THE MACKSEY JOURNAL
A PUBLICATION OF JOHNS HOPKINS UNIVERSITY

Volume 6 Article 6

2025

The Racialization of the Philippine-American War and the Americanization of the Philippine Medical Landscape Through the Spread of Cholera in the 20th-century

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Abstract

Cholera is commonly discussed in the sphere of global public health as an infectious disease of war. Increased disease outbreaks are associated with higher rates of conflict given that the highest casualties of cholera follow the immediate aftermath of conflict. Successive wars in the Philippines at the turn of the nineteenth century created one of the highest civilian mortality combat rates at the time. Furthermore, American annexation of the Philippines coincided with the peak of nativism and Manifest Destiny, driven by a belief in the supremacy of white America over the Orient. Expansion emphasized benevolent assimilation: the idea that colonialism existed not for the subjugation of indigenous people but rather domestication for acceptance into a broader American empire. The brutal execution of policy and discriminatory reform Americans imposed served a dual purpose of rehabilitation for those perceived as subordinate beings and a vessel for suppression of potential rebellions. Consequently, the American maintenance of a Filipino colony led to the creation of a medical bureaucracy built on these principles. This new medical bureaucracy was tested by multiple disease outbreaks, namely the 1902-1904 cholera epidemic. Responses from the Insular Government, both neglectful and arrogant, established institutions that substituted medical reform for behavioral reform and further enabled the spread of disease and death.

Keywords: cholera, colonialism, disease, imperialism, Orientalism, Philippine-American war, race, sanitation

Race and the Philippine-American War[1]

The Spanish conflicts of 1898 dramatically reshaped its empire, heralding the end of three centuries of Spanish presence in the Asia-Pacific. In addition, the Spanish-American War resulted in the loss of Cuba, Puerto Rico, Guam, and the Philippines to the United States through the Treaty of Paris (1898). Although the United States had an extensive history of intervention within Mexican and Native American territories, holding an overseas colony was uncharted territory. Likewise, the explosion of the USS *Maine* in February 1898 and worsening diplomatic relations made the Spanish-American War popular with American citizens. When American forces arrived in the Pacific front of the war, Spain was already embroiled in combat against Philippine revolutionary forces, the Katipunan. In the final months of that year, it became increasingly clear that the Americans' promise of freedom to the Filipinos, contingent on Filipino assistance in the Spanish-American War, would remain unfulfilled (Clem 2016; Worcester 1914).

Proponents for colonization saw the acquisition of the Philippines as a unique opportunity to establish the United States as a world power, augment economic prosperity with a greater labor force, preserve Filipino resources for the U.S. by warding off other nations that would seek to take advantage, and eschew the tradition of isolationism (as established by the Monroe Doctrine) as a mere 'fetish' (McKinley 1898). Furthermore, they leaned into the popular imperial movements of the time, combatting opposition with the idea of 'benevolent assimilation' and proposing that American education of the Filipino people would only serve to better the Philippines as a whole (Coats 2008; McKinley 1898). Their opposition argued from various stances. The Anti-Imperialist League posited intervention directly opposed humanist ideologies of consent of the governed, while others pointed to the threat of "Asian miscegenation" (Safire 1995).

The Philippines was tribalized and painted as underdeveloped to justify war and conquest, rationalized by American attempts to save the Philippines from a primitive state. In response, Filipino scholars presented arguments in favor of a legitimate Filipino race. Prominent thinkers presented a myriad of legal and historical arguments akin to the Declaration of Independence. However, these ideas were not entirely immune from 'racialization' themselves (Kramer 2006). Filipino nationalist José Rizal wrote extensively on the devastating effects of colonization: "They gradually lost their ancient traditions, their recollections—they forgot their writings, their songs, their poetry, their laws, in order to learn by heart other doctrines, which they did not understand, other ethics, other tastes, different from those that inspired in their race by their climate and their way of thinking" (Rizal 1912).[2] However, Rizal emphasized that the Tagalog people (native to Manila and the surrounding regions) were distinct from other

[1] To my family, my advisors, and Alfie.

[2] Like other *ilustrados*, or members of the "enlightened class" in the Philippines, Rizal's higher education occurred in Spain and throughout Europe, shaping his beliefs on education, nationalism, and liberalism. The *gente de razón* served as an analogous caste in other parts of New Spain. A key distinction between them is the *ilustrado* were not limited by race, rather education. See Capino 1961 and Quibuyen 1997.

ethnic groups on the island of Luzon and more so from Muslim ethnicities throughout the Philippines (e.g., the Moro of Mindanao). Rizal's divisiveness in his writings highlighted the so-called savagery of these respective ethnicities as the primary reason for their lack of 'governability.' Therefore, their inability to establish central leadership necessitated a central Filipino government led by the Tagalog people. Other scholars rejected the idea that the Philippines had ever been entirely subjugated by the Spanish Crown (and therefore could not be sold by it). For example, Catholic rebellions occurred throughout the nineteenth century, and the southern Muslim territories had never been taken at all. In response to the Treaty of Paris, revolutionary leaders wrote the *Constitución politica* and established the Malolos Republic (Coats 2008; "Treaty of Peace (Treaty of Paris)" 1898). Two days later, the Philippine-American War began.

