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Puerto Rico and the Second Cholera Pandemic

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Abstract

This study examines colonial Puerto Rico's response to the Second Cholera Pandemic through *La Gaceta del Gobierno de Puerto-Rico*. This newspaper tracked the epidemic's spread across Europe and the Americas and highlighted the resulting social disruption. While Puerto Rico avoided direct effects, the threat prompted significant public health responses from the Spanish administration. Governors, notably Miguel de la Torre and Miguel López Baños, enacted foundational public health ordinances (*Bandos de Policía y Buen Gobierno*) aimed at improving sanitation and food safety. However, the cornerstone of the island's defense was the rigorous enforcement of maritime quarantine protocols. This study argues that Puerto Rico's experience during the Second Cholera Pandemic highlights the critical role of information dissemination and traditional preventative measures in a pre-bacteriological era, laying the groundwork for a more centralized public health system.

Keywords: cholera, Puerto Rico, nineteenth century, pandemic

1. A King Dies in Italy

King Charles X, the last Bourbon monarch of France, died on 6 November 1836. Born Charles Philippe, he was the youngest brother of two kings and lived a life characterized by years of scandal and political tumult. Initially pursuing a military career, he became increasingly involved in politics after his elder brother King Louis XVI and wife Marie Antoinette were guillotined during the French Revolution. A staunch advocate of Bourbon restoration, Charles ascended the throne in 1824 following the death of his brother Louis XVIII ten year reign. Charles's conservative policies reversed many gains achieved as a result of the French Revolution. These measures provoked widespread discontent and ultimately sparked the July Revolution of 1830 that forced Charles to abdicate (Pinkney, 1972).

After abdicating, he spent the rest of his life in exile, living first in England and Prague before settling in Illyria (modern-day Italy). In November 1836, his health began declining. Despite being under the care of Marie-Thérèse Charlotte, who was both his niece and his daughter-in-law, Charles died at the age of 79.

A funeral at Schönbrunn Palace in Vienna was attended by Emperor Ferdinand I and Empress Maria Anna. Charles was buried in the Bourbon crypt at the Church of Saint Mary of the Annunciation, Monastero Francescano della Castagnavizza, Gorizia (Beach, 1971).

Thousands of miles away, readers of *La Gaceta del Gobierno de Puerto-Rico* [hereafter *Gaceta*] took notice of the death of the controversial King. "On the occasion of the death of Carlos X of Bourbon, the uncle of Her Majesty [Isabella], the Queen Regent [Maria Cristina of Naples] has ordered that the Court dress in mourning for a period of three weeks—one in strict mourning and the other two in lighter mourning—starting from Monday the 28th of this month [January 1837], inclusive (*Gaceta*, 21 February 1837)."

As Spain and its colonies mourned the death of Charles X, they soon learned that the cause of death was cholera morbus, an older, less-used term for cholera.

Cholera was the defining epidemic of the nineteenth century, much like plague in the fourteenth century. Its origins are unclear, with early references to cholera-like illnesses found in ancient texts from India and Greece (Rabbani et al., 2003). Cholera is an infectious disease caused by a bacterium called *Vibrio cholerae*. The bacteria typically live in waters that are somewhat salty and warm, such as estuaries and waters along coastal areas.

There are hundreds of strains, or "serogroups," of the cholera-causing bacterium *Vibrio cholerae*. However, only two serogroups—O1 and O139—are known to trigger outbreaks and epidemics. These specific strains produce a cholera toxin that prompts intestinal cells to release excessive amounts of water, leading to severe diarrhea and rapid loss of fluids and electrolytes. People typically contract cholera by consuming contaminated food or water (National Institute of NIH Allergy and Infectious Diseases, 2016).

Most persons infected with cholera do not exhibit symptoms, though the bacteria remains in their feces for one to ten days after infection, during which they can shed the bacteria into the environment, posing a risk of transmission to others. Symptoms typically appear between twelve hours and five days after exposure. However, a small percentage of patients experience acute watery diarrhea with severe dehydration that can be life-threatening.

For centuries, cholera remained largely confined to the Ganges Delta region in Bengal (encompassing present day Bangladesh and West Bengal, India), where it thrived in warm, shallow wells contaminated by fecal matter (Barua & Greenough, 1992). However, in 1817, the disease began spreading, carried by East India Company troops moving across the Indian subcontinent. The expansion of trade routes and agricultural practices, including irrigation for cotton cultivation, created ideal conditions for cholera to thrive (Damodaran, 2015).

The first cholera pandemic that ended in 1824, spread throughout Asia and parts of the Middle East without ever reaching Europe or the Americas. It concluded as the disease

exhausted susceptible populations along trade routes and favorable transmission conditions declined.

The Second Cholera Pandemic also began in Bengal's Ganges River delta in 1826 and quickly spread along trade routes across India to Afghanistan, Russia, reaching Europe and the Americas four years later.

2. Reporting the Global Cholera Pandemic in Puerto Rico

The second invasion of cholera did not go unnoticed in Puerto Rico, though the island largely escaped its impact. The *Gaceta*, Puerto Rico's first official newspaper, reported extensively on the disease's westward spread and related public health concerns.

First published in San Juan in 1806 as *La Gazeta de Puerto-Rico*, the newspaper changed names with Spanish government shifts, becoming *La Gaceta de Puerto-Rico* in 1859. By 1897, it was issued daily except on Sundays or Mondays. As a key publication of Spain's colonial government, the *Gaceta* also addressed political, cultural, and economic issues, including sanitation and disease prevention.

The *Gaceta* remains an essential resource for studying Puerto Rico's colonial history and the island's nascent public health movement. Historian Salvador Arana Soto has preserved extensive excerpts from the newspaper in his history of sanitation in Puerto Rico, *La sanidad en Puerto Rico hasta 1898*, that includes news of the second cholera pandemic (Arana Soto, 1978). As the second cholera epidemic spread across the globe, the pages of the *Gaceta* noted its spread, morbidity and mortality, causes, and even suggested preventive measures.

Aside from the *Gaceta* and other official archival materials, two principal sources illuminate life in Puerto Rico during the 1830s with passing remarks about cholera or the state of public health. These include: Pedro Tomás de Córdova's *Memorias geográficas, históricas, económicas y estadísticas de la isla de Puerto Rico* (1831–1833) (Córdova, 1968), Colonel George Flinter's accounts of the island's political economy and slavery (Flinter, 1834). Complementing these official and semi-official sources are the letters of two Americans residing in Puerto Rico during the same period, Edward Bliss Emerson (Gatell, 1959; Rigau-Pérez, 2014) and Charles Walker (Scott, 1965). Emerson's assessment of Flinter's writings anticipated the view of later historians, who considered both Flinter and Córdova as presenting a selective and apologetic defense of Spanish colonial administration.

3. Cholera's Grip Tightens on Europe

Cholera reached Moscow in August 1830 and quickly spread to other Russian cities. By February 1831, Russian troops introduced the disease to Poland during the November Uprising. A brief note in the *Gaceta* in September 1837 reported: "—Cholera has reappeared in Breslau [Wrocław, Poland], and many have died (*Gaceta*, 12 September 1837)."

