Chapter 1: Sanitation in the time of Cholera: The Creation of the Dirección General de Beneficencia y Sanidad, 1830-1850.

Dr. Fernando Magan, one of the physicians assigned to the parroquia de San Ildefonso, located north-west of the Alhambra, recorded the arrival, discharge, and prescribed treatment of eight patients on August 5, 1860.\(^1\) Out of the eight patients, Antonia Canvilla, a fifty-seven-year-old widow “de la alhóndiga,” a public space designated for the sale and purchase of wheat, and two other patients were “curada(o) de la enfermedad de colera” and released from care.\(^2\) While two of the youngest patients survived the month of August, Juan Garcia and Jacobo Orellana suffered very different but typical fates of this third outbreak of cholera in Spain.\(^3\) Garcia was cured and released after five days of care, while Orellana was treated for twenty-four hours before succumbing to the disease.\(^4\) The disparity in the results from the same treatment against cholera was attributed to any number of reasons and Spanish physicians spent most of the nineteenth century trying to pinpoint the reasons for this difference. Over the course of the month of August, Dr. Magan along with the other physicians at San Ildefonso, thirteen other parroquias in Granada, and around the Iberian Peninsula, meticulously recorded the name, address, age, and occupation of all the patients that came under their care. They compiled this information and submitted it to the municipal Junta de Sanidad. The Junta de Sanidad then gathered these reports

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\(^1\) A parroquia is a parish, or neighborhood governed by both the church and the state.

\(^2\) “Ildefonso,” Sanidad, Granada, August 5, 1860, from the Archivo Municipal Granada. It is unknown how long each patient was in care, but it was Dr. Magan who discharged and declared them free of illness.

\(^3\) The patients treated ranged in ages, gender, and occupation. The two youngest patients, for example, were Emilia, age four, and Incarnacion, age five.

\(^4\) “Ildefonso,” Sanidad, Granada, from the Archivo Municipal de Granada. These patient records are small postcard sized documents. They included the name, marital status, age, occupation, name of the temporary epidemic hospital, condition of patient admitted, name of physician, and the date they were admitted, declared deceased, or released from care.
along with other demographic information and submitted the report to the Dirección General de Beneficencia y Sanidad, in Madrid, as part of an on-going effort to prevent cholera from consuming Spain.

Cholera arrived on the European continent for the first time in the 1830s and quickly became one of the largest health concerns of the century. Although its reign was short-lived compared to the plague and smallpox that preceded it, like other high-impact infectious diseases its global scale, morbidity and impact shaped medical and political communities alike. Cholera appeared on the Iberian Peninsula as an agent of change disrupting social, political and economic life. In many ways, cholera was also a clear marker of modernization since it benefited greatly from port cities, urbanization, and new transportation modes. By exploring how this disease functioned, the responses by doctors, politicians, civil servants, and—when possible—ordinary Spaniards, this chapter will demonstrate the ways Spain mobilized to combat and control illness. It will consider the public health strategies set in place prior to this outbreak and how cholera elicited new responses. It will also look closely at how doctors-cum-politicians adapted and transformed medical debates into legislation that directly changed the Spanish state. Lastly, it will explore the transition from a regionalized, almost fragmented, public health bureaucracy to the creation of the Dirección General de Beneficencia y Sanidad that came to dominate all matters related to health, sanitation, and hygiene for the rest of the nineteenth century until the

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outbreak of the Spanish Influenza in 1918. Although the Dirección General itself does not disappear, its role changed as other institutions emerged to address different health concerns besides epidemic outbreaks.⁶

Today, cholera is considered a disease of developing semi-urban spaces and thrives due to its means of transmission.⁷ Cholera, *V. cholerae*, is an acute diarrheal infection caused by the ingestion of contaminated food or water.⁸ This bacterial disease can infect both adults and children and is extremely virulent. It can take between twelve hours to five days for the first symptoms to present themselves. The main symptoms of cholera are acute diarrhea, vomiting, and cramps.⁹ But it is not the vomiting or diarrhea that leads to death, the human body has special defenses to protect against foreign contaminants. Saliva in the mouth and stomach acid help slow down the disease and the virulence is dependent on how much of the contaminant one has ingested. In addition, the general condition of the individual is also an important factor. If the immune system is already weak, the individual will be much more susceptible. Once the bacterium enters the intestine, the body is usually capable of killing the microbe and it does. However, as the bacterium dies it releases a powerful poison that causes the intestine to work in reverse. Instead of extracting nutrients from food and passing it through the intestinal wall, it begins to extract fluid from the blood stream and expels it through the digestive tract. Liters of

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⁶ An example of such institutions was Dirección General de Sanidad Comisión para el Saneamiento de Comarcas Palúdicas (This intuition was specifically created to treat malaria in children. Chapter five of this dissertation will explore concerns over children’s health at the end of the nineteenth century), Instituto de Sueroterapia, Vacunación y Bacteriología de Alfonso XIII, and Instituto Nacional de Higiene de Alfonso XIII.


fluid can be expelled in a matter of hours and the blood can lose much of its plasma. In extreme cases, patients go into hypovolemic shock before dying. Transmission is linked directly to lack of access to clean water and improper disposal of waste. The absence of proper sanitation practices like sterilization, sewage control, and water purification allows cholera to emerge in unexpected places. Cholera is easily treated with oral rehydration solution and in severe cases intravenous fluids. But, for nineteenth century physicians, cholera’s epidemiological character was difficult to treat, diagnose, and understand. In 1883, Robert Koch identified the bacterium associated with the disease but treatment and information about the contaminant remained unknown until the twentieth century.

Scholars of nineteenth century Spain have produced a complex discussion on state building that had previously emphasized failures and instability. This approach came out of two distinct concerns among historians. The first was to understand the failed liberal revolutions in Spain. The second was to explore the modernization and economic development of the Spanish government. While this chapter also grapples with some of these questions, I reconsider debates about state building that have traditionally centered around the military in Spain. Although earlier studies helped consider the role that the military had in politics and how politicians utilized the barracks to implement political change, pronunciamientos, these studies do not consider how disease and health also affected political change. In addition, concerns regarding

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10 Ibid.

military health are also part of larger discussions of health and sanitation on the Peninsula. In chapter 2, I will discuss the Sanitation Code of 1855. This Code includes specific sanctions for the military and the Dirección General produced and enforced regulations for the military as well. The military is particularly important in conceiving of disease on the peninsula since they were used to secure quarantines during epidemic outbreaks, and Spain was involved in three military conflicts, also known as the Carlist Wars from 1833-1876. Coincidently many of the outbreaks of cholera also correlated with Carlist War years. As a result, not only is maintaining the military healthy key, but specific sanitary spaces emerge to address military health concerns.¹²

My second intervention comes from analyzing the role that cholera had during and after the first outbreak in the 1830s. Although there are several studies that discuss the first wave of cholera, there were a total of six pandemics in the nineteenth century and each of these consisted of several waves. As a result, Spain and most of Europe was never completely cholera-free for the remainder of the nineteenth century. My aim here is to explore the tactics set in place prior to, how they functioned during, and the changes that were implemented after the outbreak. By combining existing histories of sanitation with primary sources, I will examine how the regions initially responded to cholera. While there are several regional studies analyzing cholera, there is no unified work exploring the impact this disease had on the Iberian Peninsula.¹³ Since moments

¹² Balnearios, spas, emerge as an important space of health and sanitation in the nineteenth century. New technologies, like the hydro pump, and the popularity of hydrotherapy made spas popular sanitation spaces. Specific spas emerged in Spain to address military health concerns. Spas that appeared in military manuals tended to center on cures for syphilis.