The Howling Wilderness

Newspapers published political cartoons depicting Filipinos as dark-skinned savage creatures carrying an innate evilness within them, illustrating the horrors abroad for citizens at home. Furthermore, white men in yellowface put on theatrical performances and pretended to eat human flesh. Conscious of the racialization of Filipinos, General Emilio Aguinaldo, later the first president of the Philippines, organized Filipino forces similarly to nineteenth century rules of war. To Aguinaldo, this served as an example of Philippine 'civility,' an ability to participate in Western customs (Addington 1994; Blanco 2011; Kramer 2006). After facing spectacular losses, Filipino forces shifted to guerrilla warfare, almost forcing an American withdrawal.[3] In response, American tactics utilized scorched earth warfare and the reorganization of Filipinos into "zones of protection" to control civilian populations (Worcester 1914).

American rules of war originated from General Order No. 100 (1863), dictating the rules of battle, espionage, murder, and surrender. As such, it specifically defined military occupation, 'permissible' uses of war, and explicitly forbade the use of torture (Lieber 1863). However, by 1901, the American army became increasingly unable to stop the Filipino insurrection from gaining momentum, resorting to less than humane strategies to suppress the rebellion. One notable example occurred in 1901 after the Battle of Balangiga, a surprise attack planned by General Vicente Lukbán and led by Valeriano Abanador against American forces stationed in Samar, Philippines. The attack killed an estimated fifty American soldiers. Upon receiving the report, U.S. Command sent Brigadier General Jacob Smith to 'pacify" the Filipinos, instructing Major Littleton Waller ("the butcher of Samar") to "kill and burn […] everyone over the age of ten" and turn the island into a "howling wilderness" (Catron 2013; Clem 2016; Ileto 2017b). The ensuing Balangiga Massacre killed an estimated 2,000 Filipinos.

The Philippine-American war marked one of the earliest instances of the American use of combat torture, and Filipinos became acutely aware of the force used in retaliation against the *insurrectos*. This 'coercion' led to many harrowing "surprise raids" throughout the islands

[3] The irony here is that the American colonies fighting during the Revolution (1765–1783) are commonly considered a guerilla force.

(Schumacher 2006). Unable to discern soldiers from civilians, anyone caught by American forces was subject to suffering. One of the most infamous methods of American torture was called the "water cure," a method of forcibly pouring water down an individual's throat until his stomach expanded. Once filled, the contents of one's stomach were forcibly and physically expelled, either by punching or slamming the butt of a rifle against it (Clem 2016). Other approaches included "rope torture," which involved tying a rope around a prisoner's neck and dragging him around until he 'confessed,' and "hanging [prisoners] up by the thumbs (Welch 1974). War crimes were frequently justified and downplayed as either necessary or nonfatal/nonpainful. Consequently, torture, murder, rape, and arson went virtually unpunished within the American forces. Instead, these methods were intentionally utilized to intimidate the enemy as a weapon of war (De Bevoise 1986).

In November 1901, the Insular Government passed the Sedition Act, which stated "every person […owed] allegiance to the United States or the Government of the Philippine Islands," and therefore criminalized "rebellion against the Insular government, the promulgation or execution of any law or the free holding of any popular election, inciting a revolution, and the aiding [of] traitors" (Philippine Commission 1901a).[4] By December 1901, American forces doubled down on their efforts to eliminate Filipino units, utilizing reconcentration camps that restricted the movement of approximately three to four thousand Filipinos. Unsanitary conditions were rife in the concentration camps, creating the perfect environment for dysentery and malaria to spread through the population (Clem 2016; Smallman-Raynor and Cliff 1998). There were 20,000 Filipino combatant deaths during the Philippine-American War, but Filipino civilian casualties reached a total of almost 200,000. People were more likely to die of malaria or "diarrheal disease" than combat-specific reasons. Moreover, those who had sequestered themselves in manila faced smallpox, tuberculosis, or beriberi (De Bevoise 1986).

Cholera and the Philippines

The relationship between disease and war is difficult to disentangle. The secondary effects of war lend to the creation of preconditions for infectious disease, e.g., increased contact and hypermobility, exacerbation of impoverished conditions of poverty, increased stressors and therefore decreased immunity. Chronic stress has severe implications on the immune response, heightening feedback from the hypothalamic-pituitary-adrenal (HPA) axis and the sympathoadrenal system, resulting in an overproduction of glucocorticoids and catecholamines (Padgett and Glaser 2003). This exacerbated response compromises the ability to adequately respond to external agitators. These responses can further vary with the length or severity with the stressor, resulting in psychiatric and/or inherited epigenetic changes (Dorian and Garfinkel 1987; Herbert and Cohen 1993; Raza et al. 2023). The specific effects of

[4] The Philippine Commission refers to the American-appointed committtees tasked with U.S. administration of the Philippines. The Second (Taft) Commission directed the most extensive overhaul of Filipino governance and was known as the Insular Government.

war can further modulate these negative effects.[5] The movement of armies during combat typically accelerates the spread of illness among vulnerable populations. Conversely, the consequence of disease on a society can also trigger conflict, both internal and external (as in a civil war or aggression against another state, respectively). Regardless, conflict leads to "famines, epidemics, social dislocations, and the disruption of [local] public health programs" (Foege, 2000, as cited in Price-Smith, 2008).

