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## WHO: Past, Present and Future

# Worldly approaches to global health: 1851 to the present



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## ABSTRACT

The tension between managing episodic, acute, and deadly pandemics and the arduous path to ameliorating the chronic maladies and social conditions that kill many more people, but in far less dramatic ways, has always shaped the agenda and work of the World Health Organization. Yet the historical record amply demonstrates how international efforts to control infectious disease, beginning in the mid-nineteenth century and extending to the present, have dominated global health policies, regulations, agendas and budgets: often at the expense of addressing more chronic health and environmental concerns. How these challenges have affected present circumstances and created demands for an entirely new conception and execution of 21st century global health efforts is the focus of this paper.

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## Introduction

Rarely celebrated, if even acknowledged, July 22, 1946 was a landmark day in the history of public health. It was on this date that representatives from the countries comprising the nascent United Nations met to endorse the constitution of what became the World Health Organization (WHO). While delivering the closing address of this international health conference, the U.S. Surgeon General, Thomas Parran, M.D., a primary architect in establishing the WHO, observed: ‘The World Health Organization is a collective instrument which will promote physical and mental vigour, prevent and control disease, expand scientific health knowledge, and contribute to the harmony of human relations. In short, it is a powerful instrument forged for peace’.<sup>1</sup> Equally important, the new agency’s charter ambitiously declared that ‘health is a state of

complete physical, mental and social well-being and not merely the absence of disease or infirmity’.<sup>2</sup> Today, this gold standard of health outcomes seems obvious but in 1946 it was a relatively new concept in the long history of medicine and public health. Inspired by the devastation of both world wars, along with the social and political maelstroms that led to them, the proto-WHO insisted that an international health agency signified far more than traditional bulwarks against contagion; it was a vehicle to facilitate the basic and fundamental right of health for every human inhabitant on the planet.

Two years intervened before the formal launch of the World Health Organization in Geneva on July 24, 1948, an interregnum that represented the time needed to develop a host of protocols and international agreements that would promote and support the agency. In addition to formalizing its

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administrative and staffing functions, the founding officers of WHO again emphasized a desire to expand the concepts of disease by including mental health, maternal and child health, nutrition and environmental hygiene in its mission. Despite these lofty goals, however, the primary function of WHO during its early decades more closely resembled earlier international attempts to patrol borders against the incursion of epidemic disease. Indeed, the WHO's most celebrated work during much of its history was directed at the control and spread of infectious disease.<sup>3,4</sup>

The palpable tension, between managing episodic, acute, frightening, deadly and dramatic pandemics and the arduous path to ameliorating the chronic maladies and social conditions that kill many more people but in far less dramatic ways, has always shaped the agenda of the World Health Organization. Yet the historical record amply demonstrates how international efforts to control infectious disease, beginning in the mid-nineteenth century and extending to the present, have dominated global health policies, regulations, agendas and budgets, often at the expense of addressing more chronic health and environmental concerns.<sup>5,6</sup> How these challenges have affected present circumstances and created demands for an entirely new conception and execution of 21st century global health efforts will be the focus of this paper.

### International approaches to health crises during the 19th century

The distinguished medical historian Charles E. Rosenberg described cholera as the 'classic epidemic disease of the 19th century'.<sup>7</sup> Cholera garnered wide attention and action because it was so rapid and deadly in its spread. Between 1816 and 1899, there were six global cholera pandemics, which originated in Asia, the Middle East and the sub-continent and, thus, spread rapidly along established routes of travel and commerce into Russia, Poland, Austria and eventually the rest of Europe (1816–1826, 1829–1851, 1852–1860, 1863–1875, 1881–1896, 1899–1923). With each passing decade, as human migration and commerce increased from the Old World to the New, immigrants, tourists, and sailors helped spread the cholera even further.<sup>8</sup>

It was these cholera pandemics, as well as travelling threats of yellow fever, bubonic plague, smallpox, and typhus, that inspired the development of the modern, international health regulations. In 1851, delegations consisting of a distinguished physician and a diplomat from 12 European governments (Austria, France, Great Britain, Portugal, Russia, Spain, Turkey—which was then officially known as 'the Sublime Port—and four sovereign states that eventually became Italy—the Kingdoms of Sardinia and the Two Sicilies, the Papal states, and Tuscany) met in Paris to convene the first international sanitary convention. The principal task was to create a code of quarantine between these nations that served two masters; placating and maintaining the commercial interests of each nation while, containing and preventing the spread of an impending pandemic. What followed were nine more international sanitary conventions, each one boasting an increasing number of national delegations. These meetings were held in 1859 (Paris), 1866 (Constantinople), 1874 (Vienna),