By mid-1831, Hungary recorded about 250,000 cases and 100,000 deaths. From August, the disease spread to Germany, impacting Berlin and Hamburg. In Bavaria, the *Gaceta* noted the death "On the morning of December 12 [1837] General [Georg von] Weinrich, Minister of war of Bavaria" died of cholera (*Gaceta*, 18 February 1837).

By the end of 1831, cholera arrived in Great Britain, first appearing in the North Sea port city of Sunderland before spreading to London the following spring (Johnson, 2006). England and Wales recorded over 21,500 deaths, while Scotland saw 9,500 fatalities.

The cholera riots that broke out in England in 1832, sparked by public mistrust of medical authorities and resentment toward sanitary measures, were not reported by the *Gaceta*. Despite the newspaper's regular coverage of European affairs, its reports during that period focused on official decrees, shipping movements, and brief notices about the spread of cholera on the continent. The absence of any reference to the riots suggests that colonial authorities filtered foreign news to maintain public calm and prevent unrest on the island.

4. France is Impacted

For much of the early nineteenth century, France and Spain maintained a political alliance, particularly after the Napoleonic Wars, with both countries seeking to maintain their domestic political systems and colonial holdings (Sonesson, 2000). Thus, there was much interest in news that arrived from France.

The first cases of cholera in France occurred in Provence on 7 December 1832; two years later, it appeared in Marseille. Thousands fell ill across France; in 1835, a total of 3,441 people died out of 7,073 reported cases, resulting in a mortality rate of 48.6% (Barbieri & Drancourt, 2018).

The *Gaceta* reported an outbreak in Marseille. A letter from Naples noted that 2,186 people became ill between 19 and 25 June 1837, with daily deaths marked by the tolling of the church bells. By December, Marseille's bishop suspended the bell tolling to reduce public anxiety (*Gaceta*, 19 December 1837).

In November 1837, the *Gaceta* continued publishing bleak statistics: "Yesterday [30 August], 36 individuals died, 29 from cholera (*Gaceta*, 25 November 1837)." Just two days earlier, a storm had swept through the region, bringing cooler temperatures and raising hopes that the epidemic might subside. Instead, the sudden drop in temperature appeared to worsen the outbreak, driving up the death toll (*Gaceta*, 25 November 1837).

Throughout the crisis, the *Gaceta* provided regular updates on the everchanging situation in Marseille. On 25 August 1836, the newspaper reported 88 deaths, 51 of which were attributed to cholera, including 36 children (*Gaceta*, 21 December 1837). Over the next two days, fatalities declined slightly: 45 deaths from cholera on 26 August and 48 from cholera on 27 August (*Gaceta*, 21 December 1837). The reduction, the paper noted, was especially pronounced among children. A brief notice added that new cholera cases were decreasing, with daily deaths appearing to peak at 50 over a three-day stretch. On 22 August 1837, 79 deaths were recorded, 50 from cholera, 42 adults and 8 children (*Gaceta*, 19 December 1837). By 24 August, the total had fallen to 69 deaths, with 35 linked to cholera.

Marseille's overcrowded neighborhoods, poor sanitation, and contaminated water supplies made it a deadly epicenter of disease. Those with the means escaped to the countryside, where the air was thought to be cleaner and safer, a belief rooted in the prevailing miasma theory, that

blamed "bad air" for the transmission of disease (Delaporte, 1986). Reports from France also documented a mass flight from the city. Both the "comfortable classes" and "working classes" fled in fear, as cholera spread rapidly and struck without warning (*Gaceta*, 19 December 1837).

Panic mounted as city infrastructure collapsed. Hospitals were overwhelmed, clergy and physicians fled, and mass graves became common. In this climate of fear, misinformation, and collapsing public services, urban exodus intensified.

By 30 August 1837, cautious optimism emerged as news from Paris noted the spread of cholera in Marseille appeared to be slowing, and more patients were surviving. Still, the city remained eerily empty. The once-bustling docks and streets were largely abandoned, save for those too poor or too sick to flee. As the *Gaceta* noted, quoting the *Marseille Mensagero*, "many doctors have left the city because of cholera (*Gaceta*, 21 December 1837)."

As the year drew to a close, the *Gaceta* continued its coverage of the pandemic's impact in France. On 4 December 1837, the Marseille civil registry recorded 32 deaths from cholera. Of note, 15 of the deceased were identified as *pardos*—a term referring to people of mixed European, Indigenous, and African ancestry. It was one of the few instances in which the *Gaceta* included racial classification in its cholera reports (*Gaceta*, 21 December 1837).

5. Cholera Spreads to Italy and the Mediterranean Sea

For several years, readers of the *Gaceta* followed the intense accounts of the outbreak's progression across southern France and its entrance into the Italian peninsula as well as its devastating human toll (Balfour, 1993; Tagarelli et al., 2000). On 29 October 1835, the *Gaceta* shared news that: "letters from Genoa from the 10th of the current month [October 1835] announce that sanitary conditions are improving. Cases of cholera are diminishing daily, and are expected to cease shortly (*Gaceta*, 2 February 1836)."

Weeks later, however, the *Gaceta* confirmed that "there is a cholera outbreak in Genoa, and at the time of the last correspondence from that city, eight cases of the terrible disease were verified (*Gaceta*, 28 July 1837)."

News from Naples, dated 11 July 1837, painted an equally dire picture: "If the sanitary conditions of this city have not gotten worse, neither have they improved, as 300 to 400 persons die daily. The disease has extended throughout the whole country, causing much damage. Many smaller towns are completely depopulated, because those who have not died have left. It is generally believed that this is due to the heat, and that in two or three months the disease will extinguish itself. Throughout the rest of Naples, it is perfectly tranquil, and the political security is as good as ever (*Gaceta*, 18 November 1837)."

News was slow and often weeks or months delayed. In September 1837, the *Gaceta* published a grim report, "writing from Naples, daily 400 individuals die from cholera. Since April 13 [1837], 10,000 people have died (*Gaceta*, 14 September 1837)."

A dispatch from Paris on 2 August 1837, reported that as the health crisis in Italy worsened, several young Parisian physicians were traveling to Marseille to board ships for Palermo to

aid cholera patients (*Gaceta*, 23 November 1837).

In a later acknowledgment, the *Gaceta* citing the *Diario de Roma* from 19 August 1836, "confesses, at last, that cholera has reached Rome. Some physicians doubted it due to the presence of the queen [Maria Theresa of Austria] in the city, and because another illness, a fever called algid pernicious [a rare form of malaria], was also present. But the number of cases and the characteristics of the sick leave no doubt: as of the 17th, among 132 cases of cholera, there have been 53 deaths (*Gaceta*, 21 December 1837)."

Across from the island of Malta, under British control since 1800, was severely struck in 1837; approximately 3,000 died from cholera in just a few months (Galea & Camilleri, 2020). While the British colonial administration responded with stringent quarantine protocols and enhanced sanitation measures to curb the disease and prevent its transmission, nonetheless, on 16 July 1837, the *Gaceta* reported that, "The governor in charge of the [port] city of Livorno has made it known that several cases of cholera have manifested on the island of Malta and Corsica. The sanitary intendant of Ajaccio [Corsica] has ordered that those arriving from that island [Malta] must quarantine for six days, ensuring to ventilate all affects that they bring from infected ports (*Gaceta*, 9 September 1837)."

