

10

Global Public Health

Chapter Summary

The soft power topic in this chapter is global public health, which has been an issue throughout human history, impacting both the lives of individuals and the fate of countries. Things like the **bubonic plague**, **smallpox**, and incidences of **famine** have all greatly contributed to shaping the modern world. **Global public health** is also a topic intimately related to a variety of other fields in international studies: human rights; war and peace; international law and organization; the environment; aid, trade, and development; and the twin pillars of hard power—economic growth and military strength. The **Zika virus** is used as a case study to illustrate the transnational dangers of disease today and the importance of a robust global public health system.

Key terms defined include **health** (both its **maximalist** and the more standard definitions), **public health** (and its distinction from **medicine**), and **epidemiology**. English doctor John Snow's tracing of a **cholera** outbreak in London in 1854 is used to illustrate one of the earliest instances of a public health approach to tackling disease. Today, the promotion of public health is divided into two types of methods: physical and educational. Physical methods include **vaccinations**, **immunizations**, plus proper water and sewage treatment. Educational methods primarily focus on promoting **health literacy**, which is knowledge about the basic components of health such as proper **hydration**, **nutrition**, and **hygiene**. A quick survey of public health organizations, both nationally and globally, is then presented. Next, the **social determinants of health** are explored. These are a set of factors of special concern because they are the “causes of the causes” of **sickness**, creating the context and circumstances in which disease becomes more likely. Taken together, these all suggest the purpose of global public health is to try to augment the general health of the whole world's human population. The biggest obstacle to this goal is the huge gap between developed and developing countries, which is examined in-depth. Finally, the global tobacco epidemic is presented as a case study demonstrating the efforts of the global public health system to control this specific problem.

In the fight to improve global public health, five areas are of particular importance: water, food, sanitation, health care, and access to medicine. While these issues are most serious in the Global South, more recent research suggests a parallel gap exists within the developed countries of the Global North as well. For instance, it appears socio-economic status is the single greatest determinant of one's **health status**. Related to this point, the relationship between global poverty and health is addressed, and the maternal health case study provides a glimpse of what this actually means in practice.

The chapter ends by considering the positive stories and trends in global public health, especially the eradication of smallpox and the development of a vaccine for polio. Arguably the single best way to improve public health around the world is economic growth in developing countries.

Key Concepts

Absolute poverty: defined as a chronic inability to afford the basic necessities of life, such as water and food, and some clothing and access to shelter. Much more serious than relative poverty. (p. 361)

Basic sanitation services: includes access to clean water, separation of waste and garbage from living spaces, and basic infrastructure for taking waste and garbage away and bringing in fresh water. (p. 354)

Brain drain: severe human resources shortages, where trained medical professionals leave the Global South for the Global North. (p. 355)

Bubonic plague: also known as the Black Death, it travelled along the Silk Road trading route into Europe, where it killed between 25–60 per cent of the population in 50 years. (p. 337)

Cholera: an intestinal infection caused by bacteria in contaminated food and water; it causes diarrhea and vomiting and, if untreated, death from dehydration. (p. 345)

Chronic diseases: these are not caused by infectious agents; in other words, they cannot be “caught.” Instead, they are long-lasting diseases that progress slowly, and are frequently exacerbated by lifestyle choices. Examples include heart disease, stroke, cancer, and diabetes. (pp. 349–350)

Diseases of affluence: main diseases (and causes of injury and death) in high-income, developed countries. (p. 349)

Diseases of poverty: main diseases (and causes of injury and death) in low-income, developing countries. (p. 349)

Drought: unusually dry, rain-starved conditions that can kill crops and diminish the supply of water and food to crisis levels. (p. 338)

Epidemiology: branch of medicine concerned with the spread and control of diseases and other conditions affecting public health. (pp. 344–345)

Epidural: a drug that numbs a woman’s body from the waist down to eliminate some of the pain of giving birth. (p. 363)

Famine: crises of mass starvation; one of the most famous was Ireland’s Great Potato Famine in the 1840s. (p. 337)

Germ theory: the belief that microorganisms, like bacteria and viruses, cause disease; this is true. (p. 345)

Global burden of disease: the difference between diseases of affluence and diseases of poverty. (p. 349)

Global inverse care law: a fact about the international distribution of health care, that those who need health care the most have access to the least, whereas those who need it the least have access to the most. (p. 362)

Global public health: concerned with trying to augment the general health of the whole world's human population. (p. 349)

Health: two ways to approach this idea. First, in a maximalist fashion: health is “a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity” (WHO definition). A more standard and useful definition: health is “the reasonably good functioning, both physical and mental, of a normal person within a normal life span.” (p. 343)