1881 (Washington, the first conference in which the United States participated), 1885 (Rome), 1892 (Venice), 1893 (Dresden), 1894 (Paris) and 1897 (Venice). Despite major advances in disease aetiology and transmission, especially with respect to cholera, and improvements in public health and sanitary measures, the sanitary conventions minutes produced during these years reveal a Tower of Babel of competing theories and explanations. In such an environment, it was impossible to find an accord.<sup>9–12</sup> Not surprisingly, economic interests, politics, and bad behaviour trumped all such debates and little substantive policy was accomplished in terms of regulatory control. But as historian and former WHO official Norman Howard-Jones has noted it would be rash to write off the International Sanitary Conventions as a failure. Their gargantuan historical achievement was the establishment of an international forum for the discussion and adjudication of health matters that would only grow in importance over time.<sup>9</sup>

### Approaches to international health crises during the first half of the 20th century

Three more international sanitary conventions were held during the early decades of the 20th century (1911–12, 1928, and 1938) but both world wars put a damper on international health cooperation for large portions of this period. During the conventions that did occur, however, experts and officials representing the participating nations elaborated several mechanisms of public health administration that would be recognizable to any public health official practicing in the 21st century including modern disease surveillance and reporting, rapid dissemination of new scientific information and therapeutic agents between investigators and nations, the development of universal quarantine and isolation regulations, and environmental approaches to cleaning up unsanitary or deleterious influences associated with various diseases.<sup>13</sup>

As the germ theory of disease gained wider and wider acceptance during the late 19th and early 20th centuries, several nations, including the United States, realized that only international approaches would serve to keep 'travelling', infectious diseases in check. Yet in a politicized world marred by political, economic and social divisiveness, the establishment of international bureaus of health proved to be a slow and arduous task.<sup>14,15</sup> To be sure, there was some movement in this direction with the establishment of the Pan-American Sanitary Bureau (now called the Pan-American Health Organization or PAHO). Initially developed in 1902 in response to yellow fever epidemics that travelled along trade routes from South America into North America, the Pan-American Sanitary Bureau and, later PAHO, emerged as a leading innovator in how to cross-cultural, social, intellectual, and national borders in the name of international health.<sup>16–21</sup>

Five years later, in 1907, the Office International d'Hygiène Publique (OIHP), based in Paris, was founded. Applying modern techniques of epidemiological surveillance, disease reporting, and communications technologies, the OIHP helped inform the international public health community in refining quarantine policies that better matched new innovations in locomotive train, automobile, and steamship travel. During

the first World War, OIHP also applied telegraphic communication technologies to gathering and reporting the latest morbidity, mortality and epidemiologic data on the battlefields. In the two decades that followed the 'war to end all wars', OIHP helped gather critical data on the incidence of diarrhoeal diseases, parasitic infestations, tuberculosis, and malaria around the globe.<sup>9,10</sup>

With the creation of the League of Nations in 1919, diplomatic leaders argued for an international health committee where the League's agency would work in collaboration with the OIHP as well as PAHO, the International Red Cross, labour groups, and philanthropies such as the International Health Board of the Rockefeller Foundation.<sup>22</sup> Perhaps the most intriguing aspect of the League's Health Committee was the hope that it would expand its focus beyond infectious epidemics to include nutrition, parasitic infestations, improved housing and working conditions, sanitary water supplies, maternal and child health, alcohol and drug abuse, and improvements in physical education. That said, the actual work of the short-lived League committee was mostly devoted to the control of epidemic disease. Such a focus makes a great deal of sense when considering that the historical moment was one where, in the absence of antibiotics and preventive vaccines, infectious diseases were still major and common killers. Sadly, the League of Nations' less than enthusiastic support by a number of powerful nations, including the United States, presaged its rapid demise and irrelevance.<sup>9,10</sup>

It was not until the aftermath of World War II, with the recognition of Hitler's Holocaust as well as the atrocities committed by many other combatants, when humanitarians and world leaders urged putting warfare to rest by developing effective and equitable economic, political and public health measures that respected and assisted all inhabitants of the globe. It was in this context that the United Nations was chartered in 1945 and, soon after, the World Health Organization was born.<sup>23</sup>

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### **The World Health Organization: hopes and realities**

After the 1945 United Nations Conference in San Francisco, which made the first steps towards creating a world health agency, as well as the 1946 constitutional ratification meeting in New York City and the first meeting of the body in Geneva in 1948, there was great hope among public health professionals that global health would play a major role in the postwar world both as a means of improving lives and promoting peace.