¹³ There has been quite a bit written about cholera in Granada, Spain and other regions. For studies on Granada please see: Esteban Rodríguez-Ocaña, El colera de 1834 en Granada: Enfermedad catastrófica y crisis social, (Granada: University of Granada Editorial,1983); Paloma Vega, Ruiz, El cólera morbo en Granada según documentación de la Real Academia de Medicina y Cirugía de Cadiz, (Granada: Universidad de Granada, 2000); Cholera, Ed by Dhiman Barua and William B. Greenough III, (New York: Plenum Publishing Corporation, 1992).
of epidemic crisis strain state and provincial control, epidemics managed incorrectly challenged the political infrastructure and the perceived stability of the state.\textsuperscript{14} Although illness existed in Europe and elsewhere, high impact infectious diseases were experienced differently than other illnesses and gave rise to distinctive fears and anxieties.\textsuperscript{15} While discussions regarding sanitation existed prior to this outbreak and two institutions were created to address these concerns, cholera’s specific character required involvement at a provincial, municipal, and state level that brought doctors, politicians, and Spaniards into contact in order to combat the illness. Yet, unable to stop the disease from spreading throughout the Peninsula, the Dirección General was created and began the sanitary enterprise that characterized the rest of the nineteenth century. Its emphasis combined a concern over epidemic outbreaks and to create and disseminate sanitary information.


New Pandemics and the Transformation of Europe

Cholera benefited greatly from the social and economic changes of nineteenth-century Europe. First, cholera was a new disease to the European continent. Prior to the 1830s, cholera was contained in the Indian subcontinent, the Ganges Delta. The First Asiatic Cholera Pandemic began in Calcutta, which was under British control, in 1816. This outbreak reached Japan, the Asian mainland, Persian Gulf, and penetrated Iran, Anatolia, and the Caspian shores. While this pandemic did not reach Spain, it did appear in the eastern Mediterranean coast and Russia as a result of the wars against Persia, from 1826-1828. Second, like other epidemic diseases, cholera was opportunistic and the transportation revolution that saw the introduction of the

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16 This table outlines the six cholera pandemics that occurred in the nineteenth century. Each pandemic outbreak consists of several waves of the disease. The seventh pandemic bypassed Europe and only affected Asia, Africa, and Latin America.


steamship, railroad, and later, in 1859, the Suez Canal helped cholera spread to areas where it had not existed before.\(^\text{19}\) Due to all this movement, as well as migration to the cities, urbanization and overcrowding increased the likelihood of cholera appearing as sanitation conditions worsened. As port cities grew and the building of railroads connected more of Europe, cholera traveled undetected as infected people reached new areas faster than symptoms appeared.

Third, the revolutions and instability of the nineteenth century also aided cholera in its spread; people scattered just as infrastructure broke down. Just as the Russian wars against Persia helped the spread of cholera, the revolutionary wave in the 1840s also resulted in the spread of disease into Italy, France, Germany, Belgium, and other places.\(^\text{20}\) However not only were revolutions destabilizing the continent, but the threat of disease was causing further chaos. Cholera riots broke out in Russia, Great Britain, Naples, France, and Germany as anti-choleric measures were adopted and the threat of disease resulted in scapegoating, fear, and panic.\(^\text{21}\) Although the anti-

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\(^\text{19}\) The Sixth Pandemic-1923 bypassed Europe almost entirely but caused high death tolls in Latin America.


\(^\text{21}\) Theodore H. Freidgut, “Labor Violence and Regime Brutality in Tsarist Russia: The luzovka Cholera Riots of 1892,” in *Slavic Review*. Vol 46, No. 2. (Summer 1987), 245-265. Freidgut argues in his piece that cholera riots were because of anti-cholera measures taken by the tsarist government. These riots were an example of a class consciousness and mistrust of other sectors of society. These revolts occurred not just under tsarist Russia against government officials, doctors, and functionaries but Socialist Revolutionaries, Anarchist, and Zionists as well. Sean Burrell and Geoffrey Gill, “The Liverpool Cholera Epidemic of 1832 and Anatomical Dissection-Medical Mistrust and Civil Unrest,” in *Journal of the History of Medicine and Allied Sciences*, Vol 60, issue 4 (October 2005), 478-497. While other towns in Britain experienced similar cholera riots, the largest occurred in Liverpool. These riots were directed at hospitals and doctors. The riots in these spaces were responding specifically to fears around body snatching and the use of corpses for dissection. As part of the riot, they chanted “Bring out the Burkers” responding to a case a few years earlier involving Burke and Hare who were murdering people to sell their bodies for dissection. Frank M. Snowden, *Naples in the Time of Cholera, 1884-1911*, (Cambridge: Cambridge University Press, 1995). In order to prevent riots from breakout, Bourbon Crown sent extra grain to control price levels and appease the population. However, as the outbreak developed riots, flight, and panic still emerged. Richard J. Evans, *Death In Hamburg: Society and Politics in the Cholera Years*, (New York: Penguin Books, 2005).
choleric measures did not address the spatial origins of contaminated bodies of water, they served as a visual reminder that an outbreak arrived and would occur.

The dominant medical theories of the nineteenth century, humoralism and the theory of contagion failed to reconcile cholera as an epidemic outbreak or its symptoms. While the humoral theory argued that disease was created by natural causes, not demons or supernatural forces, both health and disease was based on the balance and imbalance of the four humors.\(^{22}\) In order to restore health, the humors need to be rebalanced; however, epidemic outbreaks like cholera challenged this theory. Humoralism could not explain how so many people suffered from the same imbalance at one time. The competing theory of contagion attempted to explain epidemic outbreaks and first emerged to respond to the plague. This theory gets around the issue of the humors by postulating that illness was spread by poisonous chemicals that permeated the environment.\(^{23}\) Therefore, outside sources brought illness to an area, not internal factors, like the humors. However, no consensus was reached within the medical community by the arrival of cholera and often treatments were still based on humoralism, and it was not uncommon to attempt blood letting to treat the illness. In addition, the sudden appearance of this foreign and exotic disease along with its high case fatality, agonizing symptoms, and the inability of physicians to treat it led to additional chaos.

Like the plague before it, cholera was also a bacterial infection.\(^{24}\) If an individual suffered and survived a choleric outbreak, they received no lifelong immunity and could easily be infected once more. Therefore, the constant threat of infection as consistent waves ravaged the


\(^{24}\) Ackerknecht, *History and Geography*, 22-23.
continent put everyone in danger. Also, cholera did not respond to class or climate. Unlike worker’s diseases, like black lung, that required specific conditions and exposure, cholera did not have these limitations. All that was needed to have an outbreak of cholera was the opportunity for contamination. This gave cholera an unlimited reservoir for transmission and infection. *Punch* or also known as *The London Charivari* in 1853 published a poem titled “King Cholera’s Procession.”

25 The poem discussed the spread of cholera along with how it transformed the environment. The author described,

What are my perfumes? Stink and stench
From slaughter-house and sewer;
The oozing gas from opened trench,
The elluvia of the pools that drench
Court-yards impure.

What is my music? Hard-wrung groans
From strong men stricken down;
Women’s and children’s feeble moans,
And the slow death-bell’s muffled tones
In every town.