Health and human rights: emerging field of study that explores the relationship between health care and human rights; particularly how violations of human rights can lead to serious health problems and sickness. (p. 339)

Health literacy: defined by the WHO as “the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand, and use, information in ways which promote and maintain good health.” More informally, it means having knowledge about the basic components of health. (p. 346)

Health status: the degree to which a person is either healthy or sick. (p. 347)

Hydration: drinking enough water; basic component of health. (p. 346)

Hygiene: regular bathing and frequent hand-washing; basic component of health. (p. 346)

Immunization: an important improvement in health care that helped human population growth. (p. 338)

Infant mortality: the rate at which newborns die. (p. 349)

Infectious diseases: those spread by infectious agents (e.g., bacteria, viruses, and parasites). Some are spread from person to person, but others can be spread from animals to people or insects to people (zoonotic diseases). Examples of infectious diseases include: the common cold, the flu, cholera, smallpox, and Zika. (p. 349)

Life expectancy: length of life one can, on average, expect to enjoy at birth looking forward. (p. 349)

Maximalist: an idealistic and overly-ambitious approach. (p. 343)

Medicine: focused on individuals (diagnosis, prognosis, treatment), or patient-focused. (p. 343)

Miasma theory: belief that diseases like cholera were caused by breathing in “bad air;” not true. (p. 345)

Morbidity: cause or rate of sickness and disease. (p. 350)

Mortality: cause or rate of death. (p. 350)

Multi-tier health-care systems: advanced and sophisticated health-care systems in the developed world, featuring doctors, nurses, clinics, hospitals, research institutes, university departments, insurance companies, pharmaceutical companies, and various levels of government. (p. 355)

Nutrition: healthy eating; basic component of health. (p. 346)

Obstetric fistula: a tear in the tissue between a woman's vagina and rectum, or vagina and bladder, which can lead to a temporary stop in the flow of oxygen to a baby for pregnant women. (p. 363)

Peace through health: an emerging field of study that investigates the relationship between health, and war and peace; for instance, the impact of war on public health (e.g., destroyed infrastructure, consumed resources, etc.). (p. 339)

Potable water: clean, drinkable water; the most immediate vital human need, next to breathable air and sufficient oxygen. (p. 352)

Pre-eclampsia: a dangerous complication related to high blood pressure. (p. 366)

Prenatal care: care for mother and baby before birth. (p. 366)

Protestant Reformation: a sixteenth-century movement demanding changes in the structure, teachings, and practices of the Roman Catholic Church, which prompted, when the demands were denied, the establishment of Protestant and Reformed churches. The bad feelings that ensued led to violence (the Thirty Years' War) and to the eventual split of Europe along religious lines, into a mainly Protestant north and a mainly Catholic south. The Reformation ended the religious monopoly of the Catholic Church in Western civilization. (p. 337)

Public health: focused on the health of an entire country, or population-focused. (p. 343)

Relative poverty: exists everywhere, experienced by anyone whose assets and income are smaller than those of the people living in his or her immediate social context, whether it's a neighbourhood, city, or even country. (p. 361)

SARS: stands for "severe acute respiratory syndrome," a global pandemic outbreak in 2003 that quickly spread from China and Vietnam into North American cities like New York and Toronto. (p. 341)

Scientific Revolution: starting around 1550, this was a transformation in methods and in the ways of understanding and explaining the world; ultimately, it represented a shift from religious-based explanations to scientific ones. (p. 337)

Scurvy: a disease that had held back Britain's Royal Navy from more distant explorations; the discovery of a cure allowed for the rise of British imperialism and paved the way for "Rule Britannia." (p. 337)

Sickness: same as illness, this is a bad or impaired functioning in the body or mind. (p. 343)

Silk Road trading route: a trading route from China to Constantinople (present-day Istanbul). (p. 337)

Smallpox: a deadly contagious disease caused by a virus that is usually passed from person to person. It has been a major killer throughout the world for centuries, killing about 30 per cent of all people who become infected. By 1980, however, smallpox had been eradicated from the world (first time in history), and represents a major global public health success story. (pp. 337, 364)

Social determinants of health: aspects of social life and social organization (as opposed to individual biology or lifestyle choice) that have been proven to have substantial impact on a person's health status. (pp. 347–348)

Spanish flu pandemic: a deadly outbreak of the flu following World War I, from 1919–1920, and which is estimated to have killed between 50 and 100 million people worldwide (more than the war itself). (p. 339)

Tipping point: the point at which the human population never fell and only exploded upward (occurred around 1750). (p. 338)