6. Cholera's Invades Spain Amid Political Upheaval

Despite the implementation of strict quarantine protocols, cholera reached Spain in August 1833. Its emergence coincided with a period of intense political instability following the death of King Ferdinand VII and the onset of the First Carlist War (Carr, 1982). Between 1833 and 1834, the epidemic devastated the country, claiming an estimated 300,000 lives.

The first confirmed cholera case in Spain appeared in the port city of Vigo, Galicia. The outbreak likely originated either with troops returning from the Portuguese Liberal Wars or with the steamship *Isabel la Católica* arriving from Greece. From Vigo, the disease spread swiftly, south into Andalusia, west toward Madrid, and across multiple provinces, provoking widespread panic and civil unrest. A parallel transmission route unfolded along the Mediterranean, particularly through the Balearic Islands and the port of Tarragona. The French ship *Triton*, carrying Foreign Legion soldiers, introduced cholera to several coastal towns, frequently overwhelming or bypassing local quarantine measures (Oropeza, 2015; Rodriguez Ocana, 1992).

In July 1834, paranoia and misinformation sparked violent riots in Madrid, culminating in a brutal massacre. Enraged mobs, falsely accusing religious orders of poisoning the water supply, attacked and killed dozens of friars in an episode reminiscent of the attacks on Jews during the Black Death (A Resident Officer, 1836).

Armies on the move during the Carlist War acted as unwitting vectors for cholera, accelerating its deadly march across Spain. The constant movement of troops through towns and villages facilitated its transmission, while the squalid, close-quartered conditions of military life, compounded by a lack of medical care, allowed the disease to thrive and devastate new regions with alarming speed (Downs, 2021).

Despite the growing health crisis, the Spanish press handled the outbreak with notable discretion, if not outright censorship. In particular, newspapers in Madrid significantly downplayed or entirely omitted reports on the spread of the disease, especially in the early stages. This silence persisted until the epidemic could no longer be ignored, when cholera finally reached the capital in 1834. By that point, the scale of the outbreak had grown too large to conceal, and public anxiety was mounting (Oropeza, 2015).

The reluctance of the Spanish government to provide early reports on the disease was driven primarily by economic fears. Authorities and business leaders worried that widespread awareness of the epidemic would lead to panic, disrupt daily life, and, most importantly, cripple commercial activity. Markets, trade routes, and labor forces were already vulnerable due to the instability caused by civil war, and news of a deadly contagion threatened to bring economic paralysis. As a result, public health was often subordinated to political and economic priorities, delaying critical responses and worsening the epidemic's toll.

For example, in May 1833, the *Gaceta* informed its readers of a royal decree aimed at reducing the strict quarantine and sanitary measures imposed in Spain. The order read that in light of improved health conditions in certain regions of France and Spain, and with advice from the Spain's Supreme Board of Health, the Crown authorized the easing of restrictions on maritime and overland travelers, particularly those engaged in trade. Ships arriving from non-infected ports would be granted exemptions from quarantine, while others would face reduced observation periods depending on their cargo and route: "In ports authorized for foreign trade, slave ships from ports exempted from the high classification of 'suspected ports' shall be admitted, and it shall be assumed that those who declare their port of origin and the ports visited enroute were free from cholera morbus or any other contagious disease (*Gaceta*, 18 May 1833)."

Additionally, overland travelers from France, especially those coming through Bayonne or Perpignan, would face limited quarantine, unless arriving from Bordeaux or its surrounding region, that remained under stricter control due to recent cholera activity. Despite these relaxations, goods susceptible to contagion remained banned from overland transport, and stringent disinfection protocols implemented at the border. These measures sought to balance public health concerns with the economic needs of commerce and mobility (*Gaceta*, 18 May 1833).

In response to the cholera epidemic of the 1830s, the city of León combined public health messaging with significant urban modifications. Initially, in 1837, local newspapers denied the presence of cholera yet paradoxically advised citizens to maintain hygienic precautions. The city hall also issued a public edict outlining preventative measures against the disease, which they suspected had originated in Marseille (*Gaceta,* 19 December 1837). By the next year, the city's containment strategy had expanded to altering its physical layout. A report from 1838, during the Carlist War, noted that with León's defensive walls destroyed during the conflict, new construction was intentionally more open in design, and some side streets were closed, specifically to prevent the spread of contamination (*Gaceta*, 6 November 1838).

By the time the epidemic subsided in Spain, it had reached 1,394 towns. The last reported

cases emerged in Cáceres and Ceclavín. Over the course of nearly seventeen months, close to 3% of Spain's population had contracted the disease, leaving a profound mark on its public health history and social psyche.

7. Cholera arrives to the Americas

Cholera first arrived in North America aboard the ship *Voyageur*, carrying Irish immigrants from Cork to Canada. Although the vessel received a clean bill of health at Grosse Isle in the St. Lawrence River on 7 June 1832, several infected passengers went undetected. As the *Voyageur* traveled from Quebec to Montreal, the disease spread rapidly. Between 8 and 15 June, Quebec's Immigrant Hospital admitted 259 cholera patients, 162 of whom died. The surge quickly overwhelmed existing medical facilities, leading authorities to set up emergency tents on the Plains of Abraham. By September, the city recorded 3,851 cholera-related deaths (Rosenberg, 2009).

Soon thereafter, cases of cholera appeared in New York City quickly spreading along inland waterways and trade routes, reaching Philadelphia, Boston, and as far west as Cincinnati and St. Louis. Public health systems were largely unprepared, and panic was widespread due to the disease's mysterious nature and rapid, deadly course. Responses varied, with some communities enforcing quarantines and sanitation measures, while others turned to religious or moral explanations. The epidemic ultimately killed thousands and exposed the urgent need for better public health infrastructure in the growing urban centers of the young republic (Rosenberg, 2009).

In 1833, cholera reached Latin America, spreading across Mexico, and into the Caribbean reaching Cuba, and Haiti (Jenson & Szabo, 2011). In Havana, the first recorded cholera death occurred in late February 1833—a Catalán named José Soler. The disease quickly devastated the city, particularly in impoverished neighborhoods and among newly arrived enslaved Africans. By 1834, over 8,000 people had died in Havana alone. Reports from Matanzas told of entire shiploads of enslaved individuals dying from the disease.

From Baltimore, the *Nile's Register*, citing letters from Matanzas reported: "We are standing upon a volcano. $8,000,000 would not supply the loss of slaves valuing them at $200 each. Moreover, who shall calculate the number of orphans left destitute or nearly so? Where is our guarantee that the disease is not permanently located in the island? How is confidence — utterly lost and ruined — to be restored (*Niles' Register*, 13 July 1833)?"

Although a subsequent letter in the *Nile's Register* from 25 June noted that cholera had subsided in Havana, it was reportedly spreading through rural plantations. An official report tallied the total number of cholera deaths in Havana and its suburbs at 8,253, with 2,365 classified as white and 5,070 as people of color. The figures included 1,450 white males and 1,029 white females; 225 free mulatto men and 311 women; 30 enslaved mulatto men and 35 women; 983 free black men and 1,196 women; and 1,381 enslaved black men and 909 women. The final toll listed 4,609 male and 3,480 female fatalities (*Niles' Register*, 13 July 1833).