26 The author was describing two horrifying characteristics of cholera that made it so terrifying. The first was the smell and filth that came with the outbreak. This speaks directly to the presence of filth and excrement on the streets and two of the symptoms of cholera: vomiting and diarrhea. The second stanza addresses the virulence and agonizing pain those infected suffered that neither men, women or children escaped cholera’s reach. This vision of cholera continued into the nineteenth-century and the terror of this disease was also seen in the multiple nicknames it received: cholera morbos, king cholera, and blue plague. In addition, prints and other images

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25 This poem was also reprinted the same year in Granham’s American Monthly Magazine of Literature, Art, and Fashion. [http://ezproxy.library.arizona.edu/login?url=https://search-proquest-com.ezproxy2.library.arizona.edu/docview/124725431?accountid=8360](http://ezproxy.library.arizona.edu/login?url=https://search-proquest-com.ezproxy2.library.arizona.edu/docview/124725431?accountid=8360)

26 *Punch: Or the London Charivari*, volume 25, 1855, 133.
often accompanied cholera announcements. These prints often depicted the cholera outbreak as Death.\textsuperscript{27} Although public health measures existed prior to this outbreak, the sudden appearance of this foreign and exotic disease along with its high case fatality, agonizing symptoms, and the inability of physicians to treat it effectively, made cholera one of the largest threats in the nineteenth century.

**Spain’s Legacy of Sanitation before the Nineteenth Century**

Like the rest of Europe, Spain’s first public health strategies emerged as a response to the Black Plague.\textsuperscript{28} This first appearance of plague so devastated Seville that its own archbishop fled the city along with other nobles. In the following years, Barcelona, Valencia, and the region of Aragon suffered especially high mortality due to the plague.\textsuperscript{29} As plague outbreaks continued to devastate Spain with some outbreaks in the seventeenth century, municipal authorities developed many of the same anti-plague measures as city councils across Europe.\textsuperscript{30} The creation of sanitation boards, quarantines, and new burial regulations all developed with these early outbreaks of plague and were practiced on the Iberian Peninsula. In addition, physicians, surgeons, and apothecaries played an important role in assisting the sanitation boards in managing the outbreaks, but plague measures still faced resistance. Although helpful in its

\textsuperscript{27} Prints like “Death’s Dispensary” by George Pinwell published in *Fun Magazine III* depicted cholera as a skeleton wearing a crown pumping water out for individuals to drink. Another popular print was by John Leech, “A Court for King Cholera,” published in *Punch Magazine*.


\textsuperscript{29} Ibid.

attempt to contain the disease, sanitation boards cared little for individual desires when placing subjects in quarantine.\textsuperscript{31} As a result, important questions on the state’s ability to coerce individuals and the right to resist confinement emerged. In addition, city officials dealt with other issues that came with plague outbreaks. Health measures against the plague disrupted economic activity and social order; sanitation boards had to carefully balance public health needs against economic and social demands. The seventeenth century unfolded, and outbreaks of plague declined in Spain. It would take one important eighteenth-century event to transform entirely sanitation in Spain. In 1720, an outbreak of Plague was reported in Marseille, France and threatened to engulf Europe once more.\textsuperscript{32} Although the outbreak only spread to the surrounding provinces and Marseille recovered quickly from the outbreak, the Spanish crown mobilized to confront this epidemic threat. This mobilization resulted in the model of public health that would be repeated throughout the nineteenth century.

Under Felipe V’s direction, the Junta Suprema de Sanidad was created specifically to deal with the potential threat of an epidemic outbreak, plague.\textsuperscript{33} Therefore the concern of the Junta Suprema de Sanidad was not illness and sanitation universally but specifically epidemic outbreaks. Now the creation of this institution was key since unlike provincial sanitation boards that did exist, their power was limited and varied in size from region to region. In addition, the Junta Suprema was under the direct administration of the Crown. The sanitary measures it produced were applied to all of Peninsula and its colonial holdings. In response to the outbreak,
the Junta Suprema enforced quarantine measures on all vessels arriving from Marseille and neighboring areas. It extended this quarantine and surveillance to maritime and terrestrial travel inside of Spain, as well as created port authorities to oversee this process. The Junta Suprema also focused on implementing regulations to existing public health strategies. There was an effort to regulate temporary epidemic hospitals and standardize quarantine times. Although this attempt at producing specific sanitation norms was met with a variety of success across Spain, the Junta Suprema was the first centralized and unified set of laws addressing sanitation in all of Spain. While the Junta Suprema enforced and regulated sanitation norms, another institution emerged to regulate the medical community, the Real Tribunal de Protomedicato. The creation of these two sanitation institutions was an attempt to regulate two important aspects of sanitation and secure their management under the Spanish crown. This two-pronged approach to solving the sanitation issues of Spain was indicative of the Bourbon style of organization that sought to centralize everything under the Crown’s control. Throughout the eighteenth century, these two institutions formed the core of Spanish medical authorities. However, sanitation organizations were not the only thing that the Crown attempted to control.

In 1789, Godoy removed the Establecimientos asistenciales de la caridad y beneficencia from the direction of the church and instead charity works were under the authority of the Crown. Prior to this charity and beneficence was under the autonomous direction of the church. Although, the crown lacked the resources to take over the administration of charity works,
sanitation reform inevitably included some church reform.\textsuperscript{38} Temporary epidemic hospitals, for example, were often set up in churches or monasteries. Although the nineteenth century ushered a period of considerable change both politically and regarding its sanitation project, the attitudes and practices that emerged were key in shaping not just the future role of physicians in the sanitation project, but also in bureaucratic scope. In addition to the creation of these two institutions, Spain also engaged in large projects of public health and sought to expand the existing institutions. The Junta Suprema managed epidemic outbreaks while the \textit{Protomedicato} oversaw the medical professionals and secured their training.\textsuperscript{39} They negotiated sanitation concerns and created a space for other inquiries into \textit{salud publica}, public health, to take root.

Apart from the creation of these two institutions, Spain engaged in preventative health project that extended beyond the peninsula and into the Empire. It was only until 1847 after Spain had suffered through two pandemics of cholera and various waves that a new system of sanitation would replace this one.

\textbf{Sanitation Projects and the Beginnings of Sanitation Debates}

In 1803, Carlos IV issued a royal decree for the Expedicion Filantropica de la Vacuna, also known as the Balmis-Salvany Expedition.\textsuperscript{40} Their mission was to bring the smallpox

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\item \textsuperscript{38} Although church involvement is not a central part of this chapter, the church was important in managing epidemic disease.
\item \textsuperscript{39} Maria Soledad Campos Diez, \textit{El Real Tribuanl Del Protomedicato Castellano: Siglos XIV-XIX}, (Cuenca: Ediciones de la Universidad de Castilla-La Mancha, 1999), 329. This style of medical training would also be mirrored in the colonies. As well as extending its control beyond medical professionals to include surgeons, nurses, and pharmacist later in the nineteenth century.
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inoculation to the colonies and address the various smallpox outbreaks in Mexico, Guatemala, Peru and the Philippines.\textsuperscript{41} The Crown was not alone in this massive effort as it also relied on the work of Spanish physicians to combat smallpox. In addition, new techniques of inoculation and later vaccination brought physicians directly into new medical debates. These medical debates specifically pushed for consensus, action and a larger connection to the public. The first concern for Spanish doctors in the early nineteenth century was to settle the debate over vaccination.

