotiations, should pre-negotiation fail.”²²⁵ In the case of the 2005 IHR’s revision, the Secretariat’s heavy involvement in the early informal stages of the treaty making process enabled it to remain heavily involved in the final stages of treaty making. This lowered the exit costs before formal negotiations began, the costs and length of formal negotiations themselves, as well as the uncertainty faced by member states.

²²⁵ Fen Osler Hampson and Michael Hart, *Multilateral negotiations: lessons from arms control, trade, and the environment* (Baltimore, MD: Johns Hopkins University Press, 1995), p. 26.

Chapter 7

CONCLUSION

This thesis set out to characterize the effect of international organizations on the making of international agreements by studying the relationship between the World Health Organization and international infectious disease law. While international law is an advantageous mechanism for regulating the cross-border spread of infectious disease, it is difficult and costly to create, raising the question of how the involvement of IOs can change the process of treaty making. Some scholars have observed that when international laws are made under the auspices of IOs, the benefits of centralization and specialization can accrue at various points of treaty making—from pre-initiation and preliminary studies to draft text preparation and treaty adoption—making these undertakings more efficient, less costly, and perhaps also more inclusive and legitimate. Other scholars point out that IOs may develop their own autonomous ideas about how a given area should be regulated, and their pursuit of these independent preferences may hinder treaty making by submitting proposals that are too ambitious and creating weak agreements that states are not prepared to adhere to. In this thesis, I have undertaken a longitudinal study of international infectious disease law beginning with its emergence in the mid-nineteenth century, before any international organization existed, and ending with the adoption and then implementation of the 2005 IHR with the World Health Organization's aid. My goal was not only to uncover the extent and effect of WHO's involvement by ascertaining whether its role was merely instrumental, substantive and autonomous, or too autonomous, but also to trace the process and dissect the causal mechanisms at play between WHO's Secretariat, member states, and the regulation of infectious disease.

Making infectious disease law before and after WHO's establishment

I have argued throughout this thesis that the Secretariat of the World Health Organization played a substantive autonomous role both in moving away from the historic barrier approach, which focused on the regulation of a handful of specific diseases at international borders, and in moving towards the epidemiological approach, which relies on swift responses to outbreaks at their source regardless of cause. The scope and significance of the Secretariat's role is difficult to see if we examine only a short span of time or only the formal legal shift from the barrier to the epidemiological approach, but comes into relief when we delve into the long-term evolution of WHO's infectious disease practices and regulations over the course of decades. The Secretariat's influence becomes particularly apparent when the process of creating the 2005 IHR is explored alongside the historical context of how infectious disease law was made prior to WHO's existence and the institutional context of WHO's internal dynamics.

In Chapter 2, I addressed the historical question of how international infectious disease law was made before WHO's establishment in 1946. I chronicled fourteen historic International Sanitary Conferences held from 1851 to 1938 that led to the adoption of a series of International Sanitary Conventions based on the barrier approach to infectious disease control. This process of treaty making was remarkably slow, halting, and formal, because governments did not initially interact regularly on the subject of public health cooperation. Instead, intergovernmental conferences were convened on an ad hoc basis by powerful European states after the occurrence of severe infectious disease crises that highlighted the externalities of divergent national quarantine practices. Consequently, not only did negotiations take place against the backdrop of an already contentious crisis that underscored conflicting national interests,

but every aspect of treaty making—from scientific discussions about the nature of infectious disease to political debates about the proper balance between commercial interests and public health protection—occurred in the formal and high-profile setting of a negotiating table. The first International Sanitary Convention governing the narrow subject of cholera measures for pilgrims was thus concluded after seven international conferences spanning four decades and cumulatively nearly a hundred weeks—the better part of two years—of formal negotiations.

The establishment of OIHP, the first permanent and global health organization, in 1907, created a regular forum for intergovernmental dialogue on public health cooperation. This forum facilitated the process of subsequently expanding incrementally the scope of regulation to cover other aspects of cholera and additional diseases—a piecemeal approach to treaty making that reduced the uncertainty surrounding cooperation in a new and complex area. But because of OIHP’s organizational structure and internal institutional dynamics, it remained—much like the sanitary conventions themselves—the instrument of the European powers that created it. OIHP’s legislative work was thus limited to formulating conservative proposals for updating the existing conventions.