Cholera is one of the most well-known diarrheal diseases, caused by consumption of water or food contaminated with the infective bacteria *Vibrio cholera*. Symptoms include dehydration, acute tubular necrosis, renal failure, and severe hypotension. Of its clinical presentations, the most characteristic is diarrhea of a "rice water" consistency accompanied by bile and mucus, abdominal discomfort, and vomiting (Fanous and King 2023). Notably, cholera can be distinguished from other diarrheal illnesses (e.g., *Escherichia coli* or rotavirus infection, Typhoid fever, etc.) by hypovolemia, resulting in electrolyte imbalances. Hypovolemia can further progress to hypovolemic shock and death (Fanous and King 2023; Finkelstein 1996). However, despite evidence of occurrences in Europe and North America, various diseases—malaria, smallpox, parasitic infections, leprosy, and cholera—were constantly maligned as sicknesses of the Orient (e.g., "Asiatic" cholera, and the prevalence or susceptibility of illnesses to a specific people or region) during the nineteenth and early twentieth centuries. Contemporary differential diagnosis by symptoms alone was difficult, and diseases with shared symptoms were often relegated to disease of a "choleriform" nature or simply assumed to be cholera if the relative patient mortality rate was over 50% (Jackson 1907; Rousseau and Haycock 2003).[6]

From 1775 to 1918, the primary killer in American combat efforts was disease. The Spanish-American war had the greatest disease-to-combat ratio in the era (7.4:1, 91%), while the Philippine-American war had a markedly greater rate for disease death rates (2.7:1, 220%) (Cirillo 2008). Disease itself was rampant in the American army, with each specific troop leaving a trail of illness wherever they traveled. Throughout the early 1900s, most soldiers were infected with "tropical diarrhea," dysentery, Typhoid fever, malaria, tuberculosis, and/or "disorders of digestion" (Anderson 1992; Smallman-Raynor and Cliff 1998).[7]

Prior to the Spanish-American and the Philippine-American wars, structural and geographical conditions in the Philippines limited the development of epidemics and the spread of disease. The Philippines is comprised of roughly 7,600 islands in the Pacific Ocean. The lack of a physical, manmade border was sufficiently substituted by natural barriers such as the ocean,

[5] Sabioncello et al. 2000 indicates higher psychosomatic responses; higher cortisol, prolactin, and endorphin concentrations; and a higher proliferation of immune cell populations in refugees of war. Raza et al. 2023 shows altered genetic expression in HPA regulatory genes in both civilians and veterans with PTSD, with their children indicating altered glucocorticoid sensitivities and sex-linked mortality risks.

[6] Some choleriform diseases include, but are not limited to, cholera nostra (cholera morbus, "European" cholera); ptomaine or mushroom poisoning; malarial attack; and metallic poisoning by arsenic, antimony, or mercury.

[7] "Tropical diarrhea" may refer to shigella, another bacterial disease with symptoms of diarrhea, abdominal discomfort, and vomiting. Aside from laboratory analysis of stool samples, it is differentiated from cholera by the stool presentation: acute, bloody diarrhea in shigella, and "rice water" stool with bile and mucus in cholera.

and internal borders within singular islands were maintained by mountainous terrain. In 1903, most islands were settled by towns and villages of less than 40,000 people, with most of the Philippines' population concentrated on the island of Luzon. Moreover, since disease transmission is density-dependent, smaller populations and dispersed settlements are protective factors against the spread of illness. Only the islands of Bohol, Cebu, Leyte, Mindanao, Negros, and Panay recorded populations of over 100,000 (Smallman-Raynor and Cliff 1998). Furthermore, cholera and disease proliferation were increasingly enabled by U.S. policy, specifically through the dislocation of populations and mass-starvation actions. During the war, internal migration amplified in prevalence due to refugee-making through war and the establishment of American reconcentration camps. These movements created a 'floating population' in the Philippines that drifted through towns and were often infected with dysentery and malaria with complications of pneumonia, which flourished in the camps' crowded conditions and lack of proper sanitation.