Although inoculation had already began in Spain after the smallpox epidemics in the late 1700s, inoculation was sporadic and only done in some of the regions.\textsuperscript{42} Furthermore, vaccination or variolation still presented several clinical issues that in the mid-1830s caused debates and anti-vaccination campaigns in the rest of Europe.\textsuperscript{43} Settling the debate over vaccination was an important part in establishing a policy regarding the management of disease in the early nineteenth century. Dr. Vicente Martinez, in 1802, published Tratado Historico Practico de la Vacuna by first asking for consensus regarding vaccination within his field. He wrote,

Ha llegado el tiempo en que los Médicos Españoles, sin necesidad de incurrir en la despreciable nota de plagiarios, y sin de representar el papel de Traductores, puedan ilustrar al público, y consolidar su opinión sobre el bello e interesante descubrimiento Británico de la Vacuna, ofreciéndole observaciones, hechos, y experiencias propias, que no dejen duda, ni de su ciencia, ni de su eficacia para preservar de las viruelas naturales.\textsuperscript{44}

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Vicente Martinez, Tratado Historico Practico de la Vacuna, 4-5.
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Dr. Martinez though the introduction of this work made an important intervention within the medical field in Spain. First, he was calling for consensus amongst Spanish doctors with the practice of vaccination. While physicians, surgeons and other less regulated practitioners had intervened in assisting with plague outbreaks, medical practitioners in the nineteenth century began to produce inquiries into specific sanitation concerns.\footnote{Please see also: Joseph Canet, \textit{Conversaciones Sobre la Vacuna Muy Utiles, e Importantes}, Biblioteca Nacional de España. Biblioteca Digital Hispanica. http://bdh-rd.bne.es/viewer.vm?id=0000072289&page=1 15; Vicente Martinez, \textit{Tratado Histórico Practico de la Vacuna}, Biblioteca Nacional de España. Biblioteca Digital Hispanica. http://bdh-rd.bne.es/viewer.vm?id=0000125443&page=1 12-13.\} This was an important feature that will also respond to cholera outbreaks in the mid-nineteenth century.\footnote{After the 1830s outbreak of cholera, there would be a boom in cholera research and studies around Europe. In addition to this, there were also a lot of text translated from English and French to Spanish.}

The third major change occurred within the two sanitation institutions of the eighteenth century. First, the Royal order issued March 19\textsuperscript{th}, 1805 eliminated the Junta Suprema in favor of shifting the responsibility of sanitation to the \textit{capitanes generales} (captains general) \textit{de las provincias}.\footnote{Ibid., 339.} The captains general then established the Juntas Provinciales de Sanidad and sanitation, at least for some time, was moved under the supervision of the Secretaria del Despacho de Guerra. While this shift from the seemingly centralized sanitation institution overseen by the crown, Junta Suprema, may seem like a breakdown of the efforts of the eighteenth century, this shift brought important concerns over sanitation to the various regions.\footnote{Prior to the first outbreak of cholera in the 1830s, the Juntas de Sanidad around Spain begin to publish inquiries into sanitation. While they share several concerns over regulations, other sanitation concerns were regional in their concerns. The diverse geography of Spain was present in the variety of concerns by the different Juntas de Sanidad.} The \textit{protomedicato} also underwent some significant changes. In 1799, the \textit{protomedicato} was suppressed by Carlos IV only to be reestablished in 1801.\footnote{Maria Soledad Campos Diez, \textit{El Real Tribunal Del Protomedicato Castellano: Siglos XIV-XIX}, (Cuenca: Ediciones de la Universidad de Castilla-La Mancha, 1999), 15.} In 1804, the \textit{protomedicato} extended
its control over the regulation of not just physicians but pharmacist and surgeons as well. However, it was soon abolished again, and it was not until the Cortes de Cadiz that the protomedicato underwent additional reform.\textsuperscript{50} In many ways, the instability of the protomedicato throughout the rest of the nineteenth century reflected its institutional connection to the fate of the Spanish crown. Even with the changes to these two institutions, questions of sanitation did not stop and instead continued to be addressed even as Spain experienced significant political changes.

After the Napoleonic invasion of Spain, the Cortes of Cadiz amid the various changes it proposed also addressed sanitation concerns. In 1811, the Cortes renamed the protomedicato to Tribunal Supremo de la Salud Publica and placed it directly under their authority. While the Cortes recognized the importance of the protomedicato in Spain, it sought to regulate and curb its autonomy over the regulation of physicians.\textsuperscript{51} In addition to this change, the Cortes also argued the need for a comprehensive sanitation code to oversee sanitation affairs in Spain. Although the Cortes and the constitution included a sanitation code, the return of Ferdinand VII, in 1814, ended this project and suppressed the protomedicato once more.\textsuperscript{52} Ferdinand VII, however, could not completely suppress all the ideas that appeared in Spain after his abdication. His return and reign also had to address sanitation concerns. Ferdinand VII attempted to address sanitation issues by reorganizing the protomedicato once more. Instead of the protomedicato being one institution, Fernando VII created separate juntas, all independent, and under the authority of the crown.\textsuperscript{53} Subsequently, the instability of Fernando VII’s reign and the following

\textsuperscript{50} bid., 185, 218.

\textsuperscript{51} Ibid., 227-228.

\textsuperscript{52} Ibid., 229.

\textsuperscript{53} Ibid.
Trienio Liberal did not stop sanitation efforts from occurring in Spain. The Trienio Liberal also attempted to address sanitation concerns by authoring *Projeto de código sanitario*, making it the first effort to produce a comprehensive sanitation code in Spain. The Cortes also invited physicians from around the Peninsula as part of this effort.

The Code of 1822 attempted to make several institutional changes and clearly define sanitation responsibilities. The code first outlined the type of sanitation concerns it was seeking to address and to what purpose,

> Se observará la mayor vigilancia posible para impedir que se comuniquen a los dominios españoles en ambos hemisferios la peste levantina, la americana, llamada vulgarmente fiebre amarilla, y cualesquiera otras enfermedades pestilenciales o contagiosas agudas que se padezcan en las naciones extranjeras. Se establecerá también un gran cuidado sobre la policía médica en todos los dominios españoles para indagar, prevenir y combatir las causas productivas de las enfermedades endémicas y epidémicas de los pueblos.

This code was specifically concerned with both epidemic, high impact infectious illnesses, and endemic diseases, those commonly found in certain areas. Because the code sought to address disease on the peninsula and oversees focusing on these types of diseases, emphasizing vigilance and setting up a single authority to rule over sanitation would have required a massive bureaucratic effort. To aid in this effort, the code also included sanitation personnel. The sanitation committees would be comprised of three professors of medicine, one of which needed to be a surgeon, a chemist, a professor of natural sciences, a lawyer, and an inspector of the state. In addition to this, the code included procedures on how to select a director, and how to reorganize the temporary epidemic hospitals if needed. These committees of sanitation also had to submit budget reports on how much was spent on sanitation and what resources were required.

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55 Ibid., 9.

56 Ibid., 10.
The Juntas de Medicina, Cirugia, y Farmacia were organized in order to assist with this effort. The Code of 1822 built on the previous organization of the Junta Suprema and secured the ties between Madrid and the municipal juntas de sanidad. Despite the sophistication of this sanitation code, this piece of legislation never passed, rejected by Fernando VII upon his return to the throne. Fernando VII’s return was also marked with yet another attempt at reform. Under the direction of Pedro Castello, the royal colleges of medicine and surgery were renewed. The military hospitals were reorganized and updated the following year, 1829. By 1831, new Royal Academies of Medicine were located in Madrid, Barcelona, Cadiz, Sevilla, Granada, Palma, Santiago de Compostela, Valencia and Zaragoza. These new academies were under the direction of the Secretaria del Despacho del Estado and it was their discretion to select the directors of these new academies. The appointment of the directors was key since they also functioned as sanitation inspectors to the various provinces. Before the 1830s outbreak, the Juntas de Sanidad, Royal Academies of Medicine, and military hospitals were updated and attempts at producing a sanitation code had begun in Spain.