In Chapter 3, I examined the institutional dynamics of WHO, with particular attention to the ways in which it differs from those of OIHP. Whereas OIHP had a miniscule staff and functioned primarily as an information distributor, WHO has a staff of thousands located in hundreds of offices around the world and is able to provide direct services and shape practice. Whereas OIHP had a narrow range of work, of which the revision of the sanitary conventions was a major component, WHO has an unlimited and ambiguous mandate, of which the regulation of infectious diseases is but one small aspect. Whereas OIHP was governed by weighted voting, ensuring that the

work of the organization never strayed far from the preferences of its primary funders, WHO operates on a one-state one-vote basis, a voting rule that has rendered the World Health Assembly incapable of setting long-term and organization-wide priorities, while prompting WHO's key funders to regain control through imperfect alternative mechanisms that afford the Secretariat some autonomy in its work. That autonomy is greatest in informal and non-regulatory matters that rely heavily on the Secretariat's technical expertise, its control over the preparation of the regular budget, and its solicitation of extra-budgetary funds.

With these historical and institutional contexts in mind, I then traced the process by which WHO's Secretariat utilized its limited autonomy in informal and non-regulatory matters to effect the most radical transformation in international infectious disease law since its emergence in the mid-nineteenth century. My analysis shows that the widely held notion that the process of creating the 2005 IHR began with the 1995 Health Assembly resolution requesting the Director-General to revise the 1969 IHR is inaccurate. Rather, the transformation in infectious disease regulation began much earlier during the 1960s, and much of the process took a form that does not resemble traditional treaty making.

Chapter 4 argued that, during the decades before the Health Assembly resolved to revise the 1969 IHR, the Secretariat took informal steps to design and test a new approach to infectious disease regulation despite a lack of political interest in the subject matter from developing and developed countries alike. The Secretariat pursued its autonomous vision of good infectious disease policy by diagnosing a new problem, building a common body of knowledge, and developing possible solutions through practice—all without initiating any formal change. Indeed, the Secretariat deliberately eschewed formal legal revision during this period despite its technical conviction that a

new regulatory approach was needed and the occurrence of an obvious opportunity to update the law following the eradication of smallpox in 1979. Instead, the Secretariat devised the epidemiological approach through experimental practice—by offering much needed assistance to developing countries experiencing infectious disease crises, building the operational apparatus to respond rapidly to outbreaks, and creating internet surveillance tools. Because these activities occurred within the ambiguous space of WHO’s existing rules and through voluntary interactions with member states, they remained beneath the political radar.

Chapter 5 explained how the Secretariat subsequently turned a set of low-profile practices into the basis for a high-profile intergovernmental negotiation. I argued that, beginning in the mid-1990s, the Secretariat seized upon a series of opportunities to expand the epidemiological approach and, ultimately, to draw member states to the negotiating table. It channeled the concerns of American public health experts to gain formal Health Assembly approval and new sources of funding for the epidemiological approach; it directed an open mandate to revise the 1969 IHR toward codifying its existing infectious disease practices; it widened the scope of the epidemiological approach to include bioterrorism in order to “sell” the approach to the United States; and it captured the political momentum of SARS by taking leadership over a divisive outbreak and demonstrating that a new set of regulations was urgently needed. In pursuing these opportunities, the Secretariat made political tradeoffs and adapted the epidemiological approach to gain the support and political willpower of powerful member states, which was needed to move the revision forward.

Finally, Chapter 6 examined the Secretariat’s role during the formal intergovernmental negotiations in 2004 and 2005, after the Secretariat had induced member states to demand a new system for infectious disease regulation and drawn

them to the negotiating table to create it. At this point, member states could have taken over the reigns of the negotiation, but instead they relied on the Secretariat's leadership and expertise to expeditiously bring the revision process to a close. They gave the Secretariat broad discretion to set the timetable, determine the procedure, and craft the content of the negotiating materials. Consequently, the Secretariat was able to mediate and balance different interests in a way that member states could not have done on their own, while at the same time injecting its own policy preferences into the negotiation process. Ultimately, the 2005 IHR embodies compromises even on issues in which powerful member states had strong interests and was affected by the Secretariat's proposals even in areas where its initial proposals were widely considered by member states to be unacceptable.

Despite its autonomous substantive role throughout the treaty making process, I conclude that the Secretariat, overall, averted the danger of creating a new law that represents its preferences rather than a genuine commitment by state parties. Since its adoption in 2005 and entry into force in 2007, the revised IHR has, for the most part, functioned as intended. Many states have enacted domestic legislation and conscientiously reported events that may constitute a public health event of international concern. WHO has vetted information and coordinated responses to numerous public health events. Though the 2005 IHR has encountered difficulties in capacity building due to insufficient resource transfer from developed to developing countries, those difficulties are the result of political accommodation on a contentious issue and do not represent a disingenuous commitment on the part of member states. The one minor area where the Secretariat's involvement may have led to a false consensus is with respect to the 2005 IHR's requirement that member states provide

justification for the imposition of public health measures that exceed those recommended by WHO. That requirement has been violated on multiple occasions.