American occupation of the Philippines began with the arrival of troops during the Spanish-American War. American soldiers, specifically, were not innocent in acting as driving factors for the spread of disease. Although Filipino freedom fighters wandered throughout towns and villages, the American army was the most mobile and acted as the most successful vector of transmission. Specific units were said to have been infected with their own assortment of diseases, allowing for the spread of various illnesses throughout the Philippines. The 24th U.S. Infantry facilitated the spread of smallpox through the municipality of Nueva Ecija and the North, while the 31st U.S. Volunteer Infantry is likely to have "left smallpox on Angel Island," taking Typhoid and measles to Mindanao and Basilan, respectively (Anderson 1992; De Bevoise 1986). Americans portrayed the wary revolutionary forces as a tyrannical government that suppressed the voice of a welcoming majority, maintaining a persona of benevolence toward the Filipino people. Consequently, American soldiers fostered amiable relationships with civilians while committing horrifying atrocities against them.

Nutrition, Disease, and War

The negative effects of starvation on disease have long been observed as malnutrition impairs immune function and promotes infection. In the cholera epidemic of 1882, doctors importantly noted that most deaths resulted from those who were already fighting other infections (Finkelstein 1996). The complications of cholera are closely tied to many diarrheal diseases, and mortality rates increase drastically (up to 50%) if patients are not properly hydrated throughout the course of infection. Co-infection with another disease (e.g., Typhoid fever, malaria, and HIV) increases mortality risk and is most common in malnourished children, manifesting as hypothermia or fever.

Throughout the nineteenth century, the Filipino diet consisted primarily of rice and fish, but by 1909, war had changed the Filipino diet drastically. Rice, a nutritionally dense source of vitamin B_1 (thiamine) and a staple of the diet, had been imported from Saigon since the turn of the century. The imported rice was highly milled, removing the outer germ-filled layer and most

of its nutrients. During and after the war, mothers' breastmilk was not nutritious enough to sustain their children, and they were forced to begin feeding their children a solid diet earlier than they could safely digest. The infant mortality rate due to enterocolitis soared, and beriberi became increasingly prevalent in the population (De Bevoise 1986; Ileto 2017b). Furthermore, the scarcity of clean water for the native population, hoarded by Americans, aggravated occurrences of "diarrheal disease" among Filipinos. Soldiers frequently made excuses not to drink clean water, thereby cementing their role as vector of disease despite the capacity to divert further circulation (De Bevoise 1986).

Food in the reconcentration camps was undeniably scarce. Reserves were divided amongst Filipinos, but American troops also stood in direct competition for supplies and typically strong-armed their way into the best reserves. Furthermore, guards frequently patrolled the border between Calamba and Biñan, Laguna, ensuring the U.S. Commissary strictly controlled the food supply (Ileto 1983). In Batangas alone, "malnutrition, poor sanitary conditions, disease, and demoralizations" were said to have contributed as many as 11,000 Filipino deaths, increasing population susceptibility to cholera (Ileto 2017a; 2017b). Combined with the adjacent areas, the overall death toll was approximately 20,000 people.

1902-1904 Cholera Epidemic

On March 14, 1902, a food shipment from Hong Kong arrived in Manila. A few days prior, on March 3, news had reached the harbor that Canton had recently been infected with cholera, and five days later, on March 8, Manila received news that the disease had traveled to Hong Kong. Although the ship had declared cholera on its bill of health, the ship was allowed to dock after a shortened quarantine period. Reportedly, the ship carried infected cabbage that had been disposed of, but poorer residents consumed it anyway out of starvation. The first cases of cholera were reported in the Farola district of Manila near the Pasig River, a barrio that housed stevedores, fishermen, and smugglers. On March 17, Chief Quarantine Officer Dr. J.C. Perry banned all green vegetables incoming by port, and by March 20, San Juan de Dios Hospital saw its first cases of cholera (De Bevoise 1986; Ileto 2017b; Marginson 2020).

Incoming cases were confirmed as cholera by the presence of *Bacillus* in tested smears and cultures (Jackson 1907). By the third day of the outbreak, there were 102 confirmed cases, triple the previous day's numbers. *V. cholera* is highly proliferative in unclean water. Subsequently, cholera is frequently prevalent in poverty-stricken areas. The Tondo district of Manila along the edge of Manila Bay was densely populated by people who lived in poorly constructed shanties and nipa huts, and slums littered the area where it lined the Pasig River. Unsurprisingly, the majority of cases came from this area.

American policy regarding the outbreak was distinctly reactionary. The previous year, the colonial government had established the Philippine Board of Health. The Board was given the responsibility of "[making] inquiry and investigation into the causes, pathology, and means of preventing diseases." Further powers of the Board included the ability to "prosecute all violations of sanitary laws" and to "make and enforce regulation[s] for preventing and

suppressing contagious or epidemic diseases of man or animals" (Philippine Commission 1901b). However, American officers filling positions on these boards disregarded standard knowledge on previous epidemics, insinuating a fallibility to the advice of Spanish and Filipino physicians and friars previously in charge of care.