**The Second Wave of Cholera**

The 1833 epidemic entered Spain through the northwestern port city of Vigo, Portugal. Despite its demographic and environmental diversity, all of Spain experienced waves of cholera. From Vigo, cholera spread in two directions. First, it traveled north through the region of Galicia. Then it went south and devastated the province of Andalusia, attacking Huelva and

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57 Perset-Reig, *Muerte en España*, 12.


59 Ibid., 26.
Ayamonte. The preventative measures taken—like military quarantine—helped spread cholera to the main cities of that region as infected soldiers moved around the region: Cadiz, Malaga, and Seville.\(^{60}\) In the winter of 1833, cholera subsided but reappeared in the spring in Granada. From Granada, it hit other Andalusian cities, moving up the Mediterranean coast through Barcelona, Toledo, Segovia, Valladolid, Burgos and settling in Madrid.\(^{61}\) When cholera arrived in Europe, governments crafted different responses. In Britain, the first outbreak of cholera prompted the establishment of local boards of health like the Juntas de Sanidad that Spain created in the eighteenth century.\(^{62}\) These local boards of health were locally elected, unpaid, and as a result lacked the experience to deal with epidemic outbreaks. A year before the second wave of cholera hit Britain, Parliament implemented the first sanitation legislature.\(^{63}\) But identification of this disease was problematic since in Britain “cholera” was used as an all-encompassing term for digestive maladies. As this first wave hit areas like Liverpool and cholera riots broke out, general mistrust of hospitals and doctors emerged. Hamburg, an important economic center of free trade, lacked direct sanitation policies and when cholera arrived suffered high death rates.\(^{64}\) After the wave subsided, physicians attempted to institute quarantines and other sanitation measures but faced resistance by the merchants who followed the ideas of free trade and laissez-faire. In Hamburg, questions of sanitation were connected to social inequalities and economic

\(^{60}\) Ibid., 27.


movements. In France, doctors linked cholera to poverty and poor environment.\(^{65}\) As a result, cholera campaigns targeted and regulated poor populations in Paris. This approach to sanitation illustrates the complex interactions between the physicians who addressed the outbreaks, often middle class, and the poor people believed to spread illness.\(^{66}\) In the United States, immigrants were accused of bringing cholera with them, specifically the Irish.\(^{67}\) This aggravated immigration legislation and caused anxieties towards foreigners. Meanwhile, Spain constructed a different response to this outbreak than its European counterparts. This epidemic reshaped how Spaniards, political actors, and the government interacted with one another. Spain’s burgeoning health system combatted the 1830s wave of cholera with the implementation of the sanitation practices that had been developed over the eighteenth and early nineteenth centuries. At a national level, Spain’s government established the Junta Superior de Sanidad and quickly elected captains to oversee the regional juntas de sanidad. At a regional level, the juntas de sanidad assembled and enforced quarantines and prepared temporary epidemic hospitals. However, as the wave of cholera ran its course, the juntas de sanidad soon faced several administrative challenges.

The first challenge in combating the cholera outbreak was identification. The two main symptoms of cholera were diarrhea and vomiting of clear fluid.\(^{68}\) These symptoms start twelve hours to five days after coming into contact with the contaminant. The virulence of the

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\(^{65}\) Delapore., 13-14.


symptoms depends on how much contaminated food or water was ingested. In addition, the onset of the symptoms was rapid and violent. An infected person then produces from ten to twenty liters of diarrhea a day.\textsuperscript{69} If left untreated, the severe diarrhea and constant vomiting leads to rapid dehydration and a bluish skin tone. It was not the vomiting or diarrhea that caused death but the extreme dehydration that killed the infected person within forty-eight hours of exhibiting the initial symptoms.\textsuperscript{70} Diagnosing cholera presented a challenge to nineteenth-century doctors. Various other diseases, like dysentery and raging fever, were known to be accompanied by vomiting and diarrhea. Therefore, early diagnosis of cholera became difficult but essential. Another challenge cholera management faced in Spain was regional differences. Although each region had municipal juntas de sanidad, famine, war, and corruption still disrupted the management of this outbreak.

In the North, the Diputacion Provincial de Vizcaya received a report from Madrid that cholera had arrived in France on April 12, 1832.\textsuperscript{71} The provincial junta secured neighboring ports and prepared for the outbreak to arrive. In addition, it also established voluntary watches to patrol the ports and ensure that Bilbao remained cholera free.\textsuperscript{72} As Vizcaya, like the rest of Spain, prepared for this attack, one additional challenge made the management of this outbreak difficult, war. Political unrest presented itself in the form of the war of succession during Isabella II’s reign. The First Carlist War, 1833-1839, coincided with the second pandemic of cholera. The subsequent Carlist Wars fell in down periods where Spain was recuperating from cholera.

\textsuperscript{69} Erwin H. Ackerknecht, \textit{History and Geography}, 23-25.

\textsuperscript{70} Ibid.

\textsuperscript{71} “Con Fecha de 10 de este mes ha traslado de real orden a la cámara el excelentísimo señor,” in Archivo Floral de Bizkaia, J03156/056. April 12, 1832.

\textsuperscript{72} “A consecuencia de orden que ha recibido la junta de sanidad de esta villa,” in Archivo Floral de Bizkaia, Q-00176/-117. 1832.
epidemics. The First Carlist War did not just challenge the legitimacy of the crown, but the movement of military troops also helped spread cholera around Spain.\textsuperscript{73}

Although the Basque provinces supported Don Carlos’ claim to the throne, the outbreak of cholera required dialogue to happen across political and battle lines.\textsuperscript{74} The junta de sanidad in Bilbao appealed to both Don Carlos and Queen Isabella for support after the outbreak. When the wave of cholera subsided, the junta requested support from the Crown it had rebelled against and asked as follows,

La Reina gobernadora con el dictamen de ese tribuna, relativo a la rendición de cuentas que faltan hasta el día, se ha servidos s. m. mandar: 1. Que todas las cuentas desde el año de 1828, en que hubo un corte general, hasta fin de 1834 se presenten en el preciso termino de tres meses, que cumplirán el ultimo día de Marzo próximo.\textsuperscript{75}

The junta was requesting reparation style payments to cover the years, 1828-1834. This money was requested to pay the soldiers, sailors, doctors and other individuals who had assisted with the outbreak. Additionally, the northern part of Spain was not the only region that struggled with the management of the first outbreak of cholera.

Southwestern Spain suffered especially high death tolls during the first wave of cholera. Although Extremadura did not experience the same challenges of war as Bilbao, the arrival of cholera coincided with an additional challenge. There was a drought and failed harvest in Extremadura between 1833-1834.\textsuperscript{76} Therefore, as the first year of this choleric wave began to

\textsuperscript{73} “Con Fecha de 10 de este mes ha traslado de real orden a la cámara el excelentísimismo señor,” in Archivo Floral de Bizkaia, Administrativo Q-00305/002

\textsuperscript{74} “El Rey Nuestro Senor Don Carlos,” in Archivo Floral de Bizkaia, j-01622/117.

\textsuperscript{75} “Con formandose S. M. La Reina Gobernadora,” in Archivo Floral De Bizkaia, 01650/35.

\textsuperscript{76} “S.M. el Rey ha dispuesto que mientras se padezca cólera-morbo en la ciudades de Sevilla y Badajoz, se suspendera en ellas la exacción de los derechos de puertas correspondientes á la Real hacienda, impuestos sobre los artículos del reino y de América que se citan,” in Gaceta de Madrid, num 116, de 09/24/20133, pg 496-497. PDF (Referencia BOE-A-1833-922). Maria Pilar Rodríguez Flores, Morir en Badajoz: El cólera de 1833 Medicina y sociedad, 25.
spread in Spain so did the devastation of famine. Extremadura was not the only area of Spain that suffered from hunger and scarcity of supplies. As Granada, Seville, and Cadiz closed the entrances to the cities and implemented military quarantines, the juntas had to balance the management of the disease and the disruption these sanitary measures had on the region. Although Spain had a sophisticated sanitation system that dated back into the eighteenth century, the measures that existed were preventative. Once the illness arrived in the city, there were no active measures to address the contaminant itself.  