A new way to make international law

The empirical analysis of this thesis demonstrates that the involvement of the World Health Organization has radically changed the process of making international infectious disease law. The extent of WHO's impact is apparent in the varying lengths of formal negotiation—whereas the first International Sanitary Convention of 1892 took nearly two years of conferencing to conclude, the 2005 IHR was adopted after merely three weeks of intergovernmental talks. But WHO's influence goes far beyond shortening the length of negotiation. Its participation has generated a new way of identifying and precipitating the problem, building a common body of knowledge, searching for possible solutions, creating a framework for agreement, drafting a negotiating text, building a consensus, and conducting negotiations. The reduction in the length of negotiation is a reflection of the diminished demands on formal intergovernmental conferencing due to underlying shifts in how, where, and by whom the work of treaty making is completed.

Whereas international infectious disease agreements were historically made simply by writing new laws and then implementing them in practice, the 2005 IHR was created first through WHO's experimental practice and then adapted and codified into law. Shifting the agreement's formative moments from the legislative to the practical arena was a key factor that made the 2005 IHR's subsequent speedy negotiation possible. By testing out the epidemiological approach to infectious disease regulation ahead of time, WHO was able to experiment with different operational strategies, work out some of the practical complications, and establish a track record of success that reduced the uncertainty faced by state parties when adopting a new regulatory system.

The value of WHO's work implementing the epidemiological approach prior to its legalization was evident during the second IGWG in February 2005, when the Secretariat prepared a background report explaining its existing alert and response operations to help member states understand how the law would function in practice and thereby facilitate an agreement. Unlike the historical sanitary conventions, which developed through an incremental and iterative process involving numerous successive agreements that gradually expanded the scope of regulation, the 2005 IHR revolutionized infectious disease law in one large legal leap. But behind that leap is a different kind of incremental growth, consisting of WHO's gradually evolving practice.

Another advantage emanating from WHO's experimentation with practice prior to enacting the epidemiological approach into law is that it enabled sovereignty costs to be delayed until external events made it possible for them to be overcome. Whereas legal agreements are necessarily centralized, formal, and impose constraints on sovereignty, practice can be decentralized, informal, and operate on a consensual basis. The 2005 IHR was initially devised through decentralized, voluntary interactions between WHO and developing countries, and was later scaled up, formalized, and legalized, when events such as the 2001 anthrax attacks and the 2003 SARS epidemic made cessions in sovereignty politically feasible. The revised IHR could not have been enacted during the 1970s or 1980s when member states were politically disinterested in infectious disease regulation, nor could it have been rapidly enacted in 2005 if WHO had not laid the practical groundwork during previous decades. The ability to disaggregate temporally the steps of treaty making that did not need to impose sovereignty costs from those that did was a key factor that made the 2005 IHR's speedy negotiation possible.

The migration of many of the steps of treaty making from the formal negotiating table to informal practice is inextricably linked to WHO's role in the international legislative process. Such a migration was not possible under OIHP because it did not have the capacity to engage in practice, whereas WHO is charged with both regulatory and executive responsibilities. WHO's involvement has not only resulted in the transfer of some of the work of treaty making from powerful member states to the Secretariat but has also enabled developing countries to take some part in the process. The Secretariat's work with developing member states—in particular, its work with the government of Zaire responding to the Ebola outbreak in 1976 and its efforts conducting regional consultations prior to and between the two IGWGs—enabled countries previously excluded from the treaty making process to have a role. This is not to say that developing member states shaped the 2005 IHR to the same degree as powerful member states. Indeed, the Secretariat catered to the preferences of powerful countries when it sought to raise the political profile of the IHR revision, and powerful countries remained better equipped to press their interests during formal negotiations. But WHO's formulation of the epidemiological approach through practice generated new ways to involve developing countries in the making of international agreements and allowed it to balance national interests to some degree—an outcome that is difficult for member states to achieve on their own.

Despite these advantages, there are also reasons to be cautious about this new way of making international law. I have already noted the criticism that an IO's excessive involvement in treaty making can result in treaties that do not represent a true agreement amongst the negotiating parties, and I pointed out that the Secretariat may be guilty of this in a small way due to the part it played in inserting into the 2005 IHR the oft-flouted requirement that member states must provide justification for public health

measures taken in addition to those recommended by WHO. To now put this in perspective, WHO has historically been an IO that is reluctant to use its powers to make international law. Between 1951 and 2003, WHO did not adopt a single legal instrument, and the Secretariat chose to pursue changes in practice over formal legal revision despite an obvious opportunity for the latter in 1980. If the Secretariat was able to avoid the pitfall of creating a false agreement in part because of WHO's historic aversion to making international law, it stands to reason that the danger of creating false agreements might grow as WHO's organizational culture shifts. During the 1990s, a number of scholars criticized WHO for its under-utilization of international law,¹ and WHO subsequently adopted the Framework Convention on Tobacco Control in 2003 and the revised IHR in 2005. The fact that the Secretariat did not, in this instance, create a false agreement does not diminish the danger of doing so going forward.