Organizationally, those directing the WHO took the necessary and politically delicate steps to incorporate pre-existing international health agencies, such as PAHO, and to create a system of semi-autonomous bureaus in six regions of the world. PAHO was absorbed in 1949 and charged with the Americas, similar offices were created in Europe, the Western Pacific, Africa, the Eastern Mediterranean, and Southeast Asia.<sup>4,23</sup> More telling, was the WHO's first major push in 1951 to modernize the extant international sanitary regulations, a set of rules that had not been revisited since their passage in 1892. Although, the new international regulations were based

on modern scientific knowledge and infectious disease control, the framework adopted was essentially a late 19th century construct of medical inspection, quarantine, and isolation of the ill.<sup>9,16,24</sup>

As noted, the founders of the World Health Organization set an ambitious agenda to change the concept of health by insisting that international efforts should not be restricted to quarantines and epidemic control but, more broadly, to promote the 'physical, mental and social well-being' of all the world's citizens. But for a variety of reasons, ranging from the economic and political to the technological and infrastructural, the agency's most prominent successes during much of its existence has been directly related to infection control. The major instruments of these efforts, of course, were the distribution of antibiotics, beginning with penicillin, and the wide-scale administration of vaccines in Africa, the Caribbean and South America. One of WHO's greatest infection control successes, of course, was its smallpox eradication program, which was fully accomplished by 1980. The employment and distribution of medications to treat infectious diseases and vaccines to prevent them remain a major part of WHO's armamentarium to this very day. In recent years, for example, the WHO has launched major global health efforts to eradicate polio and measles as well as the treatment and prevention of tuberculosis, malaria, and, episodically, influenza.<sup>25</sup> More chronic problems, such as inadequate food, water and healthcare facilities in many parts of the world have long been recognized by WHO officials as key problems; but given the irretractable nature of these glaring holes in the global health safety net and the absence of major sums of money, human resources, and infrastructure, it is easy to see why attempts at their amelioration have moved at a much slower, and far more frustrating, pace.

By the 1970s, a number of international health experts articulated complaints over WHO's focus on infection control at the expense of approaches aimed at improving the basic standard of living and access to food, clean water and health care among the world's poorest nations. Arguing that improved nutrition and living conditions might require a larger initial investment but would inevitably produce greater economic, social and public health gains in the long run, critics expressed disappointment not only about WHO's approach but also by its limited budget and staffing. This atmosphere of disenchantment led to intensified efforts by the International Red Cross, and their affiliates, as well as new non-governmental organizations (NGOs) such as Médecins Sans Frontières (Doctors without Borders) and philanthropic organizations to develop their own programs of humanitarian aid, a trend that has only intensified over the past forty years.<sup>26-28</sup> To its credit, the WHO and its parent organization, the United Nations, heard these complaints loud and clear. At the World Health Assembly of 1977, a resolution declared that the countries comprising the United Nations and the WHO would orchestrate the programs and infrastructural improvements to insure that by 2000 all the world's citizenry would enjoy the health and living conditions necessary to lead both 'socially and economically productive lives.' Because these goals remained unfulfilled in 2000, the United Nations then articulated an even more ambitious agenda of eight goals of health and welfare to be completed by 2015: 1) the

eradication of extreme poverty and hunger; 2) universal primary education; 3) gender equity and empowerment of women; 4) the reduction of child mortality; 5) improvements in maternal health; 6) combat against HIV/AIDS, malaria and other diseases; 7) the promotion of environmental sustainability; and 8) the development of a global partnership for development.<sup>29</sup> Such declarations are all well and good, but for those acquainted with the history of international health, it is doubtful that these goals will be accomplished any time soon. Yet one cannot help hope that the present historical moment represents a sterling opportunity to break the bonds of past attempts at global health by envisioning a set of new and complimentary approaches.