The first move by the Spanish crown was to use military units to quarantine infected cities and towns. These quarantines lasted for several weeks. Not only were individuals quarantined, but goods and products were also confined to the cities hit by cholera. Such quarantines were followed by the expulsion of beggars and vagrants. Anyone seen as dirty or undesirable was removed from the major cities. Sanitary measures first attempted to address contagion. The spread of disease was initially perceived to happen by direct contact with the body or items of the infected person. Early manuals like the Aviso Sobre el Colera Morbus y Modo de Preservarse de su Invasion, published in 1832 urged its citizens to first,

llamar al atención de las autoridades y del público sobre el peligro que amenaza al país, y proponer aquellas medidas, que bien entendidas y ejecutadas con prolijidad y constancia, ofrecen el único, pero seguro preservativo que puede libertarle de ser víctima de tan cruel enfermedad.

77 I will discuss regional and specialized medicine in the fifth chapter. The region of Cataluña, for example, specializes on workers diseases.

78 Ackerknecht, History and Geography, 22-23. This is an interesting dynamics since the following year the first Carlist War would break out. Therefore troops utilized to contain disease might also have been the ones to spread it in the battle field.

79 Antonio Fernandez, Epidemias y Sociedad en Madrid, 7.

80 Another common occurrence was that family members would often be left outside of the city. In Granada, Maria Elena appealed to the provincial Junta because her husband and brother-in-law had been unable to return to the city.

81 Delaporte, 13
Therefore, the first appeal in these manuals was for state aid and intervention. Manuals encouraged strict adherence to sanitary measures and it was believed that, if administered correctly, could prevent the spread of cholera. The manuals before the first wave also contained sections on the history of cholera and identified which sectors of the population were more susceptible to this disease. They went on to state that individuals with “temeramento bilioso” were more likely to get the disease than calm and reasonable individuals.\textsuperscript{83} In addition, it also stated that adults were more likely to be infected than children. It was also believed that this disease only hit in the summer and in warmer climates; however, the manual went on to say that it was not common in Cuba.\textsuperscript{84} It also stated that this was a rare disease on the European continent and that the disease itself was unstable.\textsuperscript{85} Dr. Calcagno argued that each case,

Puede variar de naturaleza de aun ano a otro, de un sujeto a otro, de un pais a otro, &c. y según las diferentes causas que le producen, De qui resulta la necesidad imperiosa de variar a proporción de estas circunstancias el método de cura en los varios cases de la misma enfermedad. Antes de emprender una cure, debe el medico prudente observar con profunda atención los síntomas con que se presenta; indagar las causas que le edad lugar, el temperamento, la naturaleza del individual que le padece, para variar o modificar mas o menos sus remedios.\textsuperscript{86}

This presented an interesting challenge to the government in combating cholera. Diagnosis as prescribed by this manual with extended periods of observation and clear understanding of the individual infected was impossible in the cholera-ridden Spain of 1833-1834. The other


\textsuperscript{83} Ibid, 7.

\textsuperscript{84} Ibid.

\textsuperscript{85} Ibid, 8-9.

\textsuperscript{86} Ibid, 8.
impossible task was administering individual cures for cholera. Once the Spanish government was confronted with cholera, their prescribed anti-cholera methods quickly failed. The shift in approaches to cholera in Spain also reflected political and economic concerns. While quarantines in theory should have worked, the prevention of goods and people from moving in Spain was also devastating an already weak economic system.

By August of 1834, most of the anti-cholera measures were suspended under pressure from doctors who maintained that quarantines were useless in stopping cholera from spreading. Municipal authorities began raising concern over the cities economies that were damaged as a result of intercity commerce being disrupted. Despite the regional and developmental differences, the outbreak of cholera and attempts at quarantine uncovered the various regions’ dependence on each other for economic stability. By late 1834, emphasis on personal hygiene was seen as the best means of preventing cholera.

The Doctors Disagree: Research into Cholera and State Authority

After the second wave of cholera and the sanitation measures of the earlier century failed, Spain, like other European nations, invested in cholera research. The intervention of the medical expert in producing this literature was important to addressing sanitation concerns on the peninsula. While the government was deciding how it could defend the country against disease, medical experts were engaging in questions regarding protective measures. How did cholera infect individuals? Who was susceptible to cholera? How could cholera be prevented? Those were key questions that needed answers in order to create effective sanitation measures. There

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87 These are some of the studies that focus on the 1834 wave of pandemic. Jose Lopez Reynoso *Instrucciones Populares Acerca del Colera Morbo Asiatico*, 1885; Juan de Vicente, *Metodo Preservativo y Curativo del Colera: Importanci terapeutica del Sesquiclororu ferrico en las intermitentes, el colera, las hemorragias, etc*, 1865.
was also research focused specifically on eliminating the source of infection and the infection itself. The rise of medical literature regarding cholera attempted to provide solutions for the state in the treatment of cholera while also challenging how much state regulation and authority was needed to combat the disease. Diagnosis of cholera became essential in combating this disease. Medical literature first attempted to answer this question. Because the bacteria associated with cholera remained unknown for most of the nineteenth century, various theories arose regarding its method of transmission. Some began to question whether cholera was actually “contagious” and not reflective of another condition, like national decline. A pamphlet then published opposing the idea that Cholera was even contagious. “El Colera No Es Contagioso,” published in 1834 after the first wave of epidemic, argued that “la colera no es contagioso… este equivoco sentido es cabalmente lo mismo que favorecer el retroceso, alimentar las tinieblas, y oponerse a la concervacion, y la regeneration del genero humano.”

This pamphlet questioned directly how cholera was being combated by the state. It argued that cholera was not a contagious disease and the state, through its method of regulation, was creating spaces where cholera could actually develop.

It went on to argue that “el colera no es contagioso. Que su influjo es tan inferior como 1 a 15 ad de la humanidad y sabiduría con anticipación hermanadas y puestas en accion liberes de trabas.” Therefore, if cholera was so weak that it should not infect people, why these waves of disease?

The author of the pamphlet gave his own answer to this puzzling question. He argued “la pobreza, en la mas refinada miseria, siempre envuelto, indeciso y proximo a entregarse a

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89 Ibid., 11. “Todo el Mundo Save que no habiendose adoptado precaucion algula de las que dictaban las costumbres rutinera, usaron los pueblos de la libertad natural que todo mal remedia.”

90 Ibid., 1.
Oropeza 28

discresion se vio en la necesidad de llamar en su auxilio el cordon militar.” In essence, he argued that it was in places where the population and governance was weak that cholera seemed to erupt. He connected this to the poorest Spaniards and a weak government. He also argued that during the Asian pandemic of cholera, it was the Emperor’s policy and political strength which eradicated the disease from Oporto.91 Instead, it was the weakness of the state to call “ausilio del cordon militar que desgraciadamente tuvo efecto el dia 29 de septiembre en que solo se contaban 9 coléricos considerados en la clase de leves,” that spread cholera to where it was already contained.92

While this pamphlet was a direct contrast to other medical literature, it brought an important point to the discussion, the regulation of Spaniards lives as a byproduct of attempts to control disease. Military units and their uses by the state in combating disease exemplify the power of the state to exert authority and control. These were visible units roaming throughout Spain in response to the various pandemics. While some pamphlets urged more intervention from the state, this one illustrated a different view: instead, it captured popular anxieties surrounding larger centralized operations.