In its disease control endeavors, the U.S. Army played a large role in the spread of cholera, both directly and indirectly. For instance, an American ship transporting supplies brought cholera to the city of Nueva Cáceres (present-day Naga), while the municipalities of Pagsanjan and Majayjay in Laguna province were infected by soldiers from Camp Wallace. Mariquina (present-day Marikina), located east of Manila, was infected by guards sent from the Constabulary to protect the water supply. Despite warnings from the local board of health for troops to remain out of their towns and awareness of the precedent of soldier-initiated infection, American armies prioritized military presence in towns to suppress the possibility of revolution. Therefore, disease traveled along the Pasig River from the valley. While Laguna and its surrounding provinces of Batangas and Tayabas were initially protected from infection by existing port closures during the war, protections only remained for a month before those towns too succumbed to disease (Buzeta Núñez and Bravo 1851; Ileto 2017a; 2017b). Notably, Laguna and Batangas served as the last strongholds of Filipino resistance during the war, incentivizing the American army to crush these areas as swiftly and as resolutely as possible. As a result, these areas had the highest rate of deaths by cholera per province in 1902 (Smallman-Raynor and Cliff 1998).

Although people of all social classes were affected by cholera, only Americans, Spaniards, Chinese, and wealthier Filipinos could afford treatment in specialized hospitals. In Manila, the mortality rate in 1904 was 46.76%, attributed to poor sanitation and food supply that created a "low state of vitality" such that people were "unable to react [to the] effects of the toxin produced by the cholera organisms" (Heiser 1918; Ileto 1983). Despite the rising Filipino death toll, the few Americans affected by cholera spurred the Insular Government to action specifically to preserve the health and safety of American troops (Heiser 1902). Dr. Luigi Sambon of the Liverpool School of Tropical Medicine wrote that it was important to consider the "competition of other living organisms—from man, wild beasts, and snakes to protozoa and bacteria—with which [white people] have to struggle for existence" (Sambon 1897). The concepts of a rivalry for survival were easily justified by Darwin's *On the Origin of Species* (1859) and Spencer's *Principles of Biology* (1864), which established the theory of evolution and coined the term "survival of the fittest." On these principles, Americans maintained a racial justification for warfare that involved the division of labor into intellectual activities (undertaken by 'scholastic' whites) and manual labor (left for natives) and were predisposed to eliminate threats to the preservation of white health.

American Health and Filipino Bodies

Cholera is a part of a unique subset of diseases where deceased persons remain contagious, primarily due to the nature of the disease itself: bacterially infested secretions.

Pathogenesis through bodily secretions was known even in the early twentieth century, noted in several medical textbooks and journals at the time (McDill 1918; Sambon 1897). By July 1902, the cemetery in Tondo, Manila, was overflowing, and as a safety precaution, the Commission banned additional burials. The Insular Board of Health required that all cadavers be placed in "hermetically sealed coffins" and then buried seven feet beneath the ground (Ileto 2017a). If these regulations could not be followed, bodies were to be sent to the crematorium for burning.

American public health efforts were unable to reconcile the Filipino view of "death and dying as a social event," further dissuading Filipinos from choosing cremation for their loved ones (Ileto 2017a). Filipino dissent for the new statutes stemmed from a myriad of factors. In 1884 and again in 1886, the Vatican released an edict formally denouncing cremation, both for oneself and for another (Morley 2023).[8] House burnings during the war only exacerbated a societal pyrophobia. Rituals of death in the majority-Catholic Philippines carried the deceased from their home to consecrated burial grounds for rest while a priest followed the procession and blessed the body. Quarantine policies were often broken so that an individual could spend their last days with loved ones. These public health efforts, while seemingly well-intentioned, ultimately failed at disease containment for a myriad of reasons, including an inability to untwine Filipinos as enemies to conquer from peoples with their own cultures, ideals, and ways of life.

Filipino resistance to quarantine and cremation policies led to stricter American policies that Filipinos refused to follow. The subsequent American response was often violent, citing a 'savage,' childish foolishness for ignoring the dangers that large gatherings posed during times of illness. A paranoia towards Filipino crowds was present in the American military, stemming from the idea that congregations could easily turn into rallies of insurrection. Population control was both a military strategy and a method of preventing further additions to the Filipino rebellion. Government Order 66 authorized (and compensated) officials for burning houses made of nipa palm owned by those who were suspected to be infected while those made of wood were to be cleaned. In doing so, the policy specifically targeted poorer Filipinos; in Lumbang, Batangas, the Philippine Commission issued a total of $4,624.39 as reward for house incinerations (Heiser 1918; Marginson 2020). Reminiscent of Filipino treatment during the war, family members of diseased persons were isolated in "detention camps," and their houses were burned down (Ileto 2017b). These burnings, like other American-prescribed treatments, served only to heighten tensions across racial and economic strata, sewing division among Filipinos.

Contemporary treatments of cholera focused primarily on the alleviation of symptoms (e.g., restoration of purged fluids), but officials often enforced clinical prophylaxes. Benzozone (acetyl-benzoyl-peroxide), a common drug tested by American doctors on Filipino patients, was a powerful germicide that quickly burned the linings of the mouth and stomach when ingested.

