An Introduction to Global Health and Global Health Ethics:

A Brief History of Global Health

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Learning Objectives:

1. Identify population-level and individual-level health measures across the history of global health
2. Consider competing theories of justice in global health
3. Evaluate the arguments for and against wealthy nations to provide international aid

A Brief History of Global Health

In order to understand a broad concept, like global health, it is important to consider where it comes from. The history of global health will be told here in broad strokes and will follow two major trends that shaped global health organizations: population health through the control of infectious diseases and individual health through the delivery of healthcare. Each of the stages discussed here, tropical medicine, international health, the age of development and the rise of the NGO, overlap and converge. Overall, as the world became increasingly interconnected global health moved from the imperial concerns of "tropical medicine" to include more nations and other international organizations in the formations of international health policy. However, though the concept of global health changed greatly since its beginning, infection control and delivery of healthcare remained important core features of global health.
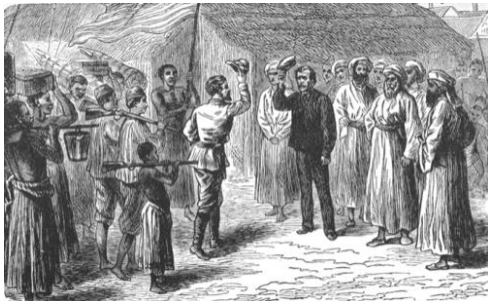
Tropical Medicine

This stage of global health is defined by the imperial system of colonization. In the 16th and 17th centuries European countries began to travel to new lands setting up the settlements that would eventually become the colonies of the 18th and 19th centuries. Countries such as Great Britain, France and Portugal founded colonies in places such as India, China and Africa, where settlers encountered new diseases and harsh climates.[i] Infectious diseases were devastating to both the native populations and to the European colonists. For example, epidemic diseases completely decimated the Taino tribe of Hispaniola (now Haiti and the Dominican Republic), encountered by Columbus in 1492. By the end of the 17th century not a single member of the Taino tribe remained. Mortality rates for the European settlers were also high. For British colonists on Africa's Gold Coast (now Ghana) mortality rates were as high as 300-700 per 1,000 during the first year of the colony. The new diseases and harsh conditions of these colonies gave birth to the field of Tropical Medicine.[ii]
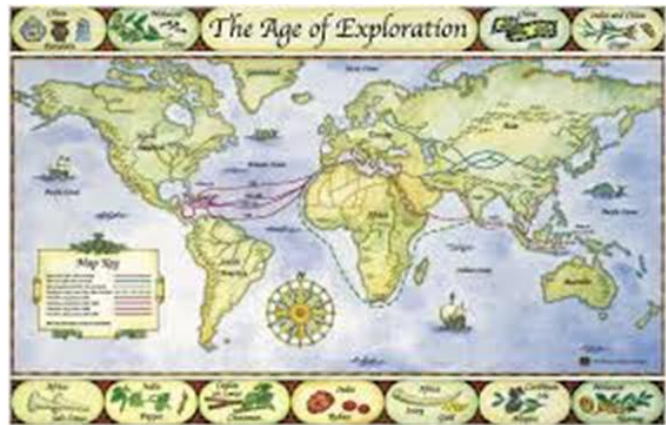
Tropical medicine developed as part of a larger blossoming of medical study and knowledge in the 19th century. The medical field had begun to advance and apply new ideas, like germ theory, to the fight against diseases. In 1854, John Snow famously met with the Board of Governors and Directors of the Poor to report his findings on a cholera epidemic in one of London's poorest districts. He had connected the outbreak to the Broad Street water pump and proposed removing the handle as a means of quelling the outbreak.[iii] The story of the Broad street pump represented a larger movement within medical science to view disease and treatment at the level of populations through epidemiology and public health.[iv] These new ideas also made

their way into the colonies, where innovations in healthcare were being applied at the population level and at the individual level:

Military Medicine: Within many colonies, the military was responsible for setting up healthcare facilities for soldiers and later the civilians who settled in the urban centers. The Colonial Medical Service of Great Britain, for example founded clinics in British colonies that concentrated on limiting the toll of epidemic diseases. These organizations were able to conduct some of the earliest epidemiologic studies as they followed illness and causes of death in the British Military as it expanded colonial borders. This was a time of great violence towards native populations and colonial medical officials implemented sometimes draconian public health measures, such as forced quarantines, as a means to "civilize" native populations.[v] Population health for colonies was to contrast the health of European settlers to the tropical diseases of native populations.