Another reason for skepticism is the type of agent behavior and actions that the process of creating the 2005 IHR entailed. In order to experiment with new practices, the Secretariat had to operate within the ambiguous spaces of existing rules, thus pushing the limits of an already weak set of member state controls. The Secretariat maneuvered within the regular budget, using funds from existing programs for new projects that perhaps should have been added as a new item to the budget from the beginning; it sought creative sources of funding, including appealing to the private interest of companies when raising funds for GOARN; and it stepped outside of its legal authority during SARS, declaring a "worldwide health threat" and issuing region-specific travel advisories despite the recognized danger of doing so. Each of these actions posed risks for the international community and was taken at the behest of

¹ See, e.g., David P. Fidler, 'The Future of the World Health Organization: What Role for International Law?', *Vanderbilt Journal of Transnational Law*, vol. 31, no. 5, 1998; Allyn L. Taylor, 'Making the World Health Organization Work: A Legal Framework for Universal Access to the Conditions for Health,' *American Journal of Law and Medicine*, vol. 18, no. 4, 1992.

a handful of top-ranking bureaucrats with few direct ties of accountability or representation to member states. One might argue that the 2005 IHR's success depended too much on the discretion of a very small number of people and too little on institutional checks and accountability mechanisms.

While the 2005 IHR appears to be a good outcome, it is far from clear that the law struck the right balance for all member states as a group or targeted the right priorities for WHO as a whole. Indeed, some scholars have criticized the 2005 IHR for continuing to reflect the strategic priorities of great powers at the expense of developing countries, where the majority of the world's population resides. Some scholars have argued that the revised IHR was part of a wider agenda, dominated by the concerns of western countries, to cast global public health not as a social issue but as a security and foreign policy issue.² According to Sara Davies, western states and WHO "combined forces to construct infectious disease as an existential security threat" in order to spur the creation of cooperative mechanisms that "place western fears of an outbreak reaching them above the prevention of such outbreaks in the first place."³ That the basic features of these cooperative mechanisms were designed by a handful of bureaucrats experimenting with practice can be troubling, especially if these early practices and the body of evidence that was built around them effectively took alternative visions for infectious disease control off the table, without member states ever having considered them.

Finally, putting aside the issue of advantages and disadvantages, this new way of treaty making raises broader questions about the relationship between practice and law. Much of the epidemiological approach had already been implemented before the 2005 IHR was adopted. GOARN operated for years prior to the revision of the IHR

² See, e.g., Colin McInnes, Kelley Lee and Egbert Sundorp, 'Health, security and foreign policy,' *Review of international studies*, vol. 32, no. 1, 2006, p. 5.

³ Sara E. Davies, 'Securitizing infectious disease,' *International Affairs*, vol. 84, no. 2, 2008, p. 295.

and SARS was handled without the revised law. This new way of treaty making grew out of a bidirectional relationship between practice and law that suggests future dynamism in infectious disease regulation as new challenges arise. As one WHO official described, the relationship between infectious disease law and policy is much like the ever-continuing battle between microbes and antibiotics—when one develops a new competitive advantage, the other must evolve to catch up.⁴ Similarly, the bidirectional relationship between infectious disease practice and law resulted in practice leaping ahead of law during the 1970s, 1980, and 1990s, and then law leaping ahead of practice in 2005. That dynamic relationship has continued to change since the adoption of the 2005 IHR. While the revised law did not anticipate and thus did not contain provisions explicitly governing the sharing of infectious samples during outbreaks, WHO has since been addressing this issue through practice and Health Assembly resolutions,⁵ allowing practice to once again leap ahead of hard law on this particular subject.

Questions for future research

WHO has so profoundly influenced the 2005 IHR's treaty making process that it is difficult to imagine what a contemporary infectious disease law would look like in its absence. This empirical conclusion raises a number of questions that require further investigation.

⁴ Author interview with Pat Drury, Manager, Global Outbreak Alert and Response Network, World Health Organization, Geneva, 19 July 2007.