[8] Throughout its history, the Catholic Church has possessed a firm stance against cremation and had posthumously excommunicated those who had been cremated. It was only recently in 1963 that the Church lifted its prohibition on cremation, yet strict guidelines remained: ashes must be either buried or stored in a columbarium, neither stored at home nor scattered.

Considering its deleterious effects of cholera on the gastrointestinal system, benzozone created severe complications for cholera. Nevertheless, the medication remained in use in dilute concentrations (Ileto 2017a; Jackson 1907; Moralina 2009). Filipinos became quickly aware that confessing infection was almost worse than a death sentence. Sick Filipinos escaped by night through the rice fields, preferring to hide away in the provinces and thereby furthering the spread of cholera.

Medical Reform as Behavioral Reform

By the late nineteenth century, scientific knowledge had made significant strides, and germ theory had become the predominant explanation for disease.[9] These facts were passed over for ideals of white supremacy, and empires began circulating public health pamphlets and manuals in their colonies regarding the protection of white health in an 'exotic environment.' As Europeans began to solidify the field of tropical medicine, they also began compiling texts. *Influences of Tropical Climates on European Constitutions* (1863) by James Johnson was published for colonists in India and was quickly followed by *The Madras Manual of Hygiene* (1875) by Henry King. These booklets instructed Europeans how to adapt their lifestyles to survive the alleged savagery of a tropical climate and lifestyle.

American policy was not entirely unique in its decision-making in the Philippines and acted following these precedents. The U.S. had undergone serious sanitation reforms in the 1870s and 1880s during the Great Sanitary Awakening, which included improvements in street sanitation and garbage collection, school systems, plumbing, and increased police activity to ensure cooperation (Committee for the Study of the Future of Public Health 1988; Larsen 1969). Health and disease became increasingly intertwined with filth and poverty, particularly as institutional developments brought about societal changes. Beliefs toward illness, morality, and socioeconomic status became interconnected, and public health messaging created a collective responsibility for people's wellbeing through the improvement of shared spaces. Officials of the Insular Government sought to replicate the American success story of cleanliness in the Philippines, viewing it as a terrarium to test hypotheses. American medical officers, considering themselves scientists, believed in a "universally applicable measure" of public health, modified by new findings in bacteriology and germ theory, that they could transplant where they saw fit (Anderson 1992). The primary belief among medical officers was the idea that tropical disease—intrinsically separate from other diseases—was caused by microbes or parasites specially adapted to areas of heat and humidity, creating the presence of endemic diseases (Anderson 1992).[10] Shifts in colonial philosophy also shaped American actions. Charles B. Elliott wrote that "all advanced nation […] agree that the management and development instead of

[9] Edward Jenner's smallpox inoculations in the 1770s served as evidence to many that scientific expertise lay in the hands of the West. In fact, regions along the Silk Road (northern Africa, Turkey, China) demonstrated evidence of vaccination, and the first reports of "subcutaneous inoculation" first arrived in Europe from Istanbul along these routes. See Riedel 2005.

[10] Endemism refers to the state of disease recurrence or prevalence within a specific location.

the destruction of backward races is an essential part of the *raison d'etre* of colonization" (Elliott 1916). By his argument, as taken by American legislators, it was the colonizer's responsibility to develop free will in the colonized to make decisions that would best benefit himself.

Underscoring these beliefs, most public health efforts in the Philippines were also sanitation efforts. Debris had accumulated in the streets and sewers during the war, exacerbated by the onslaught of refugees that had arrived. Under Act No. 1323, the Americans began constructing a new sewer and water system for Manila with an estimated cost of $4,000,000 (Heiser 1918; Philippine Bureau of Health 1906). Manila's water, supplied by the Marikina River, was likely never infected by cholera, but the source of its flow, the Pasig River, and its respective tributaries and streams were certainly contaminated. Underneath the promotion of sanitation projects, coupled with "vigorous education campaigns," was the message that Filipinos were innately dirty and thus required treatment that only Americans could provide, directly contrary to pre-colonial records of Filipino hygiene habits.[11]

The spread of cholera was blamed primarily on Filipinos—or rather, their so-called "innate filth." Dr. Joseph A. Guthrie noted that although Filipinos "washed their bodies daily, […] they do not keep their hands clean, […] and at all events, they are not microscopically clean" (Guthrie 1903, as cited in Anderson 1992). Whenever Europeans succumbed to disease, it was not due to an inherent weakness or the same factors that affected the natives (e.g., infected soil, humidity, tropical sunlight). Instead, for Filipinos, it was due to some other controllable factor, such as tropical parasites, incorrect diet, alcoholism, or "intestinal intoxication" (Anderson 1992). The idea of soil pollution as a vector of disease transmission was not in and of itself an insult to its quality, but rather it drew negative attention to the natives' tendency to defecate in the soil and spread enteric pathogens. Beliefs surrounding health and fitness in the late nineteenth century focused on the idea of evolution (i.e., a person was best suited to the region that "his race had evolved").[18] Conversely, Filipino likelihood of contracting a 'non-tropical' disease such as tuberculosis was attributed to his physiology: "long neck, narrow and flattened chest, sloping shoulders, and poor development of the pectoral muscles" (Philippine Bureau of Health 1906).