Dr. David Livingstone opened the Kolobeng Mission in Botswana in 1847. Above, cartoon of iconic meeting with Henry Morgan Stanley of the New York Herald in 1869.

Medical Missions: At the same time that colonial medicine was expanding at the population level, many religious organizations were also sending missionaries to colonies, which began to provide individualized medical services. Religious missions had been a part of colonization since the beginning, and in the 19th century the protestant missions that proliferated in areas like Africa began to incorporate medical care into their services. In this context, health care was means of introducing Western culture and displacing traditional healers. The focus for missions was improving the living conditions of native populations through conversion to Christianity and adoption of Western civilization.[vi] This conception was about using healthcare to save individual souls and so focused more on the delivery of services rather than the containment of disease.

Tropical medicine encompasses the international health measures between imperial nations and their far flung colonies. The scientific advancements coming from universities of Western countries were used largely as tools to protect colonists from tropical diseases and to control and "civilize" native populations. At the same time, countries began to see the need for cooperation between nations for effective health policies.

International Health

In addition to medicine, the 19th century saw great economic and technological expansion. Trade routes crisscrossed the globe with goods, people and diseases crossing borders.[vii] Between 1816 and 1899 six global cholera pandemics killed thousands as the disease spread across trade routes from Asia and the Middle East to Eastern and then Western Europe. In response, physicians and diplomats from 12 European governments, including Austria, France, Great Britain, Portugal, Russia, Spain, Turkey and five states of what would become Italy, met in Paris for the first time in 1851. The International Sanitary Convention would continue to meet, and acquire new members up until the First World War. Its purpose was to create an international code for containing epidemics, using the new methods of public health, so that nation's trade and citizens could be protected. Though no policy was ever agreed upon, the International Sanitary Conventions were the first time nations came together to create an international health policy.[viii][ix]

Cholera:

A disease caused by the bacterium *Vibrio cholerae* and spread through ingestion of water contaminated by feces. The bacteria cause acute diarrheal disease which can lead to dehydration and death. Treatment is largely supportive, through oral or intravenous hydration, though antibiotics can shorten the course of the disease in the most severe cases.

A much feared disease in the 19th century, cholera continues to affect populations especially in times of conflict or disaster. In 2010, cholera appeared in Haiti following the earthquake after being absent from Haiti for a century.

Above: Electron microscopy of a Vibrio cholerae bacterium
Below: Photograph of hospital beds used during cholera outbreaks

Pan-American Sanitary Bureau formed in cooperation between the US and their trade partners in Central and South America. The 1924 Pan-American Sanitary Code addressed health issues concerning immigration and recurrent yellow fever outbreaks.[x] In 1907, the Office International d'Hygiene Publique formed in Paris and began to collect epidemiologic information throughout the world, harnessing technologies such as the telegraph to track epidemics as they happened.[xi] The measures of these international bureaucracies were focused on the protection of trade and the control of infectious diseases through cooperation between nations.

In addition, an important international health organization at this time was the Rockefeller Foundation International Board of Health, founded in 1913. The Rockefeller Foundation was the single largest funder of global health in the first half of the 20th century.[xii] It operated both within the United States and in countries throughout the world to expand healthcare capabilities. One of its major efforts was the construction of public health schools in North America and Europe to train personnel to send to Latin America and the Caribbean to treat "tropical diseases".[xiii] While the international conventions struggled to develop codes for the control of infectious disease, private organizations worked to expand the healthcare capabilities within countries.