Cholera swept through Central America in 1836 and 1837, unleashing deadly epidemics

across the region, especially in Guatemala and Nicaragua (Llopis & Halbrohr, 1991). While precise casualty figures remain elusive, El Salvador and Costa Rica were significantly impacted. Contemporary reports in the *Gaceta* underscored the widespread fear and political instability ignited by the outbreak.

In one striking dispatch from El Salvador, then a sovereign state within the Federal Republic of Central America, the death toll and public paranoia were laid bare**:** "Cholera is causing great devastation in Central America. In San Salvador, 1,300 people have died in 19 days; in Tuganata, 1,200 have died in 21 days. The people believe, as in Europe, that the waters are being poisoned, and they accuse the president of adding toxic substances to kill the inhabitants and surrender the country to the English." Tensions ran so high that violence erupted: "Under this pretext, a member of this nation was murdered on the banks of the Lempa River. These popular disturbances threaten to spark a political revolution during the upcoming presidential elections (*Gaceta,* 2 January 1838)."

Meanwhile, a more hopeful note was sounded in neighboring Guatemala. A *Gaceta* dispatch dated July 20, 1837, stated: "Cholera morbus is in marked decline, and the only matter occupying the attention of Central Americans now is the continued British incursion advancing into Belize." Even amid disease, geopolitical anxieties persisted (*Gaceta,* 13 March 1838).

8. Puerto Rico Responds to the Cholera Epidemic

As a result of Spain's prolonged political disorder, Puerto Rico similarly faced significant political upheaval throughout the nineteenth century. From 1808 to 1860, Spain faced turmoil starting with Napoleon's invasion and the Peninsular War. Ferdinand VII was replaced by Joseph Bonaparte, but returned to power after Napoleon's defeat, rejecting liberal reforms and reinstating absolutist rule until his death in 1833 (Carr, 1982).

His death triggered the First Carlist War, as political factions supporting his three-year-old daughter, Isabella II, clashed with the Carlists who endorsed her uncle, Don Carlos. Until Isabella reached the age of majority, Spain was administered by regents, including her mother, Maria Cristina, while liberal and conservative forces vied for political dominance.

Amid these upheavals, Puerto Rico's political situation remained tightly controlled by the Spanish Crown. After 1815, the island was ruled by a Spanish-appointed Captain-General who held sweeping powers, that combined executive, military, and judicial authority (García de Ochoa, 1982; Navarro García, 2013). This centralized governance reflected the broader Spanish colonial model, that gave minimal room for local decision-making. The governor acted directly on behalf of the Spanish Crown, overseeing all matters of civil administration and security, thus, ensuring loyalty to the monarchy. Although municipal councils, known as *cabildos*, existed in some towns, their influence was limited and subject to approval by the governor.

A major political, economic and cultural development during this period, was the issuance of the *Cedula de Gracias* (Royal Decree of Graces) in 1815 by Ferdinand VII (Rosario Rivera, 1995). The decree aimed to stimulate the island's economy and solidify loyalty to Spain amid

the wave of independence movements sweeping across Spanish America. It also encouraged immigration from friendly European nations, particularly from Spain, France, Corsica, and Ireland, contributing to demographic diversification by offering land and tax incentives to settlers who pledged allegiance to the Spanish Crown and adopted Catholicism. This resulted in increased immigration and a boost to the island's agricultural economy, particularly in coffee, sugar, and tobacco production. The economic growth was accompanied by an increase in the use of enslaved labor, particularly on large farms and plantations (Bergad, 1983).

By the 1830s, Puerto Rico was beginning to undergo a significant socio-economic transformation fueled by steady population growth, agricultural expansion, and deeper integration into global trade networks. Continuing a trend that began in the late eighteenth century, the island's population rose approximately 17% from 323,838 in 1830 to over 350,000 by 1833.This demographic growth involved European settlers, enslaved Africans, free people of color, and a rising mixed-race class, reflecting Puerto Rico's layered colonial society (Bergad, 1983; Flinter, 1834).

9. Public Health in Puerto Rico, 1810–1830

Public health services in Puerto Rico at the beginning of the nineteenth century were in a deplorable state, and little improvement occurred during the following decades. In San Juan, municipal sanitation relied almost entirely on the residents themselves. Each household was responsible for sweeping the area in front of its property twice a week, on Wednesdays and Saturdays. Garbage collection was handled by a small group of prisoners under the supervision of an enforcer, who patrolled the city accompanied by an assistant empowered to levy fines of up to two reales against those who failed to fulfill their cleaning obligations. The system was ineffective. As public dissatisfaction grew, the municipal council of San Juan decided in 1812 to auction the garbage collection service to a private contractor. Don Manuel Padilla won the bid, but privatization brought no real improvement. By 1814, complaints about uncollected refuse and unsanitary streets persisted, and the capital remained in poor hygienic condition (Cruz Monclova, 1970).

Conditions across the rest of the island were equally dismal. Pedro Tomás de Cordova, reported that Puerto Rico had only three hospitals . . . two in San Juan and one in San Germán. Only a single physician on the island held a recognized medical degree, obtained from the University of Caracas, and he was assisted mainly by a handful of military surgeons who treated both soldiers and civilians. The remaining medical practitioners were referred to as "curiosos," or self-taught healers, who lacked formal training but were tolerated because of the severe shortage of qualified personnel (Córdova, 1968).

Outside San Juan and a few other principal towns, there were no hospitals or organized health centers of any kind. By the early 1830s, the island counted only fifty-three doctors and forty-five medical practitioners, unevenly distributed across Puerto Rico. Nine practiced in the capital, five in Mayagüez, four in Ponce, three each in Aguada, Aguadilla, and Caguas, two each in Cabo Rojo, Humacao, Fajardo, Cayey, and Sabana Grande, and a single doctor served several smaller towns. Most municipalities had none. This shortage reflected both limited opportunities for medical education and the economic constraints that discouraged

physicians from establishing practices outside urban centers (Cruz Monclova, 1970).

Even by early 1840s, health services remained scarce and inadequate. Some larger towns had managed to attract more than two physicians, yet many others—such as Yauco, Peñuelas, Patillas, Guayanilla, Loíza, and Hatillo—still had no doctor at all. Preventive health measures, sanitation, and medical infrastructure lagged far behind the needs of the population. The combination of municipal neglect, insufficient public funding, and reliance on untrained healers left much of the island vulnerable to epidemics and high mortality rates well into the mid-nineteenth century (Cruz Monclova, 1970).

These conditions illustrate the chronic weakness of Puerto Rico's early public health system under Spanish colonial administration. The state delegated sanitation duties to individuals, penalized non-compliance, and resorted to privatization when those measures failed, yet the underlying problem, the absence of a coordinated, institutional approach to public health, remained unresolved for decades.

Public Health Governance in Colonial Puerto Rico. As early as the sixteenth century, smallpox and measles outbreaks prompted the Spanish Crown to implement health and sanitation measures in its American territories. Regulations required that settlements be established in healthy locations, with hospitals for non-contagious patients located near churches and separate facilities designated for contagious cases (Arana Soto, 1978).