Education and Control

Americans viewed Spanish rule (and Spanish institutions in the Philippines) as tainted by monarchy and Catholicism, denouncing the "deplorable sanitary conditions [that] centuries of neglect" had created (Bautista and Planta 2009). Spanish colonization primarily assumed the role of spiritual pedagogy rather than a physical one, and missionary projects were consistently undertaken to create a Christianized Philippines. Healthcare was spearheaded by Spanish missionaries, and hospitals were overseen by friars. Filipino physicians studied either in the University of Santo Tomas or abroad (Chiba 2020).

[11] There are numerous precolonial records detailing indigenous health and hygiene. See Chirino, "Relacion de Las Islas Filipinas," and Pigafetta, "First Voyage Around the World."

The American colonial era upended the existing social order. Around three hundred boards of health were established throughout the Philippines by Act No. 310. On paper, these were meant to place Filipino doctors in charge of Filipino health—or at the very least, Filipino doctors underneath American "tutelage," under the premise of eventual Filipino directorship. However, in practice, the chief officers of the boards were Americans, leading to what Director of the Board of Public Health Dr. Victor Heiser called "resistance" towards Commission-established health measures. Unwilling to believe in American altruism so close to the end of the war, Filipinos lacked faith in the Board and believed the Americans had embraced a principle of "making them miserable, unhappy, and uncomfortable" (Heiser 1918). The Act regulated the "reputableness and recognition by the Board of Medical Examiners of medical schools in the Philippines," placing the sole ability to recognize medical doctors in the hands of the colonial government (Moralina 2009; Philippine Bureau of Health 1906). Both Filipino and Spanish doctors were therefore loath to report to their superiors—a relationship that became especially tenuous when they became required to report cases for epidemiology records. They frequently broke sanitary codes, and these acts of insubordination could easily be attributed to the derision they faced. Filipino doctors unjustly faced constant scrutiny (Moralina 2009).

Public health policy focused on the cure of disease and Filipino behaviors. The Sanitary Code of Manila (1907) discouraged spitting and the dry sweeping of streets and ordered the proper ventilation of homes to encourage "Orientals" to cure their "curse" of uncleanliness. Disease control efforts conflated tuberculosis with cholera by personal hygiene, promoting slogans such as "no fingers, no cholera," to chastise eating with the hands, and "no house, no tuberculars," to excuse and normalize house burnings (Moralina 2009). The first American-operated schools on the island of Corregidor were created a few years after its American capture in May 1898 to further the establishment of American ideals in the Philippines. Thereafter, the number of American educational institutions began increasing, hindered only by the onset of the Philippine-American War in the following year. Instruction was conducted solely in English, and when the number of soldiers-turned-teachers ran low, Americans began to import formal lecturers (Casambre 1982).

American schools operated on the theory of promoting "self-governance" in Filipinos, in line with the principle of benevolent assimilation which (on paper) intended to promote the "full measure of individual rights and liberties which is the heritage of free peoples" by American influence (McKinley 1898). Instead, however, these schools served primarily as a form of behavioral control and supervision. Teachers began compiling health indices based on children's fitness into certain characteristics: "a well-formed body," "clean and shining hair," "an amiable disposition," "ears free from discharge," "a voice of pleasing quality," and "clear skin of good color" (Anderson 2002). Teachers oversaw the health of Filipino children, instructing them in hygiene so that they could then introduce these practices into their own homes. Furthermore, teachers reported discrepancies to local health officers, strengthening the relationship between colonial education and control.

Back to the Philippines

The exchange-of-hands between Americans and Filipinos—or the "Filipinization" campaign, as headed by Governor General Francis Burton Harrison—involved a dramatic decrease in American officials (including doctors and teachers) in the Philippines. In 1913, there were 2,600 American personnel which dwindled to 614 by 1921, though reduction was driven in part by Americans leaving to fight in World War I (Anderson 1992).

Justification for imperial ideologies in the U.S. can be traced to its roots in the American Anglo-Saxon belief in an inheritance to empire. Nativism and ethnonationalism can be considered acquired tastes from transference of British philosophy to its American colonies. Likewise, ideas of race, white supremacy, and colonialism trickled down (Bender 2006; Kaufmann 1999; "Liberty and the Anglo-Saxons" 1981). British rule toward the latter half of the nineteenth century had shifted to indirect rule and association, preferring to utilize already-established structures within their colonies to rule. However, its philosophy tended to 'ignore' the idea of the political, social, and economic development of their possessions. Once colonized peoples were "raised to civilization" through colonization, occupation would no longer have justification (Elliott 1916). The American policy of benevolent assimilation, based on the absorption and replication of the colony into the parent, was a newer ideology that seemingly accepted this argument.