Vaccinations: medical method to immunize someone from a disease, by introducing trace amounts of the disease and letting the body develop its own antibodies in response. (p. 345)

Working poor: those earning enough to make them ineligible for state health insurance yet not enough to afford private insurance, in the United States. (p. 362)

World Health Organization (WHO): part of the United Nations and mandated to improve global public health; it is based in Geneva. (p. 340)

Yellow fever: a tropical disease that killed thousands of workers during the construction of the Panama Canal; the discovery of a cure allowed for the ultimate completion of the project. (p. 338)

Zika virus: named after a forest in Uganda where the virus is believed to have originated, it is mainly transmitted through the bites of infected mosquitos. It is not dangerous to adult humans, with the exception of pregnant women, where the virus can cause substantial damage to the unborn fetus. (p. 342)

Zoonotic disease: diseases that can be spread from animals or insects to people. (p. 349)

Study Questions

Scroll to the end for answers.

1. What are the basic elements of health? Provide examples of each.
2. What is health literacy? Provide examples.
3. What are the social determinants of health?

4. What are the five main areas in the fight to improve global public health?
5. What are the main strategies for improving global public health?

Weblinks

BBC This World: “Outbreak, the Truth about Ebola” (video)

<https://www.youtube.com/watch?v=59LLtiMYT0U>

- An excellent documentary about the worst outbreak of Ebola in history (West Africa, 2013–2016) and the challenges faced by the global public health system

Foreign Policy article: “Can the Global Public Health System Learn From its Ebola Mistakes?”

<https://foreignpolicy.com/2015/10/08/global-public-health-system-learn-from-ebola-mistakes-who/>

- A very good piece from *Foreign Policy* that serves as a nice follow-up to the BBC video; the author, Laurie Garrett is a Pulitzer Prize–winning science writer and she discusses the key challenges facing the global public health system in the wake of the Ebola outbreak

Bill and Melinda Gates Foundation

<https://www.gatesfoundation.org/>

- As discussed in the chapter, a private charity and NGO that provides the most direct public global health funding of any organization in the world; global health and development are two of the central issues tackled by the Foundation

Further Readings

Picard, André. 2017. *Matters of Life and Death: Public Health Issues in Canada*. Madeira Park, BC: Douglas and McIntyre.

- Picard, health reporter and columnist for the *Globe and Mail*, edited this excellent collection of articles covering a range of public health issues in Canada.

Marchildon, Greg. 2013. *Health Systems in Transition: Canada, 2nd Edition*. Toronto, ON: University of Toronto Press.

- Marchildon, one of the world’s leading experts on health care systems, provides a description and analysis of the public, private, and mixed components that make up health care in Canada today.

Henderson, D.A. 2009. *Smallpox: The Death of a Disease: The Inside Story of Eradicating a Worldwide Killer*. Amherst, NY: Prometheus Books.

- An intimate and personal story about the WHO’s successful efforts to eradicate smallpox from the world; Henderson is the doctor who directed this campaign and he is able to provide a lively and engrossing narrative about the entire process.

Detels, Roger, et. al., eds. 2015. *Oxford Textbook of Global Public Health, 6th Edition*. Oxford, UK: Oxford University Press.

- The definitive resource on the topic of public health and epidemiology; it divides this complex subject into three sub-topics: “scope of public health,” “methods of public health,” and “practice of public health.” All contributors are experts in their respective fields and offer diverse experiences and perspectives.

Answers to Study Questions

1. The basic elements of health are biological traits (e.g., genes, sex, age), physical environment (e.g., water, sanitation), access to health services (e.g., presence of medicine), health behaviours (e.g., diet, exercise), and social environment (e.g., education, employment). (p. 344)
2. Health literacy is defined by the WHO as “the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand, and use, information in ways which promote and maintain good health.” More informally, it means having knowledge about the basic components of health. Examples include knowing about proper hydration, nutrition, and hygiene. (p. 346)
3. The social determinants of health are income, the social gradient, stress, early life, social exclusion, social support, employment and working conditions, unemployment, food, addiction, transportation, education, access to health services, housing, and discrimination by social group. (p. 348)
4. The five main areas are reliable daily access to clean, drinkable water; access to nutritious food with sufficient calories; access to basic sanitation; access to a health-care system that can be responsive, should preventative measures fail and individual treatment be needed; and access to medicine. (p. 352)
5. The strategies are enhancing health literacy; building basic sanitation infrastructure; developing and teaching new technologies; eradicating mosquitos; reducing tobacco use and substance abuse; alleviating poverty and reducing income inequality; improving maternal and child health; increasing supplies of drinkable water and nutritious food; and constructing a basic health-care system. (p. 367)