The author argued that only strengthening the nation and Spaniards would eradicate this disease. He argued “sin embargo, estos mismos pueblos que incesantemente estuvieron en intimo contacto con el colera presonalizado, lejos de haberlo contraído, se han convendido sanos y nutridos como era consiguiente al remedio de sus publicas y multiplicadas necesidades.”93 It raised the question why where these towns spared over others? Why did these towns not experience disease like the rest of Spain? What made these towns and these Spaniards healthier

91 Ibid., 10.
92 Ibid., 12.
93 Ibid., 23.
and better? The author argued that the difference was they did not have “personas predispuestas.” His argument opened the door to classification of Spaniards by the state or medical authorities. Classification developed to determine predisposition and susceptibility. In the nineteenth century, classification of spaces and individuals became an important part of how medical experts believed disease could spread or be stopped. It revealed that an individual might be more susceptible or predisposed to disease. It was also true if the population was ill and the population, or citizens, were in decline, then the nation must be as well. Therefore as war subsided and Spain began its recovery, the previous system of sanitation was reexamined once more.

The Third Wave of Cholera and the Uniqueness of Spain

In 1837, the second pandemic of cholera ended and disappeared from the Peninsula as mysteriously as it had appeared. During the years of outbreak, the juntas de sanidad and the crown attempted to defend Spain from being consumed. But war on the peninsula and the various challenges the juntas faced still resulted in hundreds and thousands of deaths. Still fighting a war on the countryside, the Cuerpo del Ejercito was combined with the branch that oversaw military sanitation, in 1836. While some reform had been attempted with the military prior to the outbreak, unifying these two elements put the management of sanitation and military movements under the same organization. During this the first appearance of cholera in Spain,

94 Ibid., 21.
95 Delapore, 17.
96 Ibid., 19-25.
97 “Real decreto sobre la organizacion del Cuerpo de Estado Mayor del Ejercito, e instrucción en que es señalan las funciones que debe desempeñar dicho Cuerpo,” in Biblioteca Nacional de España, VC/2657/73, 1838.
questions of sanitation and health dominated all aspects of Spanish life. Wherever outbreaks of cholera appeared in Spain, a flood of royal orders and updates on cholera measures enveloped Spanish towns. While physicians moved to research cholera and aid in the diagnosing and treatment, the Crown attempted to stabilize the peninsula as the outbreak subsided. In addition, there was extensive reporting of where cholera was collection of demographic information. Between March and May of the same year, the provinces of Zamora, Alva, Teruel, Valladolid, Alicante, and Tarragona among others reported the devastation they had suffered at the hands of cholera. In the province of Zamora, a total of six thousand, forty-nine Spaniards were infected with the disease and about a third were lost to cholera.

The Third Cholera Pandemic, 1846-1860, like previous outbreaks was well reported internationally and in Spain. This last wave of the Third Pandemic of cholera shared many of the features that characterized the previous outbreaks. Like the waves that attacked Spain in 1833 and 1837 cholera entered through a port city before spreading throughout the peninsula. Trading ports and large urban centers served as hubs for the concentration of cholera, and the Spanish countryside was not spared. These waves, like the others before it, persisted for about two years and peaked in death toll at about the year mark before waning and disappearing. Although public health measures were implemented to fight against cholera, the use of quarantine, emergency burial, medical boards, and cleaning of the city did little to slow down the outbreak.

98 “Ordenanza general de los presidios del reino. Paralelo del cólera morbo con el veneno de los hongos. La Hipocresía, sátira política y moral. Vacante que se cita,” in Gaceta de Madrid, num 78, 05/09/1834, 364. PDF (Referencia BOE-A-1834-873)

99 “Sanidad.- Noticias estadísticas sobre los efectos producidos por el cólera morbo en 1834 en las varias provincias del reino,” in Gaceta de Madrid, num 173, 06/08/1835, 636. PDF (Referencia BOE-A-1835-1067) Sanidad.- Noticias estadísticas sobre los efectos producidos por el cólera morbo en 1834 en las varias provincias del reino,” in Gaceta de Madrid núm. 74, de 15/03/1835,295-296. PDF (Referencia BOE-A-1835-484)

100 Mariano Peset Reig, and Jose Luis Peset Reig, Muerte en España: Política y Sociedad entre el Peste y el Cólera. (Madrid: Seminarios y Ediciones, 1972), 25.
The topic of cholera remained in the minds of politicians even after the wave subsided. The devastation cholera left behind clearly illustrated that Spain was not equipped to manage epidemic outbreaks. Poor housing conditions, lack of sanitary spaces, and the ineffectiveness of sanitation measures pushed the Spanish Crown to take a decisive step to address these issues. Although attempts had been made in the early part of the nineteenth century to create a sanitation code to rule over Spain, one had not been produced. While a sanitation institution existed, Junta Suprema, royal academies and other legislative efforts had not produced effective measures. In order to address these issues, the Real Decreto Organico the Sanidad, 1847, founded the system that would survive into the twentieth century. First, it created a sanitation structure comprised of three levels of organization: national, provincial, and municipal. At a national level, the Direccion General enforced, codified and proposed new treatments while the provincial and municipal Juntas de Sanidad provided support. The main focus of this system was medical surveillance. In order to focus on the management of disease, the governance of medical professionals and royal academies were separated from the Direccion General. While the royal academies produced medical professionals, the focus of the Direccion General was to manage outbreaks.

The Third Wave was characterized by this shift in administration. In this instance, one of the largest public health, legislative, and bureaucratic efforts by the Spanish government confronted the outbreak. The Dirección General directly intervened at various levels providing direction and support against this third wave of cholera.\(^{101}\) In 1855 after several outbreaks of