Age of Development

Following the First World War, the League of Nations formed a Health Committee that aimed to work with international organizations such as the Pan-American Sanitary Bureau, the Red Cross and the Rockefeller Foundation to coordinate international health work and expand beyond infectious diseases. However, all international health efforts were disrupted during the Second World War, and what emerged after the horrors of the Holocaust and atrocities committed during combat was a reimaging of international health work. [xiv]

In 1946, the recently formed United Nations (UN) met and approved a Constitution for what would become the World Health Organization (WHO). Initially signed by 61 countries, the WHO took over the function of the international health bureaucracies of the early 20th century and became the central force in global health.[xv]   The WHO Constitution redefined health as, "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"[xvi]; A definition that recognized social factors of health, such as income, nutrition, and access to healthcare as important components of international efforts in health.

Politically, the WHO was operating in the midst of the Cold War. Development of poor nations was part of the agenda for both the US and the USSR in decades following WWII, and both countries contributed to the efforts of the WHO as well as supplying direct aid to poor nations.[xvii] The collapse of the colonial system following World War II had left many newly formed nations impoverished and with inadequate healthcare infrastructures. The World Health Organization had a broad mandate which included setting international health standards, data collection, epidemiologic surveillance, research, training and emergency relief. More countries joined and membership swelled to over 190 countries.[xviii] The WHO began its work and had some major successes in expanding the availability of vaccinations, reducing the rates of childhood mortality and eradicating small pox by 1980.[xix] This was a period of global health marked by centralization within the WHO and the practice of direct aid from wealthy nations to poor nations. While the WHO sought to expand their world to include a broader conception of health, including healthcare delivery, many of their interventions remained focused on the control of infectious diseases.

Rise of the NGO

The end of the Cold War marked a change within international aid and global health. In the 1980s, international economic organizations, such as the World Bank and the International Monetary Fund (IMF) created new policies to try and address the struggling economies of the world's poorest nation. Leading nations such as the US and the United Kingdom (UK) were concerned that the direct aid given to developing countries was contributing to corrupt governments and preventing economic development. The World Bank and IMF created structural adjustment programs (SAPs) that were designed to incentivize debt repayment. As a result, many developing nations reorganized their administrations to focus on economic concerns, often to the detriment of health services.[xx] This was a period of economic expansion throughout the world and a growing interdependence between countries.

In the realm of global health many felt that despite the successes of the 1970s and 1980s the WHO focused too much on the control of infectious diseases and not enough on the delivery of healthcare. While some disease-focused programs were a success, many, such as those for malaria, had failed.[xxi] In the 1970s, non-governmental organizations (NGOs) such as Doctors without Borders (1971) began to form to address the lack of healthcare delivery and infrastructure contributing to the burden of disease in poor nations.[xxii] The World Health Assembly, in 1978 at Alma-Ata, Kazakhstan, marked a turning point in the strategy of the WHO. The Declaration of Alma-Ata stated the goal was "health for all" and determined that primary healthcare was the way to get there.[xxiii] During the 1970s and 1980s many more NGOs formed to address specific regions, specific diseases or other determinants of health such as clean water or food scarcity. At the same time, the WHO turned their attention to expanding primary care services in addition to their traditional responsibilities the surveillance and prevention of infectious diseases.

Turn of the New Century

In the 1990s a new epidemic arose that would change global health once more. HIV/AIDS became a force that galvanized international cooperation between government and non-government organizations. Wealthy nations formed new agencies, such as the President's Emergency Fund for AIDS Relief (PEPFAR, 2002) to address research and treatment of HIV/AIDS in developing nations and expanded their funding in global health.[xxiv] In 2000, the countries of the G8 (Canada, France, Germany, Italy, Japan, Russia, UK, US and European Union) included HIV/AIDS as a national security issue; recognizing the importance of health issues within international relations.[xxv] Infectious disease had once again brought nations together to tackle international health. Private philanthropies, such as the Bill and Melinda Gates Foundation, as well as a burgeoning number of NGOs all contributed to the expanding field of global health. Funding for global health went from US$ 2.5 billion in 1990 to US$14 billion in 2005.[xxvi] However, many saw this as a way to use infectious disease to expand healthcare infrastructure. For example, organizations, such as Partners in Health, leveraged issues of

expanding access to anti-retroviral drugs to include other essential medicines, such as antibiotics.[xxvii]