Sanitary measures in colonial Puerto Rico followed a hierarchical chain of command that began with the Spanish Crown and extended through the Captain-General, the Superior Borad of Health (located in San Juan), the *cabildos*, and finally local municipal Boards of Health (García de Ochoa, 1982). Municipal Boards of Health authority was often limited by governors who had final control. Local officials recommended measures like hospitals construction projects, mandating vaccinations, and quarantine enforcement, but these had to pass through city mayors to the General-Governor, who frequently rejected them. The administrative structure reflected ongoing conflict between public health efforts and economic concerns, as governors prioritized avoiding commercial disruption over disease prevention due to fears of financial loss from closed ports (Torres Hoyos, 2024).

The fear of epidemics led to the creation of Puerto Rico's first institutions dedicated to public health policy. In 1813, the Board of Health was established to centralize the administration of health matters and to impose new regulations on anything that could threaten public wellbeing (Arana Soto, 1978).

The Board consisted of three physicians. Their duties included inspecting ships entering port, promoting vaccination among residents, and controlling diseases and epidemics across the island. Because outbreaks were frequent, municipal councils began to discuss hygiene and prevention, leading to the formation of Local Health Boards in every town. Each board included the mayor, the parish priest, the town physician, and two respected residents. They mirrored the functions of the central board and were required to submit monthly reports on local health conditions.

Municipal councils gathered this information through neighborhood physicians, who, as

public officials, were responsible for visiting the poor, keeping records of common illnesses, and reporting births, deaths, and their causes. Physicians also had to notify authorities immediately of any wounded individuals they treated, as well as any appearance of infectious diseases.

The Board of Health also had authority to implement island-wide emergency measures. It organized sanitary cordons, disinfected ships, and conducted public sanitation campaigns. The Board could impose quarantines when required.

Inspection fees were established as early as 1812: ships were charged three pesos; the surgeon received twelve pesos for inspecting the launch; the notary earned one peso; and the council member received two pesos for slave ships but nothing for passenger vessels, as this was considered a public duty rotated among all members.

The Captain-General maintained public health and colonial administration through decrees called *Bandos de Policía y Buen Gobierno* (*Bandos*), which needed approval from Spain's Overseas Consultative Board. Between 1789 and 1849, *Bandos* mainly addressed public sanitation and safety, hygiene, and political order. Health policies were set by the Captain-General and enforced by local authorities and Boards of Health (Cortés Zavala, 2009).

Governor Miguel de la Torre served from 1823 to 1837, making his tenure one of the longest for any colonial governor in Puerto Rico. His administration occurred shortly after most of Latin America had gained its independence from Spain. Fearing the spread of similar revolutionary ideas, de la Torre implemented a strict, authoritarian regime designed to suppress any form of political dissent. He is perhaps best remembered for his slogan, "*baile, botella y baraja* (dancing, drinking, and cards)", a cornerstone of his approach to governance: keeping the population distracted with festivals, alcohol, and gambling to prevent political unrest (Brau, 1904).

His *Bando* from 1824 (updated in 1832) established thorough guidelines to improve public health and medical services (de la Torre, 1915). People had to keep their streets clean and manage stray animals, while doctors were put in charge of caring for the sick and poor. A new role—a comptroller for the Military Hospital—was also created to report directly to the governor, signaling a move toward a more organized system for managing medical institutions. Nevertheless, the health system was severely strained: in 1824, only 98 trained medical professionals served a population exceeding 220,000, a disparity that worsened as the population grew (Cruz Monclova, 1970). De la Torre's *Bando* also implemented food safety regulations to ensure hygienic handling and inspection, a necessity given the challenges of transporting goods from rural to urban areas (Cortés Zavala, 2009).

On 14 January 1837, de la Torre transferred command to Francisco Moreda Prieto, who was replaced by Miguel López Baños on 15 December. As governor, López Baños issued an 1838 ordinance that placed municipal councils in charge of market sanitation and food safety, required physicians to report disease outbreaks, prioritized rabies prevention, formalized smallpox vaccination programs, ensured a steady supply of medicines from pharmacists, and

made municipalities responsible for maintaining clean water.

Together, the health policies enacted under de la Torre and López Baños marked a turning point toward state-led public health governance in Puerto Rico. Though limited by scarce medical infrastructure and personnel, their ordinances laid a foundation for modern public health practices, focusing on sanitation, disease prevention, food safety, and regulatory oversight.

The Quarantine Approach. Despite these legislative efforts, quarantine remained the primary method used to prevent cholera from reaching the island, serving as a critical public health measure to contain the disease, especially at a time when the mechanisms of transmission were little understood (Schiappacasse, 2016). Originating in fourteenth-century Venice, where ships were held for 40 days to prevent plague, quarantine became a common practice in ports worldwide (Kelly, 2005).

Quarantines were strictly enforced in busy ports to contain the spread of cholera. In France, Toulon became the focus of concern after the disease struck the crew of the 60-gun frigate *Melpomène,* commissioned in 1830. The Navy Ministry dispatched French physician François Magendie to oversee the response. Local doctors, desperate to halt transmission, even suggested sinking the vessel—a proposal ultimately set aside. As one account reported: "Renowned Mr. [François] Magendie, professor of medicine in Paris . . . He is heading to Toulon, commissioned by the Minister of the Navy to coordinate with the port's health superintendent regarding the measures to be taken as a result of the cholera affecting the crew of the *Melpomene*. It has already been mentioned that one of the measures suggested by the doctors in Toulon to eradicate the disease was to sink the frigate; however, the Minister of the Navy has ordered the suspension of the execution of that measure (*Gaceta*, 31 October 1833)." Ultimately, in October 1833, the *Melpomène*, was decommissioned.

Meanwhile, in Malta, the British colonial government responded to the outbreak with strict quarantines and new sanitation policies, that in turn prompted neighboring regions like Corsica to impose similar controls (*Gaceta*, 14 September 1837).

Likewise, Italy employed similar measures, the governor of Livorno enforced a six-day quarantine for ships arriving from Malta and ordered the disinfection and airing out of all belongings from infected ports (*Gaceta*, 14 September 1837).

In Spain, initial steps to relax quarantine restrictions were followed by increased caution as outbreaks intensified. This adjustment aligned with a wider international public health approach that included maritime quarantine, disinfection protocols, and early disease monitoring. Ships arriving with passengers or cargo were subject to sanitary checks and could be placed in quarantine. However, historical documentation offers limited information regarding the conditions at quarantine stations, the care of those who were ill, or the number of vessels held.

Puerto Rico's governors managed maritime health without formal regulations, leading to inconsistent enforcement. Ships had to be inspected by a physician and present a "bill of health" from their last port, issued by a Spanish consular official. Consuls reported disease

outbreaks, and quarantine decisions were based on the bill of health, inspection results, and official disease reports from the ship's origin.