American politicians' arguments against Filipinization cited failures to enforce smallpox vaccination, cholera flares throughout the provinces, and more. Heiser noted the takeover of a "native physician [had induced] a great increase in mortality rate and sickness" (Anderson 1992). When the mortality rate rose from 24.48% in 1913 to 46.33% in 1918, those against Filipino self-governance pointed to this as evidence that the Philippines was not ready for independence. In response, Dr. Vicente de Jesús, Assistant Director of the Department of Public Instruction and the new Director of the Bureau of Public Health, noted the presence of the influenza of 1918, which triggered "weakened organic resistance" in the population (Anderson 2002). Chief of the Bureau of Internal Affairs General Frank McIntyre noted that although cholera had indeed manifested throughout the islands, the occurrence was not unusual, as "unfortunately, cholera has visited the Philippine Islands every year since 1902" (McIntyre 1915, quoted in Anderson 1992). Treatments previously used during the epidemic were still utilized without issue, directly responding to Heiser's claim that de Jesús (and Filipinos) was ill-prepared to leave his tutelage.

Heiser's critiques of de Jesús were strikingly hypocritical, considering his disastrous failures in handling cholera himself. In 1905, a resurgence of cholera occurred in the Philippines. The first case was confirmed in Manila on August 23 in Bilibid Prison, which was known for its poor sanitary conditions where "loathsome skin diseases" festered amidst the maltreatment of prisoners (Heiser 1907). Postmortem resection of the small intestine revealed a "deeply injected" ileum filled with "rice-water like material;" testing of bacteria indicated the presence of *V. cholera* spirilla (Heiser 1907). Reports of cholera had reached the Board of Health in the weeks preceding August 23, though these patients were examined only after the

Bilibid case (after *V. cholera* would no longer present in the body, leading to false negatives). Heiser notes that despite records of "profuse diarrhea and vomiting followed by collapse," cases were ignored due to the "absence of cholera being reported anywhere in the Philippines" (Heiser 1907; Worcester 1914). On November 16, 1906, two months after the last confirmed cholera case in Bilibid, Director of the Bureau of Laboratories Richard Pearson Strong inoculated 24 Filipino prisoners with an experimental cholera vaccine, intending to measure potential reactions from the prisoners to the vaccine (as opposed to producing immunity) (Campbell 1994). Over the next week, all vaccinated men reported serious illness. Heiser, aware of the situation but more concerned with saving reputation, ordered Strong and Director of the Bureau of Science Dr. Paul C. Freer to "keep absolutely quiet and await developments" (Freer 1907, as quoted in Chernin 1989). In total, thirteen prisoners died by vaccine contamination with virulent bubonic plague due to maltreatment and neglect.

In 1915, efforts to reduce the legislative and executive powers of the Director of the Board of Health were made, and the Board was separated into the Philippine Health Service and the Council of Hygiene. As a result, Filipinization continued to reduce the number of Americans in governing positions (Anderson 1992). Filipino doctors who filled the ranks in the absence of Americans largely upheld the existing systems, persisting to slightly modify the messaging behind public health campaigns and thereby acting as a bridge between the previous (foreign) medical overseers and the apprehensive (native) people. In the eyes of the American colonial system (and in recognizing their aims to create systems that would reproduce American models in the Philippines), the Filipino medical project seemed to be a success. This conclusion is reliant on the assumption that the *modus operandi* taught to Filipinos was correct in the first place and did not harm them.

Conclusion

Dr. Friedrich Prinzing, physician and founder of medical statistics, noted that over centuries of conflict, certain "infectious diseases […] such as typhus fever, bubonic plague, cholera, typhoid fever, dysentery, and small-pox" were commonly spread (Prinzing 1916). Among these, cholera has declined in prevalence worldwide due to advances in hygiene and sterility, yet at the beginning of the twentieth century, sanitation and public health were burgeoning fields. Consecutive conflicts in the Philippines engendered conditions for the 1902-04 cholera epidemic, bringing with it heightened attention to the Philippines and discussions to its ability for self-governability. The American decision to maintain the Philippines as a colony for nearly fifty years (1898-1946) led to the creation of a medical bureaucracy that mirrored the American healthcare system, helmed by white officials with Filipino students. The Bureau of Health—eager to produce data in support of white supremacy yet unable to provide real solutions—ultimately failed at containing the spread of disease. Ultimately, Filipino doctors inherited a medical system in a precarious state through the process of Filipinization and were met with heavy criticism, efforts underscored by American negligence in epidemiology. The Filipino healthcare system remains analogous to the system created under colonization with

improvement efforts hindered by war, limited infrastructure and funding, and the 'brain drain' of labor initiated by the Pensionado Act (1903).[12] Currently, cholera remains endemic in the Philippines (Ilic and Ilic 2023; World Health Organization 2024).

[12] For more on the export of Filipino healthcare workers, human capital flight, and American imperialism, see Bello et al. 1969; Choy 2003; Lagman 2015; and Lu 2014.

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