### Re-imagining the future of global health

One of the more positive trends over the past few decades is how philanthropic organizations have devoted record sums to global health and humanitarian efforts. Still, it is important to acknowledge that none of these beneficent trusts have the massive treasuries of a wealthy nation. For example, over the past decade the Bill and Melinda Gates Foundation donated several billions of dollars to improve global health equity. But even this level of generous financial assistance compares modestly with the more than \$1.7 trillion spent by the world's richest nations every year on military expenditures and another \$300 billion spent annually on agricultural subsidies. That said, it is encouraging that more and more tycoons, such as Bill Gates, Warren Buffett and others, are dedicating their enormous financial legacies to the cause of global health.<sup>30</sup>

It is also encouraging that wealthy countries are finally recognizing global health as essential to their interests.<sup>31</sup> For example, in 2000 the United States and the Group of Eight (G8) countries (United States, United Kingdom, Japan, France, Germany, Italy, Canada, and Russia) declared that HIV/AIDS is a matter of national security. Yet even with generous government programs such as the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the actual funding for critical HIV/AIDS programs in poor regions fall decidedly short of what is needed. The Joint United Nations Programme on HIV/AIDS (UNAIDS) reports that the global resources for AIDS donated by more than 100 nations and the private sector has grown from \$300 million in 1996 to \$16 billion in 2010. In 2010, however, UNAIDS reported a funding gap of \$7.7 billion, a shortfall that translates into many millions of new HIV infections and HIV-related deaths.<sup>32,33</sup>

Perhaps the most glaring example of inadequate funding resources for global health is the 1970 resolution made by the United Nations General Assembly, which mandated the world's wealthy, developed nations to provide 0.7% of their gross national income per annum for official developmental assistance to the poorest nations of the world by 1975. In 2011, more than four decades years later, the United States can boast that it was the leading contributor of 'official assistance' by giving away \$4.9 billion. Nevertheless, that monetary figure represented a mere 0.2% of its gross national income for 2010. As of March 2013, only six wealthy nations, Norway, Sweden, Luxembourg, Denmark, the Netherlands, and the United Kingdom have reached or exceeded the 0.7% contribution. The

UK, incidentally, became the first G8 nation to honour this pledge on March 20, 2013 while the other smaller, non-G8 nations listed above have done so for several years.<sup>34</sup> More problematic, most of the recent increases in development assistance by wealthy nations have largely been attributable to the extensive resources devoted to a few high-profile problems: AIDS; pandemic influenza; and natural disasters such as the Indian Ocean tsunami of 2004 or the Haitian earthquake of 2010.<sup>35</sup> The World Health Organization projects that if rich countries contributed the full amount of funds they committed to a full and thoughtful menu of global health and humanitarian efforts, tens of millions more lives could be saved every year.<sup>36,37</sup>

In recent years, there has also been a disturbing trend of increasing fragmentation and duplication of funding and services by a large array of global health actors, including international and national government agencies, public/private partnerships, philanthropies, and non-governmental organizations. This has created an environment where humanitarian organizations and governments often compete with each other and, worse, compete with local programs by drawing away human resources needed for coordinated global health systems. Many non-profit organizations undercut other organizations because they tend not to share the same values or visions for the future and often focus on the donors' own pet projects wanting rapid, measurable progress rather than long-term sustainable solutions. Rarely do all of these organizations truly listen to what the host country wants and needs to ensure the long-term health of its people. Consequently, donors and service providers typically address a single disease or salient health crisis but not the 'basic survival needs' of the world's poor, such as clean air and water, sanitation, disease prevention, and access to a robust health system with well-trained physicians, nurses, pharmacists, and other health-care professionals.<sup>15,34–38</sup>

The World Health Organization is in the unenviable position of garnering much of the blame for this poorly coordinated situation; but given its lack of international policing power, relatively small staff and inadequate budget, it is clear that there is plenty of blame to be attributed to many other sources. What is urgently needed from the United Nations, and the individual nations it comprises, is an effective and universal system of global health governance that has the authority and power to harmonize objectives, establish priorities, coordinate activities, set budgets, execute programs, and monitor progress. All of these functions require enormous fiscal support and is incumbent upon the wealthier nations of the world meeting their moral, social and ethical responsibilities. These wealthy nations must supply the necessary capital not only for acute, occasional infectious, natural or manmade disasters. They must also adequately invest in ameliorating the many chronic living, working and environmental conditions, along with poor or no access to basic health care, that contribute to most of the sickness and dying occurring around the globe today—and tomorrow.

In today's interconnected world, one must re-imagine a pragmatic, operational and unified vision, which emphasizes the powerful sums of solving these global health problems rather than a zero-sum game of competing interests, disaster relief, and isolationism. In other words, it is time to build a world



health organization that has the clout, money, and mandate to guarantee the physical, mental and social well-being of every human inhabitant of the Earth. Such an accomplishment would, truly, be an historical event worth celebrating.

## Author statements

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