On 17 April 1832, a schooner from New York arrived in Ponce, where its entire crew was detained on suspicion of cholera infection after the vessel had called at Havana (Torres Hoyos, 2024). By August, official reports confirmed the disease's presence in Canada, prompting swift precautionary measures in Puerto Rico. That same month, reports described cholera's expansion across North America, particularly in the United States, and these updates quickly reached the Superior Board of Health. On 3 August, the government resolved to keep certain ports open to transatlantic and coastal traffic, while others, though not explicitly named, were effectively closed (Córdova, 1968).

In response, the island's government mandated strict quarantine and thorough fumigation for all arriving vessels. On 29 August 1832, the Superior Board of Health specifically ordered a two-day quarantine for ships arriving from the nearby Danish island of St. Thomas and prohibited bundled goods to ensure effective fumigation. Subsequent reports from both military and civil officials confirmed the island-wide enforcement of these preventive measures (Córdova, 1968).

In August 1833, the mail steamer *Carolina* brought news from Havana confirming a cholera outbreak in Cuba that "already claimed 8,046 lives (*Gaceta,* 18 April 1833)". In response, the Superior Board of Health held an emergency meeting on led by Governor de la Torre.

The vessel was quarantined as a precaution, with all passengers and cargo moved to Isla de Cabras for inspection. The quarantine's length depended on procedure thoroughness. The captain was warned that refusing these measures would result in strict quarantine upon any future return. The ship was ordered to be fumigated, while military units enforced isolation and severe penalties for violations (*Gaceta,* 18 April 1833).

The origins of fumigation as a technology aimed at halting or dissipating epidemics are blurry. Ships were fumigated using various methods aimed at disinfecting their interiors and preventing the spread of disease, despite the limited understanding of disease transmission (Engelmann & Lynteris, 2020).

On 31 August 1832, Governor de la Torre issued a directive detailing the *Method of Fumigating Vessels*. According to these instructions, one was to "take three ounces of powdered common salt and place them in an earthenware bowl or deep dish. Place it over a cauldron or pan full of hot sand and pour two ounces of vitriol oil [sulfuric acid] over the salt, taking care not to inhale the gas that rises in the form of vapor the moment the salt comes into contact with the acid. Once this is done in the ship's hold, close the hatch tightly and leave it closed for six or eight hours, after which the hatch is opened, without anyone entering the hold until three or four hours have passed, during which time the disinfectant gas that has been released from the mixture completely dissipates (Córdova, 1968)."

In May 1833, as cholera continued to spread across the Caribbean, authorities took new action. According to the *Gaceta*, after receiving "reports of an outbreak of Asiatic cholera morbus on the island of Santo Domingo," officials extended their quarantine measures.

Vessels arriving from Santo Domingo were now subject to the same strict protocols already in place for ships arriving from Cuba. Territorial judges were tasked with enforcing these rules, acting promptly on any sign of an epidemic, and notifying the superior government without delay (Arana Soto, 1978).

In response, and aware of the potential danger to the health of Puerto Rico's inhabitants, the local government implemented stricter precautions. All ships arriving from Spanish ports, regardless of whether they carried clean bills of health, were now required to undergo quarantine, due to concerns that they might transport goods originating from infected regions. Upon arrival, these vessels would be subject to inspection for a period determined by the island's health officer, during which onboard fumigations would be performed. In addition, all incoming correspondence would be punctured and soaked in vinegar, in line with standard protocols for mail from affected areas. These measures were issued with the expectation of strict adherence (*Gaceta*, 26 August 1834).

Trade with the United States was likewise subject to similar maritime health restrictions. In July 1835, Governor General de la Torre notified U.S. Consul Sydney Mason that "all ships arriving from the United States must carry bills of health certified by a Spanish consul (United States. Department of State, 1982)." However, by 1 October, Mason was able to report to Secretary of State John Forsyth that quarantine regulations had been lifted for American vessels presenting a clean bill of health.

10. A Mysterious Disease

When cholera struck Europe in 1831, physicians were caught off guard. They struggled even to name the disease, let alone contain it. Among the early suggestions were "cholera asphyxia," "spasmodic cholera," "malignant cholera," "bilious cholera," "convulsive nerve cholera," "hyperanthraxis," and "blue vomit." In the end, the name "cholera" prevailed, though it carried centuries of misleading associations.

Throughout the epidemic, cholera remained a mysterious disease. Little agreement existed regarding its causes or reasons for its spread. Some said it was a general punishment from God, while others claimed that God was rebuking individuals for their sins (e.g., drunkenness, laziness, blasphemy) (Rosenberg, 2009). At a time when germ theory was not yet understood, disease was often interpreted through religious and moral frameworks. Cholera disproportionately struck the poor and urban dwellers, leading some to view it as divine punishment for sin, vice, or social disorder. Religious leaders preached repentance, and public prayers and processions were common responses, reinforcing the belief that only spiritual purification could halt the plague.

As the disease tore through Europe, leaving devastation in its wake, religious leaders seized on the epidemic to warn of divine punishment for moral decay. In response to the deadly epidemic ravaging Havana, "wrecking the greatest havoc among the residents of that Capital—just as it has done in all the territories it has reached", Nicolás Alonso Andrade y San Juan, the Vicar Capitular of the Diocese of Puerto Rico (a Vicar Capitular is a cleric elected by the cathedral

chapter to manage the affairs of a vacant diocese within the Roman Catholic Church, pending the appointment of a new bishop), issued a solemn circular on 18 April 1833.

Believing that cholera could soon reach Puerto Rico and devastate the island as divine punishment for its widespread vice and moral disorder, he called for collective repentance and prayer "due to the excesses, vices, and public and private scandals we have observed."

The "remedy to these pernicious [sins] is to return to the Lord of Mercies." Thus, the circular instructed all parish priests and the faithful to prepare through confession and communion, and hold three days of public rogations with Masses, processions, and the chanting of the Litanies of the Saints (in San Juan from 24 to 26 April). These observances aimed to seek divine mercy for Puerto Rico and support Havana's suffering people (Alonso Andrade y San Juan, 1925).

That cholera was believed to be sent by the Lord as punishment for individual and collective sins did not mean it was impossible, irreverent, or undesirable to seek explanations for the disease or attempt to prevent its spread. However, given the state of medical knowledge, little could be done to fight cholera effectively in the 1830s. Some of many treatments attempted included blood-letting, laudanum (and other forms of opium), and saline solutions (oral and intravenous).

11. Cholera Theories and Its Treatment

Many observers linked poverty with disease, noting that cholera hit working-class urban slums hardest. Some believed contaminated bedding and clothing spread the illness. Early sanitation efforts were limited and largely ineffective, with major water and sewage reforms coming later in the century.

Physicians could not agree on what cholera was, where it came from, or whom it targeted. Some claimed it punished the immoral; others said it struck at random. Treatments were improvised and inconsistent. The world had met a new and terrifying adversary, and science had few answers.

According to miasma theory, diseases like cholera, chlamydia, and the Black Death were believed to result from "bad air" caused by decaying matter and poor sanitation (Edelstein & Edelstein, 1975). The term malaria comes from this idea. Instructions advised frequent ventilation and avoidance of crowded or damp spaces, as fresh air was thought to prevent illness, especially during cholera outbreaks (Waller, 2002).

In April 1833, the *Gaceta* disseminated a set of public health directives titled "INSTRUCTIONS regarding Cholera Morbus," that had been issued by the French government (*Gaceta*, 27 April 1833). These guidelines reflect early nineteenth century etiological theories, emphasizing environmental, dietary, and behavioral prophylaxis.