cholera appearing on the Iberian Peninsula, the Dirección General de Beneficencia y Sanidad declared Spain free of cholera.\footnote{Dirección general de Beneficencia, sanitad y establecimientos penales.- Negociado 3º.- Real órden prescribiendo á los Gobernadores de provincias las medidas convenientes para evitar en lo posible los estragos del cólera, caso que desgraciadamente se reproduciera en España." In Gaceta de Madrid num 783, de 02/23/1855, pg 1. PDF (Referencia BOE-A-1855-848)} Although there were still incidents of cholera in several cities, the general attitude of the Dirección General was one of recovery.\footnote{The Dirección General focused on providing additional support for the different regions in their recovery. For petitions for volunteer work to help areas that had been plagued with cholera please see: "Interior.- Jaén 17 de Julio.- Para socorrer en parte la escasez que se sufre en Granada, causada por los estragos del cólera, se ha librado la cantidad citada," In Gaceta de Madrid num 931, pg 3, 07/21/1855, PDF (Referencia BOE-A-1855-4525); “Suscripción para socorro de las necesidades producidas por el Cólera en Granada,” In Gaceta de Madrid num 932, pg 1, 07/22/1855, PDF (Referencia BOE-A-1855-4544); “Continúa la lista de los Sres. suscritores para socorro de las necesidades producidas por el cólera en Granada,” In Gaceta de Madrid num 941, pg 1, 07/23/1855, PDF (Referencia BOE-A-1855-4931). For royal orders aimed at fortifying anti-cholera measures please see: “Dirección general de Beneficencia, sanitad y establecimientos penales.- Negociado 3º.- Real órden prescribiendo á los Gobernadores de provincias las medidas convenientes para evitar en lo posible los estragos del cólera, caso que desgraciadamente se reproduciera en España,” In Gaceta de Madrid, num 783, pg 1, 02/23/1855, PDF (Referencia BOE-A-1855-848); “Interior.- Valencia.- Con motivo de haber circulado por esta ciudad la voz de que habían ocurrido en ella algunos casos de cólera morbo asiático, un médico de la misma ha dirigido á los valencianos el manifiesto siguiente,” In Gaceta de Madrid, num 902, pg 2, 06/22/1855, PDF (Referencia BOE-A-1855-3374); For official recognition by the Dirección General of services by doctors during the 1840’s outbreak of cholera please see: “Dirección general de beneficencia, sanitad y establecimientos penales.- Negociado 3º.- Real órden mandando que se den las gracias al cura párroco de Puente Genil, D. José Víctor Ibarra, por sus servicios prestados durante el cólera morbo, que se publique en la Gaceta y en el Boletín oficial de esa provincia.” In Gaceta de Madrid num. 764, 02/04/1855, pg 1, PDF (Referencia BOE-A-1855-550).} But in the short span of five years, Spain was preparing to confront yet another wave of the outbreak. Before the 1860s outbreak of cholera, reports arrived in Madrid as early as 1859 that cholera had appeared abroad. The reporting of cholera was not limited to the European continent and it was not uncommon to see reporting as far as Japan: “El Japón ha negado la entrada en sus puertos á un buque dinamarqués por no existir tratado alguno entre ámbos países. El cólera hizo sucumbir en Jeddo...
150,000 personas en un mes.”\(^\text{104}\) This report included information of where cholera had appeared in Jeddo, Japan, modern day Tokyo. There was also information on how many people had perished from the disease, one hundred and fifty thousand in one month. Besides the information on the outbreak, the report mentioned the refusal by the Japanese government to allow a Danish vessel to dock their shores.\(^\text{105}\) This refusal was due to the lack of international agreement between the two countries. Although the report did not specify what if any impact the outbreak in Jeddo had on the international relations between Japan and Denmark, the appearance of this outbreak and public health measures against this disease had an effect on docking regulations.\(^\text{106}\) In the following months, Spain continued to receive reports of cholera moving to Nepal, south towards Calcutta, west to Tabriz (Iran), Bagdad, and across the Mediterranean until it reached the peninsula.\(^\text{107}\) Therefore while the Dirección General, in 1855, declared Spain cholera-free, the small outbreaks erupting in various areas and this fast approaching threat put the peninsula in a

\(^{104}\) “Exterior-El Japón ha negado la entrada en sus puertos á un buque dinamarqués por no existir tratado alguno entre ambos países. El cólera hizo sucumbir en Jeddo 150,000 personas en un mes.” In Gaceta de Madrid núm 79, de 03/20/1859, pg 4 PDF (Referencia BOE-A-1859-2429).

\(^{105}\) Ibid.

\(^{106}\) Vessels had to follow specific regulations during bouts of epidemic outbreaks. The use of quarantine and isolation was common and a practice that was used since the Black Plague. It is important to note that refusing a vessel would have been very complicated. If it was a smaller vessel destined to visit several ports, it could easily restock its supplies and be working with a smaller crew. However, vessels that had been on long journeys would have been low on supplies and the refusal would have made things difficult. In addition, once they were turned away from a port where there was disease other ports might not have allowed them to dock.

\(^{107}\) Ibid. Please see also: “Exterior.- Una correspondencia del Nepal anuncia que el cólera se ha desarrollado allí con tanta intensidad como hace cuatro años, que causó muchas víctimas. La mujer de Bala-rao, hermano del Nana, ha muerto á consecuencia de la epidemia. In Gaceta de Madrid núm. 270, de 09/26/1860, pg 3 PDF (Referencia BOE-A-1860-9167); “Exterior.- Escriben de Calcuta el 10 de Setiembre al Pays lo siguiente: que las noticias más dignas de ser comunicadas son el fallecimiento prematuro del economista Wilson (James), cuarto individuo del Consejo ocurrido á consecuencia de una disentería, y el de Sir Henry Ward, nuevo Gobernador de Madrás, víctima del cólera. Al anunciar el Gobernador general en la Gaceta oficial la muerte de Sir-Ward, le califica de hombre público eminente,” in Gaceta de Madrid núm. 299, de 10/25/1860, pg 4 PDF (Referencia BOE-A-1860-10189); “Exterior.- El cólera se ha desarrollado en Tebriz.” In Gaceta de Madrid núm. 322, de 11/161861, pg 4 PDF (Referencia BOE-A-1861-9953).
precarious position as it was attempting to recover. The frequency of the waves along with the elusive character of cholera led to panic and fear. Yet this panic and fear also served another function and that was the reporting of epidemic outbreaks internationally. Spain was not alone in the reporting of cholera and instead was part of a global effort to share information regarding sanitation concerns. Because the cause of cholera remained unknown in the nineteenth century, the Direcccion General engaged in a variety of sanitation projects to secure the peninsula. This active organization of space in the name of sanitation began with the first sanitation code of 1855. But before this code was written, the Direcccion General sought to examine and understand Spain and Spaniards and resulted in a new type of governance, bureaucratization, and professionalization.
**Timeline of Sanitation legislature in Spain**

1720 – Junta Suprema de Sanidad was established by Felipe V as a response to an outbreak of Plague in France.

1789 – Godoy removed the *Establecimientos asistenciales de la caridad y beneficencia* from the direction of the church and instead charity works were under the authority of the Crown.

1803-1806 – Carlos IV issued a royal decree for the Expedicion Filantropica de la Vacuna, also known as the Balmis-Salvany Expedition. Their mission was to bring the smallpox inoculation to the colonies and address the various smallpox outbreaks in Mexico, Guatemala, Peru and the Philippines.

1810-1812 – Cortes de Cadiz update the *protomedicato* and write the Law of Sanitation. This law proposed to write a sanitation code and evaluate the existing sanitation practices in Spain.

1820-1823 – Trieno Liberal attempts sanitation reforms as part of their larger political changes. Their main concern is the Proyecto de Codigo Sanitario.

1822 – First law of Beneficence and Charity was passed in Spain. This law offered assistance to ordinary Spaniards but did not extend to hospital care.

1828 – There was an attempt by Pedro Castello to restructure the Royal Academies of medicine and surgery.

1829 – Pedro Castello Organizes the military hospitals in an attempt to address military health on the Peninsula.

1831 – Reforms to the royal academies open localtions in Madrid, Barcelona, Cadiz, Sevilla, Granada, Palma, Santiago, Valencia, and Sarago. Subdelegates are selected by the Junta Superior and serve two functions in the provinces. They act as local functionaries in charge of enforcing the negotiating with the Royal Academies. They also served as sanitation inspectors for the Junta Superior.

1833 – Provincial Juntas de sanidad and the Junta Suprema begin to centralize their power by electing capitanes generals to oversee sanitation changes. Conclusively emerge as two important institutions to deal with disease and illness.

1833-1834 – Drought and failed harvest in Extremadura.

1836 – Cuerpo del ejercito gets absorbed into the sanidad military.

1836 – Hospital assistance was resumed in Spain.
1840 – Real Decreto revives the Junta Suprema de Sanidad to control sanitation policy in the Kingdom. It also oversaw the control of the Royal academies, and managed maritime and terrestrial sanitation.

1847 – Establishment of the Dirección General de Beneficencia y Sanidad. Sanitary vigilance is separated from the governance of medical professionals and the academies.

1849 – Ley de Beneficencia was passed as an attempt to centralize all care under the Crown.

1855 – Una ley de Sanidad (Spain’s first Sanitation Code) was written. Centralizes the power of the Dirección General under the ministerio de la gobernación at a national and provincial level.