In 2000, the World Health Organization released eight Millennium Development Goals to set the agenda for global health in the 21st century. The goals were:

1. Eradicate extreme poverty and hunger
2. Provide universal primary education
3. Improve gender equity and empowerment of women
4. Reduce childhood mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria and other disease
7. Promote environmental sustainability
8. Develop Global partnerships for development[xxviii]

While, infectious diseases are certainly a part of numbers 4 and 6, the agenda for global health reflects a commitment to improving healthcare throughout the world. Throughout the history of global health tensions existed between providing heath at the population level and at the individual level. These two concerns continue to be part of the global health strategy.

Inequalities vs. Inequities

Health Inequalities – "the uneven distribution of health in or between populations." This can include differences like older adults tend to require more medications than younger adults, or the health needs of women are different than men, due to pregnancy.

Health Inequities – "the presence of systematic disparities in health between more and less advantaged social groups." For example, populations in poor countries tend to have higher rates of childhood mortality than populations in wealthy countries.

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Global Health and Theories of Distributive Justice

The relationship between current inequities in global health and the history of international health policy brings up questions about what wealthy nations must do to rectify the inequitable distribution of disease throughout the world.

Distributive Justice: This is a moral theory that gives direction on how to distribute benefits, risks and costs within a population. Aristotle, an ancient Greek philosopher, posited that justice was to treat equals, equally and to treat unequals, unequally.[xxx] When it comes to healthcare, the fact that some disease and suffering is a result of systematic disparities means that there is an inequitable, or unjust, distribution of disease burden; the poor and otherwise disadvantaged individuals carry a disproportionately high burden.[xxxi] Furthermore, healthcare to relieve the

burden of disease is not available to all, due social and environmental factors such as poverty, contributing to the health inequities.

Theories of distributive justice within global health attempt to provide a method for (a) determining what is unjust in the distribution of health and healthcare and (b) determining who has the duty to address such injustices. Below are some examples of the different theories of distributive justice that show a wide range in the scope of responsibility. In each example, we consider what the theory would mean for the obligation of wealthy nations to give international aid to poor nations:[xxxii]

Nationalism – (a) The just distribution of health and healthcare is a matter for nations and not a global concern. Standards for justice are set by each nation. (b) Each nation has a duty to ensure fair distribution of health and healthcare for their resources.

> Nations are obligated to ensure fair distribution of health and healthcare for their own citizens, such as national health programs or care for the poor, such as Medicaid. However those obligations do not extend to non-citizens and so there is no obligation for international aid.

Social Contract – (a) Nations determine global standards of justice by consensus through international treaties or declarations. (b) Nations have the duty only to uphold the obligations they agreed to by international contracts.

> Nations only have an obligation to provide international aid if they enter into a contract with other nations that stipulates the giving of international aid.

Cosmopolitanism – (a) Standards of justice are universal and apply across national boundaries to all persons. (b) All nations and even individuals within nations have the duty to ensure just distribution of health and healthcare throughout the world.

> International aid is obligatory in the sense that it aims to correct the unjust distribution of health and healthcare.

Moral Response of Nations

Having heard a brief history of global health you may notice that it is characterized by interactions between nations, both rich and poor. In recent history, much of the work of global health has been funded by wealthy nations such as the US, in order to alleviate the burden of disease in poor nations. Let us consider some moral arguments about the relationships between wealthy and poor nations:

C Andre and Manuel Velasquez, "World Hunger: A Moral Response," *Markkula Center for Applied Ethics*, 2008, 1–5, http://www.scu.edu/ethics/publications/iie/v5n1/hunger.html.

http://www.scu.edu/ethics/publications/iie/v5n1/hunger.html

This article introduces moral arguments for and against the moral obligation for wealthy nations to give international aid. As you read:

Consider the arguments for and against a moral obligation for foreign aid. Which arguments do you find most persuasive or unpersuasive? Why?