The instructions cautioned against practices thought to degrade indoor air quality, such as drying laundry indoors or leaving windows open at night. Such conditions, resulting in damp and cold air, were believed to foster an environment conducive to cholera. Prophylactic measures centered on a prescribed regimen of diet and lifestyle. A moderate diet of cooked,

digestible foods was recommended, while a range of items, including raw vegetables, rich pastries, salted meats, and excessive fruit, was proscribed. The consumption of spirits was deemed hazardous, particularly on an empty stomach; however, quality red wine and herbal infusions were permitted in moderation. Hydration with clean, filtered water, occasionally treated with vinegar or herbs, was considered fundamental. Furthermore, regular physical exercise was encouraged, provided it did not lead to exhaustion or sleep deprivation.

Therapeutic intervention was to happen immediately upon the presentation of initial symptoms, such as fatigue, dizziness, chills, and diarrhea. The central therapeutic goal was to restore the patient's "vital heat." To achieve this, a variety of methods were outlined: enveloping the patient in pre-warmed woolen blankets, applying heated irons over the blankets to the body's surface (with prolonged application to the stomach, underarms, and heart), vigorous friction with camphorated liniments, mustard plasters, and steam inhalation treatments using vinegar and hot stones. Internal treatments consisted of hot infusions and small doses of remedies containing ammonia and camphor. Finally, the directives issued a public warning against fraudulent cures and stressed that convalescing patients must adhere to all preventive guidelines to avoid relapse.

Other similar instructions on how to prevent cholera were sold to the public: "At this print shop office, a small booklet containing the brief instructions on the treatment of cholera morbus—sent from Seville by several physicians to the Academy of Medicine of Cádiz—is available for sale. Price: one real (*Gaceta,* 28 December 1833)."

Opposing the miasmatic view was the contagionist school, that held that disease spread directly from person to person (Ackerknecht, 1948). Although contagionists could not yet explain the precise mechanisms of transmission, they argued forcibly in favor of quarantine and isolation measures to limit spread. While both theories captured elements of truth, neither provided a complete explanation for how diseases like cholera were transmitted. Still, these views profoundly shaped public health responses across the globe.

For example, in Imperial Russia, the contagionist model prevailed, prompting the government to enforce strict quarantines and border controls. European observers often criticized these policies as repressive and ineffective (Evans, 1988). By contrast, Britain and France largely embraced the miasmatic theory, focusing their efforts on improving urban hygiene and air quality.

While in France, physician and statistician René Villermé connected cholera's spread to poverty and poor living conditions, advocating social reform as a preventative measure (Julia & Valleron, 2011).

Yet the miasma belief in bad air dominated the public imagination. This is reflected in an August 1837 issue of the *Gaceta*, quoting from the French newspaper *Semaphore***,** that in Marseille, "the change in temperature, that should lead to shortening the reigning [cholera] epidemic, has produced, as was expected, a fatal effect on the sick, and this change is responsible for the rise in deaths that occurred . . . Two days ago, at nine that night loud thunder rumbled, and a storm erupted, that did not last a long time. The following morning

the temperature had cooled, and we promise that once the heat ceases, we will be free of cholera (*Gaceta*, 11 November 1837)."

Another prominent medical figure, François Broussais, physician and professor at the Paris Faculty of Medicine, gained influence through his controversial theory of *physiological medicine*. In his major work *L'Examen des doctrines médicales***,** Broussais argued that all disease originated as irritation in the gastrointestinal tract, that could trigger inflammation in other organs through a sympathetic chain reaction. He prescribed harsh treatments like bloodletting, leeching, and fasting in an attempt to reduce internal inflammation (Broussais, 1832).

Broussais applied these methods extensively during the 1832 cholera outbreak in Paris, insisting that cholera was primarily a gastrointestinal disorder. However, his approach proved disastrous, leading to increased mortality and drawing sharp criticism. The failure of his treatments during the epidemic marked the beginning of his professional decline. In the aftermath of the pandemic, the medical community moved away from his doctrine, turning instead toward more cautious and empirical practices, a shift that signaled a pivotal moment in the development of modern medicine.

Miasmatic theory also played a central role in shaping Spain's early response to cholera. Many Spanish officials and medical authorities subscribed to the belief. This theory significantly influenced the country's public health strategies.

For instance, in August 1833, the Royal Academy of Medicine and Surgery of Cádiz issued cholera-related guidelines emphasizing air purity. As they stated, "Since air is the main agent that surrounds us and contributes so much to our health, the purer the air we breathe, the less exposed we will be to being struck by cholera (Real Academia de Medicina y Cirujía de Cádiz y Provicia, 1833)."

Guided by this belief, public health efforts focused on cleaning streets, removing waste, fumigating homes, and improving ventilation to eliminate bad odors. Although quarantine and isolation measures were also practiced, they were inconsistently applied.

12. Views of Dr. de León

Discussions regarding the origins of cholera reached Puerto Rico as well. Dr. Manuel María de León is believed to have arrived in Puerto Rico at the port of Aguadilla in 1836 aboard the Spanish brig *Joven Merced*, commanded by Don José Juvany. Among the passengers and cargo on this vessel were 22 enslaved prisoners who had revolted and attempted to escape from the neighboring island of Saint Thomas; after being apprehended, they were transported to Puerto Rico for confinement (Cifre de Loubriel, 1964).

Setting up his medical practice in San Juan, several months later, an announcement appeared in the *Gaceta* in February 1837, stating: "Mr. Manuel María de León, dental surgeon and midwife, recently arrived from the Peninsula, has the honor of offering his professional services in both fields to this esteemed community, to whom he is eager to contribute his knowledge. He has established his residence at number 64, Luna Street." The ad describes his

experience, “The expertise Mr. de León brings—gained over twenty-five years of continuous service in military hospitals during wartime—allows him to confidently practice his professions. In these present circumstances, he offers a modest but effective and selfless assistance, inspired by the patriotism that has led him to come to this Island (*Gaceta*, 4 February 1837; *Gaceta*, 9 February 1837; *Gaceta*, 18 February).”

On 3 March 1838, the *Gaceta* published a lengthy article authored by Dr. de León expressing his views on cholera (*Gaceta*, 3 March 1838). He begins by pointing out the importance of properly understanding and treating cholera morbus. “I have seen and read the prognoses of Doctor Broussais, on cholera morbus; and given the great importance, today, of establishing the true diagnostic, prognostic, prophylactic and curative treatment of this cruel disease and establishing among the physicians of this city the unity or conformity of opinions so useful for proceeding correctly in its cure, I have considered it my duty to stir the zeal of my fellow professors, presenting them with this sole objective the resolution of the following problem.

De León highlights the need for accurate diagnosis, prognosis, and effective treatment strategies, emphasizing the value of consensus among physicians. The central concern is whether the current epidemic is truly cholera as historically defined, or a distinct, form of typhus. He further questions whether the disease is localized in the digestive system or a systemic condition affecting the entire body, potentially caused by a septic agent that disrupts vital functions.