⁵ For much of 2007, Indonesia withheld from WHO samples of the H5N1 influenza virus to protest inequities in the global influenza surveillance and vaccine development system. That system allows pharmaceutical companies in industrialized countries free access to information and viral samples from developing countries, which the pharmaceutical companies then use to create patented products that developing countries cannot afford. In response, the Health Assembly passed a resolution in 2007 aimed at achieving both “the timely sharing of viruses and specimens” and the “transparent, fair and equitable sharing of the benefits arising from the generation of information, diagnostics, medicines, vaccines and other technologies.” World Health Organization, World Health Assembly Resolution ‘Pandemic influenza preparedness: sharing of influenza viruses and access to vaccines and other benefits,’ WHA60.28, 23 May 2007. See also David P. Fidler, ‘Influenza Virus Samples, International Law, and Global Health Diplomacy,’ *Emerging Infectious Disease*, vol. 14, no. 1, 2008.

One question is whether the empirical observations depicted in this thesis are unique to WHO and international infectious disease law or whether they represent a broader trend of international organizations participating in the treaty making process through causal mechanisms similar to those uncovered here. As noted in the introduction, the number of IOs and international agreements has grown rapidly during the last few decades, and most developments in international law in the last half-century have occurred under the auspices of IOs. Given that other IOs also have both legislative and executive functions, are run by experts, and have weak governing bodies, it is certainly possible that the findings of this thesis are part of a larger movement toward treaty making by experts and through practice. More case studies in other areas of international regulation are needed to determine whether this proposition is true. The most likely candidates are technical IOs that engage in practice, oversee regulations, and exercise some degree of autonomy from their member states.

Another question is whether this extent of IO participation in treaty making is desirable. My goal in this thesis has been to paint a vivid picture of WHO's role in formulating international infectious disease law. Whether that role is valuable in a normative sense or whether WHO's bureaucrats have exceeded their proper function is a matter that requires deeper reflection on what the role of expert bureaucrats should be and the circumstances under which bureaucrats are likely to play that role in an accountable and legitimate manner.

The empirical findings of this thesis demonstrate that members of the Secretariat in fact played multiple roles at different junctures of the policy- and law-making processes. Initially, they were policy innovators. They were able to devise and experiment with a new approach to infectious disease management at a time when the international community did not yet demand it precisely because they had limited

oversight and the latitude to try something new. Experts are, in some ways, uniquely positioned to perceive long-term needs because they are not subject to the same time pressures as those who hold political office. Then, Secretariat members were political actors, building coalitions of support around their preferred approach, as well as entrepreneurs, selling their innovation to investors who could give them the resources to scale up their project. Finally, they were agents with a high level of discretion, delegated the task of bringing a negotiation to a close with little guidance on how to achieve that goal.

Members of the Secretariat also played distinct roles for different member states. As is evident from WHO's internal institutional dynamics, not all countries are equally able to organize their interests and voice their preferences in an effective way. As a result, the Secretariat's interactions with developing countries involved more initiative and autonomy on the part of Secretariat members than those with its primary funders. This reality raises the question of what duties the Secretariat has to member states, and whether those duties differ from state to state depending on the state's power, financial resources, and vulnerability.

Further analysis and reflection is needed not only on the question of which, if any, of these various roles is proper for IOs, but also how much discretion should be granted, what types of accountability mechanisms should be in place, and what legitimate governance means. The answers may be different for each role, as policy innovators need more discretion than instrumental agents, and politicians might be judged based on the source or input of their decisions whereas entrepreneurs might be judged based on the quality or desirability of their output. Currently, IOs are almost exclusively examined through the framework of principal agent theory. But if it is valuable for IOs to play the spectrum of roles that WHO has played in the crafting of

the 2005 IHR—in other words, if IOs not only are, but *should* serve as something more than instrumental agents—then a greater diversity of theoretical tools are needed for their evaluation.

Any inquiry into whether it is normatively desirable for IOs to play these greater roles must take account of why they have been playing these roles in the first place. In the context of international infectious disease law, one cannot help but wonder: if the international community needed a new system for infectious disease control, and member states genuinely committed to the revised law, then why did the impetus for the 2005 IHR come from the Secretariat rather than member states? The answer lies in the inability of WHO's governing bodies—for the many reasons discussed in Chapter 3—to meet the demands of modern global health governance. Without the capacity to formulate detailed and flexible long-term policies and laws, WHO's governing bodies have essentially left it to the Secretariat to make critical long-term decisions while operating under the short-term pressures exerted by member states. Normative analyses of what roles IOs should play in making international law and the standard of legitimacy to which they should be held to account must take place against the backdrop of a global community whose governance needs have far outstripped its governance capacity.

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