Justice is one of the arguments for international aid in the article. In this account wealthy nations act in a way that produces poverty which causes the disparities in health. Do you think nations should be held responsible for correcting economic imbalance, (e.g. by giving aid to poor nations)? Or should each nation try to act in their best interest?

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[ii] Jeremy Greene et al., "Colonial Medicine and Its Legacies," in *Reimagining Global Health*, ed. Paul Farmer, Arthur Kleinman, and Jim Kim (Berkeley, CA: University of California Press, 2013).

[iii] Ibid.

[iv] Ayo Wahlberg and Nikolas Rose, "The Governmentalization of Living: Calculating Global Health," *Economy and Society* 44, no. 1 (2015): 60–90, doi:10.1080/03085147.2014.983830.

[v] Greene et al., "Colonial Medicine and Its Legacies."

[vi] Ibid.

[vii] a. Bashford, "Global Biopolitics and the History of World Health," *History of the Human Sciences* 19, no. 1 (February 1, 2006): 67–88, doi:10.1177/0952695106062148.

[viii] H. Markel, "Worldly Approaches to Global Health: 1851 to the Present," *Public Health* 128, no. 2 (2014): 124–28, doi:10.1016/j.puhe.2013.08.004.

[ix] Matthew K Waldor and Edward T Ryan, "Cholera and Other Vibrios," in *Harrison's Principles of Internal Medicine*, ed. A S Fauci et al., 18th ed. (New York, NY: McGraw-Hill, 2012).

[x] Anne-Emanuelle Birn, "The Stages of International (global) Health: Histories of Success or Successes of History?," *Global Public Health* 4, no. 1 (January 2009): 50–68, doi:10.1080/17441690802017797.

[xi] Markel, "Worldly Approaches to Global Health: 1851 to the Present"; Bashford, "Global Biopolitics and the History of World Health."

[xii] Greene et al., "Colonial Medicine and Its Legacies."

[xiii] Bashford, "Global Biopolitics and the History of World Health."; Birn, "The Stages of International (global) Health: Histories of Success or Successes of History?"

[xiv] Markel, "Worldly Approaches to Global Health: 1851 to the Present."

[xv] "WHO | Origin and Development of Health Cooperation," *WHO.int* (World Health Organization), accessed April 7, 2015, http://who.int/global_health_histories/background/en/.

[xvi] The World Health Organization, *Constitution of the World Health Organization*, 2005.

[xvii] Peter Muennig and Celina Su, *Introducing Global Health: Practice, Policy and Solutions* (San Francisco: John Wiley & Sons Ltd, 2013).

[xviiixviii] Birn, "The Stages of International (global) Health: Histories of Success or Successes of History?"

[xix] Markel, "Worldly Approaches to Global Health: 1851 to the Present."

[xx] Muennig and Su, *Introducing Global Health: Practice, Policy and Solutions*.; Birn, "The Stages of International (global) Health: Histories of Success or Successes of History?"; David Zakus, Onil Bhattacharyya, and Xioalin Wei, "Health Systems, Management, and Organization in Global Health," in *Understanding Global Health*, ed. WH Markle, MA Fisher, and RA Smego Jr, 2nd ed. (New York: McGraw-Hill, 2014), http://accessmedicine.mhmedical.com/content.aspx?bookid=710&Sectionid=46796921.

[xxi] The World Health Organization, "Consensus during the Cold War: Back to Alma-Ata," *Bulletin of the World Health Organization* 86, no. 10 (2008): 737–816, http://www.who.int/bulletin/volumes/86/10/08-031008/en/.

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xxiii The World Health Organization, "Consensus during the Cold War: Back to Alma-Ata."

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xxxi Reidpath and Allotey, "Measuring Global Health Inequity."

xxxii Jennifer Prah Ruger, "Global Health Justice," *Public Health Ethics* 2, no. 3 (2009): 261–75, doi:10.1093/phe/php019; Jonathan Wolff, "The Human Right to Health," in *Global Health and Global Health Ethics*, ed. Solomon R. Benatar and Gillian Brock (Cambridge: Cambrigde University Press, 2011).