De Leon continues to argue that the need to correctly identifying the disease is essential to help determine appropriate hygienic and treatment measures. Mislabeling the disease can lead to it being misclassified, that in turn results in the disease being incorrectly treated by physicians. Thus, he stressed the need for prompt intervention, especially in acute cases, to combat the destructive effects of the septic agent.

The author notes the diseases rapid spread, severity, and destructive impact, drawing comparisons to historical epidemics like the plague of Athens. He observes that medical scholars can find clear similarities between past outbreaks and present-day cholera. De Leon describes the disease as highly acute, malignant, and often fatal, with resistance to direct treatments. He also highlights the persistent uncertainty around its cause, key factors, and primary site, and critiques the limited insights from autopsy results.

De León contrasts two opposing treatment philosophies—the antiphlogistic approach and the stimulating regimen—and notes that each camp appears biased in claiming therapeutic success. For example, he observes that “the Broussaisists, seeing irritations and robustness in almost all the affections that cholera itself brings with it, recommend as the exclusive method the very thin diet, cold drinks, ice, emollient dressings, bleedings, bleeding, baths”. He then turns to other contemporary theories that ascribe cholera to imbalances in bodily fluids, prescribing emetics, purgatives, and similar interventions. De León expresses skepticism toward these methods, questioning the validity of claims about their efficacy. He argues that because the true origin and nature of cholera morbus remain uncertain, any therapy not grounded in the principles of analogy and observation, those foundational to Hippocratic medicine, is inherently unsound.

Finally, de León underscores the importance of systematically comparing the symptomatology of cholera morbus with both typhus and the local antispasmodic form of cholera. Only through such comparison, he insists, can physicians identify treatment strategies that are both effective and philosophically sound. He maintains that the safest curative methods are those confirmed by historical experience and firmly rooted in Hippocratic principles of analogy and observation.

De León informs his readers of a forthcoming article containing his own assessment of the disease, although there is no evidence of the article being published.

In his letter, Dr. de León engaged directly with the competing medical theories of his time to clarify the nature of cholera. He questioned whether the epidemic then spreading through Europe and the Americas was a malignant and contagious form of the classical *cholera morbus* described since Hippocrates, or a distinct pestilential typhus characterized by systemic infection. De León rejected dogmatic adherence to any single school, whether the Broussaisists, who treated the disease through bleeding, cold drinks, and antiphlogistic regimens, or the German vitalists, who emphasized stimulation through heat, tonics, and caustics. He also dismissed other speculative doctrines that attributed disease to imbalances in bodily fluids or chemical alterations. Instead, he called for an empirical, Hippocratic approach grounded in careful observation and analogy, arguing that only by determining the true seat and nature of the illness could physicians select an effective treatment. His letter reflects an early scientific skepticism and a demand for diagnostic precision in the face of theoretical confusion surrounding epidemic disease.

13. Conclusion

By the mid-nineteenth century, cholera's recurring waves underscored its status as a global scourge (Rosenberg, 2009). The second pandemic spared Puerto Rico a direct blow, but only through an unusually vigilant colonial response that fused information control, maritime quarantine, and pre-bacteriological sanitary measures. When the third pandemic reached the island in 1855, it claimed 25,820 lives before subsiding in December 1856, tragic proof that geographic isolation and preparedness could not guarantee lasting immunity (Coll y Toste, 1918; Vega Lugo, 2023).

During the early nineteenth century, the second cholera pandemic carved a devastating path across the globe, leaving devastation in its wake. Hungary and France each lost more than 100,000 people. England lost another 55,000. Churches became hospitals, and cemeteries overflowed. A report from Paris described "the dead carried to their burial places in large wagons," as hearses could no longer meet demand. Cholera's destruction was not just physical but social. It spread panic, distrust, and superstition. Many believed physicians and officials were conspiring against the poor. Riots broke out in cities across Europe.

These events were a stark and immediate warning to Puerto Rico's colonial government. The island's experience, or rather its lack thereof, stands as a notable chapter in the history of public health.

While the pandemic overwhelmed nations from India to the Americas, including the nearby

island of Cuba, Puerto Rico managed to avert a major outbreak. This success wasn't merely a matter of geographic fortune; it was the result of a vigilant public health response, meticulously informed by the grim international news reported in the pages of the *Gaceta*.

The detailed accounts in the *Gaceta*, chronicling the death tolls in Marseille, the chaos in Naples, and the catastrophic spread across Spain and the Americas, transformed a far-off threat into an impending crisis. This constant flow of information fueled a prevention strategy deeply rooted in the era's understanding of disease. While officials didn't know about cholera, their actions were guided by historically established prevention principles.

The strict enforcement of maritime quarantines and the fumigation of ships, were the era's frontline defenses. Unlike in Spain, where economic fears led to the suppression of news, Puerto Rican authorities, led by the Captain-General, leveraged global awareness to justify and implement stringent, albeit disruptive, public health measures.

Puerto Rico's experience during the second pandemic illustrates the workings of what Michel Foucault described as biopower, the state's deliberate management of life, health, and productivity. This modern form of power, which developed in the eighteenth and nineteenth centuries, marked a shift away from the sovereign's authority over death toward an imperative to sustain life while allowing death to occur under managed conditions (Foucault, 2007).

The colonial administration's success was not merely a matter of luck; it reflected a coherent apparatus of governance in which the Captain-General, local health boards, and the *Gaceta* together enforced and legitimized intrusive public health measures. In this system, the *Gaceta* functioned less as a neutral newspaper than as an instrument of governmentality, producing a steady discourse of fear and urgency that justified extraordinary interventions in everyday life.

Charles Chauncy Emerson, brother of Ralph Waldo Emerson, visited Puerto Rico in 1831–1832 and later shared his experiences at the Concord Lyceum. He notably criticized the island's sole newspaper, the *Gaceta*, calling it outdated and limited to excerpts from traditional geography and history texts, suggesting it gave the impression that little had changed since earlier generations: "Only a single newspaper is published on the island, and that is a small quarto sheet containing extracts from orthodox works on geography and history—so much so that, judging by its contents, one might believe the world has remained asleep since the days of our grandparents (Gatell, 1959)."

This journalistic inertia became even more evident during moments of global crisis, such as the second cholera pandemic. As cholera spread across Europe and into the Americas, claiming tens of thousands of lives and inciting widespread panic, the *Gaceta*'s coverage remained largely perfunctory and devoid of critical context. Rather than offering investigative reporting, medical insights, or analysis of public health responses elsewhere, the newspaper defaulted to reprinting sanitized official bulletins and foreign summaries with little editorial scrutiny. This passive relay of information, stripped of urgency or local relevance, reflected the *Gaceta*'s broader failure to function as an engaged public forum during a time when informed discourse could have served as a vital tool in shaping public awareness and guiding civic response.

Ultimately, Puerto Rico's avoidance of the second pandemic was a testament to how information could drive effective, pre-bacteriological governance. The island's response demonstrated a functioning chain of command, from the Crown's directives to the local health boards' implementation. By heeding the lessons from the tragedies unfolding abroad, Puerto Rico successfully defended its shores, offering a compelling case study of how proactive, state-level intervention, even when based on imperfect science, could stave off a catastrophe that defined a generation.

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